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THE TURIN CONFERENCE ON THE NEW WELFARE

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Editorial
by Orio Giarini and Angelo Scarioni

It was in October 2004 that the first conference on “Strategies for the New Welfare Society in the Larger Europe” took place in Trieste, organized by The Risk Institute, The Geneva Association, the Club of Rome and The Central European Initiative, with the patronage of the Autonomous Region Friuli - Venezia Giulia. This event gave birth to the “European Papers on the New Welfare”, with the contribution of Macros Research. The programme was published in issue 1 of these Papers.

A second conference on “The New Welfare - The Counter-Ageing Society” then took place in Turin, in October 2007, organized by The Risk Institute, Macros Research and The Geneva Association, with the support of EurizonVita, Fondiaria-Sai and Intesa-San Paolo. The programme was published in issue 8 of the European Papers. This conference has provided most of the contributions present in this issue 9 and an Italian version will shortly be published in issue 10.

A third conference is already being prepared for 2009, while a number of intermediate meetings and contributions are taking place on questions and problems related to the New Welfare in various places from Lublijana to Milan.

Since the beginning of 2007, the European Papers have been available on a site (www.newwelfare.org) which, little by little, is gaining recognition: we can now register over 10,000 enquiries per month (350-400 per day on average).

Let’s remind ourselves of what we already underlined in the editorial of issue 6: this magazine is totally independent and “exists because a number of people believe that the phenomenon of a longer life-cycle (extending little by little to the whole world) is a crucial factor in the present and future development of our society. This is a true revolution, concerning culture, economics, social justice, individuals, family and political institutions. Fundamental issues are at stake: intergenerational solidarity, the capacity of the younger generation to better manage their future life cycle, the capacity and possibility of the older generation to integrate in an open society. In other words, to provide and manage hope, vision and results for everybody’s life”. All these are strong motivations for continuing with this initiative, based essentially on voluntary work and personal, individual contributions: it is worth being involved and engaged in something deeply linked with reality and the future.
What is at stake is the addition of over 20 years of meaningful life for all humans and all the projects and issues that this conquest implies. We look forward with great interest to the day when social thinkers, economists, intellectuals will discover what is already before our eyes. For the moment let's consider an inspired vision, the one written almost a century ago by Khalil Gibran, in his famous book “The Prophet”, on the issue of work and being active:

“You work so that you may keep pace with the earth and the soul of the earth, for to be idle is to become a stranger unto the seasons, and to step out of life’s procession...

... always you have been told that work is a course and labour a misfortune.

But I say to you that when you work you fulfil a part of earth’s furthest dream, assigned to you when that dream was born.

And in keeping yourself with labour you are in truth loving life, and to love life through labour is to be intimate with life’s inmost secret...”

For once, a little bit of poetry for an active, full life.
Facing Demographic Transition

by Ivo Šlaus

1. Introduction

In his speech at the 2007 Annual Club of Rome conference R. Rato, managing director of IMF, listed three main problems facing us today: 1) financial instability, 2) climate change and 3) demographic transition. None of these problems will be solved by continuing business as usual. Actually, they will be augmented since they are the result of our current behaviour. The contemporary world is a mixture of successes (e.g. improvements in health and considerable increase in life expectancy, The Montreal treaty on the ozone layer, increasing democracy, and of course science — our most successful endeavour) and failures (e.g. over-use of non-renewable resources, increased ecological footprint, no progress on non-proliferation, increasing inequalities and political instabilities, climate warming, pollution). Rapid changes and globalisation are making the contemporary world very different from what it was barely a century ago. Tomorrow is always too late.

The ‘tools’ we currently employ in approaching problems, dangers and threats facing us are those developed when society was distinctly different from today: slowly changing and very weakly interconnected. Would the use of ‘new tools’ help us? What new tools? Can we invent new tools? Particularly in the last century humankind tried to use what it thought to be new tools, but it ended in catastrophes. The warning of F. von Hayek that we “should be mindful of our limitations so as not to become involved in an attempt to control the society that has been formed by the free efforts of millions throughout the ages” provides guidance. New tools should be developed by a bottom-up approach. Ideas, multitude of different and mainly independent ideas would form a web of new tools — carrots and not sticks. Information-communication technology is ideal for such an approach.

The main problems outlined by R. Rato and most of the dangers and threat facing us today are caused by us — human beings. It is appropriate, as suggested by P. Crutzen, that the present epoch is labelled Anthropocene epoch. Ever since the agricultural revolution humans have been more and more dominant. Today, humans are significantly influencing the environment and evolution itself. Human beings are the threat and dangers, but also the most important resource, and an underused resource.

Continental Europe, however, largely did not act on pension reform in the 1980s, as the constituencies in favour of large, state-based systems opposed strenuously any retrenchment of their hard-earned pension rights. At the same time, Japan’s strong economic performance and overly optimistic population assumptions masked the need for prompt attention to its pension crisis.

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* President, South East European Division of the World Academy of Art and Science, Zagreb, Croatia.


2. People are the Real Wealth

In 1991, with the country in a deep recession, the Social Democratic Government in Sweden was defeated and replaced by a multi-party, centre-right minority coalition that placed pension reform high on the agenda. The coalition Government established a small working group to negotiate the pension reform framework that was headed by the minister of social policy. The group included representatives from each of the five political parties supporting the reform process, including the Social Democrats, the Moderates, the Liberal Party, the Centre Party.

The State of Human Development of 2004 quotes: “People are the real wealth of nations. The basic aim of development is to enlarge human freedom and choices so that people live full and creative lives. This must benefit everybody equitably.” The emphasis is on the words ‘everybody’ and ‘equitably’. Not just a few, or a specific class, or a race, or a nation, but everybody regardless of sex, age, both healthy and disabled. The word ‘equitably’ does not imply redistribution of wealth, nor does ‘equitably’ imply that everybody is equally adequate for all tasks. Everybody is important, equally important for an almost unique job that person can and does do - and that job is primarily creativity, but again different creativities.

Therefore, the primary resource and the primary aim are human beings: healthy, educated, active and happy, living in a society of social justice and social cohesion in a healthy environment assuring sustainable development. There is evidence that globalisation reduced inequalities among countries, increased them within some countries resulting in overall increased inequalities and consequently, in the destruction of human capital.

All our old and new tools should be modified so as to serve the people, to ensure constant increase in the human capital. Since the human capital is threatened by pollution, by overused resources, by loss of biological diversity and by global warming, obviously ‘tools’ have to be modified to ensure sustainable development. For instance, an old tool ‘sovereign state’ has to be modified — not necessarily obliterated — to ensure that it serves the people, rather than using them to achieve goals that are not primarily aimed at increase human freedom and wellbeing. For instance, war cannot be a ‘tool’ employed by sovereign states since war leads to the destruction of environment and of people. Similarly, two old tools implicit in Rato’s problems: ‘money’ and ‘employment’ have to be modified again to serve the people. It should not be overlooked that money has been with us for only a few thousand years, and that the current concept of employment is even much more recent. Both of them are also connected to the current demographic transition.

Demographic transition has been properly studied by Kapitza and coworkers. It is a unique phenomenon that has not occurred previously. We will concentrate on one aspect of the demographic transition: it has resulted in a large percentage of persons older than 65. In most developed countries this percentage is about 20% and within less than a few decades will reach over 25% (see Table 1). This is an enormous resource that cannot be and should not be neglected. Of course, it cannot be and should not be treated mainly as a burden that causes a large retirement load on government budget and on corporations and individuals, and extra expenses due to increased health costs. It is argued that demographic transition is causing labour shortages and declines in GDP/capita. This is certainly true as long as we are in the ‘old paradigm’, but is that paradigm still valid? Do we need that kind of work? Can the generation of those over 65 be an asset rather than a burden and how?

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3. Total Employment

Figure 1 shows the percentage of total employment for a number of countries. The EU goal is to reach 70% employment. Total employment rate is age and education dependent as data for Croatia clearly demonstrate (see Table 2). The lower total employment rate in the EU compared to the USA is related to the education structure. The percentage of low-skilled workers in the EU amounts to 35.6% compared to 21.3% in the USA. In the USA and in the EU the average employment of low-skilled workers is about 45%. The employment of university graduates is over 80% and the fact that the USA has 26% of workers with tertiary education compared to 21% in the EU explains the lower total employment in Europe.

When an older person loses a job, it is almost impossible for him/her to find a new job. There are two main reasons. First, many older persons are inadequately educated or at least have no necessary skills for the present market implying that most of persons above 65 have much lower employment. Second, some older persons are in higher positions and therefore, very expensive to hire.

While total employment is considerably below 100% there is a rising workforce shortage. For instance, in the USA currently there is a shortage of about 100,000 nurses and it is estimated that soon (say by 2040) 200,000 MDs and 800,000 nurses will be needed. In developed countries about 50% of firms face workforce shortages. In Croatia 50% of persons in information-communication technology are without higher education. In a global world the workforce moves causing brain drain (resulting in brain gain in another place), but also resulting in brain waste, since many highly educated and talented persons are lost in a process of transition to a new and different place.

Poverty is also related to employment as shown in Figure 2. Employment is the principal means by which citizens in democratic, market economies can meet their needs and fulfil their socio-economic aspirations. Yet, governments accept high levels of unemployment and low level of employment with a sense of resignation and helplessness. This sense of helplessness is unjustified and unacceptable. The facts do not support a pessimistic outlook. In spite of the global population increase, technology progress and globalisation during the past 50 years the number of new jobs has increased 43% faster than the growth of population and during the past decade global job growth has been 21% higher than population growth (see Figure 3).

The distribution of necessary jobs has dramatically changed during the last century: the percentage of persons working in agriculture and even in manufacture has drastically decreased, while the need for ideas, creativity and wisdom has increased.

Table 1: Persons over the age of 65 in Europe

<table>
<thead>
<tr>
<th>year</th>
<th>over age of 65/millions</th>
<th>working-age population/millions</th>
<th>percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>71</td>
<td>303</td>
<td>23%</td>
</tr>
<tr>
<td>2030</td>
<td>110</td>
<td>280</td>
<td>39%</td>
</tr>
</tbody>
</table>
Table 2: Total employment rate for various groups in Croatia

<table>
<thead>
<tr>
<th>Age</th>
<th>Employment rate</th>
<th>Education</th>
<th>Employment rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>15.25</td>
<td>24.9%</td>
<td>Elementary</td>
<td>37.0%</td>
</tr>
<tr>
<td>26.50</td>
<td>72.4%</td>
<td>Secondary</td>
<td>31.7%</td>
</tr>
<tr>
<td>51-65</td>
<td>42.0%</td>
<td>Tertiary</td>
<td>82.8%</td>
</tr>
</tbody>
</table>

Figure 2: Poverty and employment in Croatia
The employment issue is of crucial importance in most European countries. Most of South-East and East European countries (e.g. Poland, Croatia, Hungary, Italy and Romania) have employment rates 25% lower than the EU target of 70-75%. Particularly troubling is the extremely low youth employment rate (e.g. in Croatia it is 24.9%) and high youth unemployment rate (e.g. in Croatia it is 36%). Similarly troubling is long-term unemployment: in Poland, Croatia and Slovakia it is twice as high as in the EU.

4. Retirement

The present retirement system was introduced at the end of the 19th century. To reduce the influence of socialdemocrats in 1889-1891 Chancellor Bismarck introduced the retirement - first for state employees over 70, requiring that the cost for retirements be shared 50:50 by the employers and employees. In 1913 the age limit was set at 65 and in 1957 the pay-as-you-go system was introduced. The first retirement plan in the USA was offered in 1875 by the private firm American Express Company, and in 1880 railroads became the first major industry to provide a pension plan. In 1935 the USA Congress introduced the social security system. At the end of the 19th century life expectancy throughout Europe and North America was less than 50, and fixing the retirement age at 65 implied that very few persons would actually have to receive retirement benefits. If countries would accept the spirit of the Bismarckian prescription, rather than the actual number, it would follow that the present retirement age should be around 90.

Most of developed countries have low fertility rates (much less than the 2.1 required to maintain the population), education extends to well over 25 and first jobs are very demanding considerably reducing the time interval when women are likely to become pregnant, life expectancy is well over 70 and many businesses still maintain a practice of early retirement (typically between 55 and 60) to allegedly make room for younger, better educated and definitely cheaper, workers. All of this makes the system of state pensions, as it is today, unsustainable. It will collapse — simply the ratio of retirees and employed persons is drastically increasing from acceptable 0.25 to about 1.

---

Progress in science and technology has resulted not only in a much longer and constantly increasing life expectancy, but also in healthier life so that disabled persons can now work. It is not surprising that many retirees work after they retire. This is the realisation of the fourth pillar of the retirement system advanced by the Geneva Association. The three conventional pillars are: first, the compulsory pay-as-you-go retirement, second is the supplementary and often capital-funded company pension, and the third is individual savings. Only the fourth pillar — part-time, flexible employment after retirement is robust enough to withstand various perturbations.

It has been pointed out that older workers, specifically retirees have not only more experience, but are also more loyal, have high motivation and can learn, albeit in a different way than their younger colleagues but nevertheless quite fast and efficiently. The human capital of older workers is often not used and therefore, it deteriorates. In 2005 the Geneva Association in collaboration with the University of Luenenburg launched a project ‘Silver Workers’ to understand post-retirement work. Some of their findings based on the study of retired Germans aged 60 to 85 are: 1) 75% of retirees would work even without pay, indicating that the work itself provides various intangible benefits, 2) more than 50% consider the fourth pillar important, 3) about 70% would like that the fourth pillar provide between 10-30% of their retirements, 4) 79.3% would like to be integrated into an organisation where they currently work, 5) 42.4% of those employed after retirement work from home, though 79.5% worked originally in a company, 6) 84.6% are prepared to go on business trips, and 7) 68.6% have participated in advanced training since retirement. These findings clearly demonstrate a variety of benefits stemming from part-time, flexible post-retirement employment.

5. Can Older People Be an Asset?

What is the value of older persons?

1. Creativity does not decrease with age. G. Verdi composed Othello, Falstaff and Ave Maria in his late 70ies and early 80ies, J.W. Goethe was writing Faust until his death in 83. B. Franklin invented bifocals when he was 78. Michelangelo was creative through his entire life and the Florentine Pietà and many other works were done just before he died, and he died when he was 89. Marc Chagall designed stain glass windows for the Hadassah-Hebrew Medical Center in Jerusalem and he died when he was 98. F. Lloyd Wright designed the Guggenheim museum when he was 90. A world famous cardio-surgeon Michael DeBakey is over 90 and still very active, as is architect Oscar Niemeyer who is over 100. In politics, naturally, there are even older persons. Churchill was 77 when he again became prime minister defeating the Labour party. And the list could go on and on.

The argument that old persons are more often ill and that illness reduces creativity is also not valid as demonstrated by one of the greatest living cosmologists S. Hawking. Also, L. van Beethoven was deaf when he composed the Ninth symphony. Claude Monet, Marry Cassat and Edgar Degas had cataracts and their eyesight worsened so much that it seems they painted from memory. Pierre Renoir suffered painful rheumatic arthritis. All of them continued their creative work.

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2. Experience and wisdom increase with age. Retirees are good workers, they do not need health and retirement benefits (since they have already paid for them) and therefore, should be cheaper to employ and their employment can solve labour shortage. The US Bureau of labour statistics estimates that the growth of employment of persons older than 55 will be four times larger than the growth of overall employment apparently confirming this conjecture.

3. Older people should be able to take risks easier since they have experience and credentials. Galileo Galilei was 68 when he wrote ‘Il dialogo sopra i due massimi sistemi del mondo’, I. Newton was in his 60ies when, as head of the Mint, he initiated a major monetary reform and Einstein was in his late years when he persisted in continuing to work on unified theory.

4. Older people have experienced failures and defeats and often have recovered and enjoyed success thereby increasing their confidence.

5. Globalisation requires long-term perspective and older people have a potential to grasp the long-term picture.

   Older people have always been an essential part of society and even today they contribute through various non-monetized and non-monetizable works. Works and employment do ensure social connectiveness and that together with mental and physical activities yields long, healthy and happy life.

6. Box of New Tools

   As we already stressed new tools should be developed in a bottom-up approach, but some suggestions could be useful. Here is a list of some suggested new tools:

   1. **Compartmentalization of work — is it good?** The artificial division of life into airtight compartments education, employment, retirement — imposes arbitrary and unnecessary hardships on citizens. Workers should be encouraged to continue their formal education even after entering the workforce and continue to engage in productive work as long as they are physically capable and psychologically inclined. The idea of fixed retirement age ignores the increasing longevity and enhanced health of the elderly population and unnecessarily deprives them of the social and psychological satisfaction derived from productive employment. The issue of employment embraces the entire society - its values, culture, attitudes, expectations, organization and skills, as well as technology and public policy. Taking this wider perspective, ample means can be found for expanding employment through measures that accelerate development of society as a whole. Full employment is an achievable goal for most countries today. Each country will find its own best way taking advantage of its uniqueness. Low employment rate and high unemployment in most countries can be eliminated within 3-4 years by a triple helix\(^{12}\) approach that combines and integrates efforts by Government, Education-Research and Business - provided that the following essential conditions are met:

   i) There must be a concerted decision, commitment and determination by all parties to do everything possible and necessary to eliminate unemployment on an urgent priority basis and to guarantee the right of every citizen — including older persons if they desire — to gainful employment.

ii) There must be a willingness to adopt fresh and innovating pragmatic approaches, completely rejecting the conventional wisdom that unemployment is inevitable.

iii) We must understand that the number of jobs created in a society is not subject to fixed laws of nature. It is a question of human choice. We should understand that societies, like businesses, utilize only a small portion of the social resources and opportunities that exist for job creation. These potentials: social resources and opportunities include human aspirations, human choices, technologies, practically useful information, capacity for improving organization, systems, skills, etc. There are innumerable factors which contribute to the creation of new jobs and there is ample scope for action, even within the limits imposed by structural rigidities and political vested interests. Human and social potentials are our most underused and our most valuable resources.

2. Education is the best investment as demonstrated by numerous studies. A rigid structure of education followed by employment and then retirement is outdated. Early employment guaranteeing continuous life-long education is necessary for the 21st century. Raising the current minimum mandatory level of education will slow the movement of youth into the workforce, enhance the learning capacities and employability of new job seekers, and increase job growth in education and education-related fields. It is essential that the lengthening of mandatory education is not done by decreasing the quality of education. On the contrary, it is necessary to ensure a very high quality of education and that in itself leads to increasing employment needs. The increasing demand for knowledge and skills requires a continuation of education and training even after people find employment. Life-long education including everybody is necessary to sustain rapid economic development. This means that the need for education-related jobs increases by more than the factor of ten. The demand for more educators is best met by re-employing an appreciable fraction of retirees, many of them to be re-educated or at least requiring additional education. The best model is provided by Figure II which shows a new model of education/employment.

3. Healthy active life expectancy is increasing throughout the world and the percentage of those over 60 is becoming larger and larger. At the same time today persons of 70-80 are healthier and more active than those 20 years younger were 50 years ago (the phenomenon called svecchiamento). These persons over 60 represent a unique social capital - in their experience and in their capacity to undertake risks — and this capital has to be engaged in jobs-led growth, in economic and social development and in improving the quality of life. It would be totally inappropriate to increase the required age for retirement for all professions (not only miners and ballerinas, but also university professors cannot continue their work indefinitely), but it is equally inappropriate to forcibly retire those who could and want to be employed. It is absolutely necessary to ensure re-education of all those who, should and want to be employed.

4. Contemporary society demands healthy, highly educated-skilled and active citizens and this represents the basis for ‘flexicurity’ — flexibility in changing jobs and security in guaranteeing employment. A wide range of strategies can be formulated to accelerate job creation. A few illustrative examples are provided below:

i) Fill the skill shortage: Numerous studies confirm the existence of a global shortage of workers with the required level of skills to fill vacant positions. The technical skills shortage applies to jobs in every sector. Firms also find it difficult to recruit people with essential non-technical skills, especially basic interpersonal skills for selling, customer service and working in teams. Equipping job seekers with the skills companies seek will significantly accelerate job creation and business growth. Collaboration between education and business is essential to identify skills needed for career success in a rapidly changing economy and society. The first necessity is to study the skill gaps in both the domestic and international job market and evolve effective programs, such as computerized vocational training, to impart those skills.
ii) **Part-time employment**: Present regulations and laws prevent or discourage people from seeking part-time employment and employers from hiring them. Experience in countries such as the Netherlands shows that removing the disincentives for part-time work can raise total employment by 2-3% or more, since many young mothers and older workers now working full-time would prefer to work fewer hours for less pay. This will create additional job opportunities for those who are presently unemployed. It can also address the needs of the rapidly increasing group of workers over 60 years of age who are being forced to prematurely retire without adequate economic security, while still capable of productive work. For instance, the employment rate among those of 50-65 ages in Croatia is barely 42%. The increasing percentage of persons older than 70 with inadequate pensions facing poverty and still creative and capable of work can also be solved by part-time employment.

iii) **Self-employment**: The Internet offers any individual access to a wide range of employment opportunities. A systematic effort should be undertaken to identify these opportunities and educate youth to the potential.

5. Money is the most powerful and least understood of all social organisations, one capable of unlimited innovation that can generate unlimited economic and social development. Banking, mortgage, insurance, venture capital, investment funds, and credit cards are monetary innovations that have supported an enormous expansion of economic activity and job creation. There is ample scope for expanding the use of these instruments and for new monetary innovations that will have a similar impact.

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*Figure 4: Proposed education/employment model*
New tools are needed and older people with their experience and possibility for proposing risky solutions should try to contribute to the process of proposing and in some cases testing new tools.

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The Necessity for a Restructuring of the Welfare System

by Enrico Salza

At the Turin conference, authoritative academics, members of the professions, from the world of finance and insurance, policy makers, met to discuss the subject of population ageing. In particular they considered the repercussions of longevity and the increase in life expectancy on the economic sustainability of Welfare systems.

Population ageing interacts with low birth rates and the increase in life expectancy to create an ever larger and longer living pool of the elderly. From a society of parents and children we are rapidly becoming a society of grandparents and great grandparents. Demographic predictions to 2050 talk of an elderly population in the European Union which will exceed 100 million, 20% of whom will be Italian. These forecasts foresee a situation in which every person of working age will have to produce an income sufficient to support himself as well as to cover the social security and socio-health costs of at least one elderly person. Until a few years ago this co-relationship provided for two individuals of working age supporting one elderly person. This demographic reversal is destined to put a further burden on public budgets, through increases in the costs of pensions, health services and social security.

It is important to remember that pension expenditure has exceeded 15% of Gross Domestic Product, more than 3 percentage points greater than the European average. ISTAT (Central Statistics Institute) calculates that the pension deficit amounts to 900 euro a head, newborn and immigrants included. Italy still presents significant pension imbalances, continuing meantime to maintain the highest contributory rates (33%) of the OECD countries. Its pension provisions are also among the most favorable in the world with a substitution rate equal to 78% of final pay despite the various reforms that have taken place over more than a decade.

To demographic changes are added important epidemiological changes that accentuate the disabling elements linked to ageing and make the need for assistance for the non-self sufficient disabled elderly particularly pressing. It represents, in short, a point of serious fragility for the sustainability of financing regional budgets on which the demand for health service is made. Last year health expenditure exceeded 102 billion euros — about 7% of GDP. In the last 10 years it has grown at an annual average rate of 7% with a dynamic almost double that of nominal GDP and three times more than inflation. The Corte dei Conti (audit court) recently estimated that demographic components alone will cause health costs to absorb almost 9% of GDP by 2050. The OECD, taking also into consideration the effects on health consumption and the demand for social welfare services on the part of the non-self sufficient elderly, estimates that Italy will experience such a growth in health expenditure as to reach 13% of GDP.

* President of the Management Board INTESA SANPAOLO.
Faced with these figures it is imperative that welfare policies compatible with demographic
dynamics and the dynamics of the state of health should be developed so that we avoid
unloading on future generations, as happens today, the whole burden of current incomes. It is
particularly important to establish a new social pact capable of guaranteeing the rights of the
young who are unrepresented and have no say in the decisions on Welfare policies, despite
being the ones on whom the intergenerational debt and the greatest part in financing pensions
for the most elderly falls.

Finally longevity should no longer be seen as simple ageing but as a fundamental resource
for the economic and social development of the country. The aim of this convention in fact
is this: to pass from a view of ageing as a threat to one of longevity as an extraordinary
opportunity for development.

To achieve this various approaches are needed. We must free ourselves of old ideas. We
must get out of the kind of management of the imbalances in Welfare which is concerned
only with managing, more or less strictly, the actuarial problems connected with the
intergenerational redistribution of income.

It is fundamental that workers should be offered more individual leeway with regard
to how and when to retire completely from work. The elderly should be offered economic
incentives, financial tools, socio-welfare services, legal frameworks enabling them to
continue to be part of the work force for as long as possible. Retirement should be made
more flexible. However appropriate incentives and legal frameworks are necessary, i.e. ones
that can encourage longer working careers and discourage early exits from the labour market.
Retirement flexibility could be used in various closely connected ways such as the possibility
of choosing one’s retirement age, or the faculty for gradually leaving the world of work
through partial retirement schemes.

Only through action aimed at drawing from longevity its full potential in terms of
economic and social growth can one think of rebalancing our Welfare system, making it
more efficient and above all more fair.
A Longer Life: Yes, But How and at What Cost?  
Ethical Issues

by Claude Bébéar*

1. Introduction

The topic here is not ageing, but the evolution towards a long life society. Admittedly, life expectancy is increasing, but the age at which someone can be considered to be old is rising in parallel. Since 1945, life expectancy in France has lengthened by 17 years for men and by 19 years for women. The figures for Japan are even more striking: 32 years for women and 28 years for men. To be aged 72, as I am, is not the same thing as it was in 1945 or in 1900. In France, 70% of those aged over 70 live without health worries. In 2040 the number of people aged over 75 will be the same as the number aged over 60 in 1940.

Ageing depends on where one puts the cursor. For me, someone who still has the capacity and the will to remain active is not old. Being active is not synonymous with having paid employment, but means living a social life and an intellectual life and contributing in one’s own fashion to the development of society. Disregarding statistics, at individual level inactivity is the enemy of life expectancy.

The evolution towards a long life society demands a far-reaching modification in our conception of age. This is partly something for action by the authorities, in other words, our governments. But it also requires action by private insurers, since for them the evolution towards a long life society is a challenge and a formidable development opportunity.

2. Action by the Authorities

In what follows I shall be referring particularly to the experience of Japan — recently analysed by the Institut Montaigne — where the burden of old age is being transformed into a driving force for innovation and consumption.

By making the demand emanating from seniors a lever for growth and job creation, Japan is on the road to finding a solution to the two problems induced by the long life society: labour market pressures and deficits in the Social Security accounts. How is this being done?

• By counting on the labour factor, by giving precedence to greater participation in employment: 450,000 seniors have returned to work or have opted for ageing while remaining active.
• By encouraging ‘Womenomics’, calling on the female workforce that constitutes an unexploited reserve of labour.

* Chairman of the Supervisory Board, AXA Group.
• By counting on the capital factor to maintain a high level of wealth creation, for example through tax measures encouraging ‘business angels’ and attracting direct investment to Japan.

• By counting on innovation, with the State providing support for R&D efforts but maximising all forms of innovation. Five of the 10 firms making the largest number of patent applications in the United States are Japanese. Japan makes twice as many patent applications per head as the United States or Europe. Through its innovations Japan dominates the automobile, electronics, solar energy, humanoid robotics and neurotechnology sectors.

• By developing the ‘Silver Market’, Japanese firms are positioning themselves as pioneers in their approach to the seniors.

In short, longer life requires that our governments pursue pro-active policies to make demand from seniors a lever for growth and employment.


Private insurance has taken up the challenge of retirement pensions through the ‘four pillars’ strategy. The health spending caused by the lengthening of the life cycle and living longer in better health might double as a percentage of GNP in some countries within the next 20 or 30 years. Health spending is a good thing and no bubble! Health expenditure provides income for entire sections of our economies, contributing a substantial part of the investment and research budgets of the companies and industries involved.

The seniors in developed countries are better educated and more informed. They know how to gain direct access to medical information over the internet (e-health) and they are increasingly aware of medical malpractice, which in many countries claims more victims than road accidents. They will constantly be demanding better quality healthcare, seeking more relevant guidance through what they perceive as a medical labyrinth.

In this context of long life society, both public and private health insurance will move from offering traditional health insurance products to more global health services. These services include: health information and advice; orientation toward hospital services offering every guarantee of quality; opting for a second opinion ahead of risky operations; the chance to benefit anywhere in the world from consultation with some of the world’s top specialists; plus the advantages of telemedicine, telesurgery, home care and sensor devices, all these services being managed ideally in conjunction with a medical network providing expert guidance and a high level of quality and professionalism. Health insurance must have an annuity element, in other words be capable of taking in hand the long-term care and assistance needed for Alzheimer’s disease, a highly symbolic pathology that calls on the whole of the healthcare system while at the same time its everyday treatment is closely linked to the sociocultural context. More generally, taking in charge old dependent people in this context will certainly require the constitution of financial provisions throughout the period of a contract in order to mutualise this risk (long term care).

Conditions are currently right for making these developments possible. Health information systems, electronic medical records, electronic prescription and e-health are all evolving. These advances open the way to a personalised service to patients that is able to keep track of their case histories, follow them through the health system and implement reliable procedures to assess the quality of the care they receive. The massive contribution from information technologies should help bring about a comprehensive re-engineering of traditional health systems, adding productivity gains comparable to those observed in the other service industries.
Within its existing paradigms, neither public nor private health insurance is up to meeting the challenge of these changes. In countries whose health insurance financing is mostly public with the practice of medicine left in private hands, governments face serious difficulties in controlling growth in public health spending. In countries with national health services, a tight rein is kept on tax-funded health spending at the cost of long waiting lists for referrals to specialists as well as for hospitals and surgical care. This is the case not only in the UK but also in Spain and Italy. It is noteworthy that in these countries a small fraction of the population takes out private insurance separately from the national health service in order to be able to benefit from quality hospital care when needed.

The question is, how can we evolve toward a comprehensive health service?

One way is to start from a very simple paradigm. Health should be viewed as an item of household consumption on a par with food, housing or transportation. Personalised family health insurance would cover a household’s health risks and provide the services the family deems necessary in the light of its requirements and life style. But in any democracy the community as a whole must see to it that none of its members is excluded from essential health care. It must finance this care in the name of national solidarity. This universal health care must be based on clearly defined public health priorities and guarantee an adequate level of quality and it must be managed by private operators competing with insurance institutions. These operators could group together both universal and family coverage to offer a genuine comprehensive health service, through contracts with partners who would play a much broader role in this new service offering than that of the existing managed care organisations — notably for seniors.

As for the ethical dimension, this lies at the heart of the long life society. In a democracy, all that is necessary is to ensure observance of the universal declaration of human rights. Any person who is a member of society — and seniors nearing the end of their lives are such members — is entitled to Social Security and cover in the event of illness.

The other dimension is that of medical ethics, including the debates regarding the funding of scarce healthcare resources and, obviously, regarding so-called ‘relentless treatment’. But this is another subject, and one that is widely discussed elsewhere...

I personally see three essential points that, going beyond medical ethics, give rise to debate and involve society as a whole, and therefore the insurers.

- ‘Relentless therapy’, consisting in prolonging life virtually artificially, in other words providing treatment that is inappropriate in view of the state of the patient, sometimes described as ‘condemnation to live’, inflicted on certain patients. Most deaths in developed countries today occur in medicalised environments and drawing the line between appropriate treatment and ‘relentless therapy’ is a tricky exercise.
- ‘Medically assisted’ death, in other words the possibility for doctors to help people to die, is authorised in some countries and under discussion in others.
- The appropriateness in the case of the very old of certain costly treatments such as transplants, given the risks involved and the virtually inevitable complications that reduce the quality of life.

In conclusion, one entirely safe forecast: “The new Welfare: the counter-ageing society. A longer life: Yes, but how and at what cost? Ethical issues” will remain topical for a long time to come.
Insurance: A Leading Player in the New Welfare

by Fausto Marchionni

1. Introduction

As recently as last September, the ex Health Minister, Umberto Veronesi told the Corriere della Sera that boys born in 2007 have a life expectancy of 97 years, while that of girls is as much as 103. A fact, the internationally famous scientist explained, made possible by the enormous progress made by medical science. If on the one hand we can’t but rejoice in Veronesi’s statement, on the other hand the news raises a series of questions, the first of which is how to ensure an adequate standard of living once the working cycle ends. The question brings up, in general terms, the future of public pensions in the decades to come, and more specifically the subject of the integrative pension, which without doubt constitutes one of the most urgent and important challenges for the political and economic agenda of our country.

2. Italy 2050

In order to have a realistic picture of the problem it isn’t necessary to refer to the demographic situation of the Italian population in 2100 when those born today will have passed the ninety years of age mark. Instead it is enough to stop at the projections for 2050. At the half way point of the current century, in fact, there will be, in Italy, 63 individuals over 65 years old to every 100 working people, counting all those between 15 and 64 as coming within the potentially active time. If we keep in mind that in 1950 the same ratio was 10 to 100 it is easy to understand how tomorrow’s young people will find it ever more difficult to produce an income and a development sufficient to guarantee an army of the elderly a decent pension. But that’s not all: in 2050 one Italian in seven will be over 80 years old, and 25% of these will be made up of men and women who are not self sufficient, a factor which significantly increases the social costs.

3. Towards a New ‘Welfare’

The size of the problem is such that in order to avoid a genuine crisis it is necessary to introduce a triple structural reform that has to rethink the social security system, the health system and the employment system. On the pension front, as we know, the legislature has set in motion a reform process introducing instruments and regulations concerning complementary social security, for the origins of which the reasons and objectives are known to everyone: the public pension system had accumulated a growing series of imbalances due to the concomitant tendencies toward an increase in the average length of life and the

* Faculty of Economics, University of Turin and CEO — Director General Fondiaria-SAI, Turin
reduction in births, which in our country are accompanied by a low growth in employment and a large public deficit. The response of the public authorities is aimed at moving from a social security system centralized in a single compulsory public regime (the INPS pension) to a system based on three pillars: public pension (first pillar), redefined so as to guarantee a greater correlation between the contributions paid by workers and the benefits they receive in their retirement years; the collective integrative pension (second pillar), accumulated through participation in pension funds; individual integrative pension (third pillar), left to each worker’s savings choice.

4. Integrative Social Security and Financial Markets

Ten years after the start of the reform process, however, there continue to be serious delays in the development of pension funds, both in the cases of the Anglo Saxon countries and for economies institutionally and financially more like ours, such as France, Germany and Spain. By way of example it’s enough to consider that in Italy pension fund assets amount to only 3% of GDP, a much lower level than the European average and a long way below the 66% of the United Kingdom or the unattainable (at least for now) 110% of Switzerland. In our country the spread of integrative social security is particularly poor among the young, women, the self-employed, and the employees of small businesses, that is to say the categories who enjoy the least protection within the world of work. In this regard, it should be stressed that the slow performance of collective and individual pension funds can generate not only compensatory imbalances in the near future, but it also has immediate systemic consequences: the Italian delay actually puts limits on the articulation of the national capitals market. In countries where the second and third social security pillars spread quickly the local financial system was open to innovation, creating resources and operations such as private equity funds, and financing tools such as corporate bonds which stimulated the restructuring of the productive system.

5. The Cultural Limits of the Italian System

Up till now Italian workers have been rather reluctant to convert their Trattamento di Fine Rapporto (translator’s note: a payment from a severance indemnity scheme) into a private pension scheme: the main obstacle to the spread of this kind of social security is a cultural limit, i.e. the tendency toward uncritical and uninformed prudence. If we look at the statistics concerning who has subscribed to a collective fund or an IPP (Individual Pension Plan), we see that those who have recourse to integrative social security are mostly those families who are more able to gather, evaluate, and process information of a financial kind. This fact confirms the need to create, in the population, particularly the young, a greater knowledge of funds and a forward looking culture, in favour of long term planning and aware of risks, even those far into the future. While in northern European countries the need to increase the rates of financial education is seen as urgent and is the subject of ad hoc educational campaigns, in Italy there are still too many workers who over estimate the amount of public social security they will obtain at the moment of retirement, which will be less than 50% of their last wage.

6. Longevity as a Resource

Is the knowledge factor enough to face the risk of a collapse of the Italian social security system? Of course not. Alongside the need for a more widespread and better financial education we must carefully consider the objectives set out in the Lisbon, Stockholm and Barcellona
Agendas to guarantee the sustainability of the economic and social systems of the European countries. If in the middle of 2,000 the Lisbon extraordinary European Council stressed that in the European labour market “the employment rate is excessively low and characterized by an insufficient participation by women and elderly workers in the labour market”, how much more binding are the goals set at Stockholm where the rate of participation of middle aged workers which must be achieved in the European Community by 2,010 was set at 50%, and Barcellona where the average age for finishing work was fixed at 65.4 years. In this regard it must be said that while other European countries such as the United Kingdom or Sweden are close to these objectives or in fact have gone beyond them, in Italy the participation rate for middle aged workers, i.e. aged between 55 and 64 is 31.4% and the average age for finishing work is 59.7. However as Cicero reminds us in De Senectute, “It is not with strength, speed or agility that great undertakings are accomplished, but rather with good judgment, authority and teaching; these are the gifts which are not only not lacking in old age, but which enrich it”. In order that the presence of ‘mature’ people in the workplace might be increased it will be important that the productive economic system should make the most of the wealth of knowledge possessed by those who have a great deal of experience, entrusting them with less operational and more directive and strategic consultation roles. The world of work therefore, has to be rethought in the light of a different view of ageing and of the contribution the middle aged worker can make. It is a matter, in short, of making a cultural leap forward, toward a concept which recognizes in longevity a precious resource, even more important in a competitive context in which extra value is ever more derived from non-material values and elements. In this sense, therefore investment in human capital, i.e. in a continuous and broadened education at every point of professional life is fundamental. Ultimately rethinking the link between economics and longevity will allow us not only to honour the community objectives which are meant to preserve the sustainability of the continent’s social systems, but will give us an extra tool with which to govern the knowledge economy.

This all means that the current social security system not only must evolve towards a three pillar model, but must be based on a ‘four part scheme’ improving in solidarity and flexibility.

7. Integration Between Public and Private: The Role of the Insurers

In a dynamic context and rapid evolution what tasks are insurance companies called on to play? Through business social responsibility the companies have enriched the traditional role of providers of policies and cover with a business ethics dimension, actually becoming social players, protagonists, together with public authorities in bringing about the common good through their support of solidarity, cultural and sporting initiatives. Integration and the complementary nature of public-private action extends to the social security sector, where the gradual success of multi-pillar pension systems will give the companies new development opportunities but also new responsibilities and an ever more relevant social role. The insurance function is also changing in the field of health, where the insurer is no longer the one who simply pays for health services by way of indemnity but is now really and truly a health Care Manager. The socio-economic scenario we live in ultimately pushes insurance businesses to further boost their social mission, thus transforming the public perception of insurance from simple payment to that of a public utility focused on the long term.

The synergetic integration between public and private — particularly insurance companies and banks — can only fully realised within a regulated system based on transparency, certainty, and capable of taking the long term view.
Longevity and Predictive Medicine

by Vincenzo Marigliano

1. Introduction

Our society is characterized by a progressive phenomenon of population ageing, with a high prevalence of chronic and degenerative diseases and an increasing level of disability. World-wide the average life of man is approaching 80 years, while the Maximum Life Span, which is species-specific, is approximately 120 years, twice the maximum age of the chimpanzee, the animal most closely correlated with man from a genetic point of view (only 0.6% genomic differences). Everyone at birth receives a patrimony of resources which form a functional reserve and will be used during a lifetime: as demonstrated in many studies, this reserve is genetically programmed. Every man is subjected to an astronomical clock that beats its time in seconds, minutes, hours, but this clock is subordinate to a biological clock that, for every individual, begins to run after conception anddifferentiates time in development and successive impoverishment of the initial patrimony, not only of the organism, but also of its organs, tissues and cells, each and every one of them having a different biological age. The speed of the biological clock depends on the interaction between genetic patrimony and environment. An unfavourable interaction will lead to a premature death, while an optimal interaction will lead to natural death at 120 years. In this context we can define ageing as a complex cascade of processes which lead to the progressive reduction of the functional reserve of the entire organism, of the single organs and apparatuses. Longevity is obtained when ageing proceeds gradually, that is when the rate of reduction of the functional reserve is not too fast, avoiding the collapse of a function involving the entire organism. Ageing processes, increasing the vulnerability of the old and the loss of adaptability, are the substrata for environmental factors: if we are not to waste our genetic patrimony we can make it so that our genes are expressed to the maximum of their potential diminishing the aggression of external risk factors. Excluding pathogenic noxae, external factors commonly considered capable of modifying the expression of the genetic program are: eating habits, smoking and drinking habits, physical activity and psychic factors.

2. Genes and Ageing

Thanks to the genome map sequenced by the Human Genome Project, a data bank will soon be available to facilitate the location and the study of those genes involved in the development and in the manifestation of the character of man, that is of normal (physiological) characters, of rare (variant) and of anomalous (pathological) characters. The somatic differences that can be observed between persons (phenotypic differences) are
basically in relation to two genetic events that confer the so-called “genetic variability”: rare mutations, which are present in the population with a frequency <1%, and common mutations, which are present in the population with a frequency >1%, these last also called polymorphisms. Each and every one of us contains in his genoma both rare mutations and polymorphisms. While mutations, more recent from an evolutionistic point of view, are rare genetic variations responsible for important phenotypic changes as happens in “mendelian” diseases, the polymorphisms, much older from an evolutionistic point of view, are common genetic variations responsible for minor phenotypic changes (for example different blood types), which often mediate the interaction with the environmental factors. Polymorphisms are the genetic variations most often involved as risk factors in complex diseases. They are moreover involved in the phenomenon of ageing. For example the fact that there is a great variability in lifespan between healthy subjects of the same race living in the same geographic area, is due to the presence of polymorphisms, which can be defined as minor differences of the genetic equipment of everybody6.

Improvements in our genetic acquaintances will enable us to classify the genotype of all diseases and to find new metabolic ways involved in their pathogenesis. Knowing the genotype, the physician is enabled to prescribe a therapy aimed at the cause and not at physical characteristics. Moreover, understanding how common pathogenetic mechanisms can be involved in different diseases, a therapy developed for a single disease could be used in order to cure other diseases. One of the most interesting applications of knowing the genomic sequences is represented by pharmacogenomics. In a certain population, some persons are complete responders to a therapy, others are only modest or marginal responders, some are non-responders and some persons express adverse reactions. The variability of the clinical response to a particular drug is not only due to the physiological mechanisms of the drug and environmental factors, but above all to the genetic constitution of the single subject, which is responsible for more than 85% of the total variability, according to some authors. The genetic profile of an individual determines in fact the characteristics of the target of the drug as well as of the proteins involved in the process of its absorption and metabolism. The variation of a nucleotide of a single gene can result in a different structure and function of a certain protein and therefore in a modification of the metabolic pathway of the drug. Subjects with a particular genotype can be unable to metabolize a particular drug and may therefore present a greater risk of adverse reactions or interactions with other drugs, while other genes are in a position to determine a faster metabolization of some drugs, consequently reducing their efficacy.

3. Predictive Medicine and Chronic Diseases

As a result of the recent discoveries in genomics and pharmacogenomics, we must expect an enormous progress in the ability to diagnose diseases, to identify new risk factors and to identify the optimal pharmacological therapy for each patient. These characteristics are the basis of predictive medicine. This new therapeutic strategy aims at preventing a disease from revealing itself through a genetic diagnosis of susceptibility and through treating the disease at a pre-clinical stadium with a drug that will be specific for each patient. The predictive medicine warns a person about his fragilities and permits him to determine the proneness to certain diseases for himself and his children; permits him to change life style (for example dietary habits and kind of work) in order to avoid the environmental factors involved in the development of a certain disease, and to monitor the predisposition to a

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determined disease by periodic screening. The future of this new branch of medicine is in chronic-degenerative diseases like Parkinson’s disease and Alzheimer’s disease, in oncology and metabolic diseases. Parkinson’s disease is the most common disease of movement, involving approximately 1% of the population >60 years. The pathological characteristic of this disease is the loss of dopaminergic neurons in the substantia nigra, which causes the main clinical signs; bradykinesia, rigidity, tremor and postural instability. At the beginning it was believed that this disease was due to the exposure to particular environmental factors (viral infections and chemical toxics included). Later the high frequency of Parkinson’s disease in some families has been demonstrated and the idea of a genetic origin for the disease become reality. Today we know that some types of Parkinson’s disease might be due to mendelian mutations (for example the PARK-gene) and that other types can be correlated with the presence of specific genetic polymorphisms, which means that many types have a multifactor mechanism. Studies have shown how some metabolic ways are altered in various types of Parkinsonism, resulting in an anomalous production of ROS (mutations of DJ-1 and PINK1), in a change of the proteic aggregation (mutations of a-synuclein), or in stress due to misfolded proteins (mutations of UBCH-L1 or Parkin). These mechanisms are responsible for the creation of Lewy bodies, typical proteic residuals present in the brain tissue of Parkinson’s disease patients, as well as for a condition of toxicity and neurodegeneration. The genetic therapy of Parkinson’s disease begins in the United States, studied by a team of researchers guided by Michael Kaplitt from the New York Presbyterian Hospital/Weill Cornell Medical Center. A virus containing the GABA gene is injected into the subthalamic nucleus, the area which regulates the motor circuit. The GABA neurotransmitter ‘calms’ the hyperactive neurons and is lacking in patients with Parkinson’s disease who, consequently, have motor problems and tremors. Injecting the GABA gene in the brain, researchers have tried to stimulate the production of the neurotransmitter in order to standardize the function of the motor circuit. In Alzheimer’s disease, some rare types with a premature onset are due to mutations of a single gene, while types with a late onset are known to demonstrate a familiar aggregation and are correlated to polymorphisms that confer susceptibility to the disease. In some families with premature onset Alzheimer’s disease the responsible gene has been located in chromosome 21. Dominant autosomic mutations involving the gene for the amyloid precursor protein have been described. In several families with premature onset Alzheimer’s disease a linkage has been demonstrated with DNA markers on chromosome 14. The gene is a membrane protein called presenilin 1. Mutations in this gene are responsible for approximately 70% of all types of premature onset Alzheimer. A second gene called presenilin 2 and structurally correlated to the previous one, has been isolated on chromosome 1. Finally, in those families with late onset Alzheimer’s disease a statistically significant association between the presence of the allele epsilon 4 in the gene of the apolipoprotein E (apoE), located on chromosome 19, has been demonstrated. The apolipoprotein is the main carrier of lipids to the brain and has a high affinity for the b-amyloid protein. Alzheimer’s disease seems therefore to be a heterogeneous disease from an etiopathogenetic point of view and several authors think that both genetic and environmental factors may interact in a common metabolic way leading to the intraneuronal deposition of b-amyloid and of other anomalous proteins having a neurotoxic effect.


3. Conclusions

Ageing is a complex systemic process due to multiple genetic components such as interindividual variations of the DNA and environmental factors including life style and interactions with the atmosphere. The challenge of Geriatrics is to identify those factors leading to a survival of a hundred years keeping in mind that longevity is not an extraordinary event but a right to conquer for everyone.

REFERENCES
Scenarios for Health Policy and Funding In Europe

by Nick Bosanquet

1. Introduction

In the decade 1993-2003 health funding saw real terms growth across the OECD area. Only in Finland did the health share of GDP fall during this decade (Table 1). This period of relatively rapid growth is highly likely to have brought on a phase of cost containment through pressure on funders ability to pay — but this time there was additional pressure from changing perceptions of the longer term pressures on health services. The concerns are no longer just about the supply side and short term cost containment — they have shifted towards a new set of concerns about the future demand for health. Future demography has for long been presented as a nightmare with rising support costs for more elderly people: but in addition there are new and unsettling concerns about lifestyle changes which affect all age groups.

The key variable is policy — whether health services can break away from provider capture with its commitment to big ticket, hospital services and make use of the new more accessible technology in prevention and care. The future of health services will not be determined mainly by impersonal forces of demography and changing disease patterns from outside the health service — they will depend on whether health services can develop a creative and flexible response to new problems. The new feature of the last decade has been the very strong gains from using competition and choice in a number of countries. They have been particularly effective in insurance based Bismarck systems where it is possible to have independence of the funder from the provider. The internal market has on the whole worked better in such systems than it has in the more centralized tax funded systems. Can health care grasp the opportunity to use new kinds of small ticket technology and new approaches to patient care involving much better communication? The future of health services depends on whether we can break away from old patterns and unleash the forces of innovation and quality improvement which are there in health services.

Table 1: Health Spending as% of GDP

<table>
<thead>
<tr>
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<th>1993</th>
<th>2003</th>
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<tbody>
<tr>
<td>France</td>
<td>9.4</td>
<td>10.1</td>
</tr>
<tr>
<td>Germany</td>
<td>9.9</td>
<td>11.1</td>
</tr>
<tr>
<td>Italy</td>
<td>8.0</td>
<td>8.4</td>
</tr>
<tr>
<td>Spain</td>
<td>7.5</td>
<td>7.7</td>
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<tr>
<td>Sweden</td>
<td>8.6</td>
<td>9.2</td>
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<tr>
<td>Norway</td>
<td>8.0</td>
<td>10.3</td>
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<tr>
<td>Finland</td>
<td>8.3</td>
<td>7.4</td>
</tr>
<tr>
<td>Denmark</td>
<td>8.8</td>
<td>9.0</td>
</tr>
<tr>
<td>UK</td>
<td>6.9</td>
<td>7.7</td>
</tr>
<tr>
<td>US</td>
<td>13.2</td>
<td>15.0</td>
</tr>
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</table>

Source: OECD

* Professor of Health Policy, Imperial College.
2. The Technology Factor

Technology is usually presented as a given emerging from outside the health system. Both corporations and universities have a vested interest in the romantic view of technology — that it emerges from the heroic and selfless quest for innovation. Innovation emerges from pure research, science and technology all of which are dynamic but dynamic because of the intellectual quest rather than because of crudely commercial considerations.

Technology is not the product of pure technical factors — the technological investments made reflect the interplay of power and professional forces. And interests. In markets driven by consumers the tendency is for the market to expand and cheapen technology. The outlook is very different when public sector producers control the funding. The technology developed will have few if any financial or market constraints.

The main features of this technology environment are:

• technology which requires highly qualified staffing to operate and interpret the results. In mass markets technology becomes simpler and usable by a wide range of users. In health this is rarely the case.

• Clinical governance standards which mandate the use of expensive technology.

• Risk assessment which stresses the gains to the use of high tech equipment.

Low levels of capacity use which are brought about in part by the limited availability of specialist staff and the high capital and labour costs also reduce customer ability to pay. Thus the situation often offers the combinations of limitation on access leading to waiting times and low capacity use. Typically the utilization rate on public sector MRI scanners is about half of that on privately owned ones.

The new development in the last ten years has been the emergence of more technology for primary care and local pharmacies. This provides an instructive contrast to big ticket technology for secondary care. There are a variety of new local diagnostics and treatments including:

• Cholesterol testing.
• Diabetes monitors.
• Smaller X rays and Ultrasound linked together with PACS.
• Nicotine replacement Therapies.
• IT/Communication systems

New methods of treating venous ulcers with Doppler assessment and the four layer bandage. These offer much more diagnostic and treatment capability in primary care.

It is ten year since Regina Herzlinger’s powerful work ‘Market Driven health Care’ was published. She saw America and other developed nations as being at the start of a healthcare revolution.

“These dramatic developments in medical technology enable the decentralization of powerful, therapeutic, diagnostic and monitoring services. Services available only at vast, costly hard to reach hospitals will instead be provided by inexpensive, easy to access clinics, physicians offices, ambulances and helicopters. The most important feature of this newly formed landscape will be better health for all of us.”

Ten years on most of Europe indeed most of the developed world is still waiting. The picture is highly patchy between systems and between specialities. There has been some progress in developing new kinds of care but the vast majority of patients are still being treated in the old systems. Health care in Europe remains a state funded industry which continues to churn out services to fit providers rather than consumers. The medical service
mountain is less visible than the farm surpluses of wine lakes and butter mountains produced by the former EU agricultural policy but fundamentally the economic incentives are the same — to extract the maximum benefit from producer subsidy rather than to provide the services chosen by consumers.

Spending on innovative programmes on care pathways E health and new accessible services can be estimated at 5-7% in the UK and Germany 1-3% in France and Italy. And up to 20% in Scandinavia. Where are the islands of progress? The main success areas have been.

3. In more Mixed Systems

Which have moved away from automatic tax or public insurance funding. In Scandinavia there has been strong local autonomy through the County responsibility for commissioning services. Hospitals and primary care doctors have shown great drive for investing for IT systems. Doctors in Denmark now have the most advanced use of IT of any doctors world wide. In Sweden patient choice has lowered waiting times to a few weeks with patients free to move to alternative funded providers. In Finland public health programmes have turned North Karelia round from one of the unhealthiest regions in Europe to one of the best. Scandinavia has shown that it is possible to provide a service with excellent access and outcomes for 8-9% of GDP.

In Spain, the Netherlands and Australia funding has been mixed as well as providers Again there has been more rapid development of new services. In Spain Sanitas the private insurance group owned by the British mutual association BUPA has been a significant investor in E health. In Australia 45 hospitals in Victoria are linked in a hospital at home scheme. There have been successful national strategies for the prevention of melanoma. In the Netherlands competing insurance funds have to give potential members metrics about their performance. In the UK new providers have been attracted to provide wider choice in elective treatments but there are signs that the Reform programme is faltering with strong incentives to public providers to block out competition.

Health systems can be divided into those with a strong primary care base as against those with direct access to specialist care and fee-for-service. As Table 6 shows, the spending levels for the first type of system, at 8-9% of GDP, are well below those for the second type, at 10-12%. Yet all studies of population health, treatment outcomes and patient access show that the first type of system delivers results which are at least as good and in many dimensions better than the second.

Table 2: Growth of expenditure on health 1990-2001 — health spending as% of GDP

<table>
<thead>
<tr>
<th>Primary care-led systems:</th>
<th>1990</th>
<th>2001</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denmark</td>
<td>8.5</td>
<td>8.6</td>
</tr>
<tr>
<td>Finland</td>
<td>7.8</td>
<td>7.0</td>
</tr>
<tr>
<td>Netherlands</td>
<td>8.0</td>
<td>8.9</td>
</tr>
<tr>
<td>New Zealand</td>
<td>6.9</td>
<td>8.1</td>
</tr>
<tr>
<td>Spain</td>
<td>6.7</td>
<td>7.5</td>
</tr>
<tr>
<td>Sweden</td>
<td>8.2</td>
<td>8.7</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>6.0</td>
<td>7.6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fee for service-led systems</th>
<th>1990</th>
<th>2001</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgium</td>
<td>7.4</td>
<td>9.0</td>
</tr>
<tr>
<td>France</td>
<td>8.6</td>
<td>9.5</td>
</tr>
<tr>
<td>Germany</td>
<td>8.5</td>
<td>0.7</td>
</tr>
<tr>
<td>Switzerland</td>
<td>8.5</td>
<td>10.9</td>
</tr>
<tr>
<td>United States</td>
<td>11.9</td>
<td>3.9</td>
</tr>
</tbody>
</table>

Source: OECD Health Data 2004
Recent research on Kaiser Permanente sponsored by the Department of Health itself has confirmed that the first type of system in a regional context can indeed deliver very effective results. The original research showed that on an adjusted PPP basis the NHS spent $1,784 per head while Kaiser Permanente spent $1,984 per head. These results were fully adjusted for differences in the age composition of patients and in the differences in the range of services provided by the two systems.

Later comparisons sponsored by the Department of Health showed that: “For the 11 causes selected for study, total bed use in the NHS is three-and-a-half times that of Kaiser’s standardized rate...”¹.

The level of spending generated in the first system reflects the costs of providing certain services involving primary care access, referral and protocol-driven secondary care. If this system is associated with higher levels of spending, this implies either higher costs than could be prudently managed or higher levels of activity. There is good international evidence that high levels of health spending are often associated with the flat of the curve — with waste and low quality in care. Detailed criticisms have been made for example of the low standard of cancer care in Germany and the poor quality of prescribing in France. A recent OECD summary concluded that:

“For while richer countries tend to spend more on health, there is still great variation in spending among countries with comparable incomes. Even more importantly the highest spending systems are not necessarily the ones that do best in meeting performance goals”₂.

Canada supplies a particularly strong example of how funding without reform may in fact lead to an increase in waiting times and greater access problems. Between 1993 and 2003, average waiting times have risen 70% over a period when real spending per head rose 21%, in constant 1995 dollars, from $1,836 to $2,223. Thus higher levels of spending are often taken to conceal problems of low productivity.

A more considered international comparison would certainly have pointed to a strong case for some additional funding. UK spending was in fact below the GDP shares found in tax-funded/primary care-led systems. There were also serious deficiencies in some key areas of care where a combination of new incentives with extra funding was required. The international evidence, however, pointed to a phased increase in spending to 8-9% of GDP. The increase to 10-11% of GDP was not supported by international evidence.

It was also hard to reconcile with UK capability in primary care, its potential for lower cost public health programmes and the targeting of health spending on most cost effective programmes through NICE. It also tended to concentrate management attention on the spending of extra funding rather than on making better use of the funding that was already there. The various NHS Plans have ignored the real lessons of international experience which were recently summarised by the OECD:

“Ultimately increasing efficiency may be the only way of reconciling rising demands for health care with public financing constraints. Cross-country data suggest that there is scope for improvement in the cost-effectiveness of health care systems. This is because the health sector is typically characterized by market failures and heavy public intervention, both of which can generate excess or misallocated spending. The result is wasted resources and missed opportunities to improve health. In other words, changing how health funding is spent, rather than mere cost cutting, is key to achieving better value”.

² OECD (2004): Towards High Performing Health Systems, OECD.
The case for this modified target has been strengthened by the evidence of the possible impact of incentives within primary care led systems. Without shifts in funding as shares of GDP such systems can deliver very clear improvements in access and service. The achievements in reducing waiting times in Spain between 1992 and 2000 are a clear example.

Table 3: Waiting Times for publicly-funded patients in Spain (days)

<table>
<thead>
<tr>
<th>Procedure</th>
<th>1992</th>
<th>2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cataract Surgery</td>
<td>68.0</td>
<td>47.6</td>
</tr>
<tr>
<td>Cholecystectomy</td>
<td>103.4</td>
<td>53.8</td>
</tr>
<tr>
<td>Hernia</td>
<td>84.6</td>
<td>48.3</td>
</tr>
<tr>
<td>Prostatectomy</td>
<td>119.4</td>
<td>42.7</td>
</tr>
<tr>
<td>Vaginal Hysterectomy</td>
<td>71.9</td>
<td>52.5</td>
</tr>
<tr>
<td>Knee Arthroscopy</td>
<td>51.4</td>
<td>53.8</td>
</tr>
<tr>
<td>Hip replacement</td>
<td>271.4</td>
<td>59.8</td>
</tr>
<tr>
<td>Knee replacement</td>
<td>91.3</td>
<td>63.4</td>
</tr>
<tr>
<td>Varicose veins</td>
<td>232.8</td>
<td>50.6</td>
</tr>
</tbody>
</table>


The OECD attributes most of the decline to the use of financial incentives in achieving waiting time targets which were introduced after 1998. A similar approach to financial incentives, allied to expansion in service, was adopted in Denmark leading to a fall in median waiting times for cardiac procedures from 30 days in 1997 to 15 in 2001, a period in which waiting times in the UK rose rapidly.

Within the UK, reform has shown very positive results where it has been tried. Key areas, where changes adopted from Scandinavia have been introduced, include the introduction of new financial penalties/incentives for reducing delayed discharge and the choice programme for cardiac and other surgery in London.

Since local councils have faced cost penalties in paying for prolonged admissions, numbers of patients staying in hospital unnecessarily have reduced so that numbers staying in hospital is more than 4,000 lower than in 2001. The Secretary of State has said: “A massive reduction in delayed discharges was the equivalent of adding eight extra hospitals to the NHS. In fact more beds were created through these incentives than the total additional beds planned through extra funding (2,500) over the next decade... These figures suggest that the introduction of the reimbursement scheme seems to have provided the extra incentive we needed to maintain momentum”.

In London, between 2002 and 2004, 12,500 patients were being offered choice of where their treatment took place and 7,480 accepted it. Among the results have been that:

- South East London treatment centres in Orpington and Bromley now have spare capacity and began advertising for patients from Feb 2004.
- Private hospitals in the area have become concerned about declining patient numbers.
- The National Heart Hospital, bought to increase NHS capacity in cardiac surgery, found that it was short of patients because waiting lists had been reduced by the choice programme and had to convert to non-surgical uses.

Thus within a very short time the choice programme was successful in reducing waiting times even before new capacity in Treatment Centres was introduced. There was similar

The Department of Health has now extended the choice programme to all patients as from December 2005. Patients referred for elective treatment are offered up to five choices by GPs. Dr John Reid signalled the start of a wider policy of extending choice: “We need to make sure that every single patient who is eligible for choice knows that they have choice of faster treatment at another hospital if they wish to move. The London Patient Choice Project is leading the way in offering patients choice and has proved that patients want choice. Since October 2002 more than 70% of patients have opted to be treated elsewhere to get faster treatment. We need to learn from these projects and gear up for the national roll out of choice at six months from April.”

There has also been a tendency to attribute success to funding when it should have been attributed to reform. Thus in coronary and heart disease, the Government stresses that the fall in the death rate — 41% over the last decade — is the result of NHS modernisation. Much of the work in introducing the National Service Framework and extending the use of statins, however, has been carried out in primary care where spending has been rising more slowly. And within secondary care, waiting times for cardiac surgery have been reduced mainly as a result of the choice programme.

The National Audit Office has come to a similar conclusion in regard to accident and emergency services. Its recent report found that the Department of Health had allocated less than £30 million per year to improving A&E services compared to an annual spend on those services of over £1 billion. Rather than extra funding, A&E departments have improved waiting times by developing new working practices, in particular by treating patients with minor injuries quickly rather than making them wait until patients with more serious injuries have been treated (‘see and treat’), by giving more clinical responsibility to experienced nurses and by improving access to diagnostic services.

Within the service for cancer patients, there has certainly been some improvement in access and survival for patients with breast cancer. Better funding of new drug therapies is likely to have contributed but research in the US has clearly shown that detection of cancer at an earlier stage through screening is the most important reason for better survival. The successes in improving survival owe more to long-term investment since the 1980s, in what is now one of the world’s most advanced systems for population screening, than to funding increases under the NHS Plan. So far indeed the results of funding increases have been disappointing. A survey by the Royal College of Radiologists in 2003 indicated that waiting times have not improved since 1998 and that only a minority of patients are receiving treatment within recommended waiting times.

There have also been problems in developing endoscopy services in primary care where waiting times are much shorter (one-and-a-half weeks) compared to a median waiting time of 13 weeks in the hospital service. Some patients are waiting 35-40 weeks. Some of these patients waiting ‘will subsequently be found to have cancer’.

4. Coronary Heart Disease

There has also been more success in specific specialties. In coronary heart disease a new care pathway has emerged linking prevention, treatment of high risk groups with

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stents, early access to day treatment through better diagnostics and angioplasty — and then rehabilitation. The care pathway shows gains to innovation through the use of statins, stents and precautionary home monitoring and telemedicine. Including in stroke care, COPD and hearing problems.

Better primary care IT makes it possible to deliver nurse led local programmes for high risk groups.

Six primary care practices in Runcorn Cheshire UK covered 64,000 patients. They set up a shared programme to identify patients with high levels of cholesterol. This identified 3,300 patients. These were assessed by practice nurses and treated with statins. An evaluation showered that in the first year there were 68 fewer deaths and these gains have continued in subsequent years at a cost of £ 470 per QALY.

In the UK the National Service framework for Coronary Heart Disease has been highly successful in providing a focus for service developments.

5. Diabetes

Across Europe there are signs that the use of care pathways may be having highly positive effects on diabetes care with greater emphasis on prevention and on the use of nurse practitioners to design programmes for patients. In Germany there is an innovative course run jointly by healthcare Academy Rheine and Roehampton University in the UK. Other specialties such as cancer services are some way behind CHD and diabetes in development of more integrated services.

6. Financial Incentives

This is one area in which there has been real change across Europe and Australia. Most health systems are adopting more co-payment and DRG re-imbursement of providers. but these incentives are mainly directed at short term cost containment rather than giving incentives to development of new services. There is convergence across health systems in new approaches to financial management.

7. Gains to Competition

There is some greater appreciation of the gains to competition and change. It is clear that use of new technology happens much more rapidly in open systems. In a growing industry there is a cluster of firms which compete for customers. The process of competition is essential for stimulating and speeding up innovation. The energies of these firms in raising output and reducing price in existing product areas makes it essential for firms to develop new products. Their drive to expansion also creates human capital and networks which make it easier for all firms to change and expand. None of these positive conditions exist where there is monopoly. Instead there is great interest in raising output slowly and in minimizing investment in new technology. The traditional case against monopoly was defined in terms of higher prices and static output. We should now focus more on the effect of monopoly slowing down the process of change.

Overall change has come with desperate slowness. The forces of resistance include fear, self interest and shortage of working capital. There is fear of change and lack of confidence in new methods and there is also fear of loss of control. Health services are still run on
a baronial system. Self-interest is in a continuing automatic flow of funds. Most health providers get paid for doing more of what they did yesterday and any new services often carry lower reimbursement as well as the greater effort and risk required to provide them. Shortage of working capital comes about through the fact that most health systems do not have a depreciation system or reserves to finance change and upgrade technology. In the NHS replacement of equipment is often postponed until breakdown and each new technology has to be the subject of special requisition. The path of the innovator has been seen as a hard one ever since Machiavelli but it is particularly hard in health services.

8. Levers for Change

What could be the levers which would make for more rapid change over the next ten years? The revolution has not gone away and there are powerful patient groups which are now pressing for change. There is also stronger evidence from other areas of the economy such as airlines and banking that digital technology can be crucial in improving service and containing cost. One effect of the communications revolution has been to increase competition through making it possible for new and smaller companies to trade internationally.

9. Disease Specific

Health service change and the increased use of IT should be seen in terms of disease specific strategies. The main focus for change has been on waiting time for elective surgery— but it now needs to shift to care programmes for specific conditions. Many of them, longer term medical conditions. As clinical specialization has become more complex and specific IT has become more generic. Health professionals are certainly affected by more external scrutiny and more competition. This could be a powerful lever for change if professionals begin to see that better communication and use of care pathways is essential to their security and professional futures.

Certainly the returns to specialization are increasing in most health systems as the earnings of specialists are rising relative to those of primary care physicians not least because primary care faces direct competition from nurse practitioners.

10. Stronger Primary Care

Systems which have developed primary care have found themselves with headroom of 2% or more of GDP compared with those where there is direct access to secondary care. The strong health systems which deliver access for less than 10% of GDP—Scandinavia, Netherlands, Spain and Australia—are all strong and developed primary care.

11. Quality of Care

Change has to be linked to professional concerns about the quality of care. It alone can deliver on the metrics required to meet professional concerns. It can also be a key resource in helping people to manage time. Most doctors worldwide are faced with a reality of longer working hours, and pressure to meet new standards in improving the care of desperately sick patients.

The reality is that improved survival has created a host of new problems in continuity of care for many patients. The increase in medical specialization has made it more difficult
to plan care programmes and to involve patients and there are many more team members with an interest in patients. We add to this that care is no longer being delivered by lifetime professionals who were on duty for 80 hours a week but by a changing and often inexperienced work force and you have a recipe for great confusion and disappointment — the day to day experience of many patients and staff in health systems worldwide.

12. Communication

The key challenge is how to redefine healthcare as a communications programme. At present healthcare is a series of fragmented technology led activities where there is every interest in keeping ownership of the fragments. We have to get across to health professionals that healthcare is a communications and decision programme in which they are trying to pull together a vast amount of disparate information, and that they can make no real advance in this without using new technology.

13. Financial Compulsion

Change can be a key resource to managers in linking financial and clinical must dos. The change to payment by results has begun to happen in health systems. Many hospital and primary care centres have to earn their income since as individual enterprises they are no longer getting an income automatically in generous annual budgets. Each euro or pound sterling has to be earned through an invoice for service. New technology is the only way in which managers can get this kind of financial information. Across Europe there is a huge challenge in linking financial information with information on clinical activity.

14. Service Redesign

New technology could be the way forward for where services are in great need of redesign. There are few services where communication is more fragmented at present than cancer services. Managers are beginning to struggle with a new paradigm involving, prevention, screening, referral, rapid diagnosis, minimally invasive surgery or active chemo/radiotherapy and then care pathways for risk management and palliative care. Each stage has effects on other stages. Thus expansion of screening may generate false positives which delay treatment for other patients: but in principle this new paradigm offers great hope for improving services against a background of increasing potential for effective treatment, rising patient numbers and constricted funding.

In the UK patients numbers are expected to rise 30% over the next ten years and patients will in principle be able to benefit from more complex treatments. Cancer will become a longer term illness which will in itself raise treatment costs. There will be new pressures to develop new services in ambulatory care and home care. Already much chemotherapy can be delivered at home. In England currently some £4 bn is being spent on cancer services and of this £2.5 bn is spent on in patient treatment with 100,000 emergency admissions a year. The challenge of redesigning service is a massive one and can only be achieved though use of new technology and e health.

15. Moving to Prevention

Across Europe health indicators in obesity and activity are worsening with an additional
special problem in the UK of rising levels of drinking especially among teenagers and young people. There is an urgent requirement for new programmes to increase communication and motivation in public health. Across Europe and the US prevention raises a huge new challenge with e health supplying the opportunity for international collaboration on new programmes.

16. Catch Up for the Patients Big Ticket Healthcare Forgot

E health and new technology can also be presented as the only way of achieving some catch up in neglected or unpopular services. In the UK there are serious gaps in stroke care, chronic lung disease and in assistance with deafness and hearing problems.

Stroke is the leading cause of adult disability and just behind CHD and cancer as a cause of mortality. According to a recent National Audit Office Report 50% of patients do not receive the proper rehabilitation needed to make a proper recovery in the crucial months following a stroke. Many do not receive simple information about their condition and recovery.

In chronic lung disease (COPD) there are 900,00 people who have been diagnosed. A recent Healthcare Commission Report found that “In some areas services provided to people with COPD do not meet existing clinical guidelines and there are wide variations in standards of care across the country. In addition many people with COPD come from communities with high levels of deprivation and often experience difficulty in gaining access to appropriate services”. The rate of mortality for respiratory disease in the UK is almost double the European average.

Change and e health have to be presented as the only way that health funders are going to be able to make progress in improving services for neglected groups of patients in the community. There is no way that linear development of hospital based services is going to make this possible.

17. A Revolution: Whose Time Has Come?

The next phase of healthcare could promise real progress in a number of areas in new therapies, and in better results for patients. It also promises to be a time of much greater funding restriction. The Herzlinger revolution has been held off — but is now compelling as in fact the only way in which services can gain investment and develop the flexibility to meet new needs.

Technology is then a battle ground between competing models of health care. Primary care technology is low cost and accessible. Secondary care technology is exclusive and expensive. Often there is little information on value and effectiveness but such methods become some of the must dos set by lead clinicians and professional organizations. Such technology as used at present is part of the pull towards specialization and concentration of services on few sites.

These choices in technology structure the supplier markets. It leads to a situation in which a few firms dominate a global industry — indeed concentration in such products as scanners has increased in the past decade.

These changes bring massive new opportunities for companies involved in health insurance. Innovation becomes more important for health services and more local. Higher patient expectations of new services will test the capability of tax funded services to deliver on expanding range of new services. Health insurance can develop a complementary role to state funded services in offering more scope for innovation. It can use advantages of greater flexibility and greater ability to generate investment in a timely fashion. They can also show greater priority in communicating with patients and clients. Health insurance can develop
relationships with a new generation of young people who have less faith in centralized state funded services. They are close to other service activities which use the new small ticket technologies and can use this advantage to develop new activities. The coming of small ticket technology gives extra force to the case for competition and pluralism.

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Domotics in the Counter-Ageing Society

by Nicola Pangher

Abstract

The advances in information, communication and micro — technologies are leading to the introduction of new devices that can transform our living environment. One of the most promising fields of applications for domotics is the home of elderly citizens, whose aim is to live independently. The challenge today is to integrate different domotic technologies into a service framework that is really useful and is sustainable in terms of financing; this article sets out to discuss a possible pathway to independent living.

1. Introduction

Domotics is attracting a lot of attention, thanks to the presentation of new hardware and software applications that promise to change our relationship with our homes. New gadgets, smart appliances and widespread sensors aim to make life easier and more comfortable. In order to discuss domotics we can start from a definition, quoting Wikipedia:

“Home automation (also called domotics) is a field within building automation, specializing in the specific automation requirements of private homes and in the application of automation techniques for the comfort and security of its residents. Although many techniques used in building automation (such as light and climate control, control of doors and window shutters, security and surveillance systems, etc.) are also used in home automation, additional functions in home automation include the control of multi-media home entertainment systems, automatic plant watering and pet feeding, and automatic scenes for dinners and parties.”

Attractive scenarios are created in order to allow us to visualise the possible impact of domotics on our everyday lives. We can start with a scenario exercise, based on technologies that are currently under development, in order to look at our future, discussing what we may call ‘the bathroom centered health management system’. We can imagine entering our very advanced bathroom in the morning, where a micro mass spectrometer could make a complete analysis of our breath, we could place our hand on the wall and get a full blood screening using either non invasive spectrometry measurement or a collection of blood samples through microneedles and our toothbrush could include an analysis system to check our saliva. The complete set of information would then be used to set up our diet for the day, programming the smart appliances in the kitchen to mix drug components in our food, preparing the diet for the day, booking the gym for the necessary physical activity, and organising a visit with our GP in order to look more closely at some more serious problem. While the scenario is fascinating, integrating prevention, diagnosis and therapy seamlessly in our everyday life, it opens up a set of questions that are already valid today when we discuss domotics.

PhD, Director, Business Development and E-Health, ITALTBS SpA, Padriciano 99, 34012 Trieste, Italy.
Some of these questions are:
1. Who is going to pay for the technologies and the consumables: a public healthcare service, a private insurance or is it an out-of-pocket expense for the citizen?
2. Who is going to ‘maintain’ the protocols used in the data analysis and is going to make sure that the most effective choices are made?
3. Who is liable if the systems are not successful and result in health damage of some sort?

2. The Technology Background

The needs of the ageing population are one of the main drivers behind the development of domotics: the decrease in physical and mental abilities and the need to prevent and manage chronic ailments pose new questions concerning the living environment.

The goals are:
- Ageing independently: elderly citizens want to continue to live safely and with an appropriate standard of quality in their own homes;
- Control care costs: the burden of care often falls back on the family, creating explicit and implicit costs that add to those generated by the social and health services. Controlling these costs means also reaching efficiency and efficacy targets.
- Create an ICT network that supports citizens, families and caregivers.
- Avoid isolation and promote socialization.
- Develop ‘usable’ technologies.

*Figure 1: The ICT network for social and health care services*
The complexity of care organization and of the ICT services are depicted in fig. 1: the need to communicate, store data and organise processes poses challenges in terms of innovation in work practices and technology infrastructures.

This infrastructure is the back office for every implementations of domotics: a key role in the organization is represented by the Multimedia E-Health center, that supports all information exchange and is the human factor behind the continuity of the care process. The e-health center maintains all communications channels, as depicted in Figure 2.

*Figure 2: The E-Health center managing the content of the communication channels*

The multimedia E-Health center acts as the receiving node also for all information generated by the domotic systems installed at home.

The personal and environmental alarms let the citizen manage unexpected crisis events, using devices like:

1. The personal alarm system, a panic button plus microphone in order to send an alarm and communicate from every room in the house
2. A fall detection system, plus audio system, that identifies situations where sudden accelerations have been taking place.
3. Flood, fire and gas sensors, detecting anomalies in the environment.
4. Motion detectors that can indicate that particular rooms in the house are not being used, such as the bathroom and the kitchen, suggesting a situation of inability to fulfil the most basic needs.
5. Door opening sensors, indicating that the person is leaving.
6. Anti burglary devices and alarms, that can be implements in helping to avoid unfriendly intrusions when the person is at home.

The Multimedia E-health center can filter these alarms, activating the proper response.
In addition to the alarm systems, there are systems that support people with reduced physical abilities, such as electromechanical blinds, motorized beds and armchairs, air conditioning and so on. These devices are moving from a ‘non-networked’ situation to a ‘networked’ status: in this case the E-Health centre will also collect information from these devices, increasing the alarm detection capability.

3. Process Management

The management of alarms represents the first layer of service for the elderly, but technologies now allow the first implementations of lifestyle management, both for disease prevention and disease management. Biomedical devices can be installed at home, measuring signals such as:

- Blood Pressure
- Pulse
- OxySaturation
- Weight
  - Body fat percentage
  - Muscle percentage
  - Water percentage
- Glucose
- 1-12 lead ECG
- Peak expiratory flow
- Coagulation
- etc.

The most common chronic diseases can be monitored through this approach, thanks to the ICT network linking the patients to nurses and doctors, as depicted in Figure 3.

Figure 3: Health management Network
Moving from an alarm management system to full time lifestyle management is the step that poses the most dramatic questions. Healthcare today is organised in order to deliver the services in ad-hoc environments, like hospitals, policlincs and practices, and all related organizational, economic and billing procedures are organised accordingly. There is space for home care services, which at the moment consist either in specialised nursing or social worker support that is available for very precise ‘atomic’ services, or in the presence of a ‘continuous’ caregiver, who often has no specific professional background. The only solution available today, when the level of disability reaches a given level, is represented by the nursing home, where the patient often spends the remaining part of his/her life.

The first big question posed by the contrast between the features of present healthcare systems and the needs of lifestyle management is represented by the issue of prevention. Chronic diseases now account for on average about $2/3$ of Healthcare costs in the most advanced countries, yet about 0% of diseases are preventable. It is obvious that preventing the onset of disease is a most effective way to keep the costs of healthcare under control and therefore prevention should be the keyword for all future developments in healthcare organization. It is easy to see how an E-Health network could be of paramount importance to a prevention policy: phone and videocalls, easy to use software interface and the results from monitoring with medical devices are the bricks for collecting information and helping patients plan their everyday lives in terms of diet, physical exercise, use of selected drugs, reminders of specialised medical examinations. The huge hurdle is that at present we finance the healthcare service in order to treat existing diseases. How much would it cost to finance such detailed lifestyle support strategies, where professional advice and monitoring services should be available in a continuous prevention mechanism? How could we finance a system designed to treat the healthy population? Now the financing is left to the single individual and is not leading to satisfactory results: in many cases the onset of a chronic disease is not seen as a real and immediate health threat, and the efficacy of individual strategies are often very closely connected to the economic and educational status of the single person. Is there any new possible insurance policy that could result in effectively financing prevention? There are some experiences that link health policies to lifestyle targets, offering services like gyms, dieticians and medical checkups at reduced prices and trying to link insurance premium discounts to the real achievements of these targets.

Managing a chronic disease does pose a similar question: avoiding complications requires a very strict adherence to a specific lifestyle and a very capillary and continuous support is a complex and expensive organizational task.

The patient, the informal caregivers, nonmedical caregivers, nurses, primary care organizations, medical specialists: all these professionals represent well separated islands, that are now being grouped in multidisciplinary teams under the responsibility of case managers responsible for following single individuals. While this organization is in many regions still a future goal and not a present reality, the real challenge is represented by the design and implementation of care processes that are effective and efficient. Modern communication technologies allow almost immediate good quality audio and video communication between the patient and any operator in the care chain, while the standards in health information exchange allow the set-up of ‘continuity of care’ systems. But what are the relevant information and effective care delivery processes?

The real challenge lies in identifying the pathways to manage disease, to set up a framework to introduce and evaluate all possible medical and technological innovations, to distribute the information to all players from the patient himself to his family to all social and medical caregivers: the choice and the use of technologies has to find a place within a well defined picture. The technology assessment project has to be based on scenarios which are partly based on evidence, but must also accommodate rules to introduce new steps and new
technologies. Small scale pilots are not significant in this respect, but statistically significant approaches have to be put to the test.

4. Conclusions

The implementation of domotics for chronically ill and disabled elderly patients requires a carefully designed integrated care delivery processes, in order to identify proper technologies that can help the patient to reach lifestyle goals. Both in completely public and in private insurance healthcare systems, the need to design continuous care processes, including social elements, is the challenge for tomorrow. The insurance sector represents a service industry and the challenge of innovation is represented by the need to design new and more complete products.

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the Longevity Revolution

by Jean-Marie Robine*

This paper focuses on the longevity revolution as part of a broader project called the ‘M Project’ in which my co-investigators are Siu Lan Cheung from China, Shiro Horiuchi from Japan but working in New York and Roger Thatcher from UK.

Figure 1 shows broad changes over time in the distribution of ages at death in Switzerland. The data come from the Human Mortality Database (http://www.mortality.org/) which is a fantastic research database gathering more than 5000 period life tables for at least 26 countries starting with Sweden in 1751.

We are focusing on three indicators: (i) the modal length of life (M), which is the most important one for our study, (ii) the standard deviation above M, representing the dispersion of individual life durations above and around this central value, and of course (iii) the maximum life span.

Figure 1: Distribution of the ages at death in Switzerland 1876-1880, 1929-1932, 1988-1993

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1 The Author thanks Christine Perrier and Isabelle Romieu for editorial assistance.
2 INSERM, Health and Demography, CRLC, University of Montpellier, France.
Looking at the change over time in the modal length of life, which is the most frequent life duration for adults, we observe an increase over time. We will check this in the past against the life tables gathered by the Human Mortality Database (Figure 2) for a selection of nine countries, Nordic, western European, the USA, and Japan.

*Figure 2: Increase in the modal length of life (M), since 1751: a selection of 9 countries*

There are three periods in this Figure: the first one, from 1751 to 1851, when the maximum life span is just fluctuating between 70 and 75. Sweden is the only available country for these dates.

The second period is the period of the demographic and epidemiologic transition. Some countries entered this transition early such as the UK or France, and other countries entered some 60 or 70 year later. This creates a kind of confusion, but in 1950, the demographic transition finishes and the modal length of life is close to 80 years for all the countries.

Since then, a huge increase in the modal length of life can be observed, with an increase of more than 2 months per year. Now, the modal length of life is above 90 years in some countries like Japan, but also in France and Switzerland.

The second indicator is the standard deviation above the modal length of life. This indicator measures the dispersion or compression of mortality around the central value. According to Figure 1, we are expecting to see the value of this indicator decrease over time. We check this in the past against the life tables gathered by the Human Mortality Database (Figure 3). The global picture is about the same as for the mode, basically no big change before 1950. After 1950 a clear decline can be observed beyond small fluctuations.
So obviously, during the last 50 years, at the level of these nine most developed countries which have the lowest mortality and the longest life expectancy, a compression of mortality is observed, with an increase in the modal length of life, and a decrease in the dispersion of individual life duration around this central value.

The third indicator is the maximum life span. By definition the maximum life span is just one value per year and per country, and thus we get a lot of fluctuations.

When observing the Swiss distribution again (Figure 1), it looks almost normally distributed, in particular from the mode to the tail. This is Lexis’ idea. We can test it from the d(x) distribution in the Human Mortality Database.

If the distribution is normal, we’re expecting to observe the last normal value at about 3.5 standard deviations from the mode (Cheung and Robine, 2007). We build an indicator to estimate the highest value from the most frequent life duration and from the standard deviation around this central value (M + 3.5 * SDM). We expect to have this maximum life span increasing over time (Figure 4).
The Human Mortality Database shows fluctuations around age 105 from 1750 to 1950: 105 years is the expected maximum life span according to a normal distribution. From 1950 to today, we observe a huge increase in the maximum life span predicted by this normal distribution, from 105 to a value close to 113 years.

Some countries, like Switzerland have very good detailed data. From 1876 onwards, we have a record of the maximum reported age at death. Thus, we can compare the expected normal values coming from the Human Mortality Database, to the actual distribution of maximum age reported at death in Switzerland. The same has been done for Sweden, using the data published by John Wilmoth and his colleagues in Science a few years ago (Wilmoth et al., 2000). The two series match perfectly (Figure 5). The series made up of the exceptional people dying year after year at the oldest age in a country occupies exactly the expected spot according to a normal distribution of individual life duration. So these exceptional individuals reaching the highest age year after year are in fact reaching a totally normal age.
To conclude, I will present the empirical data we have gathered concerning human mortality from the first empirical data, gathered by Halley (1693), when he computed the first life table in 1693 to the most recent data in Japan. All the distributions have been built for 100,000 persons at birth. This means that 1000 deaths represent 1% of all deaths. The first distribution of adult life durations is totally flat from about the age of 40 to the age of 74, with about 1000 deaths per year, which is 1% of people dying at every age. Of course in this case it is absolutely impossible to think about an indicator like the modal age at death (Figure 6).

Figure 6: Distribution of adults life durations: Empirical data 1693-2004
The second series (Sweden 1754-1756) already shows a very little mode around the age of 70. This series was gathered by Wargentin who sent the data by single age to the French demographer Deparcieux (1760). Wargentin published the very long series starting in Sweden in 1751, but the data were assembled by age group. So it was no longer possible to nicely distribute the death by single age as on Figure 5.

The third series is the first Swiss complete life table (1876-1880). This distribution is exactly the same as the Swedish one, some 125 years later: the modes are exactly at the same age. There are more people dying at the mode, 2000 in Switzerland in place of 1000 in Sweden, because the infant mortality fell, and there are many more people reaching adult age in the nineteenth century in Switzerland than in Sweden during the mid eighteenth century.

The next distributions are the modern series for Japan in 1950-1951, some 125 years later. We are after the demographic transition and after World War II, when all the developed countries from Europe, to North America and Japan, are very similar with a mode close to age 80.

Thirty years later, in 1980 James Fries proposed his famous theory on the rectangularisation of the survival curve and the compression of mortality (Fries, 1980). He was proposing an ultimate distribution for adult life duration, centred on the modal length of life of 85 years, with about 10% of people dying at the mode, and a very narrow distribution with a standard deviation of about 4 years above and under the mode. No more people reached ages above 100. The calculation (85 years + 3.5* 4 years) is close to 100 years, so the distribution is perfectly normal. Of course, when Fries published this famous paper in the New England Journal of Medicine in 1980, he could not know the actual values of Japan, but now we do.

In 1980, Japan was already at least at the ultimate value proposed by James Fries with a mode of 85 years for female. But, in the 1980-1984 distribution, Japan was witnessing less than half the number of deaths proposed by James Fries for the mode, less than 5%. Interestingly, many more people were reaching ages above 100. Above age 95 there are almost no people left in Fries’ distribution, but there are still a lot of people alive and a lot of people dying in the Japanese distribution.

Now, with the most recent distribution in Japan, for the years 2000-2004, we are suddenly observing something totally new and totally unexpected. Until now, all the series were following the general scheme of compression of mortality: the higher the modal length of life, the more concentrated the distributions of individual life durations. With the last distribution in Japan, we are observing the sliding to the right of the whole distribution. Japan is now displaying a modal age at death about 6 years higher than 20 years before - more than 90 years - but the full distribution is presenting exactly the same scheme and there is exactly the same number of people dying at the modal age at death. We are no longer in the phase of compression of mortality. The phase of compression of mortality which has been true for almost all the period since World War II seems to be no longer true in Japan for the last 10 or 20 years. Japan is moving to a new scenario that we can call following Bongaarts the ‘shifting mortality scenario’ where the modal length of life goes on increasing extremely regularly but the standard deviation, which has been decreasing from 1950 to 1980, is now remaining at the same level.

REFERENCES


Health and Ageing: The Case for Long-Term Care

by Philippe Trainar

1. Introduction

Ageing is a structuring trend affecting the global economy. Sometimes seen as being limited to industrialized countries, it is in fact worldwide and, in absolute values, concerns the emerging much more than the industrialised countries. While it is a challenge, especially for public and social finances, it is also a huge opportunity: we, citizens of the world, have an increasing probability of benefiting from a longer lifespan and furthermore from a longer healthy lifespan. Of course, there are some uncertainties related to obesity and epidemic risks, such as HIV, but these uncertainties are much more an incentive to innovation than a trend swing. It is in this environment that long term care is emerging as a specific challenge for the ageing society, especially in industrialised economies where large social solidarities are vanishing and the nuclear family model is prevailing. But this challenge can be addressed, probably by medical progress and certainly by insurance schemes. In fact, the long term care risk is insurable and those who are proposing a new social security branch for long term care are completely wrong. There is no market failure in this field and the competing long term care schemes of French insurers and American insurers are demonstrating how dynamic, innovative and open the market is. After 25 years of intense market experience, we are now able to design more accurate products for the future.

2. Components of Ageing

Ageing is a complex and worldwide phenomenon. It makes its appearance with the industrial revolution but becomes really significant after World War II. Its complexity comes from the fact that it is made up of the combination of different trends.

For a long time, ageing concerned all ages excluding extreme old ages. It is only in the last thirty years that it also concerns extreme old ages. Convergence between countries has contributed substantially to ageing since World War II. More importantly, this trend was not confined to industrialised countries but it also extended to less developed countries. If a 65 years old and over population represents only 5.5% of the population of less developed countries, compared with 15% in the OECD population, it currently makes up 65% of the worldwide population of 65 and more (cf. Figure 1).
Of course, longevity gains contributed a great deal to welfare improvements around the world and, on average, poorer countries had a higher share of welfare gains due to longevity increases\(^1\). Moreover, if longevity gains are measured by lifespan income gains, the evidence shows that longevity changes since World War II worked towards reducing the disparity in welfare across countries (cf. graph below extracted from Bourguignon et alii)\(^2\). But one has to bear in mind that the poorest countries, mostly in Africa, remained largely untouched by this improvement.

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Where are we going from here? Optimism concerning longevity is (too) largely shared. Of course, continuation of current trends in the future leads to optimism. Probably, the most optimistic anticipations are those of the Economic Policy Committee of the European Union Commission\(^5\). One reason for this over-optimism is probably due to government fears concerning future public pension expenditures and their anxiety not to underestimate their financing constraints. More realistically, OECD anticipates a substantial slowing of the ageing trend in industrialized countries at the 2050 time horizon (cf. Table 1)\(^6\). But, one should bear in mind that new factors, such as obesity or modified social behaviours (cf. former soviet countries), may reverse the current trends towards higher longevity.

**Table 1: Comparing past with projected gains in life expectancy at birth**

<table>
<thead>
<tr>
<th></th>
<th>(A) average gains 1960-2000</th>
<th>(B) projected gains 2000-2050</th>
<th>Difference (B)-(A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU15 Average</td>
<td>2.0</td>
<td>1.2</td>
<td>-0.8</td>
</tr>
<tr>
<td>OECD Average</td>
<td>2.2</td>
<td>1.2</td>
<td>-0.9</td>
</tr>
<tr>
<td>Canada</td>
<td>2.0</td>
<td>0.9</td>
<td>-1.1</td>
</tr>
<tr>
<td>France</td>
<td>2.2</td>
<td>1.8</td>
<td>-0.4</td>
</tr>
<tr>
<td>Germany</td>
<td>2.0</td>
<td>1.2</td>
<td>-0.8</td>
</tr>
<tr>
<td>Italy</td>
<td>2.4</td>
<td>1.8</td>
<td>-0.6</td>
</tr>
<tr>
<td>Mexico</td>
<td>4.1</td>
<td>1.2</td>
<td>-2.9</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>1.8</td>
<td>1.6</td>
<td>-0.2</td>
</tr>
<tr>
<td>United States</td>
<td>1.7</td>
<td>1.4</td>
<td>-0.3</td>
</tr>
</tbody>
</table>


Expectations concerning less developed countries are much more dramatic. They point to a growth of the 65 years and over population more than twice as high in less developed countries, between 2005 and 2050, as that in developed countries. As a consequence, in 2050, the 65 years and over population will represent 15% of the overall population in the less developed countries, compared to 26% in the OECD countries, and 80% of the 65 years and over worldwide population (cf. Figure 3)\(^7\). Such a growth will induce a worldwide explosion of the ageing phenomenon. But, one should bear in mind that, in less developed countries also, new factors, such as HIV or modified social behaviours, may reverse the current trends.

**Figure 3**

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3. Health and Ageing

The health situation is deteriorating with age for two main reasons. First, because it is a fact of life: older persons are less healthy than younger ones. Second, because of a cohort effect: older people have accepted more risky behaviours and have benefited from less care when they were young and, as a consequence, they have accumulated more health disequilibrium during their lifetime than will current young people. This is an objective situation. Moreover, healthier behaviours, such as reduction in smoking and control of blood pressure, have significantly contributed to increased life expectancy as pointed out by empirical studies (cf. Table 2 which illustrates the situation in United States)\(^8\).

\[\text{Table 2}\]

<table>
<thead>
<tr>
<th>Behavioural factors</th>
<th>Evolution in USA over 30 years</th>
<th>Increase in life expectancy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>-</td>
<td>+ 0.2 year</td>
</tr>
<tr>
<td>Smoking</td>
<td>-40%</td>
<td>+ 0.8 year</td>
</tr>
<tr>
<td>Drinking</td>
<td>-40%</td>
<td>+ 0.1 year</td>
</tr>
<tr>
<td>Blood pressure</td>
<td>-66%</td>
<td>+ 0.6 year</td>
</tr>
<tr>
<td>Cholesterol</td>
<td>-33%</td>
<td>+ 0.2 year</td>
</tr>
<tr>
<td>Obesity</td>
<td>+40%</td>
<td>- 0.3 year</td>
</tr>
<tr>
<td>TOTAL</td>
<td>-</td>
<td>+ 1.4 year</td>
</tr>
</tbody>
</table>

At the same time, being healthy ensues not only from objective data but also from subjective feelings: I am in good shape when I feel in good shape and recent empirical studies have underlined the fact that deteriorated subjective feeling may induce, at the end of the day, not only increased health expenditures but also a deterioration of the objective health situation. Interactions between objective health and subjective feelings are complex and difficult to untangle at the empirical level. Apart from the greater difficulties among younger cohorts with physical tasks and pain, many factors, all of which involve, at some point in time, specific individual behaviours, are currently contributing to this deterioration:

- early retirement whose effects are less known but are significant: empirical results indicate that complete retirement leads to a 23-29% increase in difficulties associated with mobility and daily activities, an eight percent increase in illness conditions and an 11% decline in mental health\(^9\);
- the rise of psychological illness, such as depression, which is better known and identified even if its effects on the health of older people are less well known;
- the HIV epidemic in less developed countries, especially in Africa;
- the growing rates of obesity, which is not confined to the less educated or the poor but occurs across all demographic and economic groups\(^10\) and which can significantly alter current longevity trends (cf. table below which illustrates the situation in the United States)\(^11\).

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Table 3

<table>
<thead>
<tr>
<th>Behavioural factors</th>
<th>Increase in life expectancy (overall population)</th>
<th>Increase in life expectancy (population over 55 years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>± 0,0 year</td>
<td>+ 0,5 year</td>
</tr>
<tr>
<td>Smoking</td>
<td>+ 0,7 year</td>
<td>+ 1,0 year</td>
</tr>
<tr>
<td>Drinking</td>
<td>- 0,1 year</td>
<td>- 0,2 year</td>
</tr>
<tr>
<td>Obesity</td>
<td>- 1,1 year</td>
<td>- 1,3 year</td>
</tr>
<tr>
<td>Better medication</td>
<td>± 0,0 year</td>
<td>- 0,1 year</td>
</tr>
<tr>
<td>TOTAL</td>
<td>- 0,4 year</td>
<td>± 0,0 year</td>
</tr>
</tbody>
</table>

4. Long-Term Care and Ageing

Ageing has a special relationship with poor health. But poor health in old people is itself related to loss of autonomy. Of course, loss of autonomy has two main characteristics:

- it is linked to old age as illustrated by the OECD graph below which presents the prevalence of dependency by age group for four great European countries:

![Graph showing prevalence of dependency by age group for four great European countries](image)

- it is triggered by standard diseases or accidents as pointed out by the SCOR-INSERM table below and its trend is largely dependent on the nature and the speed of current and future medical progress:
Most of the time, because of this relationship, one is tempted to mix up the concept of loss of autonomy with the concept of poor health in older people. In fact, loss of autonomy has to be clearly distinguished from illness, disability and handicap, although these four concepts are not totally independent of each other:

- illness denotes an objective, temporary situation of ill health (i.e. fever etc.) and a need for therapeutic care (i.e. medication, surgical intervention etc.);
- disability denotes a reduced capacity for normal activity following an accident or an illness, and does not necessarily imply the need for assistance;
- handicap denotes a physical or psychological limitation in the accomplishment of normal activity and may be associated with a need for assistance;
- long-term care denotes an inability to perform some of the most basic everyday activities due to old age and the need for assistance in order to carry out such activities.

Loss of autonomy as an inability to perform basic everyday activities is difficult to assess. In order to limit the weight of subjectivity when making such an assessment, objective criteria have been defined. Three main criteria grids are currently used (cf. Table 3). Two of them are based on the Katz list of the main basic everyday activities, the loss of autonomy being then defined as the inability to perform two, three or four of these basic every day activities. So, French insurers define the loss of autonomy as the inability to carry out without the help of a third person two of the four activities of the daily life they have along the Katz scale while American insurers define it as the inability to carry out without the help of third person four of the six activities they have. French public authorities take a different approach where loss of autonomy is defined by one of five specific situations where these different situations are scaled in relation to the level of the loss of autonomy and where the inability to carry out activities of daily life corresponds to the two first levels of the loss of autonomy (occasional help for bathing and home care is not considered as a loss of autonomy situation).

### Table 3

<table>
<thead>
<tr>
<th>Katz Scale (used throughout the world)</th>
<th>Activities of Daily Life (used by French insurers)</th>
<th>Activities of Daily Life (used by American insurers)</th>
<th>The AGGIR Scale, the French national system on which the personal LTC allowance is based (used by public authorities and certain French insurers)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bathing</td>
<td>Bathing</td>
<td>Bedridden or confined to an armchair + mental faculties severely impaired</td>
<td></td>
</tr>
<tr>
<td>Dressing</td>
<td>Dressing</td>
<td>Confined or impaired mental faculties</td>
<td></td>
</tr>
<tr>
<td>Transferring</td>
<td>Transferring</td>
<td>Help several times a day for ADLs</td>
<td></td>
</tr>
<tr>
<td>Eating</td>
<td>Toilet Use</td>
<td>Loss of autonomy for more than one ADL</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Eating</td>
<td>Occasional help for bathing and home care</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Continence</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Finally, long term care combines individual, social and public patterns. More precisely it is the result of four random factors: lifespan, lifespan without losing one’s autonomy, lifespan when one’s autonomy has been lost, presence of close support (spouse survival, child and neighbours). The second and the fourth factors are, to some extent, not fully objective random variables. As we have seen, the margin of subjectivity concerning the second factor has been limited thanks to the definition of criteria grids. The fourth factor is much more difficult to control because it relies more on the good will of interested parties and their good relationships.

5. Nature of Long-Term Care Risk

The insurability of a risk depends on the nature of the risk, especially on the insurer’s ability to correctly price this risk. From this point of view, long-term care carries three major risks.

Firstly, it involves the risk of escalating costs. According to some experts, an extension of lifespan goes hand in hand with an extension of the amount of life spent with a disability, i.e. in a situation of total or partial loss of autonomy. Long-term care is an emerging risk whose total cost will increase more rapidly than national wealth. However, empirical studies do not currently confirm this risk:

- work based on a comparison of several French statistical sources by the INED and INSERM research institutes nonetheless shows that this fear has not been realised, and that we are not actually experiencing a pandemic of disability, particularly severe disability; in actual fact, over the past 20/25 years we see that life expectancy without loss of autonomy has continued to rise; this is more distinct for life expectancy without severe loss of autonomy than for life expectancy without loss of ongoing functional autonomy, more distinct for men than for women and more distinct for the less elderly than for the very elderly;
- moreover, prolonging current trends, forecasts concerning nursing of dependent persons point to a potential source of reduced demand because of the larger increase in longevity of men compared to women, which will diminish the number of women standing alone and increase the number of dependent women benefiting from the support of their spouse;
- the same behaviours are observed at international level: there are as many countries where the number of old disabled people grows more quickly (cf. Belgium, Japan, Sweden) as countries where it grows less quickly (cf. Italy, France, USA).

The second major risk of long term care is the risk of adverse selection. In fact, the risk is real that the only people taking out long-term care insurance policies are people who know that they have a high risk of losing their autonomy. This risk of adverse selection is not abstract. It has been observed that people buying long-term care insurance contracts have a higher probability of becoming disabled than those who do not buy such contracts, and people who discontinue their contracts have a much lower probability of becoming disabled than those who do not.

The third major risk of long term care is that of moral hazard. The perception of long-term care as a risk is a very recent phenomenon. It has less to do with the increasing wealth of society than with the rural exodus and the desire for autonomy of both parents and children, with the result that elderly parents are less and less likely to live under the same roof as their children. This development is certainly nearing its end, but it highlights the point to which the idea of loss of autonomy is determined by the social and individual perception that we have of such loss. There is no reason why this perception should stabilise over the next few years. It is even less likely to settle down given that the criteria for loss of autonomy are relatively vague and susceptible to widely varying interpretations depending on the social climate — in future we may consider that having trouble taking a bath constitutes a loss of autonomy in bathing etc. The major escalation in handicap allowances, which are still seeing double-digit growth in developed countries, independently of the actual state of health of the populations involved, is a good illustration of what could happen in the future with long-term care. If this risk has not yet tended to materialise for long-term care, it is because the stakes until now have been low. Once long-term care becomes a challenge for society and has its own dedicated rights and laws etc., the risk of ex post escalation of the content of long-term care insurance contracts signed years before, especially through court decisions, will clearly become a reality. This will happen on three levels:

- the point at which one is considered to have lost autonomy,
- how severe the loss of autonomy is considered to be,
- the level of assistance considered to be normal in relation to a certain degree of loss of autonomy.

In cases where the condition involved is not physiological (e.g. severe rheumatism, physical handicap etc.), the development of neuropsychiatric criteria may eventually reduce the extent of this moral hazard, because they would better anchor the ability to carry out activities of daily life to objective pathological data.

6. Insurance Products Tailored to this Risk

Economic theory teaches us that, in order to reduce the risk of anti-selection where information is not complete, the principal, which in this case is the insurer, should either:

- obtain private information regarding the agent, in this case the policyholder, in order to be able to distinguish between policyholders and vary prices accordingly,
- encourage the agent to come forward himself with a credible indication of his quality as a policyholder, on the basis of which it will be possible to distinguish a price,
- put a quantitative ceiling on individual risks in order to contain the overall amount of risk and to use a single price that does not dissuade good risks too much,
- offer non selective contracts only to insurees who accept contracting when the risk of losing autonomy is still random (for example before retirement),
- adopt a law making long term care insurance compulsory.

As current experiences around the world have shown, all five techniques are used around the world, sometimes at the same time in the same country. Medical questionnaires to identify substandard risks, to which an extra premium is applied depending on the long-term prognosis of the condition, are current practices. Fixed age limits for purchasing policies are often included, generally set at 75 in France for example. Waiting periods are also imposed, lasting one year in the case of loss of autonomy following an illness and three years in the case of neurodegenerative disease in France for example. Furthermore, insurers are putting ceilings on their individual commitment. Finally, compulsory policies are being attentively
considered, especially in Europe: Germany has adopted a public compulsory scheme and France is discussing a compulsory scheme.

As for the risk of moral hazard, this probably constitutes the greatest challenge for long-term care insurance. The classic solutions recommended by economic theory, namely the sharing of the risk with the agent, control checks, comparative competition, underwriting renewable contracts and merging with the agent, are either not efficient enough (cf. control checks) or prove difficult or even impossible in practice (cf. renewable contracts or merging with the agent) for long-term care. The most recent economic theory developed by Laffont-Tirole\(^\text{18}\) nevertheless shows that in such a case it is optimal for the principal, i.e. the insurer, if he does not want to be the residual claimant, to use “fixed-price” contracts that attribute a fixed sum to the agent, leaving him to spend it on the necessary care at his own discretion. This contrasts with “cost-plus” type contracts, which reimburse all of the costs exhibited by the agent and which are in fact suboptimal because of the incentive they provide for moral hazard.

The two types of contracts, ‘fixed price’ versus ‘cost plus’ contracts are well illustrated respectively by the French and the American models whose characteristics are set out in the table below. It seems that the dynamism and the profitability of the French model confirm the superiority of the ‘fixed price’ contracts.

### Table 4

<table>
<thead>
<tr>
<th>Product characteristics</th>
<th>French products</th>
<th>US products</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loss of autonomy</td>
<td>Of the 4 activities of daily life, 2 are lost</td>
<td>Of the 6 activities of daily life, 2 are lost</td>
</tr>
<tr>
<td>Product rationale</td>
<td>Disability + simplicity</td>
<td>Health + openness</td>
</tr>
<tr>
<td>Product characteristic</td>
<td>Pre-defined annuities or lump sums proportional to saving and loss of autonomy + Capital for home equipment if needed</td>
<td>Reimbursement of all care costs</td>
</tr>
<tr>
<td>Product limit</td>
<td>Level of annuities or lump sums</td>
<td>Ceiling on daily reimbursement</td>
</tr>
<tr>
<td>Clients choices</td>
<td>Few options : level of annuities or lump sums</td>
<td>Many options : list of reimbursed cares + level of daily ceiling</td>
</tr>
<tr>
<td>Taxation</td>
<td>No tax advantage</td>
<td>Tax qualified products</td>
</tr>
<tr>
<td>Experience</td>
<td>20 years / ~3 mio clients</td>
<td>25 years / ~6 mio clients</td>
</tr>
<tr>
<td>Performance</td>
<td>Rapid growth + profitability</td>
<td>Decline + losses</td>
</tr>
</tbody>
</table>

Of course, the respective performances of the French and the American models are related not only to type of contract (‘fixed price’ or ‘cost plus’) but also to the design of the contracts (‘simple’ or ‘open’). In this respect one may argue that the successful experience of the French market is to be related to the simplicity of the supplied products. Intellectually, the openness of American contracts, with their multiple options, seems more attractive because of their being better able to adapt to individual needs of insurees. But, commercially, the simplicity of the French contracts, with their limited options but their payments proportional to premiums and loss of autonomy, cover the risks the risks better while making the choice of insurees easier. The aim of these products is to be simple and clearly comprehensible to all potential policyholders while the multiple contract options providing for reimbursement of assistance costs are difficult to understand, because they are difficult to imagine for clients.

who are, by definition, in good health and totally autonomous when they are making their choice. In fact, as the German experience has shown the large majority of policyholders prefer a fixed-sum payment to a cost reimbursement, even if the fixed-sum payment is twice as low as the reimbursement limit for assistance costs.

Long-term care insurance is a potentially expanding market, even if expansion does not always occur universally. It is important that governments do not pre-empt this market, by offering public guarantees for the future, and that sufficient room for manoeuvre is left to insurance companies to allow them to be innovative and to design products tailored to this very specific demand.

REFERENCES


Cutler et alii (2007).
The ageing process, in Italy, is a fairly recent phenomenon. Indeed in the last century, life expectancy tripled and fertility plummeted. These phenomena caused a radical change within the age structure of the Italian population, with a real overturning of the age pyramid, whereas in the past the pyramid was characterised by a wide bottom and a narrow top, nowadays the same pyramid appears to have a narrow bottom and a wide top.

The current scenario is therefore characterised by a decreasing share of younger age groups in the overall population, and an increasing share of older age groups.

The current age structure evolution is an inevitable outcome of an effective birth and death control which determined a significant increase in the elderly population, throughout these past decades. This results in Italy being, by far, one of the oldest world countries.

It is self evident that population ageing poses major challenges to society, and, these challenges can only intensify in the coming years.

Accommodating policies to face up to the multiple impacts of population ageing are urgently needed and should be multidimensional: labour market, social and health care, housing, education, social protection and pension schemes.

Currently, in the Italian statistical system, a person is considered ‘aged’ if he or she is over 65. This definition is based on economic criteria, if we consider that 65 years old is the apparent ‘threshold’ for entry into the retirement system. All the demographic ratios, referred to ageing are built up taking this threshold into account.

The debate on the population ageing process is very relevant, because it involves several aspects related to people’s lives, in terms of both economic and social life, which deserves particular attention. With regard to the economic factors, this involves consequences on saving, consumption, investments, as well as on the present debate on the tax system and pension plans. With regard to the social factors, health assistance, family composition and life conditions are at stake.

The traditional political answer to the current demographic changes of the aged population mainly concern the pension and the health systems. However, the path of the new policy on ageing, seems more oriented toward a merging with family and housing policy.

This phenomena is international and, most of all, is ‘irreversible’ as declared by the United Nations (2002). Because of this alleged characteristic, it becomes compulsory to consider another relevant aspect about ageing: the consciousness of the process (Cagiano de Azevedo, 2003).

The radical fertility reduction together with the mean age extension, are the result of diverse rational individual choices, which reflect a more important social and cultural
revolution, characterising the western countries.

In this demographic scenario, Italy, because it has one of the lowest fertility rates in the world and one of the fastest increases of survival to the oldest age, gains an ‘eccentric’ position compared to the European average (Istat, 2002).

As a matter of fact, Italian fertility has always been characterized by the lowest level compared to the other European countries, both during the highest growth from the postwar period to the mid sixties, well known as ‘baby boom’, and the decline period which lasted thirty years, and which led to the historical minimum in 1995 and in recent years when it has been marked by a rather weak fertility increase.

With regards to length of life, demographic indicators clearly show that Italy has one of the highest life expectancy rates among European countries for both genders. These two phenomena have greatly modified the Italian age structure. For a better understanding of such phenomena, the following pyramid age comparing the population in 1951 and in 2006 has been produced.

*Figure 1: Age pyramid of resident population, Italy, 1951 and 2006*

![Age pyramid of resident population, Italy, 1951 and 2006](image)

Source: Census data (1951, de jure population) and Resident population by age, sex and marital status on 1st January 2006.

The pyramid base is smaller as regard the 1951’s one; if in 1951 the population between ‘0’ and ‘4’ years old was respectively 9.5% and 8.7%, for males and females, to the overall population by sex, in 2006 these percentages result halved, respectively 4.9% and 4.4%.

While in 1951, the so-called ‘elderly’ (65 years and over) population amounted to 8.2% of the total population, in 2006, 8.2% of the total population was represented by the over 76s. The median age, i.e the age that divides the population into two equal halves, may be used as an indicator of population ageing. Currently (2006) the median age is 42 in Italy compared to the 1951 level of 29; this means that, in the pyramid, 13 generations result ‘made young again’ between 29 and 42 years of age, passing from the older population to the younger population during the 55 years spent; and, considering that in 2020, the median age will reach the 47 years old mark, in the next 15 years 5 generations more will be made young again.
Table 1: Summary indicators of ageing\(^1\) in Italy, 1951, 2001, 2006 and 2020

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>% 0-14</td>
<td>27.3</td>
<td>25.1</td>
<td>26.1</td>
<td>15.1</td>
<td>13.4</td>
<td>14.2</td>
<td>14.9</td>
<td>13.3</td>
<td>14.1</td>
<td>13.9</td>
<td>12.4</td>
<td>13.2</td>
</tr>
<tr>
<td>% 15-64</td>
<td>65.2</td>
<td>66.1</td>
<td>65.7</td>
<td>69.0</td>
<td>65.3</td>
<td>67.1</td>
<td>68.2</td>
<td>64.3</td>
<td>66.2</td>
<td>65.8</td>
<td>61.7</td>
<td>63.7</td>
</tr>
<tr>
<td>% pop. 65+</td>
<td>7.6</td>
<td>8.8</td>
<td>8.2</td>
<td>15.9</td>
<td>21.3</td>
<td>18.7</td>
<td>16.9</td>
<td>22.4</td>
<td>19.7</td>
<td>20.3</td>
<td>25.9</td>
<td>23.2</td>
</tr>
<tr>
<td>Mean age</td>
<td>31.2</td>
<td>32.8</td>
<td>32.0</td>
<td>40.0</td>
<td>43.2</td>
<td>41.6</td>
<td>41.0</td>
<td>44.1</td>
<td>42.6</td>
<td>44.1</td>
<td>47.2</td>
<td>45.7</td>
</tr>
<tr>
<td>Ageing ratio</td>
<td>27.7</td>
<td>35.1</td>
<td>31.4</td>
<td>105.4</td>
<td>158.8</td>
<td>131.4</td>
<td>113.3</td>
<td>168.1</td>
<td>139.9</td>
<td>145.8</td>
<td>208.0</td>
<td>176.0</td>
</tr>
<tr>
<td>Dependency ratio</td>
<td>53.4</td>
<td>51.2</td>
<td>52.3</td>
<td>44.9</td>
<td>53.1</td>
<td>49.0</td>
<td>46.7</td>
<td>55.6</td>
<td>51.1</td>
<td>52.0</td>
<td>62.2</td>
<td>57.0</td>
</tr>
<tr>
<td>Dependency ratio (only grey pressure)</td>
<td>11.6</td>
<td>13.3</td>
<td>12.5</td>
<td>23.0</td>
<td>32.2</td>
<td>27.8</td>
<td>24.8</td>
<td>34.8</td>
<td>29.8</td>
<td>30.8</td>
<td>42.0</td>
<td>36.4</td>
</tr>
<tr>
<td>% 80+</td>
<td>0.9</td>
<td>1.2</td>
<td>1.1</td>
<td>3.0</td>
<td>5.6</td>
<td>4.3</td>
<td>3.5</td>
<td>6.6</td>
<td>5.1</td>
<td>5.6</td>
<td>9.4</td>
<td>7.5</td>
</tr>
</tbody>
</table>
If we compare these indicators with the forecasted ones for 2020, the imbalances caused by ageing will be more and more evident, in terms of social, economic and organizational structure; without changes in the threshold definition, the ageing ratio will grow until 176%.

It has to be pointed out that life conditions of today’s elderly are significantly different from those of the 50’s, which means that calling ‘old population’ those people who reach a threshold based on anagraphic age might be inadequate; ‘it is to be stressed that what is really going to ‘make old’, is the ageing concept’ (Giarini, 2001). In fact, the new ‘old population’, reflects a heterogeneous universe of people and the characteristics related to ageing are ever less associated to over 65 people.

This means that nowadays, the old population is younger, not only because they live longer than in the past, but, also and especially because their life conditions have progressively and significantly improved.

The recent term used to mean this ‘rejuvenation’ is counter ageing; this definition means that our demographic structure is going to become younger, because we live better and longer and because our capabilities are developing. According to other opinions, it indicates that the increase of immigrants in the younger demographic ages makes a contribution to the counter ageing of autochthonous populations.

If we consider the fixed threshold of 65 years old between 1951 and 2020, it becomes evident how the situation has changed during 55 years: the number of the aged population has drastically increased both in absolute (+198%) and relative terms (+140%). Life expectancy has also increased by approx 5 years for males and approx 8 years for females; moreover, it is believed that this increase in the numbers is going to rise respectively by 1,1 and 1,5 years during the next 15 years.

In other words, if it is true that the Italian population is hardly aged, in a demographic interpretation, it also true that it is going to be rejuvenated, because, for each year reached one person can live more years and in improved conditions.

Table 2: Population ageing in Italy, 1951-2001 (Census data), 2006 and 2020

<table>
<thead>
<tr>
<th>Years</th>
<th>Elderly (65 plus)</th>
<th>Elderly threshold</th>
<th>Elderly (65 plus)%</th>
<th>Life expectancy at age 65 MALES</th>
<th>Life expectancy at age 65 FEMALES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1951</td>
<td>3.895.184</td>
<td>65</td>
<td>8,2%</td>
<td>12,6</td>
<td>13,7</td>
</tr>
<tr>
<td>1961</td>
<td>4.827.416</td>
<td>65</td>
<td>9,5%</td>
<td>13,4</td>
<td>15,3</td>
</tr>
<tr>
<td>1971</td>
<td>6.102.720</td>
<td>65</td>
<td>11,3%</td>
<td>13,3</td>
<td>16,5</td>
</tr>
<tr>
<td>1981</td>
<td>7.485.126</td>
<td>65</td>
<td>13,2%</td>
<td>13,6</td>
<td>17,3</td>
</tr>
<tr>
<td>1991</td>
<td>8.700.185</td>
<td>65</td>
<td>15,3%</td>
<td>14,8</td>
<td>18,7</td>
</tr>
<tr>
<td>2001</td>
<td>10.645.874</td>
<td>65</td>
<td>18,7%</td>
<td>16,5</td>
<td>20,5</td>
</tr>
<tr>
<td>2006</td>
<td>11.592.335</td>
<td>65</td>
<td>19,7%</td>
<td>17,7</td>
<td>21,5</td>
</tr>
<tr>
<td>2020</td>
<td>13.676.265</td>
<td>65</td>
<td>23,1%</td>
<td>18,8</td>
<td>22,9</td>
</tr>
</tbody>
</table>

If the threshold remained the same in the next 15 years, the number of old population would reach 13,676,265, which means that almost one Italian out of four would be considered ‘old’. As confirmed by the national population projection by age and sex, ageing is a growing trend destined to last across the coming years.

An interesting way to get over the ageing definition based on an anagraphic age criteria is to assume the ‘dynamic’ thresholds that succeed in shaping the real population needs, thus trying to control the impact of ageing on the Italian socio-economic system.

So, to avoid using the same criteria to compare really different groups of population over the years, because they are subjected to completely different conditions, an interesting hypothesis could be to consider ‘old’, a person with a determined time horizon in terms of life expectancy.

In this first scenario, we consider the constancy of life expectancy at 65 years old in 1951, for males and females respectively.

Table 3: Population ageing in Italy, 1951-2001 (Census data), 2006 and 2020

<table>
<thead>
<tr>
<th>Years</th>
<th>Elderly (elderly threshold and over)</th>
<th>Elderly threshold</th>
<th>Elderly (elderly threshold and over)</th>
<th>Life expectancy at age 65 (1951) MALES</th>
<th>Life expectancy at age 65 (1951) FEMALES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1951</td>
<td>3.895,184 (M) 65 (M) 68 (F) 7.6 (M) 8.8(F)</td>
<td>7.6 (M) 9.1(F) 8.7 (M) 10.0(F)</td>
<td>9.5 (M) 10.2(F) 8.8 (M) 11.4 (F) 9.7 (M) 13.2(F)</td>
<td>7.6 (M) 13.7</td>
<td>7.5 (M) 13.7</td>
</tr>
<tr>
<td>1961</td>
<td>4.231,016 (M) 66 (M) 68 (F) 7.5 (M) 9.1(F)</td>
<td>7.5 (M) 9.1(F) 8.7 (M) 10.0(F)</td>
<td>9.5 (M) 10.2(F) 8.8 (M) 11.4 (F) 9.7 (M) 13.2(F)</td>
<td>7.5 (M) 13.7</td>
<td>7.5 (M) 13.7</td>
</tr>
<tr>
<td>1971</td>
<td>5.074,001 (M) 66 (M) 68 (F) 7.5 (M) 9.1(F)</td>
<td>7.5 (M) 9.1(F) 8.7 (M) 10.0(F)</td>
<td>9.5 (M) 10.2(F) 8.8 (M) 11.4 (F) 9.7 (M) 13.2(F)</td>
<td>7.5 (M) 13.7</td>
<td>7.5 (M) 13.7</td>
</tr>
<tr>
<td>1981</td>
<td>5.594,682 (M) 67 (M) 70 (F) 9.5 (M) 10.2(F)</td>
<td>9.5 (M) 10.2(F) 8.8 (M) 11.4 (F) 9.7 (M) 13.2(F)</td>
<td>9.5 (M) 10.2(F) 8.8 (M) 11.4 (F) 9.7 (M) 13.2(F)</td>
<td>9.5 (M) 13.7</td>
<td>9.5 (M) 13.7</td>
</tr>
<tr>
<td>1991</td>
<td>5.331,565 (M) 69 (M) 72 (F) 8.8 (M) 9.8(F)</td>
<td>8.8 (M) 9.8(F) 9.6 (M) 11.4 (F) 9.6 (M) 13.2(F)</td>
<td>8.8 (M) 9.8(F) 9.6 (M) 11.4 (F) 9.6 (M) 13.2(F)</td>
<td>8.8 (M) 13.7</td>
<td>8.8 (M) 13.7</td>
</tr>
<tr>
<td>2001</td>
<td>6.322,309 (M) 71 (M) 73 (F) 9.7 (M) 12.4(F)</td>
<td>9.7 (M) 12.4(F) 9.6 (M) 11.4 (F) 9.6 (M) 13.2(F)</td>
<td>9.7 (M) 12.4(F) 9.6 (M) 11.4 (F) 9.6 (M) 13.2(F)</td>
<td>9.7 (M) 13.7</td>
<td>9.7 (M) 13.7</td>
</tr>
<tr>
<td>2006</td>
<td>6.163,422 (M) 72 (M) 75 (F) 9.6 (M) 11.4 (F) 9.6 (M) 13.2(F)</td>
<td>9.6 (M) 11.4 (F) 9.6 (M) 13.2(F)</td>
<td>9.6 (M) 11.4 (F) 9.6 (M) 13.2(F)</td>
<td>9.6 (M) 13.7</td>
<td>9.6 (M) 13.7</td>
</tr>
<tr>
<td>2020</td>
<td>6.945,812 (M) 74 (M) 76 (F) 10.2 (M) 13.2 (F) 10.2 (M) 13.2 (F)</td>
<td>10.2 (M) 13.2 (F)</td>
<td>10.2 (M) 13.2 (F)</td>
<td>10.2 (M) 13.7</td>
<td>10.2 (M) 13.7</td>
</tr>
</tbody>
</table>

Source: Istat, Census data (1951-2001, de jure population), Resident population by age, sex and marital status on 1st January 2006 and National population projection by age and sex (2020)

According to this assumption, the number of old people decreases, in line with the increase of the ageing threshold, which accords with males who have to live another 12.6 years, and with females who have to live another another 13.7 years; in fact, with this hypothesis, the ageing threshold grows 7 years and 10 years.

In this way, in 2006, we can now consider ‘aged’ a male over 72, and a female over 75.

Also, the share or of the older population would be 47% lower than the one relating to the over 65 threshold of the same year (2006), which does not consider gender diversity. This difference is supposed to have an important impact on the social and economic system.

Another hypothetical scenario could be built up by considering a fixed proportion of ‘old population’ out of the overall population, for instance, the one at the beginning of the observation (1951).
II SCENARIO  - the elderly to the overall population = 8,2%

<table>
<thead>
<tr>
<th>Years</th>
<th>Elderly (elderly threshold and over)</th>
<th>Elderly threshold</th>
<th>Elderly (65 plus)% (1951)</th>
<th>Life expectancy at certain ages MALES</th>
<th>Life expectancy at certain ages FEMALES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1951</td>
<td>3.895.184</td>
<td>65</td>
<td>8,2</td>
<td>12,6</td>
<td>13,7</td>
</tr>
<tr>
<td>1961</td>
<td>4.151.133</td>
<td>66</td>
<td>8,2</td>
<td>12,8</td>
<td>14,6</td>
</tr>
<tr>
<td>1971</td>
<td>4.439.353</td>
<td>68</td>
<td>8,2</td>
<td>11,4</td>
<td>13,9</td>
</tr>
<tr>
<td>1981</td>
<td>4.637.667</td>
<td>70</td>
<td>8,2</td>
<td>10,5</td>
<td>13,4</td>
</tr>
<tr>
<td>1991</td>
<td>4.655.799</td>
<td>72</td>
<td>8,2</td>
<td>10,8</td>
<td>13,4</td>
</tr>
<tr>
<td>2001</td>
<td>4.673.651</td>
<td>75</td>
<td>8,2</td>
<td>9,9</td>
<td>12,5</td>
</tr>
<tr>
<td>2006</td>
<td>4.877.062</td>
<td>76</td>
<td>8,2</td>
<td>10,2</td>
<td>12,6</td>
</tr>
<tr>
<td>2020</td>
<td>4.967.280</td>
<td>79</td>
<td>8,2</td>
<td>9,4</td>
<td>11,5</td>
</tr>
</tbody>
</table>


Maintaining fixed the 8,2% of the old population during the period under consideration, the ageing threshold demonstrates a considerable increase thus reaching the age of 72 in 2006, and destined to reach the age of 79 in 2020.

In this scenario, life expectancy at the new ageing threshold decreases by approximately 2 years for males and 1 year for females.

If, on the other hand we consider a fixed number of the ‘old population’, that is 3.895.184 over 65 in 1951, the Italian population would be rejuvenated, because the share of the elderly relative to the overall population would decrease from 8,2%, in 1951, to 6,6% and to 6,7% in 2020; but, with comparison to scenario II, the time horizon would be shorter.

III SCENARIO  - the elderly (65 and over) = 3.895.184

<table>
<thead>
<tr>
<th>Years</th>
<th>Elderly (65 and over) (1951)</th>
<th>Elderly threshold</th>
<th>Elderly (elderly threshold and over)%</th>
<th>Life expectancy at certain ages MALES</th>
<th>Life expectancy at certain ages FEMALES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1951</td>
<td>3.895.184</td>
<td>65</td>
<td>8,2</td>
<td>12,6</td>
<td>13,7</td>
</tr>
<tr>
<td>1961</td>
<td>3.895.184</td>
<td>68</td>
<td>7,7</td>
<td>11,2</td>
<td>13</td>
</tr>
<tr>
<td>1971</td>
<td>3.895.184</td>
<td>70</td>
<td>7,2</td>
<td>10,3</td>
<td>12,4</td>
</tr>
<tr>
<td>1981</td>
<td>3.895.184</td>
<td>72</td>
<td>6,9</td>
<td>9,4</td>
<td>12,0</td>
</tr>
<tr>
<td>1991</td>
<td>3.895.184</td>
<td>75</td>
<td>6,9</td>
<td>9,0</td>
<td>11,3</td>
</tr>
<tr>
<td>2001</td>
<td>3.895.184</td>
<td>77</td>
<td>6,8</td>
<td>8,8</td>
<td>11,1</td>
</tr>
<tr>
<td>2006</td>
<td>3.895.184</td>
<td>78</td>
<td>6,6</td>
<td>9,1</td>
<td>11,2</td>
</tr>
<tr>
<td>2020</td>
<td>3.895.184</td>
<td>81</td>
<td>6,7</td>
<td>8,3</td>
<td>10,2</td>
</tr>
</tbody>
</table>

This scenario shows that, as a result of population growth, the ageing threshold would reach the age of 78 in 2006; this threshold recalls Giarini’s theory (Giarini, 2001) that takes into consideration a working age population from 18 to 77 years instead of the traditional gap 15-64: “we must reconsider, above all, our cultural values, understanding that today the elderly are young: and that, since the value of human beings is linked to their productive activity and to their active efforts, the greatest political and social challenge of the coming years will be this: to involve ever more fully all those between the ages of 18 and 78 in the undertaking to create and maintain the wealth of nations”. Giarini continues “At age 60 elderly workers could begin a period of gradual retirement while continuing to actively contribute, giving the young the benefit of their experience, and thanks to a process of continuous education, preparing themselves for new activities either paid or unpaid”.

Table 6: Summary indicators of ageing in Italy\(^2\), 1951, 2001, 2006 and 2020

<table>
<thead>
<tr>
<th>Indicators of ageing</th>
<th>2001</th>
<th>2006</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>% 0-17 % M F TOT</td>
<td>% 0-17 M F TOT</td>
<td>% 0-17 M F TOT</td>
<td>% 0-17 M F TOT</td>
</tr>
<tr>
<td>% 18-77 % M F TOT</td>
<td>% 18-77 M F TOT</td>
<td>% 18-77 M F TOT</td>
<td>% 18-77 M F TOT</td>
</tr>
<tr>
<td>% pop. 78+ % M F TOT</td>
<td>% pop. 78+ M F TOT</td>
<td>% pop. 78+ M F TOT</td>
<td>% pop. 78+ M F TOT</td>
</tr>
<tr>
<td>Ageing ratio</td>
<td>77.5 76.3 77.0</td>
<td>77.2 75.4 76.3</td>
<td>75.9 73.5 74.6</td>
</tr>
<tr>
<td>Dependency ratio</td>
<td>4.2  7.4  5.8</td>
<td>4.7  8.4  6.6</td>
<td>7.1 11.3  9.2</td>
</tr>
<tr>
<td>Dependency ratio (only grey pressure)</td>
<td>22.7 45.7 33.9</td>
<td>26.2 52.2 38.8</td>
<td>41.7 74.1 57.4</td>
</tr>
<tr>
<td>% 0-17 % M F TOT</td>
<td>% 0-17 M F TOT</td>
<td>% 0-17 M F TOT</td>
<td>% 0-17 M F TOT</td>
</tr>
<tr>
<td>% 18-77 % M F TOT</td>
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<td>% pop. 78+ % M F TOT</td>
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<tr>
<td>Ageing ratio</td>
<td>28.9 31.1 30.0</td>
<td>29.6 32.6 31.1</td>
<td>31.8 36.1 34.0</td>
</tr>
<tr>
<td>Dependency ratio</td>
<td>5.4  9.7  7.6</td>
<td>6.1 11.2  8.7</td>
<td>9.4 15.4 12.4</td>
</tr>
</tbody>
</table>


Comparing Table 6 with Table 1, the demographic indicators on ageing would be more bounded given the re-inclusion of the population over 65 which is currently excluded from the industrial system in productive activity.

Thus, the young generation contribution would appear less pressing and this would help to reduce sustainability problems created by the consequences of ageing on the economic and social system, hence producing a new balance between young and old people. This hypothesis is characterised by a limited number of old people which comes to approx. one third compared to the over 65s.

However, because of the demographic growth, the population over the ageing threshold is destined to increase even if at a more limited rhythm compared to that over the traditional threshold.

Another hypothetical scenario called ‘the recovery of adult people (IV scenario)’, provides a progressive exit from labour market in particular age classes, using part-time in order to improve the economic balance and welfare state through a yearly increase in the standard contribution.

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\(^2\) These summary indicators of ageing are built up as written below:

*Ageing ratio*: the ratio of the elderly (the grey pressure, those 78 years and over) to the young population (under 15 years of age).

*Dependency ratio*: the ratio of the economically dependent part of the population to the productive part: arbitrary defined as the ratio of the elderly (the grey pressure, those 78 years and over) plus the young (the green pressure, those under 18 years of age) to the population in the ‘working’ ages (those 18-77 years of age).

*Dependency ratio (only grey pressure)*: the ratio of the elderly (the grey pressure, those 78 years and over) to the population in the ‘working’ ages (those 18-77 years of age).
In particular, it can be assumed that:

- 18-29 years old, progressive labour market entry using the part-time system;
- 65-79 years old, progressive labour market exit using the part-time system;
- 30-64 years old, full time in labour market;
- over 80 years old, exit from the labour market.

According to this hypothesis, the number of standard contribution years would rise to 46.5 years instead of the current number of years assumed to be equal to 40.

If we consider the ‘dependent population’ as the addition of one half of the 18 and 29 years old population, one half of the 65-79 years old population and the population over 80, as ‘old people’, the outcome is that the ageing threshold guaranteeing the same number of ‘equivalent old people’ is exactly equal to 65 years in 2006.

The difference between the number of people over 65 (11,592,335) and the number of ‘equivalent old people’ (11,356,719) is the so called ‘demographic treasure’ which is equal to 235,616 persons per year and corresponding amount of money in the social system.

This new hypothetical form of entry and exit to/from the labour market through the part-time system, would guarantee a greater balance between younger and older generations, hence obtaining more standard contribution years and ‘including a number of people, the so called ‘demographic treasure’, among the younger generation.

All these scenarios, which might appear ‘paradoxes’, are due to the determination of the ‘ties’ of the problem, an economic tie (i.e. fixing the number of old people enables us to set the amount of expenses); these hypotheses are based on the awareness that old people today live longer and in improved conditions and therefore they still represent an important source not only for the economic system, but also for the social and cultural systems.

The traditional threshold based on the demographic age, does not respond to the changed needs. Taking into account the differences between today’s situation and past situations of the elderly, it would probably be more useful to consider the counter ageing of the population in terms of working population.

The shifting of the ageing threshold would also allow a new balance between the young and the old generations, thus bringing about a better bearing of current problems due to the combination of low and late fertility and the growing of number of old people.

To sum up, the working age extension might represent a crucial element towards the ‘counter ageing revolution’.

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\[ \frac{1}{2} P(18-29) + \frac{1}{2}(65-79) + 1P(30-64) = 0P(80-\omega) \approx 46.5 \text{ standard contribution years.} \]


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Functioning and Disability in Ageing Population in Europe: What Policy for Which Interventions?

by Matilde Leonardi*, Somnath Chatterji**, E. Jerome Bickenbach***

1. Ageing in Europe: Demographic Trends

With an ageing population, living longer and encountering more disabilities, there will be a need in Europe for valid and comparable longitudinal data on the health of both young and older adults in order to create a richer empirical basis for analysis and thus for policy planning and strategies development. The ageing of the populations of Europe is inevitable, given the trend toward healthier, more active and longer lives. In its Communication on the Demographic Future of Europe, the European Commission points to four salient demographic trends across Europe:

• The average number of children per woman is below the population replacement number of 2.1 per woman for industrialised countries, and this rate is falling further;
• The population consequences of the post-war baby boom;
• The dramatic increase in life expectancy since 1960; and
• The fact that immigration, although primarily of working age, will not compensate for the joint effect of low fertility and increased life expectancy.

The combined effect of these trends is an increasingly ageing population. At present, 27 EU countries have 18.2 million inhabitants aged 80+, which is 4% of the total population. Eurostat projects that by 2014 the corresponding number will be 24.1 million (5.2%).

The number of older people aged 65-79 has increased significantly since 2000 and will do so until around 2050. At the same time, however, health trends — and in particular the decline in fatalities from infectious diseases and better access to health care — appear to be giving support to the contentious notion of ‘compression of morbidity’ — namely that impairments and health problems are occurring later in life. As a recent UN Department of Economic and Social Affairs Report states, this demographic transition is a global phenomenon which, given the different rates at which countries experience the shift, will cause substantial geopolitical tensions between developed and developing countries in the next decades.

Eurostat projects that the relative size of the working age population will decrease, and by 2050 the EU will change from having four to only two persons of working age for each citizen over the age of 65. This increased burden on the pre-retirement population will greatly impact productivity and economic growth, and may not be offset by policies encouraging people to continue working past 65. Pressure on the health systems of Europe will also be profound, threatening to undermine the governing principles of equity, solidarity and universality. Since population ageing is accompanied by an epidemiological shift from the

* Neurology, Public Health, Disability Unit- Neurological Institute Besta- Foundation IRCCS, Milan- Italy.
** WHO Multi-country Studies Team (MCS), World Health Organization, Geneva, Switzerland.
*** Department of Philosophy, Queen’s University, Kingston, Canada.
predominance of infectious diseases and high maternal and child mortality to that of non-communicable diseases, especially chronic ones, health systems will need to be reoriented to deal with increased populations of persons with disabilities (Olesen, Leonardi 2003).

2. Effect of an Ageing Population on Health Care

The effect of an ageing population on health care will be amplified by a disproportionate increase in dementia, depression and other mental and neurological illnesses (Draper, 2004). More generally, ageing, as emphasized by EC communication on Disability Action Plan 2006-2007, is strongly correlated with disability prevalence. Nearly 30% of people in the age group 55-64 report a disability and 63% of people with disabilities are older than 45.

Research into the projected demographic impacts on health systems have historically focused on the impact of increased younger populations, and determinants that affect the health of individuals as they age. With an ageing population, living longer and encountering more disabilities, there will be a need in Europe for valid and comparable longitudinal data on the health of older adults in order to create a richer empirical basis for analysis.

Current ageing studies involving persons aged 50+ tend to confuse the relationships between a person’s state of health, and his/her quality of life and well-being, relying on measures with limited validity. This confusion is due to conceptual overlapping of questions and a conflation of subjective and objective observation and report.

What are needed are valid and reliable outcome measures for good statistics, and innovative measurement instruments for cross-population comparative analyses. The objective of these measures and analyses methodologies would be to increase our scientific capacity to produce comparable longitudinal information on non-fatal health outcomes — both mental and physical — as well as reliable data on the linkages between health status, quality of life and well-being. These measures would reflect the fact that ageing is a process, and the measurement of determinants of ageing can be done at various stages of life.

3. Disability and Ageing: The Results of Ageing Studies in Europe

As stated by C.T. Römer and H.J. von Kondratowitz, “...The current state of comparative ageing research seems to be characterized by little theorizing as to whether (and why) there should be differences (or similarities) in ageing processes across countries, societies, or cultures”. In the first issue of the European Journal of Ageing (December 2004), results from a variety of European projects have been published, and most of them have used the method of cross-cultural surveys (e.g. CLESA, ENABLE AGE, ESAW, EURODEP, FAMSUP, MOBILATE, OASIS, and SHARE). Although all of these projects involved four to eleven European countries, explicit a priori hypotheses about differences (or similarities) across societies and cultures are hardly to be found. More often, a posteriori reasoning is presented. (Römer and von Kondratowitz 2006). A brief analysis of some relevant ageing studies is presented below, focussing on methodology of analysis of health and disability information and on the effects of different definitions of disability in ageing.

3.1 OECD Health Working Paper

In 2007, the OECD released a Health Working Paper on trends in severe disability among the elderly in 12 OECD countries (including Belgium, Denmark, Finland, France,
Italy, the Netherlands, and Sweden). The Paper operationalized ‘severe disability’ in terms of dependency and presence of one or more limitations in ADLs (activities of daily living). Prevalence data were acquired from national data sources, where possible keeping to the definition of severe disability based on the self-report of one or more ADL limitations. The major finding was that, though there is clear evidence of a decline in disability among elderly people in five of the 12 countries, three other countries reported an increase, while two countries reported a stable rate. Additional data on chronic diseases (arthritis, heart problems, diabetes, hypertension and obesity) and risk factors among the elderly were consulted to see whether disability trends in different countries could be associated with reductions or increases in the prevalence of these chronic conditions. Although prevalence in most of these conditions and risk factors has increased in most countries, no clear judgment could be made about the linkages between chronic conditions and severe disabilities. The OECD Working Paper concludes that ‘it would not seem prudent for policy-makers to count on future reductions in the prevalence of severe disability among the elderly, but rather to expand national capacity in long-term care and programs to prevent or postpone chronic conditions. It would not be wholly unfair to characterize this policy implication as ‘erring on the side of caution’ given the unreliable data (Lafortune, et al., 2007).

It is important to notice that the OECD study relied on a proxy definition of ‘severe disability’, namely one that a) was most clearly consistent with the available national, self-report, survey data, and b) was intuitively linked to long-term care needs. Although this methodology was the product of expert consultation, it was constrained by the nature of the data sources available, and in particular by the various data collection instruments that were used. It took an a priori approach to data collection, in the sense that the policy question (‘What will be our long-term care needs in the future?’) is used to define the phenomena (‘severe disability’) under investigation. The authors were forced to this approach primarily because of the diversity of definitions and measures of ‘severe disability’ across OECD countries and the fact that the consistent conceptual framework provided by the WHO-ICF Classification has not as yet been adopted in survey practice across the OECD. This is scientifically inadequate. To give evidence of trends in needs, it is obviously preferable to define the phenomena that generate these needs independently of the needs themselves. The state-of-art represented by the OECD study makes it clear that rather than manipulating existing disability data from different countries, and thereby relying on an uncoordinated and non-comparably diverse collection of instruments for data collection, it makes far more sense scientifically, to develop a single measure and to perfect and test a single methodology that can be used by all countries to determine the population’s health and actual disability trends. In this way, relevant and useful data for whatever policy question can be derived.

3.2 Survey of Health, Ageing and Retirement in Europe- SHARE project

Of the available ageing studies that have been conducted in Europe, undoubtedly the most comprehensive has been the Survey of Health, Ageing and Retirement in Europe (SHARE) (Borsch-Supan et al. 2005 a, b). The first round of field work for SHARE was carried out in eleven European countries in 2004. The second round of field work is scheduled to be completed in 2007 with two countries added to the original eleven. SHARE built on the U.S. Health and Retirement Study (HRS), as well as the English Longitudinal Study on Ageing (ELSA) and other European surveys such as the Italian Longitudinal Survey on Ageing (ILSA), the European Community Household Panel (EHCP), the Survey of Income and Living Conditions (SILC), and the European Social Survey (ESS). The three main research areas covered by SHARE are economics, sociology, and health. SHARE instruments ask questions about overall subjective ratings of health, diagnosed medical conditions, symptoms that have
bothered the individual, ratings of vision and hearing, and difficulties in carrying out activities of daily living and instrumental activities of daily living. In addition, the instruments ask self-reported height, weight and symptoms of depression. Respondents (but only those over 75) also perform tests of grip strength, walking speed, verbal fluency, immediate and delayed word recall. Questions about smoking and alcohol use, global questions on physical activity, and health care utilization are included too. SHARE measures quality of life using the CASP 12 item version, which is derived from the original 19 item version (Hyde, et al. 2003). In a separate ‘drop and collect’ survey, SHARE asked more detailed questions about health states, relying on anchoring vignettes to adjust for reporting biases. Initial analyses of the SHARE data (Borsch-Supan 2005a) show that while 50% of the Danish respondents reported being in very good or excellent health, less than 20% of Spanish respondents reported the same. When data were combined into a single index for health (which included health conditions, symptoms and limitations), with 0 being worst health and 1 perfect health, Spain had a mean score of 0.7 while Denmark’s mean score was more than 0.75. More generally, SHARE data show a consistent North-South gradient. By contrast data from the WHO on Healthy Life Expectancies (HALE) study, which combines fatal and non-fatal health outcomes into a single measure, show clearly that at age 50 the Spanish population overall is in better health than the Danish. The primary reason for this substantial discrepancy lies in SHARE instruments. Its conceptualization of health as a combination of diagnosis, symptoms, ADLs and IADLs (and a limited selection of functioning domains) fails to separate clearly individual health (an objective phenomenon) from the subjective phenomena of quality of life and well-being.

3.3 ELSA English Longitudinal Study on Ageing

The second major European ageing study, the English Longitudinal Study on Ageing (ELSA), has completed two waves of data collection on health, disability and healthy life expectancy, as well as a range of issues linking economic status and ageing. On the health side, ELSA has so far provided interesting data, including the fact that the older population in the UK has fewer chronic conditions than those in the US, despite health care expenditures in the US being two-and-a-half times higher than in the UK (Banks, et al. 2006). Nonetheless, the instrument used by ELSA involves self-reported health measures that focus on chronic illness and symptoms. The ELSA instrument therefore suffers from the same limitations as SHARE.

3.4 Cross-National Determinants of Quality of Life and Health Services for the Elderly Project (CLESA)

Another major effort in Europe funded by FP5 is the Cross-national determinants of quality of life and health services for the elderly project (CLESA), which harmonizes and analyses data from Finland (Tampere), Israel, Italy, The Netherlands, Spain (Leganes) and Sweden. CLESA is a longitudinal study but used different instruments to produce a common database, with a four item ADL measure to compare disability across countries. Data from CLESA show that while 22.1% of Spanish elderly men were classified as disabled, only 9.8% of males in Finland were so classified (for females the percentages were 33.3 vs. 14.2 respectively). The corresponding mortality data from the same study, however, indicated that mortality for men was highest in Finland and lowest in Spain (Minicucci et al. 2003, Noale et al. 2005). This discrepancy resulted from the instruments used, which asked questions only about impairments and presupposed an inadequately limited conception of disability.

This is only a brief overview of some relevant studies, however the results of these studies on ageing show how it is crucial to spotlight the need of collecting data on health

The occurrence of a disorder is not an accurate predictor of receipt of disability benefits, work performance, return to work, likelihood of social integration. Diagnosis alone does not predict service needs, length of hospitalisation, level of care or functional outcomes. This means that if we use a medical classification of diagnosis alone, e.g. the ICD (International Classification of Diseases), we will not have the information we need for health planning and management purposes.

Up to date international comparable data about functioning and disability is simply not available. The primary reason for this is that different countries, for different purposes, define disability differently. As a European Commission study on definition of disability in Europe has shown (the Brunel University Report 2003), data on disability is not consistently gathered because some countries, for example, define disability in terms of performance levels in employment or other social activities. In the employment sector specifically, for example, coordinated policy across Europe has been undermined by the inability to collect comparable data about rates of disability and employment.

The World Health Organisation has for several years been aware of this widespread problem of data comparability both in health and disability statistics. Following its mandate for producing standards for international data comparability in the health area, the WHO began in 1974 to supplement its international classification of diseases, ICD, International Statistical Classification of Diseases and Related Health Problems (WHO 1992-94) with a companion classification of functioning and disability, ICIDH, International Classification of Impairments, Disability and Handicap (WHO 1980). This Classification underwent a revision process that lasted several years. After extensive international field testing the final version of the International Classification of Functioning Disability and Health, ICF, has been endorsed by the World Health Assembly in May 2001 (WHO 2001). ICF has been accepted by 191 countries as the international standard to describe and measure health and disability, both as a model for structuring health and disability information, and as a classification and coding tool for collecting this information. The ICD-10 and the ICF are the two classifications that currently make up the WHO Family of International Classifications/WHO-FIC.

Disability is a multi-dimensional phenomenon arising out of an interaction between the individual’s health status and the physical and social environment (Leonardi, et al., 2006). Disability data, and the instruments to measure them, must reflect this bio-psychosocial model of disability. Valid and reliable information are essential to design, implement or evaluate policies and legislation to combat discrimination and promote social integration, participation and enhance opportunities.

The underlying theory of the ICF is based on two important principles that directly affect measurement strategies:

- the principle that disability is a common, indeed universal feature of the human condition, rather than the mark of a social minority group (universalism);
- functioning and disability, both at the population and individual levels, are continuous phenomena, matters of ‘more or less’ rather than strict dichotomous categories.

Taken together, these principles entail that the measurement of disability must arise from
a determination of the range of functioning across all domains, rather than a priori from either self-identification or by allocation into categories merely by the presence of certain bodily impairments such as blindness, deafness, mental retardation or paralysis.

Following the principle of universalism, and viewing disability on a continuum of health and functioning for all people, it is necessary to collect information having a comprehensive description of disability, an evidence-based definition of domains of disability and a baseline reference population for comparisons. In this way, inequalities can be described and measured by the difference between opportunities for participation that persons with and without impairments experience. These inequalities define unmet needs associated with impairments, including those created by discriminatory policies and practices. In the ICF Environmental Factors classification, discriminatory behaviours and attitudes are included, making it possible, for the first time, to include questions regarding environmental barriers and facilitators in surveys and other information-gathering instruments, questions which use a common framework that will then make data comparisons more feasible and practical. These data can then be compared across countries, populations, and age groups. In addition, the effects on an individual’s level of participation of these behaviours and attitudes can be measured, and interventions designed.

5. Measuring Disability in Europe: The Experience from EU MHADIE Projects

In 2005 the European Commission, DG Health, within the context of 6FP’s Scientific Support to Policies projects, funded a three-years research program called MHADIE (Measuring Health and Disability in Europe: supporting policy development). MHADIE’s conceptual and operational background is WHO’s International Classification of Functioning Disability and Health. The project’s objectives are: a) to use ICF’s model to analyse population studies data and orientate future studies and b) to show that it’s adequate to describe disability cross-nationally and in different clinical settings; c) to prove that ICF is useful in clinical, rehabilitation and education sectors; d) to produce policy recommendations and guidelines to harmonize EU data into ICF’s model.

The MHADIE project main areas’ results are in Statistics, a research area in which a software to map existing surveys’ databases items to ICF model has been developed, to point which areas are not covered in health and disability surveys in Europe. Clinical data collection: based upon 1119 European citizens from five countries, MHADIE researchers have used a protocol composed by ICF-based tools (the ICF checklist and the WHO-DAS II), together with several other tools (clinical and of QoL). They provided comparative data on functioning and offered real information on the impact of health conditions, beyond diagnosis, and on functioning in areas such as employment. Data on education and disability were analysed, ICF-CY (Children & Youth version) was used and tested and MAP-EP (Matrix of Analysis of Problems in Education Planning), a protocol to match clinical conditions and educational needs, was developed.

MHADIE’s results confirm that data collected in national and international studies suffer conceptual confusion, incoherencies and ambiguities on disability definition and on the relationships between health conditions, impairments and environmental factors. The projects rises in fact from a context in which different countries define and measure disability in different ways. ICF has proven to be a useful instrument for, among other uses, policy planning. MHADIE results are being presented to the EU Commission and provide a definition of disability domains and a base to compare populations’ health and disability that are suitable for increasing the EU capacity of analysis.
Actually, the aim of the research on ageing is to develop instruments that will aid researchers in answering the following scientific questions:

- Is population ageing the major driver of future European epidemiological trends and burden of illness?
- Is the compression of morbidity phenomenon evident in Europe’s ageing population?
- Is ageing connected to a decrease in quality of life?
- Is ageing connected to a decrease of well being?
- What are the major determinants of ageing related outcomes?

With respect to the last three questions, it is our belief that current studies often do not clearly address the mechanisms that aim to explain the linkages between health, quality of life and well-being. These studies rely on measures that do not discriminate between these three constructs, which dramatically undermines their validity. This fact underscores the necessity to measure health, quality of life and well-being independently and against the background of a clear conceptual framework of health. That framework is provided by the ICF and clearly distinguishes the descriptive from the evaluative aspects of the overall health experience and provides the terminology and classificatory logic for describing human functioning and disability. ICF is explicitly a classification and NOT an evaluative framework, but, because of its descriptive power, it makes possible well-defined evaluations, such as quality of life, grounded in subjective satisfaction with levels of functioning or health states.

This allows the separation of the actual levels of difficulties experienced as descriptors of a person’s state of health from the importance or value that is assigned by the individual to the levels of functioning in different domains.

The ICF makes it possible to define individual levels of health in terms of objective states of capacities to function in a given set of domains, whereas a person’s quality of life is entirely a matter of their subjective appraisal of those states irrespective of the actual level of health, and well-being is a function both of a person’s subjective satisfaction with various aspects of life as well as his/her current affective state measured as a time-weighted metric of amount of negative or positive emotions.

Different political, economic and social interventions are needed to identify and respond to needs at those different levels. The use of ICF framework for policy planning in ageing requires further research, however ICF sets out an internationally comparable language of all dimensions of human functioning at the body, person and societal levels. Difficulties of functioning at the body level, or impairments, can therefore be conceptually and operationally distinguished from difficulties of functioning at the person or societal levels (activity limitations and participation restrictions). Since ICF’s model of disability is interactive — combining the best of the so-called medical and social models into a fully integrated model — ICF also contains a classification of environmental factors, that is, the physical, social and attitudinal factors that, as barriers, contribute to the creation of impairments, activity limitations and participation restrictions, or as facilitators increase or extend levels of functioning at the body, person or societal levels. The classification of environmental factors makes it possible, for the first time, to identify, assess and measure the impact of a person's environment on his or her levels of disability. Thus ICF proves to be a useful instrument measuring health and disability in populations and for planning interventions at the level of the person or of his/her environment.
7. Conclusions

Ageing is the most important factor associated with declines in functioning and is the driving force for projections of magnitude of disability as confirmed by the EU MHADIE data analysis. It is recommended that future surveys should take more detailed measures to capture ageing phenomena. Solid and comparable data on functioning and disability are needed in Europe and the impact of disability on ageing has to be known so that policy planning may be facilitated. The collation of national data on service provision and outcomes for people with disabilities is both important and challenging. In particular, there is a need for better quality data from administrative systems, data that can be compared across time, across state and territories and across various health and welfare programs. There is also the requirement to compare the statistics produced from administrative sources with those from surveys and censuses, so that we can estimate the need for services and access to services by particular population groups. Ageing is a process and the measurement of determinants of ageing can be carried out at various stages of life. To understand the impact of disability in a population, the health impacts must be understood independently of the non-health or health-related impacts. The ICF framework and its bio-psychosocial approach, clearly identifying this scission, might be used for planning and policy intervention at different levels, as has been demonstrated by MHADIE research. Valid measurement of disability can only be achieved by surveys that elicit data about functioning levels in multiple life areas, rather than by means of a small set of impairment questions that produce invalid disability prevalence estimates, that distort policy planning and measurement of the change in interventions. This is an urgent and clear need in ageing populations’ surveys. Good data driving policy. The results of MHADIE research, suggest recommending that surveys use a multi-functional approach and that policy interventions are planned at body, persons and society level. With an ageing population, living longer and encountering more disabilities, only this approach will allow a rational definition of policy priorities in Europe.

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Health and Long-Term Living:
Trends and Best Practices in Europe

by Angelo Carenzi

1. Introduction

Whilst life expectancy at birth is increasing in the European Union (EU), health represents a key area of concern for European citizens. On the one hand, there are remarkable variations of life expectancy trends in the different Member States, which poses a great challenge for policy makers and for health systems to achieve equal health opportunities within all the European countries. On the other hand, the lengthening of life expectancy and the decrease of birth-rate are producing an increasingly ageing population which is normally associated with an increase in disability and chronic diseases and the consequent rise in the cost for health care, long-term care and pensions.

The demographic change seems to present two faces: a welcomed increase in life expectancy — the positive one — and an ageing society that poses a serious challenge to the financial sustainability of the EU Welfare system.

2. Health in the Pre-Enlarged European Union

Since the 1970s, life expectancy at birth has steadily increased by 3 months per year in high-income countries and it appears that this trend is not going to slow down (Oeppen, J. and Vaupel, J.W., 2002; Robine, J.M. et al., 2003). However, this phenomenon, which is clearly present in the EU countries over the period 1970-1995, is not shared by central and eastern European countries where life expectancy has been lower. The health report prepared by the Regional Office for Europe of the World Health Organization (WHO, 1997) emphasises the widening of the gap between EU and other European countries. More recently, an interesting report comparing health and health care systems in the countries of the so called ‘old Europe’ (EU 15) with those of the countries at that time candidate to accession was published (Thomson, S. et al., 2004). In terms of life expectancy at birth, trends were quite different during the period 1970-2000. Concerning men in EU 15 countries, Portugal has been at the bottom with life expectancy at 67.5 years in 1980 and 72.7 years in 2002, while Sweden has been at the top at 77.7 years in 2001. Concerning women, life expectancy has been lowest in Portugal and in Ireland (79.9 years in 2001), while it has been highest in France (83.2 years in 2001). In 2002, there is a general trend suggesting that the differences in life expectancy at birth within the EU 15 Member States are reducing.

Central and Eastern European countries share levels of life expectancy clearly lower than in Western Europe, a wider gender difference, and most of them experienced a mortality increase in the early 1990s. Trends in life expectancy in EU 15 since 1980 show a steady
increase in all the Member States, while Latvia, Estonia, Lithuania, Romania and Bulgaria did not show any significant improvement. Central European countries show an increase in life expectancy in the period 1980-2002 for both male and female population but life expectancy in these countries remains lower than the average for the EU 15.

In 2001 a man in the EU 15 countries could expect to live about 7.5 years more than a Hungarian and about 11 years more than a Latvian.

By examining some key health indicators it appears that in 2001 infant deaths in Estonia, Hungary, Latvia, Lithuania, Poland, Romania and Bulgaria were almost 2-3 times higher than the average of the EU 15, while a similar ratio was seen for ischaemic heart disease mortality between the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Slovakia and the average rate of the EU 15 countries (WHO, 2004).

To investigate some of the factors underlying the health difference between old and new Member States some authors have studied avoidable mortality in the enlarged European Union (Newey, C. et al., 2004). The concept of avoidable mortality was originally developed by Rutstein and co-workers in 1976 as a measure of the quality of medical care. More recently, avoidable mortality has been related to causes that are responsive to medical intervention (treatable conditions) and those responsive to intersectoral policies (preventable conditions). In the report of Newey and co-workers 33 conditions were selected as treatable conditions — for example intestinal infections, perinatal mortality, appendicitis, Hodgkin’s disease, testis tumor —, 3 as preventable conditions — malignant neoplasm of trachea, bronchus and lung; liver cirrhosis; motor vehicle accidents — and ischaemic heart disease was treated separately since it can be seen as an indicator of health care service but also of health policy.

It is not the task of this paper to analyse in detail the results of this research: we will sum up some data in order to underline the existence of remarkable differences.

At the beginning of the 1990s, treatable mortality rate was clearly higher in Romania and Bulgaria, followed by Central and Eastern Europe Countries: only Slovenia, Lithuania and Poland attained values similar to Portugal — the country among EU 15 with the worst incidence both regarding male and female population. Comparing the extremes, it results that in Romania there were 260 deaths for treatable conditions per 100,000 male population and 69 per 100,000 in Sweden. Among women, 221 per 100,000 female population in Romania and 66 per 100,000 in France.

Looking at changes in 2000-2002, Portugal, Austria and Finland showed a decline of almost a third either for men or for women, whereas in the EU 15 countries the improvement was smaller in the Netherlands, decreasing only by about a tenth for both men and women. Among candidate countries, the Czech Republic showed the deepest decline in treatable mortality; Estonia, Latvia and Lithuania a very low progress especially for men; Romania an increase at +5.48% for men.

Concerning preventable mortality, the highest level in 1990/91 was seen for Hungarian men, at 209 per 100,000 male inhabitants, relatively high in Romania, at 123 per 100,000 male inhabitants and the lowest for Swedish men, at 46 per 100,000 inhabitants. Among women, the death rate was 59 per 100,000 female population in Hungary and 44 in Romania; 35 per 100,000 female population in Slovenia and 31 in UK; 18 per 100,000 female population in Bulgaria and 15 in Spain. In 2000-2002, with the exception of Romania, declines from preventable conditions were seen in men but not in women and were prominent in Italy, Austria, Portugal, Finland and, among the candidate countries, the Czech Republic and Slovenia. Improvements were very small in Hungary and in Bulgaria and a worst rate was seen in Romania. As for female population, in 2000-2002 a widespread increase in preventable mortality was seen in all candidate countries — with the exception of Slovenia and Bulgaria.
— and in the Netherlands, Sweden and Finland.

In 1990-91 death rates for IHD were highest in all candidate countries with the exception of Slovenia and especially in Latvia, Estonia, Lithuania and Romania. Among the EU 15 countries, Ireland and Finland showed the highest mortality for IHD for both men and women. The lowest rate was seen in the Mediterranean countries. It has to be noted that female mortality rate was 2-3 times lower than male mortality rate. In 2000-2002 all the considered countries experienced a decline in IHD mortality with the exception of Romania: the improvement was particularly significant in the Czech Republic, UK, Ireland and Finland.

The analysis of avoidable mortality in the enlarged European Union Countries confirms the existence of a significant health divide between the old and the new Member States already seen when we have examined the extent of life expectancy in the different countries. The reasons for these differences are several: quality and development of health systems; availability of economic resources for an equal drug supply; the existence of intersectoral policy to implement good lifestyles; a decrease in car accidents; the prevention of diseases; the quality of social and economic environment that can contribute to high levels of stress; poverty and limited social support.

It clearly emerges that the challenge that the EU Member States Governments have to face to protect the health of their citizens is still remarkable and that many efforts still have to be made to reach acceptable levels of equity and to reduce inequalities.

3. EU Initiatives

According to the principle of subsidiarity (Delors, J., 1991) the EU does not have competence in the management and in the organisation of the health services of the different Member States, but the Union has competence in the field of prevention and health promotion. Within the EU, there is a Health Action Programme with its three fields of activities on health information, health determinants and health emergencies, which can have an important impact on avoidable mortality, especially on the preventable one. Information and education induce better life styles, health determinants can promote health and prevent diseases and mortality across all policies and activities, health emergencies have the objective of enhancing the capability of responding rapidly in a co-ordinated fashion to threats to health.

The first Programme of Community action in the field of public health (2003-2008) financed over 300 projects and other actions with the aim of contributing to ensuring a high level of human health protection through the promotion of an integrated and intersectoral health strategy and to enhance co-operation between Member States in the area of health. It is of interest to underline that very recently the European Council of Ministers agreed that the second EU Programme of Community Action in the Field of Health (2008-2013) will come into force from 1 January 2008. The objectives of the programme are: a) to improve citizen’s health security; b) to promote health including the reduction of health inequalities; c) to generate and disseminate health information and knowledge.

The concern to reduce health inequalities — be they the diverse life expectancy at birth or the different rate of avoidable mortality in the EU Member States — seems to be present in the EU strategies and the Second Programme of Community Action in the Field of Health — which includes a main action concerning the reduction of health inequalities in the EU — is considered an effective tool.
4. Long-Term Living and the Financial Sustainability of Welfare Systems in Europe

By 2050, in the EU 15 there will be 88 million people aged 60-79, compared to 69 million in 2005 (Barea M. and Cesana G., 2005). Moreover, there will be 38 million compared to 16 million people over 80 in 2005. The sharpest increase between 2020 and 2030 will occur among the 60-69 and 70-79 age groups. The former will drop between 2030 and 2050, whereas the latter will eventually flatten out; the number of people over 80 will increase.

The demographic trends in the new Member States are either the same or more pronounced since, with the exception of Malta and Cyprus, the fertility rates in these countries are below the European average. While life expectancy at birth is lower than in Western Europe, in all the new Member States population ageing and dependency rate are increasing.

The lengthening of life within European countries is of course an important achievement probably due to the improvement of social conditions and health care services. However, since some degenerative disorders — such as Parkinson’s or Alzheimer’s diseases — are more prevalent in over 65 year old people and, in any case, the cost for health and social care is much higher in the last years of life, there is a great concern regarding the financial sustainability of European welfare systems due to the continued increase in ageing population. In a study of the Economic Policy Committee of November 2001 on the projected size of EU 15 population in working age, really employed and elderly, it appears that in 2040 we will have 1 elderly for every 1.5 employed people, thus contributing to the social fund. Moreover, the need for long-term care begins to grow as one approaches the 65th year of age and increases dramatically thereafter (Bosa et al. 2005). It has been estimated that the impact of demographic variation on GDP% for funding long term care in the EU 15 countries in 2050 will require almost double the 2000 expenditure (Economic Policy Committee, 2001).

However, many of these scenarios have been built on the bases of the lengthening of life expectancy, but assuming a steady value of appearance of disability. Should the disability-free life expectancy be higher than the increase of life expectancy, the future perspective would be certainly better. Waiting for more definitive data on disability-free life expectancy in the European countries, it seems useful to report the initiatives undertaken by the EU to meet the challenge of the impact that the ageing population has on the financial sustainability of Welfare systems in Europe.

5. The ‘Open Method of Coordination’ and the Government Strategies for Reforming Social Security Systems

During the Lisbon summit of March 2000, it was decided that the “open method of coordination” should be applied to Welfare. The features of this method can be summarised in the following actions (Commission des Communautés Européennes, 2003): a) to define Union’s guidelines and draw up a road map for the realisation of short, medium and long-term objectives; b) to single out qualitative and quantitative indicators as well as assessment criteria that are adequate to the needs of Member States and facilitate the comparison of best practices; c) to translate the European guidelines into national and regional policies; d) to periodically verify said policies and draw conclusions which may be of use to all parties involved.

With the ‘open method of coordination’ the EU is trying to promote a concerted strategy with the national authorities to modernise the respective Member States’ welfare systems.

The welfare-modernisation strategy is based on four major objectives: a) to amend taxes
and social services in order to make work financially more convenient; b) to guarantee certain and enjoyable pensions; c) to promote social integration; d) to provide a high and long-lasting level of response to health needs.

The EU strategy points out clearly that it is not possible to face the problem of the future sustainability of welfare systems in a sectorial perspective, and it is an important incentive for Governments to define priorities according to the most urgent problems of each country. As a consequence, Government strategies for reforming social security encompass a wide range of possible measures, which individual countries can pick and choose from to best suit their own national and local circumstances.

The most significant of these can be summarised as follows:

a) improving management of public services, with a greater use of information technology to increase productivity and a wider use of benchmarking to identify inefficiencies, adopt best practices and increase competitiveness;

b) a change in the way service providers are funded, with incentives for achieving efficiency and focusing on results;

c) the use of market mechanisms in relation to the procurement of public services, i.e. greater use of contracting, competitive tendering and public-private partnerships;

d) to reform fiscal relations at various levels of government, in favour of processes of decentralisation:

e) use of co-payments by service users;

f) pension reforms to increase the age of retirement;

g) health care and long term care reforms to promote a more efficient organisation of less expensive services, i.e. primary care, home care, informal care.

6. Conclusions

It is difficult to evaluate if the initiatives undertaken at European level and the incentives that the Union gives to the national Governments will be adequate to overtake successfully the problems derived from demographic changes in Europe. However, the EU has the merit of having led some important initiatives. Firstly, the EU has seriously analyzed the phenomenon of the lengthening of life expectancy studying in depth all its relevant aspects: from the need to intervene in order to overtake the inequalities still present in the Member States, to the elaboration of scenarios on the impact that this change will have on the financial sustainability of the European welfare systems.

The EU has also focused on these themes in advance and has undertaken many initiatives to raise the awareness of the Member States, in particular of those who tended to underrate the dimension of the problems or to postpone the decision to face the problems because of their unpopularity.

Then, the EU launched a common policy and proposed a method to face the challenge.

The common policy was launched in the ‘Lisbon Strategy’: the development of the European society in the period 2000-2010 was based on the increase in European competitiveness derived from its growth as a knowledge-based economy. This increased competitiveness cannot be achieved to the detriment of the level of social protection in Europe, which has to be guaranteed and, if possible, improved.

The method involves on the one hand the joint action that the Union and the single Member States can undertake to improve the different national welfare systems, on the other
hand the awareness that no success can be achieved by undertaking limited and scarcely effective initiatives.

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Why the Young Generation Does not Care about the Long-Life Phenomenon — and Ways to Change This

by Gordon Henrik Wollgam*

1. Finding Out About the Young Generation’s Opinion on Long-Life Societies — Three Vain Attempts

A first, common-sense approach to finding out about the attitude of Western Europe’s younger generation towards ageing and the long-life society is to have a look at NEON1. This monthly magazine is printed in an edition of roughly 300,000 copies and is mostly read by young adults between 20 and 30 of both sexes in Germany, Austria and Switzerland. NEON has a reputation for keeping track of the thinking and the attitudes of the younger generation. Rather astonishingly, there is hardly any coverage of ageing and the long-life issue in recent NEON editions. This fact is astonishing indeed because it will be precisely the generation between 20 and 30 who will experience the peak of the recent development towards ageing societies in all Western countries.

A second, more analytical approach to finding out about the younger generation’s attitude towards ageing and long-life societies is to have a look at the most recent edition of the Shell Youth Study2. The latest study has interviewed teenagers and adolescents aged between 12 and 25 about their attitude towards being old. Only 21% of those interviewed expressed a rather negative attitude towards being old (‘being done with life’). Another 48% reported that being old rather means to be able to enjoy life. 31% even expressed the view that being old means to be ready for new challenges. The picture that young people have nowadays of being old is an astonishingly positive one. Almost 80% of those interviewed in the Shell study tend to see its advantageous aspects. However, the young people who have been interviewed in this study have projected their views on the current older generation. Unfortunately, they were not asked how they see themselves in society once they are old. This would have been an extraordinarily interesting question as it is precisely today’s younger generation who will experience the phenomena of demographic change, ageing societies and long life to the fullest extent in the course of the coming decades.

A third, yet subjective approach to finding out about the younger generation’s attitude is the tt303 annual poll. tt30, the young think tank of the Club of Rome is composed of 30 young professionals around the age of 30. Its members work in the business community, in research positions and in the public sector in countries all over the world. Once a year the group meets for its annual conference and conducts a poll in order to find out which are the

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* tt30 The Club of Rome’s Youth Organization, Zurich, wollgam@vonkoerber.ch.
1 www.neon.de
2 Since 1953 the Shell company has been conducting a comprehensive youth study in Germany. Teenagers and adolescents are extensively interviewed about their values and attitudes towards the future. Results are regularly published as books or in summaries in the web site (http://www.shell.com/home/content/de-de/society_environment/jugendstudie/2006/dir_jugendstudie.html). This study is only conducted in Germany.
3 For further information see www.clubofrome.org/tt30.
most pressing, emerging and relevant issues to deal with over the next months. Though the method of the group’s poll is very simplistic the outcome is sometimes rather insightful. At tt30’s 2005 annual meeting the issue of ageing and long-life societies came up — and scored 20th out of 21 issues ranked in order of their perceived relevance in the poll.

To conclude from these three insights, it is certainly true that old age and long-life societies have a rather positive connotation for the young generation. On the other hand, these issues are apparently largely irrelevant to this age group. So we are facing a paradox: While it is the younger generation that will experience the effects of ageing and demographic change to the fullest extent in their own life cycle the same young generation takes hardly any interest in this issue. How can this contradictory perception be explained?

2. How to Explain the Younger Generation’s Scant Interest in the Long-Life Phenomenon

2.1 Long-Term Financial Flows

One possible explanation can be found if we take a look at some typical long-term financial flows during an average person’s working life. For reasons of simplicity I propose to divide this traditional schematic work cycle into three stages:

1. The ‘rush hour of life’. This is typically the period between a person’s twenties and mid thirties. During this time the young generation has to finish their professional education (nowadays typically at university level), find a first job, invest much working time in their career, get settled down, get engaged, get married, set up a family, educate children and possibly buy a property.

2. The ‘rush hour of life’ is typically followed by a mid-life phase where most of the goals from the previous stage have been achieved while the working life career is still advancing.

3. Finally, the mid life phase is followed by a phase of seniority which is typically characterised by a reduction of long-term financial obligations: Children are grown up and mortgages are paid.

Since the beginning of the 20th century, a state-controlled risk insurance system (composed of health insurance, unemployment insurance, old age insurance and others) has covered individual risks throughout all three phases of the work cycle in most Western European countries.

However, it is precisely this traditional work cycle scheme that has recently been undergoing drastic changes, especially in the ‘rush hour’ phase. In a non-traditional work cycle the first long-term financial flow is now often the re-financing of tuition and university fees that have accumulated during the bachelor and master studies. Several European countries that used to have fully state-financed university systems have recently introduced tuition fees, e.g. Germany with fees ranging from EUR250 to EUR1,000 per semester. Tuition fees in countries where students have to substantially contribute to the financing of their studies, e.g. the UK, tend to rise continuously.

Apart from the traditional long term capital flows for raising children (average cost per child in Germany: EUR 426 per month) and buying property (average mortgage in Spain: EUR789 per month) there is another additional financial burden for the ‘rush hour’ generation: The traditional state-financed risk insurance system is becoming less effective. The probability of having individual risks (such as illness, old age or unemployment) fully covered by the traditional Western European welfare state is diminishing. The compulsory
contribution to the old age insurance in Germany has increased from 15% of gross salary in 1969 to 19.9% of gross salary in 2007. This rise is obviously due to the demographic shift and, though forced by legislation, it is an act of solidarity by the younger generation towards the older. Pension payments, however, are forecasted to decline from 67% to little more than 50% of last salary over the next few decades.

As a consequence, from a young generation’s perspective, the traditional Welfare State tends to become a risk in itself for long-term financial planning as there is often no way to avoid high contributions to state-controlled risk insurance systems.

From a young generation’s view, contributions to state-controlled insurance systems are often to be regarded as an investment à fonds perdu. To compensate for the loss of security caused by the declining overall performance of the classical welfare state, the ‘rush hour’ generation is often obliged to insure individual risks in capital-based fund models, which, of course increases their individual financial burden.

2.2 More Complex Life Cycles

Another reason for the obvious lack of interest by the younger generation in the issues of ageing and long-life societies are changes in traditional life cycle patterns. Traditionally, the biological life cycle model coincides with the social life cycle model. So education is usually completed during childhood and adolescence, working life is associated with adulthood and retirement with the seniority age.

*Figure 1: How it used to be: the synchronised life cycle*

Now, with the rising of the concepts of life-long learning, active professional life even at retirement age, the concepts of sabbaticals and part time work and a certain tendency towards growing unemployment in some countries, the traditional parallelism between the biological life cycle and the social life cycle is becoming less rigid. Whereas the biological life cycle lengthens, the social life cycle is tending to decompose from its rather standardised traditional pattern and becomes more individualised. Parts of working life are now not only used to generate income but to invest in further education, to bring up children or to bridge gaps caused by job changes. Also, the traditional concept of a regular pension paid throughout the retirement phase might belong to the past, at least for dedicated individuals with good health. Some of them might not want to accept the concept of retirement at all.
This non-traditional working life pattern is of course nothing bad in itself. It is often even encouraged by state legislation. By the beginning of 2007, Germany has introduced a new child credit system (‘Elterngeld’) that is aimed at encouraging more middle-income couples to have children and at encouraging fathers to take at least two months (or a maximum of one year) off for child care. The programme offers up to 67% of last salary (max. EUR1,800) for a maximum period of 14 months. Similar, though not comparably strong incentives exist to temporarily leave working life to invest time in further education. Moreover, in all Western European social systems there is now a strong tendency to avoid early retirements and to lengthen working life corresponding to the lengthening of the biological life.

In the traditional work cycle, the individual income development is relatively predictable — salaries usually start at a moderate level, increase throughout a professional career and are finally replaced by a moderate pension. As this pattern was foreseeable for each individual to a certain extent it was possible to accumulate savings over the working life for the retirement period. In addition, relatively reliable state-controlled risk insurance systems provided a reasonable protection against individual risks like unemployment.

Adapted from Lee/Manson: What is the Demographic Dividend? finance and Development 2006: 43(3), IMF.
The decomposed, individualised new life cycle model described above does also imply drastic changes in the development of personal income generated from work. In a non-traditional working life, several events can lead to a steep decrease of income from work: time taken off for bringing up children, time taken off for further education as well as an increasing risk of unemployment combined with a decreasing quality and quantity of security provided by state-controlled risk insurance systems.

**Figure 4: A non-traditional income-spending pattern**

On top of this situation, the average income from work has been stagnating in many Western European countries over the recent decades. In Germany, for example, the average real income from working life has even decreased by 2% from 1991 until today.

The prevalence of non-traditional income-spending patterns gives a strong incentive to the younger generation to accumulate capital for a number of financial risks (like unemployment, raising children with one partner staying at home, further education) that might occur much earlier in the life cycle than retirement. In addition, the chance of a unexpected drop of income that needs to be compensated by own funds early in the working life cycle is today much higher than it was 15 years ago. Consequently, the younger generation has strong incentives to take precautions for these ‘early’ risks and to neglect old age insurance.

### 3. Inconvenient Truths and Implications

The ‘rush hour of life’ generation is largely indifferent to the phenomenon of ageing societies and demographic change. This indifference must not be confounded with ignorance. The short analysis of the income situation and the individual risks of this generation that has been carried out above clearly shows that other challenges overrule the necessity of taking precautions for their old age and their life in the long-life society.

The younger generation in Western European societies is well aware that there is not much to be expected from state-controlled pension systems, especially when they are based on pay-as-you-go financing. In several countries the ‘rush hour generation’ is facing the double burden of paying the pensions for the elder generation and at the same time being obliged to contribute to a capital-based pension scheme for their own old age.
Under these circumstances, the fund-based, second and third pillar pension systems that are currently offered by banks and insurers and that are usually strongly regulated by the legislator might not fully meet the requirements of the younger generation. Instead of being obliged to accumulate capital for old age only, the younger generation might rather prefer a more general, capital-based ‘risks of life’ insurance. Such a general risk insurance could much better compensate for the decreasing quality and quantity of state controlled welfare systems. It could also much better cover individual risks arising from the shift of life cycle patterns described above.

How could such an insurance work? The insured would contribute to an individual fund which is not limited to being used as a provision for old age only. The range of insured events would be defined on a broader base and would also include investments in further education, time spent off work for taking care of children and might also serve as a start-up financing for one’s own company.

Such a product might meet the the requirements and risk profiles of the young generation much better and could provide a stronger incentive to take long-term precautions for individual risks than the current models do.

The ‘rush hour of life’ generation is facing the consequences of a profound change in the social security systems in Western Europe. Whereas the elder generation can still largely rely on the traditional pay-as-you-go insurance systems and following generations will benefit from the change to fund based insurance models, today’s younger generation is in a sandwich position between these two systems. It is a considerable challenge to the private and the public sector to provide this generation with a proper set of risk insurance and to help them benefit from the positive effects of the long-life phenomenon, but it can certainly be done.

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4 Under certain circumstances individual payments to the third pillar in Switzerland can already be used for some of these events.
The Strategy of the Four Pillars in a Long-Life Society

by Geneviève Reday-Mulvey

1. Introduction

The Four Pillars Programme of The Geneva Association is a research programme set up in 1987 with the aim of studying the key importance in the new service economy of Social Security, Insurance, Savings and Employment. The programme focuses on the future of pensions, welfare and employment. The main reasons for this programme have been:
1. Complementarity between social security and insurance.
2. The changing perspective of the welfare state, employment and the life-cycles.

From the outset our Association has considered demographic trends — particularly the increase not only of life expectancy but above all of health expectancy — as a positive challenge for our communities and firms and the workforce within them. Therefore the new challenge meant rethinking retirement in the context of a new design for employment across the entire life-cycle so that people, rather than being relegated to a role of passive consumers, could perhaps work later in life, remain socially integrated and continue to make a valid contribution to our society. Our main objectives have been to:

• Consolidate a multi-pillar system — study the conditions of 1st, 2nd, 3rd pillar pensions
• Promote the development of a 4th pillar — flexible extension of working life (‘Live longer, work longer’)
• Encourage the adaptation of working conditions (training, working time, pay and pension conditions, etc.)
• Facilitate multiple solutions to the challenge of an ‘ageing’ society.

In this article I would like to summarize, first, pension reforms which have been adopted over recent years in Europe, then the 4th pillar proposal and changes in senior employment.

2. Pension Reforms in a Long-Life Society

The term ‘the four pillars’ refers to the principle that most pension systems are currently based on three pillars (1st pillar: public pensions; 2nd pillar: funded occupational pensions; 3rd pillar: private pensions, life insurance, savings). We have studied the importance of consolidating the various sources of pension financing, what we call the pillars. Contrary to many who were advocating only private pensions we have been in favour of:

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1 Part of this article is based on the editorial ‘Over a Decade of Pension Reforms — Where Are We Now?’, by the author, The Four Pillars Newsletter, no 40, March 2007.

* Head of project of the Four Pillar Pension Initiative, The Geneva Association. Author of Working Beyond 60 — Key Policies and Practices in Europe, Plaggrave, 2005. Email address: Geneviève_reday@genevaassociation.org Website: genevaassociation.org
• maintaining them at a good level with adaptation, the 1st pillar (financed by pay-as-you-go),
• developing 2nd and 3rd pillars (financed by funding) and
• we have studied the possibility of adding a 4th pillar which is the idea of continuing working later and getting a complementary income.

Figure 1: Share of income from the four pillars, as a percentage of total income of retirees (average European case)

Indeed the above graph shows the current sources of income for pensioners. This is a picture of an average situation in an average European country. As you may know in Germany and Italy public pensions are very important and 2 or 3rd pillar pensions are not yet very developed. On the contrary in the UK and Denmark public pensions are low but 2nd or 3rd pillars are important.

In 2000 the 4th pillar (I refer here only to the declared work and not to quite frequent black-market work we observe, for example, in Italy and in France) was very small because our economies have been marked over the last 2 or 3 decades by early retirement. More and more we have observed an important social paradox between an earlier exit age from the labour market and an increasing life and health expectancy, and therefore an increasing retirement expectancy.

3. Retirement Expectancy

While at the beginning pension schemes were set up to provide a replacement income during a short period (on average 5 years) and after the Second World War improvements allowed them to finance a retirement of around 10 years, today what I call the ‘retirement expectation’ has increased to an extremely long period: on average 20 years for men and 25 for women. But retirement expectancy is also quite different in our countries. The difference between Sweden and France is revealing and there is room — a lot of room — for improvement in several European countries.
Both increases in life expectancy (and in good health) and, on the whole, excellent coverage by pension systems of the retiree population must be seen as triumphs of the 20th century. Originally designed to cover only a very few years (5 to 10 years after the 2nd world war), more recently these systems have come to be expected to provide for almost two decades of replacement income. New conditions have made it necessary to modernize pension systems and to adapt them to the demographic evolution and to the financial challenges the latter entails. However, in most OECD countries today, levels of protection of the older population are very high. It has been recognized that poverty among the old is something of the past in most countries.

### 3.1. First-Pillar Reforms and Prospects

Public pension conditions, in particular in ‘Bismarckian’ countries (eg. Germany, France, Italy) where public pensions are high, have been tightened by the reforms. Either these reforms have increased retirement ages or will do so progressively (for example, from 60 to 65 for women, from 65 to 67 in Germany and Sweden, from 65 to 68 in the UK) or the number of contribution years (often to 42 or 45 years). Generally the link between the level of benefits and the level of contributions has been considerably reinforced. Furthermore in most countries the benefits are already or will in future be indexed to prices and no longer to wages, something which will make them much less generous in the long-term. The calculation of the benefits has also been modified, for example in a number of countries they are now calculated on the mean contribution over a much longer working period, leading to a de facto decrease in benefits.

In the EU15 Member States pension expenditure is now projected to increase from almost 11% today to around 13% by 2040, an increase which would have been greater had these important reforms not been passed.

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**Table 1: Retirement expectancy in a few European countries**

<table>
<thead>
<tr>
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<th>Average age of exit from work</th>
<th>Life expectancy at 65</th>
<th>Retirement expectancy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Men</td>
<td>Women</td>
<td>Men</td>
</tr>
<tr>
<td>Denmark</td>
<td>61.9</td>
<td>59.8</td>
<td>15.4</td>
</tr>
<tr>
<td>France</td>
<td>58.9</td>
<td>58.8</td>
<td>16.9</td>
</tr>
<tr>
<td>Germany</td>
<td>61.1</td>
<td>60.3</td>
<td>16.0</td>
</tr>
<tr>
<td>Italy</td>
<td>60.2</td>
<td>59.7</td>
<td>16.5</td>
</tr>
<tr>
<td>Netherlands</td>
<td>62.9</td>
<td>61.6</td>
<td>15.6</td>
</tr>
<tr>
<td>Sweden</td>
<td>63.4</td>
<td>63.1</td>
<td>16.9</td>
</tr>
<tr>
<td>UK</td>
<td>62.7</td>
<td>61.9</td>
<td>15.7</td>
</tr>
</tbody>
</table>

Source: OECD 2004 and own calculations.
2. Second-Pillar Reforms and Prospects

Second-pillar or occupational pensions have been developing and are now compulsory in a number of countries (among them, the Netherlands, Nordic countries, Switzerland, Poland, Australia). In these countries around over 90% of workers are covered. However they remain non compulsory in some rich countries leading to a difficult situation for retirees. In the USA, for example, only half of workers are covered by an occupational pension scheme, and worse the percentage of those covered has not increased over the last two decades; according to some recent studies, indeed, even fewer employers would offer pension plans (see Section IV Report on the USA). Therefore the poverty rate among retirees is higher (over 20% of retirees) than in most OECD countries. At forums and in its publications the Geneva Association has been at pains to stress how important are legislation and collective negotiations in encouraging all employers to cover their workforce. In Switzerland there has been a positive development: although second-pillar contributions are still not compulsory for the self-employed, they are for all wage-earners and the income floor at which they are compulsory has been lowered (from 24 to 18 000 Chf per year) thus covering more part-time employees, often women — an improvement, the importance of which the Geneva Association was able to bring home to the authorities in Switzerland.

In most countries (for example, in Italy), reforms have the effect of making pension schemes more uniform (such as those covering civil servants) and many advantageous systems have had benefits to some extent curtailed. In a few countries (for example, France), this has not been allowed to happen for political reasons. Civil servants and other wage-earners in public (or previously public) companies each have specific schemes with very generous benefits (in comparison with those covering wage-earners in the private sector) which in the past were designed to compensate for lower wages. Today these benefits are taken for granted by retirees or by those about to retire but cannot be funded from the beneficiaries’ own contributions, and it is private-sector employees and the general public that end up paying for these ‘privileges’. All parties know that this contentious issue cannot be shelved for much longer...

Mostly the rules governing second-pillar schemes have shifted from a defined-benefit to a defined-contribution basis, making benefits less dependent upon employers’ promises, often unrealistic in the past. In the long-term these rules will progressively make occupational pensions more the responsibility of individuals, rather than of firms. They will also make for increased mobility for workers.

3.3 Third-Pillar Pensions

These private or personal pensions have also been strongly encouraged by recent reforms, often by fiscal deductions, especially in countries where second-pillar schemes are not generalized. In other countries life insurance products are playing the role of third pillar pensions. It is interesting to compare second-pillar pension funds and life insurance funds. For example, in 2005 in Sweden, second-pillar pensions accounted for around 20% of GDP while life insurance products accounted for as much as 50%. The situation was the opposite in Finland where 2nd-pillar pensions represented 66% of GDP and life insurance 16%. In the USA 2nd-pillar funds were very high (93% of GDP) and life insurance represented 22% of GDP. In France life insurance was as much as 44% of GDP in 2005, while second-pillar funded pensions were only 6% (France is an exception: private sector second pillars are organized on a pay-as-you-go basis).

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But of course other measures also need to be considered and adopted, and each European country is currently struggling to find the best cocktail of measures, i.e. that mix that will cause least social and political pain. Here are ten main solutions:

1. Make public pensions less generous (eg. Cont. Europe) relatively to wages.
2. Increase contribution rates/periods or raise taxes (not in Cont. Europe, except CH).
3. Make 2nd pillar (occupational pensions) compulsory for all workers.
4. Encourage savings (3rd pillar, life insurance, others).
5. Increase retirement ages (eg. women) — life expectancy increases must be shared between work and leisure life.
6. Provide incentives for the employment of workers beyond 60 and 65 years (make retirement flexible), in particular part-time or part-year.
7. Increase the general level of employment of women and of other cat. of workers.
8. Increase the entrance of young migrants (when possible).
9. Encourage higher fertility and a combination of education of young children and work of parents.
10. Facilitate a wide debate and the adoption of complementary measures/policies.

To conclude this 1st part, the following graph provides an estimation of what we believe will be the future trend for the distribution of retirement income between the ‘four pillars’ for a representative country in Europe.

*Figure 2: Evolution of retirees’ income from the four pillars in 2000 and 2020*


4. The 4th Pillar Proposal and the Development of Senior Employment in a Long-Life Society

If we now look at the other side of the coin — the employment side —, things have also started to improve in OECD countries. Most — not to say all — reforms have made pension conditions more flexible and are encouraging longer working lives, and later and more gradual retirement. One way of achieving this has been to put in place disincentives for early retirement and incentives for delaying exit from work. Combining income from work
with a partial (or a full) pension is now possible. Of course in a number of countries (e.g. France, Italy) an important part of work after pension age is done on the black market and it is difficult to assess its real level.

Indeed one of the main targets of the EU for this decade is to increase the participation of workers beyond 60 so that we have a participation rate of at least 50% for 55-64 workers in 2010 and to reduce the gap between the pension age and the exit age from the labour market. Statistics show us that well-trained workers tend to retire later than less qualified ones; the cohort effect means that in future more qualified workers will be working in better work conditions and will benefit more from lifelong education and continuing training. They will retire later than today and in a more flexible manner than today.

What can we say in 2007? First, early retirement trends have started to reverse in most countries and the proportion of workers over 60 has increased. Several EU15 countries have adopted employment. While the answer to Why work beyond 60 is now obvious, the how and for whom are questions that require more subtle responses. More generally within the economy, but also socially and culturally the concept and practice of active ageing has been steadily gaining ground and the WHO and the European Commission have both been at pains to promote the concept. And this is where the EC and the OECD have begun to appreciate the full relevance and value of 4th Pillar thinking. We have, indeed, shown that meeting the challenges of a long-life society will inevitably involve a thorough rethinking of work conditions.

First it is important to realize that new social and employment trends constitute real opportunities for extension of work life.

The life cycle of the great majority of us has radically altered in recent years: the organisation of life into traditional three age-based vertical periods (training, work, retirement) is gradually giving way to a horizontal modern arrangement where we train, work, bring up families, spend our leisure time and retire differently than we did in the past. Continuing training and lifelong education are becoming an accepted part of life and work, part-time and flexible work have developed considerably. Moreover, most people are no longer ‘old’ at 60 or 65 (Orio Giarini has coined the term counter-ageing to describe this phenomenon) and many ‘age actively’ performing the voluntary and family activities that are essential for our communities. Overnight or guillotine retirement has been negative for generations of workers and surveys show that there is a strong need for a transition between full-time work and full-time retirement.

**Figure 3: Life cycle: Age-based distribution of activities**

![Diagram showing traditional and modern distribution of activities](source: G. Reday-Mulvay, Geneva Association, 1999.)
New major employment trends are also favourable factors for working beyond 60 or even 65. If we consider not only tertiary sector activities per se but also service functions in manufacturing and agriculture (such as research, planning, marketing, maintenance, storage, quality control, occupational safety and health, and distribution), we find that well over 80 percent of jobs in our economies are now of a service nature, and this trend is set to continue in the years to come. Not only are part-time and flexible employment more developed in services but most jobs in this sector involve primarily mental and social abilities. The latter hardly deteriorate over time and in some cases even improve with age. Not only have workforces become more feminised and older, but there still exist substantial untapped workforce reserves of women and older persons. Surveys show that these two categories of worker, declare themselves ready to work later than 60/65 if offered flexible work opportunities.

Therefore, policies which seek to help women and older workers reconcile work with family and health constraints and improve their pension rights will be making a very real contribution to meeting the challenge of ‘ageing’. Improvements in the work environment and organization will help senior workers stay active longer.

5. Reduction of Working Time and Promotion of Age Management

One key variable is the reduction of work time — not only in order to adapt working time to the changing abilities of ageing workers (e.g. providing more recuperation time) but also to allow for a “transition” beneficial to both worker and firm, which in turn will involve a significant increase in choice and flexibility.

Work-time reduction is essential to facilitating and encouraging work beyond 60. Scientific studies have shown that workers over 60 are no less effective or productive than their younger counterparts. They often have different typical strengths and weaknesses: physical abilities decrease with age, but as we have seen mental and social abilities can improve, especially if the stress level is contained. However, working full time after 60, 63 or 65 will prove positive only for a minority of workers, the highly motivated who are often self-employed or able to work flexibly.

The main benefits of part-time work and of gradual retirement are important for employers (e.g. reduction of costs, increased productivity, lower absenteeism) as company practices show (e.g. Arcelor, Laboratoire Boiron), and also for employees (e.g. reduction of stress and improved health, enhanced job satisfaction, a managed transition between full-time work and complete retirement).

Part-time work has already proven to be an excellent bridge between effective exit ages (e.g. 60) and legal pension ages (e.g. 65). It is often called partial early retirement in countries such as Finland, France and Germany where it has had significant successful practice.

In the longer term part-time work will constitute an ideal extension of work life beyond 65 for various reasons: the need to increase the number of contribution years and improve pensions (especially for women), the desire to remain useful and integrated in one’s company, and the benefits of exercising one’s mental, social and physical abilities.

Measures of reduction of work time, gradual/flexible retirement and part-time work are often relatively easy to put in place, and British or other European firms have experienced benefits in retaining corporate experience and culture, in improving employee satisfaction, in meeting consumers’ age needs, in reducing absenteeism (e.g. French & Swedish firms), and in improving the employer image.
Adequate age management for the future involves of course more than just work-time adjustments. We list here some of the measures being taken in various EU15 countries.

- Career planning: there are positive cases in German, Norwegian and French firms (e.g. Axa France where career planning encourages mobility of functions inside the firm).
- Continuing vocational training and lifelong education, crucially important and becoming frequent in large firms in most countries, with statistics and/or examples in Sweden, Germany, France, the Netherlands and the UK.
- Ergonomics and mobility are being improved in a number of firms, especially in Finland, France, Germany and the UK.
- Seniority wages are being modified, an important measure if discrimination against older workers is to be avoided (e.g. Sweden, UK).
- Pension regulations often in the past based on final salary (e.g. the Netherlands, the UK) are more and more calculated on best 10 or 20 year basis.
- Anti-age discrimination: all EU15 member states had to pass legislation before 2006, some countries having passed wider legislation (e.g. the Netherlands) than others.
- Codes of practice containing guidelines for employers and employees have been prepared by governments and adopted by companies in several countries: the UK Code of practice is one of the best; there also exists a European code of practice on age and employment.

6. Conclusions

What would be our key policy recommendations for a wide development of a fourth pillar?

Countries which have been so far successful in flexibly extending work life such as Finland, Denmark, the UK and the Netherlands are countries which have adopted a global approach to healthy and active ageing and to end-of-career management. Indeed, global issues require a holistic approach which I have tried to summarise on the last graph. The constraints on the left-hand side are compensated by new trends in the health and life cycle of individuals and by a redesign of management in an increasing number of firms. Combined, these measures will make for economic and social active ageing in the decades to come.

More specifically, there is an important need for diversity and fairness. Workers enter the labour market at different ages, in different work circumstances and with a wide range of different life expectancies (e.g. in France where the range in life expectancies between men in different categories of work is over 8 years). The retirement age should therefore be in part a function of the arduousness of work and job mobility needs to be developed in particular for workers performing difficult physical or stressful work.

The need for flexibility is also crucial in our societies. If working longer will soon become an unavoidable obligation and if flexibility towards a higher retirement age is to be encouraged by all means, then flexibility on earlier exit must also remain a possibility, especially for manual workers or those performing psychologically demanding tasks.

Most importantly, retirement should become more a process rather than the mere event it mostly remains at present.

Furthermore there is a crucial need for coordinated social and economic policies. Public social and economic policies (e.g. pension reform and employment measures) need to be integrated into and coordinated with company measures and strategies. Any restrictive measures must be accompanied by simple and strong and long-lasting incentives.
And, last but perhaps first, there is a need for a lively and well-informed debate. At all levels - media, trade unions, employer organizations - a broad debate is essential if the trend towards early retirement is to be reversed in the long-term.

Finally, the following additional policy issues need to be addressed:

1. Reinforcement of family policies is essential to increase fertility rates. Countries such as Norway, Sweden and France have relatively high employment rates for women together with relatively high fertility rates and this owing to good family policies;
2. A controlled immigration can also act as a very complementary and often short-term solution to the challenge of ageing in some countries;
3. Improving the quality of work is of key importance. As we have seen well-trained employees working in a good work environment retire later than less qualified ones; the cohort effect means that in future more qualified workers will be working flexibly in service activities and benefiting from continuing training and lifelong education, and thus they will retire later than today.

Figure 4: Model for developing the 4th pillar and senior employment

In conclusion, in a counter-ageing society and in service economies, pensions and work need to be rethought in a flexible and innovative way. Perhaps, as in traditional societies, retirement will once again become a more gradual process with people continuing to make an economic and social contribution until late in life, not only because pensions may become relatively lower but because they will feel like it and society will need them.

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Work and Pension in Sweden

by Eskil Wadensjö


For several decades the share of older people in the population has gradually increased in the industrialised countries. This development started early in the Scandinavian countries, especially Sweden, but is now prevalent in all industrialised countries and also in many others. Table 1 shows the development between 1975 and 2000 in a number of countries and a forecast for development up to year 2030 made by the U.S. Department of Commerce and U.S. Census Bureau.

Table 1: Share of the population 65 years and older and 80 years and older in some countries (%)

<table>
<thead>
<tr>
<th>Country</th>
<th>1975</th>
<th>2000</th>
<th>2015</th>
<th>2030</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>65+</td>
<td>80+</td>
<td>65+</td>
<td>80+</td>
</tr>
<tr>
<td>Denmark</td>
<td>13.4</td>
<td>2.4</td>
<td>14.9</td>
<td>4.0</td>
</tr>
<tr>
<td>Norway</td>
<td>13.7</td>
<td>2.5</td>
<td>15.2</td>
<td>4.4</td>
</tr>
<tr>
<td>Sweden</td>
<td>15.1</td>
<td>2.7</td>
<td>17.3</td>
<td>5.0</td>
</tr>
<tr>
<td>France</td>
<td>13.5</td>
<td>2.5</td>
<td>16.0</td>
<td>3.7</td>
</tr>
<tr>
<td>Germany</td>
<td>14.8</td>
<td>2.2</td>
<td>16.2</td>
<td>3.5</td>
</tr>
<tr>
<td>Italy</td>
<td>12.0</td>
<td>1.9</td>
<td>18.1</td>
<td>4.0</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>14.0</td>
<td>2.4</td>
<td>15.7</td>
<td>4.0</td>
</tr>
<tr>
<td>Japan</td>
<td>7.9</td>
<td>1.1</td>
<td>17.0</td>
<td>3.7</td>
</tr>
<tr>
<td>USA</td>
<td>10.5</td>
<td>2.1</td>
<td>12.6</td>
<td>3.3</td>
</tr>
</tbody>
</table>


There are two main factors behind this development. The first one is the fertility rate that is low and declining — the average number of children a woman gives birth to has declined and therefore the number of children born each year declines. The new cohorts are smaller than the older ones at birth. In some countries the baby boom cohorts born in the 1940s or the 1950s are still the largest. For some countries this development has been very rapid. Such is the case for China with its one-child-policy but also for European countries like Germany, Italy and Spain. During the first decades of the post-war period, Southern European countries had higher fertility rates than Northern European countries. Now the pattern is reversed. Of the countries shown in the table, Italy will have the largest share of older people if the present tendencies continue. Sweden does not have an especially low fertility rate in a European perspective but, as in most other countries, it is below the level which leads to a stable or expanding population (not taking into account net immigration).

* Swedish Institute for Social Research, Stockholm University.
The other factor behind the age explosion is that life expectancy is increasing. During the 19th century and the early 20th century life expectancy increased, mainly through decreasing child mortality rates and partly through the decline in mortality rates among people of active age. Vaccination campaigns and new medicines are some of the factors behind that development. In recent decades the main factor behind increased life expectancy is that people live longer beyond the age of retirement compared to earlier. This tendency towards increasing life expectancy is strong in many countries. Sweden is among the countries that have the highest life expectancies.

An ageing population has consequences for the labour market and the economy of a country. The number of people to be supported by each person of active age increases. If the standard of those of active age is not reduced, but rather increases in the same way as that for other groups, the tax rates have to be increased. Increased tax rates have consequences for labour supply and demand.

The problem is exacerbated by a tendency towards increased early exit, i.e. people leave the labour market before they reach the ordinary retirement age. In some countries this tendency has become especially pronounced as a result of special programs which facilitate early exit having been introduced.

The tendencies I have described here are counteracted by an increase in female labour force participation. This tendency is to be found in all countries but varies considerably in the speed of development. In Denmark and Sweden the labour force participation is more or less the same for men and women, but women still work fewer hours.

2. Policies to Counteract the Economic Consequences of an Ageing Population

An ageing population means (if everything else is kept constant) that the number of older people per employed individual is increasing. It leads to a demand for increases in fees and taxes and cuts in public expenditures. There are several methods that can be utilized to reduce this problem. One such policy is to attempt to retain older workers in the labour force. Before concentrating on policies for retaining older workers in the labour force I will say something about other types of measures available to increase labour force participation.

A higher productivity level will lead to a lesser burden for those of active age if pensions and old age care are not increased as a response to the productivity growth. Other policies are such that may increase labour force participation. One way to do so is by increasing the formal retirement age. Other measures aim at increasing the actual retirement age by counteracting early exit, for example by changes in compensation rates and the possibilities of access to different social security schemes. Special labour market programs for older workers may also be a possibility. In the same way there may be methods of facilitating entry into the labour market for young people, especially to shorten the search period after completion of education. Measures for increasing female labour force participation and working hours may also be an option. Measures for better integration of immigrants and disabled people may also contribute to higher labour force participation.

3. What is the Swedish Model?

There is not one unified Swedish model. What is labelled the Swedish model varies depending on the focus of interest. I will mention here some of the aspects that are included in most versions of the Swedish model.
Sweden is a country with large public expenditures. The large expenditures and high taxes to finance them are the basis of the Swedish welfare state. The welfare state consists of both extensive social services programs and income transfer programs.

The work principle and not the cash support principle is the main one concerning employment policy. The work principle was established as the preferred policy during WW1 and since then it has guided the design of employment policy. An active labour market policy is preferred to a passive one. The work principle has been extended in different ways. One example is policies to increase employment among women, another example is policies to increase employment among older workers.

High employment among women means that child care and also the care of old people that in many countries takes place in the household by women, is instead organized by the public sector. Extensive social services characterize the Swedish welfare state.

The social security system is a central part of the Swedish welfare state. Together with the active labour market policy and the large public service sector it constitutes what has often been called ‘the Swedish model’. Coverage has been high with residence in Sweden as the main criterion, and could be classified as a universal system. Besides a basic compensation, for the compensation has also been based on the earning replacement principle, and the replacement rate has generally been high. There have been ceilings in the schemes, but for those with earnings higher than the ceiling, occupational insurance schemes have complemented it. In this presentation the emphasis is on the design and especially the changes in the social security programs.

4. Changes in the Swedish Model since the 1990s

Up to the early 1990s social security schemes had changed in almost only one direction; they had become gradually more generous. However, in the late 1980s, already before the economic crisis of the 1990s, the policy changed. Intended reforms leading to even more generous systems were cancelled and a discussion started concerning the costs of the social security system. In the early 1990s several problems in the social security system worried the political players. The high and increasing take-up of sickness cash benefits, occupational injury benefits and disability pensions led to a discussion on compensation rates and eligibility rules. The slow growth rate of the economy, combined with a growing number of older people, led to worries regarding the future financing of the system and thereby its viability.

The unemployment insurance schemes gave no cause for worry in the late 1980s. Unemployment was very low, 1.5% of the labour force in 1989, and therefore the costs for the unemployment insurance scheme were also low. However, the situation totally changed during a few years in the early 1990s. A recession caused by combined international and domestic factors led to a drastic increase in unemployment levels previously unsurpassed in the post-war period. More important is that labour force participation declined for the first time since the labour force surveys started in 1963 and the employment rate declined even more.

The costs for unemployment insurances skyrocketed just as the costs for the active labour market policy did in the early 1990s. And as a result of the crisis, governmental income via taxes diminished as employment declined. A small governmental budget surplus turned into a large deficit and the public debt soared. The major political parties all came to favour changes to decrease the expenses for the social security programmes.

Changes were easiest to make in the schemes that paid people who were out of work for short periods due to unemployment, sickness or occupational injury. Unemployment compensation
was lowered from 90 to 75% (it was increased to 80% in October 1997), a waiting period was introduced and the eligibility conditions were made slightly more demanding in steps. Similar changes were made for sickness cash benefits. The replacement rate was lowered from 90 to 75% (to determine the total compensation, compensation from occupational insurances should be added) and a waiting period was introduced here also. Compensation was also lowered for occupational injuries (but here the occupational insurances compensate for that change) and the burden of proof was moved from the employer to the employee in 1993.

The most difficult system to change was the old age pension scheme. There are several reasons for that. People’s working lives are influenced by the pension system. Those working would have chosen to go with another pension system. Changes in the pension system therefore had to be made in a way which would not alienate large groups of those who were already in the labour market (large groups of voters). Another factor was that the existing pension system was decided on in 1959 after an intense political conflict including a referendum and an extra general election. The major political parties tried to avoid a political conflict of that type this time, but that also meant that the political process had to take longer.

5. The Former Pension System

I will start by presenting the earlier ATP pension system, which is still totally dominant as regards the distribution of social security pensions, and is still more important than the new pension system for those who retire now. Since 1960 up to the introduction of the new pension system, the social security pension system in Sweden consisted of two parts: a basic pension (folkpension) and a supplementary earnings-related pension (ATP-pension). These two together replace roughly 65% of an individual’s earnings (more in the case of low earners), up to a ceiling. The pensions are indexed according to a base amount that follows the consumer price index. A base amount in 2008 is SEK 41 000.

The basic pension has been the same for everyone except in the case of married couples where both parties receive old age pensions. The sum of their two pensions is less than twice that of a person who is not married to another person receiving an old-age pension. From 1993 a new requirement was introduced: to be eligible for a full basic pension, 40 years of residence in Sweden between the ages of 16 and 64, or 30 years of earnings, are required (only the years with earnings that amount to at least a full base amount are included). If these requirements are not fulfilled, the pension is reduced proportionally.

To be eligible for a supplementary pension — the ATP-pension — three years’ earnings at least one base amount per year are required, while 30 years earnings at the same level are required for a full pension. The pension is based on the average of the 15 years with the highest (real) earnings. If a person has less than 30 years’ with earnings, the pension is reduced proportionally. There is a ceiling of 7.5 base amounts. Earnings above 7.5 base amounts do not affect the size of the pension. Additional pension supplements and housing supplements are granted to those who have low, or no, supplementary pensions.

Between 1913 and 1 July 1976 the retirement age was 67. Since then it has been 65. Since 1960, a reduced early old age pension and an enhanced late old age pension have been available options. It used to be possible to draw an early old age pension from the age of 63. This age was reduced to 60 in 1976 when the general retirement age was lowered, but raised to 61 in 1998. The pension continues to be reduced after 65 too, if it is taken up before that age. Since 1960 it has been possible to delay drawing the pension until the age of 70. In 1960 it became possible to draw half an old age pension (with the reduction or enhancement calculated according to the same principles as for a full pension). The age interval has been the same as for a full pension. The option of a quarter and a three-quarters old age pension
has been available since July 1993.

The ATP pension system was a pay-as-you-go system, but combined with partial funding. A pay-roll fee and revenues from the funds have mainly financed the supplementary pensions. At the end of 1995 the AP-funds (the funds for the ATP-pensions) amounted to SEK 564 billion, which was roughly five times the total sum distributed in ATP-pensions in a year. The basic pension (folkpension) has been financed from the state budget, although there has been a special payroll fee for the basic pension.

6. The New Swedish Pension System

The main idea behind the new pension system is to increase work incentives by making the pension system actuarially fair and, consequently, viable. The system was to be more of an insurance system and less a system for the redistribution of income. A second aim of the reform has been to see that the pension system guarantees a basic income for everyone in their old age. This means that there should be some redistribution, but it should be more visible than in the earlier system. The major change has been to shift away from a defined benefit to a defined contribution system. This new defined contribution pension system consists of two parts — a pay-as-you-go system and a premium reserve system — with the pay-as-you-go system having notional accounts as its main part. The construction of the defined contribution pay-as-you-go system is an interesting innovation. The transition from the earlier ATP to the new system is gradual. The first group to get part of their pension from the new scheme were those who were born in 1938. The pensions of those who were born in 1954 or later will be based entirely on the new system.

6.1 A Defined Contribution System

The pensions are based on a person’s earnings every year for those aged 16 or over, and include earnings after the age of 65. An amount corresponding to 18.5% of the earnings will constitute the pension credits accrued over a year (the same as the fee, see below); 16% will go into a pay-as-you-go scheme (inkomstpension) and 2.5% to a premium reserve scheme (premiepension). Not only earnings (including transfer payments during unemployment, sickness, etc.) are taken into account when calculating the pensions, but military service, care of one’s own children up to the age of four, years of study to some extent, and years with disability pensions are all considered. In general, hypothetical earnings are calculated and pension credits corresponding to 18.5% of the hypothetical earnings are added to the account of the person concerned. There is a ceiling for income included in the calculation of pension credits. This ceiling was 7.5 base amounts in the year 2000, and since 2001 it is linked to an earnings-based index. The pension credits are linked to an index for the development of the total earnings in the economy.

Each year the accumulated pension credits of those who have reached 65 years of age during the year are transformed into a pension. This is done by way of a “partition rate”, that is decided anew for every cohort upon reaching 65. The size of the partition rate, and thus the pension, depends on the expected period during which those reaching 65 will receive a pension. As remaining life expectancy increases with each cohort, the partition rate will gradually rise, and pensions will therefore be lower for each cohort, unless counteracted by economic growth.

Secondly, there will also be a ‘guarantee pension’ (garantipension) for those with low or no earnings. For a full guarantee pension the applicant must have resided in Sweden for at
least 40 years between the ages of 16 and 65. A full guarantee pension is 2.1 base amounts for an unmarried pensioner and 1.87 base amounts for a married pensioner. The guarantee pension is reduced if the pensioner receives an earnings-related old-age pension. If the total pension is 3.0 or more base amounts for an unmarried pensioner, or 2.655 base amounts or more for a married pensioner, the pension will consist of the earnings-related pension only. This means that the guarantee pension is ‘taxed’ at 70% of what is received in the earnings-related pension (but not taxed against other pensions and incomes).

After a person has retired, the earnings-related pensions will be linked to a price and growth-related index. If the funds amount to less than is necessary to cover the pensions, the index is recalculated. Guarantee pensions are linked to a price index.

6.2 Financed by Employer and Employee Fees

The new pensions are financed by fees, which amount to 18.5% of earnings. The funds of the ATP-scheme, the AP-funds, will also be used to finance the pensions. As noted above, military service, childcare, etc. also yield pension credits alongside earnings. The state will pay fees covering the pension credits acquired in this way. The fees are calculated and paid in the same way as the other fees. The only difference is that the state pays the fees, not the individual. The costs of the guarantee pensions will also be paid out of the state budget.

The system is run mainly on pay-as-you-go lines, but part of it is a premium reserve system. 16 percentage units of the fees are paid into the pay-as-you-go system, and 2.5 percentage units into the premium reserve. Payments into the premium reserve system started already from the fiscal year 1995 with 1 percentage unit from the employee. Both parts of the new pension system are defined contribution schemes, not defined benefit schemes.

Half the fee is paid by the employer, half by the employee. An employer fee of 9.25% is paid on the part of the earnings that exceeds 7.5 base amounts although this payment will not be a basis for calculating the pension.

6.3 A Premium Reserve Part

A much-discussed feature of the new pension scheme is the premium reserve part of it. The fee, as mentioned earlier, is 2.5%.

The premium reserve part is regulated as follows:

1. The individual decides which funds should administer his savings in the premium reserve part. Insurance companies, banks and newly started institutions are among the alternatives available. An individual may choose up to five funds and may change funds without notice. There are more than 600 funds.

2. The companies administering the savings must be approved and supervised by Finansinspektionen (the Financial Inspection Authority).

3. It is possible to begin claiming the pension from the age of 61. When the pension starts, the money is transferred to a government pension company, which will administer the premium reserve pension.

The pension funds of the premium reserve scheme will gradually increase. When the system reaches maturity, its size will correspond to 25-30% of GDP. There are also funds in the pay-as-you-go systems. The AP funds constituted these funds at the start. In the first twenty to thirty years of the new system the funds will diminish as they are used to pay for those to whom the rules of the earlier system apply. However, they will not be totally
depleted, and will start to rise later when the payments under the earlier system dwindle.

6.4 An Opportunity for Dividing Pension Credits in the Premium Reserve Part between Spouses

Married couples, where both spouses were born in 1954 or later, are offered the opportunity of dividing their pension rights in the premium reserve part of the new system. No such possibility existed in the ATP-scheme. One requisite is that both spouses apply, and that the application is made before 31 January in the year when both spouses want to divide the pension credits. Other requisites for a division of pension credits are that both spouses reside in Sweden and that neither of them receives an old age pension. Once the application has been made, the division of the pension credits continues until an application is made for its discontinuance, or until the couple divorce. If the couple apply together for discontinuance, this becomes valid from the year of the application. If only one of the spouses applies it becomes valid from the year after application was made. Discontinuance does not influence the pension credits that are already divided.

6.5 The Intention: More Flexible and Higher Retirement Age

The change to actuarial pensions is intended to increase labour supply and delay retirement. Other steps have also been taken with the same intention. Earlier, a reduced old age pension could be drawn from the age of 60, but in the new pension system 61 is the lowest age (this change has applied since 1998). At the time of early retirement the pensioner will receive the earnings-related pension only. A guarantee pension can only be granted from the age of 65, and is then calculated in the same way as if the person had retired at the age of 65. Other changes are that earnings after 65 also give pension credits, thus increasing the pension, and that it is possible to delay the take-up of the pension until after the age of 70, thus increasing the annual pension. Another part of the reform is that mandatory retirement agreements with a stipulated age lower than 67 have been forbidden since 1 January 2003.

6.6 An Opportunity for Part-Time Retirement

One way of combining work and retirement is to take up a partial old age pension from the age of 61 or over (the earnings-related part). It is possible to draw a quarter, a half or a three-quarter old age pension.

6.7 The Main Features of the New Pension Scheme

To summarize: the main features of the new pension scheme are 1) that it is a defined contribution system with notional accounts, 2) that it is financed by employer and employee fees, 3) that it has a premium reserve part, 4) that it allows the option of dividing the pension credits in the premium reserve part between spouses, 5) that it offers the chance of part-time retirement, and 6) it is intended to raise the age at retirement.
7. Intended Effects of the New Pension System

According to the ideas behind it, the pension system is intended to achieve several goals.

7.1 Flexibility and Stability

In the long-term the new system should be better adjusted to changes in the economy, to demographic changes and to changes in the labour market. Pensions are determined by the size of the contributions together with these factors, which means that the benefit levels will not be known in advance. The payroll fee is fixed at 18.5%. The costs for the new system in its mature state will be lower than in the earlier system if the growth rate is 1.5%, but higher than the earlier system if the growth rate is 2.5%.

The rather low level of pension fee depends partly on the fact that some forms of compensation are financed from the state budget. These include the guarantee pensions and pension credits granted on grounds other than earnings (military service, studies, child care). Pension credits earned by way of transfer payments are financed by the transfer payment schemes. The growing costs for the government will be partially financed by the proceeds and the depletion of the AP-funds. The disability pension scheme was part of the old age pension system before, but is now a part of the sickness benefit insurance system.

7.2 Maintaining the Savings Ratio

The reduction in the size of the AP funds will in itself entail a drop in the total savings rate of the economy, but this decline will be counteracted by the growth of the funds in the premium reserve scheme.

7.3 Increase in the Supply of Labour

One intended effect of the change in the system is to increase the supply of labour. The work incentives are higher in the new scheme since it is based on earnings over all the years worked, not just the best 15 (as in the earlier system). The idea is that this should mean more years worked (earlier entry, fewer interruptions and later exit on average), and less part-time work. The actual effects, naturally, are uncertain. In Table 2 and 3 we see that labour force participation has increased considerably among older workers since the mid 1990s. The new pension scheme may be one of the factors behind that development.

*Table 2: Labour force participation among men aged 55-64 in 1990-2006 (%) in Sweden*

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<tr>
<td>55-59</td>
<td>87.4</td>
<td>82.2</td>
<td>83.9</td>
<td>83.8</td>
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<td>60</td>
<td>74.2</td>
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<td>64.9</td>
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<tr>
<td>62</td>
<td>65.9</td>
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<td>38.0</td>
<td>48.2</td>
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<tr>
<td>16-64</td>
<td>87.0</td>
<td>80.2</td>
<td>80.2</td>
<td>79.7</td>
<td>81.3</td>
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Table 3. Labour force participation among women aged 55-64 in 1990-2006 (per cent) in Sweden

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<td>55-59</td>
<td>78.8</td>
<td>77.3</td>
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<td>60</td>
<td>69.0</td>
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<td>61</td>
<td>62.2</td>
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<td>62</td>
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<tr>
<td>63</td>
<td>46.7</td>
<td>37.7</td>
<td>35.1</td>
<td>49.3</td>
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<tr>
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<td>37.3</td>
<td>31.2</td>
<td>25.2</td>
<td>40.7</td>
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<td>16-64</td>
<td>82.6</td>
<td>76.1</td>
<td>75.5</td>
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7.4 A Fair System

The earlier arrangement, with its combination of the national basic and national supplementary systems, has been criticised for redistributing incomes in a way that does not always lead to greater equality. The earnings-related part of the new scheme will not generally be redistributive, but there are some redistributive elements. For earnings above the ceiling, the employer fee is paid but is not used as a basis when calculating pensions. Another redistributive element in the system is the guarantee pension, which is only paid to those who have low or zero earnings-related pensions. A third redistributive element is that unisex life tables are used.

The committee that prepared the proposal made various estimates of the distributional effects of the new scheme compared to the earlier one. For example, calculations were made for those born between 1954 and 1985 according to the old and the new schemes. The average pension in the new scheme will be 92% of the level in the earlier system for both sexes (the change in the system is neutral in that respect). Those who work for a few years (only 19 or less) will gain from the change in the system (due to the guarantee pension). The rest will lose, in particular those who work for 30-39 years.

8. Strong and Weak Points of the Swedish System for Older Workers

The Swedish system has some strong points but also some weak points regarding the employment of older workers. One of the strong points is the low unemployment rate among both older people and those of other age groups for most of the post-war period. The major exception is the recession of the early 1990s. Low unemployment has made it easier for older workers to stay in the labour market. Another strong point is the work principle and the fact that it has also been applied to older workers. Older unemployed workers have for example been placed in active labour market programs. A third strong point is the new pension scheme which encourages people to continue to work and to avoid early exit.

But there are also weak points in the Swedish policy regarding older workers. One weak point is that there are several early exit ways in Sweden even if they are less frequently used than those in many other countries. Another weak point is that many who are employed are on leave for health reasons.
Stop and Go in the Italian Pension Reform Process

by Elsa Fornero*


On July 27th, 2007 the Government and the Trade Unions reached an agreement (known as the ‘welfare protocol’) which has subsequently become a law proposal, submitted to Parliament and included, as a separate bill, in the 2008 financial law. The immediate goal of the bill is to prevent the former (2004) pension law from becoming effective, as originally stipulated, at the beginning of 2008, and consequently to avoid the rather abrupt increase in retirement age (three years) established by that reform, which would cause a sharp discontinuity of treatment between adjacent cohorts (the so-called ‘scalone’ — big step — as opposed to a smooth increase in retirement age).

From a political point of view, the welfare protocol can be thought of as a ‘reasonable compromise’ between the different stances of a composite majority and the rather conservative attitudes of Italian trade unions (whose members are typically rather old).

From a technical point of view, the agreement can be evaluated according to different criteria. In this note, I will concentrate on its contribution to the financial sustainability of the system, both in the short/medium term, i.e. in the transition phase, and in the long term, i.e. when the new Notional Defined Contribution (NDC) regime will be fully phased in.

As for the medium/short term, still characterised by a defined benefit type of formula, the main change is the smoothing of the ‘scalone’. With respect to the 2004 Maroni law, the new provision stipulates a milder increase in retirement age as of 2008, followed by a phase of progressively more stringent combinations of seniority and steadily increasing minimum retirement ages. Two caveats, however, are in order: i) the still unclear definition of the categories of workers in hazardous occupations, to whom the increases will not apply; ii) the amount and coverage of the costs.

As for the long term, a positive feature of the law proposal is that it reaffirms the contribution-based method for calculating benefits. Indeed, the law stipulates new and tighter rules for the revision of the transformation coefficients (one of the key ingredients of the NDC system), which somehow strengthen the mechanism. However, contradictory signals are also given, such as the further postponement of the first revision (originally due in 2005, it is further deferred to 2010) and the reference to a possible guaranteed replacement ratio for the young generations, which could undermine the commitment to the new system.

In short, the agreement is a mix of lights and shadows, which deserve substantiation under a wider evaluation perspective.

* University of Turin and CeRP.
2. Rising Retirement Age

To provide a proper assessment of the new measures, one needs to take into account the long transition of the Italian pension reform, and its differential impact on the various cohorts. A pay-as-you-go system is necessarily projected into the long term, involving all present and future generations. This feature creates asymmetries as to the effects of legislative innovations: while improving reforms usually find an immediate application, restrictions to benefits tend to be gradual, so as to soften their effects on the elderly, who can hardly offset them by saving more or working longer. The delay in application usually also involves active cohorts, so that the closer a worker is to retirement, the less (s)he will be touched by the cutback.

In Italy, the reform season started in 1992, with the Amato reform, which curtailed both the generous rules for the calculation of the earnings-based pensions and the indexation mechanism (since then applied to prices only, instead of wages). The change in the pension formula, however, only applied to the cohorts with less than 15 years of work, fully for the new generations and on a pro-rata basis for the others. This partition was reaffirmed in 1995 by the Dini reform, which introduced the contribution-based formula within the public PAYGO system.

This delay has generated a very long transition which can be characterised (approximately) as follows: until 2013-15 workers are still subject to the more generous pre-reform rules (earnings-based pensions); from 2013-15 to 2033-35 the reform is applied on a pro-rata basis; from 2033-35 all new pensions will be calculated according to the contribution-based formula; from 2060 all pensions in payment will be of the DC type.

In the transition period, i.e. until 2033-35, the reform is too slow to counteract the progressive worsening of the dependency ratio and the pension expenditure/GDP ratio will continue to rise. Given the sluggishness of the new formula, the strong financial imbalances of this period have been tackled mostly by tightening the eligibility requirements for seniority pensions, and by increasing the average retirement age. Various ‘incentives’ to job prosecution have also been devised¹, insufficient however to compensate for the implicit tax embodied in the seniority pensions. Although in contrast to the flexibility principle at the base of the 1995 NDC reform, restrictions to eligibility, are certainly not without justification, as they tend to reduce the ‘gift’ implied in the rather generous DB seniority benefits.

After more than a decade of such interventions, the average retirement age in Italy has risen for both men and women to levels not far from the European average (EU 15)²; a positive change, insufficient however to make up for the already occurred gains in life expectancy and above all for the prospective ones. Moreover, an important point is that increasing retirement age should not be an exogenously established procedure, decided a posteriori as a means of restoring financial sustainability, but rather a dynamic feature of the pension system, allowing both for flexible choices and for periodic self-adjustment. From this perspective, neither the 2004, nor the 2007 reform fully incorporates the flexibility principle, as well as its counterpart, i.e. the actuarial neutrality and fairness.

The 2004 reform dealt with the issue effectively but also unevenly, by introducing, starting from 2008, the abrupt increase in the retirement age (from 57 to 60 years, combined with 35 years of seniority). Although the measure was welcomed by international institutions, during the 2006 electoral campaign the current Government coalition promised, maybe somewhat incautiously, to smooth the discontinuity of treatment.

¹ Incentives for job prosecution were included in the 2001 Finance Act as well as in the 2004 pension reform.
² According to the last available data, in 2002 the ages (source: Eurostat, Labour Force Survey, 2004) for Italy were, respectively for men, women and total: 60.2, 59.7, 59.9; the corresponding average European values were 61.0, 60.5, 60.8.
The July 2007 agreement with the social parties (later approved by the large majority of workers through a referendum) which replaces the ‘scalone’ with more gradual increases, represents the fulfilment of that promise.

Despite its greater gradualness the new law aims at the same targets as those of the 2004 reform, while the establishment of a minimum age for seniority pensions is important because it helps contain the generosity of the still valid earning-based benefits. According to the 2004 reform the requirements for an employee in 2013 would be age 61 (62 for self-employed) and 35 years of contributions; in the new law these are replaced by ‘quota 97’ (98 for self-employed), i.e. an age/seniority combination of either 61/36 (62/36) or of 62/35 (63/35). Another continuity of the law proposal with respect to the 2004 reform is that it preserved the rather anachronistic age difference between men and women as far as old age benefits are concerned: 60 for women and 65 for men. While, on the one side, this could be a measure to compensate for women’s double activities — at work and in the household — on the other side it could be to the detriment of women when their benefits will be calculated through the contribution-based formula, as they usually have shorter and more discontinuous careers and, correspondingly, lower pension benefits.

Electoral promises however are often made without much reference to their costs. When they become law, however, costs have to be estimated. For the smoothing of the scalone, costs will amount to a total of 10 billion € in the next decade. What is even more important, is who will bear them. The laws relies on a rather vague reorganization of pension institutes, or, failing the savings coming from it, on increasing payroll tax rates by 0.09 points for all workers, a measure which is inconsistent with the Government’s commitment to reduce the tax wedge on labour income. A second open issue, which could further increase the cost of the reform, concerns the definition of workers occupied in hazardous jobs, who are excluded by the reform and can access retirement at lower ages; barring the use of scientific knowledge for the definition, the possibility that Parliament might decide on an ideological basis, ending up listing a too large number of categories under this label, is not to be ruled out, resulting in further expenses being added to an already high bill.

To sum up, the evaluation of the sustainability of the Italian transition phase is a mixed one. It has to be stressed that, regrettably enough, once more, irrespective of all the rhetoric about the need to restore the generational balance, the older generations have been favoured with respect to the younger and future ones. For this reason, it is likely that the 2007 reform cannot be considered the last intervention in the transition process. Many issues, such as the definitions of the categories excluded by the reform, the differentiation between men and women, the possible increase in payroll taxes, are still open. However, even more important is the time consistency problem created by the many ad hoc measures introduced to deal with the very long transition period, which risks disconnecting the transition from its endpoint, i.e. the full application of the NDC system, and reducing the credibility of the method itself. The next section deals with how much credibility is left to the commitment to implementing the original 1995 reform.

3. A Reform in Danger?

Moving on to the long term perspective, i.e. the full application of the contribution-based formula, the 2007 law proposal has not abandoned the method, but made it more uncertain.

On the one hand, the method appears reinforced by the willingness to revise the transformation coefficients, so that the calculation of benefits will take into account the variations in longevity. According to the 1995 reform, the coefficients should have been updated every 10 years, but the first revision in 2005 did not take place. With the new law,
the revision is delayed to 2010. After that, however, it will occur every 3 years, with a first update in 2013, two years before what would have happened without this reform.

On the other hand, however, the new delay in the application of the adjustment mechanism could undermine its credibility. Some could think that this provision, before coming into force, could be revised yet again or even cancelled. Also, the law proposal refers to a newly appointed commission to evaluate the ‘consistency’ of the NDC method with the evolution of both the demography and the labour market, but the tasks of the commission are still quite vague.

A second weakness lies in the (generic) commitment to guarantee at least a 60% net replacement rate, a rather loose statement, which does not embody a true guarantee, but which could undermine the contribution based method and which has been included in the law proposal at the very last moment, without being given enough space in the debate.

As already mentioned, the younger generations are subject to the more severe DC pension rule. This means that if they retire at the same ages as their fathers, their pension benefits will be much less, and possibly inadequate. However, the NDC system embodies the right incentive to delay retirement, and thus underline the basic fact that when longevity increases the length of the working period should also increase. So, working longer rather than the state should be, for the majority of workers, the correct answer, guarantee.

Contrarily, the promise of a state guarantee represents a return to the past, and a hard blow to the design of the 1995 reform, for at least three reasons. First, introducing a generalized guarantee means returning to a defined benefit formula and abandoning the contribution-based method, devised to guarantee the sustainability of the system. Again, the costs for this promise will be charged to the future generations, who cannot protest against the measure.

Second, a state guarantee implies not only direct costs, i.e. the costs to public finances, but also indirect costs, such as distortions in the labour market induced by pension formulae with no match between contributions paid and accrued benefits: tax evasion, retirement at the minimum ages, and so on.

Finally, we have to consider that 60% of a high salary is much more than 60% of a low salary. Since usually higher salaries correspond to higher human capital and more dynamic careers, while lower salaries apply to low human capital and flatter careers, it is apparent that the guarantee implies creating new privileges, unfairly rewarding the more well-off groups.

In order to avoid the disadvantage of such a generalized guarantee, and at the same time to ensure economic security for the elderly, the road to be followed is the contribution-based method. Of course, a contribution from public finances has to be foreseen for individuals who, because of an unfortunate working life, weren’t able to raise enough pension wealth. To be effective without creating new distortions, public aid must be selective, not generalized.

4. Pensions and Labour Market

A very relevant question in this context is whether the Italian labour system is still able to create ‘good jobs’ that, in turn, can generate an adequate income to provide for needs during active life as well in retirement. This is a realistic concern, if we consider the performance of the market, and, in particular, the wage dynamics, over the last decade3.

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3 See, for example, the analysis of the Bank of Italy Governor Mario Draghi, delivered at the University of Turin on October 26, 2007, http://www.bancaditalia.it.
Focusing on pensions as a remedy for labour market deficiencies is like trying to strengthen the effects of a medicine without considering that the diagnosis may be wrong. On the contrary, the emphasis should be put on the contribution-based method, which, if properly applied, is the only formula able to guarantee the automatic equilibrium and long term sustainability of a pay-as-you-go system.

Precisely because of the long transition envisaged since its approval, this method has never been attributed the right merits; unsurprisingly so, as a reform that will be fully applied only in 2030 is not likely to be ‘owned’ by the majority of citizens. As a further weakness, perhaps in order not to attract further unpopularity, the reform has been “packaged” in a reductive way, as if it consisted only of minor interventions. Thus, after more than 10 years, a fundamental measure of transparency foreseen by the 1995 law, i.e. the periodical delivery of a pension account sheet to each worker, is still lacking. It’s a pity that even the current Government has not put the stress on the contribution-based method.

The main criticism made of this method is that it is too severe, as it only guarantees an actuarial equivalent of paid contributions. This criticism implies that there exist formulae better able to guarantee higher benefits with the same contributions, or the same benefits with lower contributions. This is the old debate between pay-as-you-go and funding: can financial markets guarantee better performances than the GDP growth rate, once they are corrected to take into account the higher risk factor? Franco Modigliani would have answered yes, and was in favour of a public funded system, applying the advantages of financial markets, with lower costs and lower risks.

A more prudent approach takes into account that neither the pay-as-you-go nor the funded system is free of risks. Since the risks borne by either system do not fully overlap, it would be advisable to pursue risk diversification — i.e. a mixed, multi-pillar system —, a criterion that has inspired the recent reforms.

It is clear, however, that the opponents to the contribution-based method are not thinking about market solutions, but rather to political interventions able to ‘guarantee’, better than this method can, the adequacy of future pension benefits. We are thus back to the previous dilemma: the state should intervene in favour of unlucky individuals or categories, but not in favour of a whole generation, unless it transfers the costs of this intervention on to future generations, i.e. raises pension debt. A method from the past, that the 1995 reform had tried to eradicate.

Of course, public assistance interventions should not have been taken out of the pension system. However, instead of recognizing ex ante differences of treatment for whole cohorts or categories, it would be better to credit workers who spent periods of their active life outside the labour market (because of unemployment, child care, training, etc.) with figurative contributions, covering those periods. These considerations are valid for both women (more exposed to the risk of discontinuous careers) and male workers with low-paid, discontinuous careers.

The provision of notional contributions for these kinds of workers could be integrated with other measures, such as those in favour of workers who do tiresome or hazardous activities, or the ‘summing up’ of the contributions to different schemes. All these adjustments are possible within the framework of the contribution-based method, and are an important reason for being part of the public system; they should not constitute an alibi for opposing the method itself because it is less generous.

In conclusion, behind the appeal for a return to guarantees lie hidden the old bad habits responsible for the Italian financial disorder. The legislature should not repeat errors of the past and keep confirming and strengthening the contribution-based method, remembering that, once this method is applied, the best pension reform has to occur within the labour market. If this works, so will pensions.
The Management of Active Ageing: From the Increasing of the Retirement Age to the New Risks of Employment among the Middle Aged

by Maria Luisa Mirabile

1. Introduction. On the Variety of Old Ages and the Lopsided Vision of the Policies

This paper is intended to contribute to the current general reflections on active ageing and in particular to the aspect concerning employment. It will be asserted here that the action developed on the social security policy front has to some extent entered into an established cycle while contrarily, employment policies still need serious attention, both to achieve the desired increase in employment rates and to avoid the creation of a different and perhaps more underhand marginalization of the (so considered) less gifted workforce in the transition from classic social protection (on the distorted use of which the conditions of the ‘over45’ phenomenon of the 80s were based) to more positive strategies. This position is based on the results of European and national actions taken in order to extend working life and increase employment among the middle aged.

In this perspective a more specific reference could be made to the need for greater attention on the part of observers of the process and the kind of effects caused by the combination of cognitive homogeneity, clearly recognizable as a result of coordinated activities and European programmes in the ‘public arena’ of individual member states (and of the respective lower levels of government) and persistent diversity expressed today as the long confirmatory wave of dependency path of Piersonian fame, in the styles and times of activating reforms, of national and regional models and operational systems for the labour market and welfare (for an analysis of national reforms of the labour market in Europe see AAVV, La Rivista delle Politiche Sociali, No. 2, 2007. For a more localized analysis of measures to cushion the effects of unemployment in Italy, see M. Marocco, ibid.).

Staying with the middle aged, in this transformation phase which should see the evolution of the ‘passive’ protection mechanisms actions (whether those of the work kind or the socio-welfare ones) toward those of ‘active’ protection, it has to be acknowledged that the capability to support the weakest part of the workforce requires attention. In clear terms: the subject needs to be considered from the point of view of risk. The ever more common (and correct) sense of the need for a lengthening of the working age and an increase in the employment of people of advanced years, if not supported by committed and efficient public, business and union practices, can give rise to a situation of severe social abandonment of these generation groups. Italy is offered as a country not exempt from this risk. Reflecting at this point on the Italian case, it is to be noted how the recent growth in employment recorded among those

in the more advanced age classes came about mainly thanks to a consistent commitment on the part of the female contingent in temporary, part-time occupations (which might suggest different employment-re-employment profiles: from new voluntary entrants to those forced by newly occurring individual or family economic necessity, to the re-employed in ‘second careers’, those only passing through, after retirement, from salaried work to temporary part-time employment).

However, as a preliminary to all this there is the general point that the very notion of old age is open to a variety of meanings, depending on whether it is used in a demographic, biological, sociological or other context; on the changing times and ways in which it comes into play in the course of individual lives and how its way of manifesting itself reflects social groupings on the basis of the work carried out, on the level of training, professional adequacy, ‘social competences’, accessibility to the various areas of wellbeing, and so on. From here, if what has been said is true, the necessity that such a lengthening of one’s working life as well as the development of employment among the middle aged should move from the ground till now the favourite of welfare policies (overall reforms and specific restrictions on early retirement, linked — or not — to economic incentives to continue in work) to that of multi-policy and multi-level integrated initiatives aimed at the development of the mature workforce, both in terms of retention in employment and of new recruitment.

On the other hand there is substantial empirical evidence deriving from several countries, including Italy, which supports this point of view. It is enough to look at just two points as examples. Firstly duration of employment. Secondly a recent Eurostat item: the number of those employed between the ages of 55 and 64 varies by almost double according to the level of studies attained; on average among those of both sexes (the difference is greater for just women) overall employment among people in the above age group with a tertiary level of education amounts to 61.8%, while it is only 32.4% among individuals who have had less than higher secondary education (Eurostat, Statistics in focus. Population and Social Conditions, 17/2006). The other enlightening fact concerns employment rates by age: according to a recent EMCO report, the re-employment rate for an unemployed person over 50 is less, by over half, than that of the unemployed person between the ages of 25 and 49 (European Commission, Social Protection Committee (2007): Active Ageing. The Policies of EU Member States, Bunderministerium für Arbeit und Soziales, Bonn.).

2. Europe and the Middle Aged, an Ex Post Reflection

The principle objectives the European institutions have set themselves concerning employment among the older are known and they refer to those set out in the wider context of the Lisbon Strategy. The Stockholm (2001) and Barcellona (2002) Councils respectively set the objectives that by 2010 the employment rate for the over 55s should reach 50% of the total work force of that age group and, that by the same date, the average age for leaving work should increase by five years. Today, despite some movement toward meeting the objectives the average rate of European employment among the over 55s is 42.5% and the average for leaving work is 60.9 years.

The processes pointed up by the facts suggest various considerations. Concerning employment we are faced with a relatively substantially linear growth trend (partly contradicted by some detectable qualitative critical points, e.g. in the Italian case to which we will return later). In total the distance from the objective set at Stockholm has moved from the 13.1 percentage points of 2000 to the 7.5 percentage points of 2005 (see EMCO, op. cit.), and — as seen from the Eurostat results — the driving force role of the female sector, in which the employment growth rate in these years has been twice that of the male sector, is worthy of note.
Contrarily the lengthening of working life has seen a disjointed trend of growth and decline (in particular the decline in the EU15 came about in 2004), reaching an overall increment over the total period 2001/2006 of a single year. We will return later to the two trends, as an introduction to the more general considerations of the paper.

The reform action carried out by the member states of the Union occurred at different moments and with different levels of intensity, and can be summed up as follows: acknowledgement of the phenomenon and the introduction into the debate the subject of entrepreneurial recourse to early retirement: as a management tool for restructurings and occupational excesses (all the countries); the adoption of restrictive criteria for permissions for early individual retirements (all the countries); the launch of welfare reforms with, apart from some exceptions, the raising of the retirement age; the introduction of gradual retirement and the development of flexible systems concerning the age-retirement-work relationship, based also on incentives/punalties aimed at the lengthening of working life (above all the countries of continental Europe, but also Holland and the mediterranean countries such as Italy and Spain); the promotion of work in advanced age through employment start up policies, i.e. measures tending to make the older workforce more employable, among which the development of continuous education systems, with special reference to workers who are advanced in years, and the improvement of working conditions with actions relating to both the working hours and the organization of the work environment (prevalently the Nordic countries). The so-called ‘carrot and stick’ method of influencing individual retirement choices is characteristic of continental and Mediterranean Europe, alongside measures for restricting early retirements. The real target of these measures appears to be the middle aged employee, whom businesses consider useful and able to give the desired professional service, and not the workers considered to be surplus. The push toward the greater employment and lengthening of the working life of the elderly sought after in the different countries working on a varied spectrum of tools created more or less ad hoc, has, however, benefited from a fairly wide palette and, in the countries of Northern Europe for example, alongside restrictions on access to early retirement through disability integrated measures have been launched ‘with immediate effect’, for the improvement of the working environment and conditions (which in the wake of the traditional culture of health and wellbeing at work bring about, for example, the creation of the so called ‘flex and soft jobs’ for middle aged people) fruit (as in the case of Finland which is moving in this direction, though hampered by business exigencies owing to its relatively less rosy labour market conditions and higher rates of unemployment compared to the Nordic area) of the joint involvement of companies, workers and the social parties in the process of working toward the rehabilitation and activating of the older workforce. Here the tradition of continuous education finds new channels and means through which to spread, supported as it is throughout Europe, as the highway to keeping the middle aged active. In any event continuous education is considered one of the most interesting and useful tools for promoting the employability of workers through the whole arc of their working lives in accordance with the general inspiration and the numerous EU declarations on the subject.

In the overall panorama the United Kingdom stands out for its lack of homogeneity. Here there has been no reform of the welfare system, in its public component, already trimmed back in previous years and ‘improved’ by opting out choices towards the other pillars of the system, by the progressive reduction of public pension incomes and the parallel development of the weight of integrative social security (see Mirabile, M.L, (2006): “Essere Over. Età, lavoro e nuovi scenari di welfare”, Quaderno Spinn, n. 23, Roma, for a more extensive examination and more bibliographical references)

This then, stretching matters a little, is the synthetic reconstruction of the responses to the ageing phenomenon of the population-crisis in the welfare systems-paradox of the middle aged phenomenon; and from this overview we would like to stress above all the asymmetry which has characterized the action carried out on the welfare reform and labour market fronts,
where there has been decisively more developed attention paid to the first, hastened along as it has been by a general alarm and — as we will seek to say later — by the certainly greater ‘ease’ of resolution of the central automatic pathways.

It is clear that the demographic imbalance of western society toward the most elderly of the population and the lengthening of the phases of life in the state of retirement have represented, and to some extent still represent key orientation factors for the restructuring of the welfare systems, starting with the social security components. In light of this it is to be asserted that the need to correct these social security mechanisms in a future in which the working component would no longer be able to maintain the ‘resting’ group has resulted in a strong reforming action and important economic, political and social confrontations which together have tended to obscure the need for a contemporaneous and strong development of what should have been the cultural, economic and organisational prerequisites for a valid undertaking concerning the presence of the middle aged in the work place. This should be the case at least in the countries overburdened by universality limits and by a heritage of inefficiency in the related reform actions and of government.

Paradoxically alongside demographic imbalance in the 80s there occurred the collapse of employment among the middle aged, driven mainly by the needs of business to carry out industrial restructuring and technological innovation with limited investment in human capital (and to introduce, through intergenerational exchange of the workforce, new ‘rules of engagement’ for employment as a whole, in an ever more economic and flexible key). The collapse, which in some countries meant a drop of 20 percentage points in male employment was made feasible by the possibility of having recourse to early end of work mechanisms on a social security basis (pre-retirement and various kinds of pathways out) sufficient to maintain the incomes of workers who left production too soon. From this there came about the coming together of different interests among the economic and social parties which had given rise to what G. Naegale aptly baptized ‘the great pre-retirement alliance’.

Concerning all this the European action and that of the member states was only partly distinctive. Generally a widespread, simplified and approving common view went around of the ‘young retired man’ as a person responsible for his own unjustified inactivity.

3. National Conduct, Perspectives and Risks

But let’s return to the results. The real age of retirement was increased by only one year with intermediate swings during the period concerned. Meanwhile employment rates linearly reduced the Lisbon objective gap by about half. In light of these two trends an attempt at interpretation which of course doesn’t pretend to be a full or definitive explanation, is unavoidable. The sheer number and complexity of the elements in play, involving as they do material interests, organizational models, relational habits, consolidated employer practices and acquired social rights, cultural models, lifestyles and so on, certainly don’t allow us to give an adequate response here. Nevertheless an attempt will be made to set out a sort of reflection which might give some kind of satisfactory idea.

First of all the European action, followed by that of the member states. Though not in a mechanical process, starting from the second half of the 90s the action required by the European Union towards older workers was based in national reforms of social security systems and of national labour markets. From this point of view it seems reasonable to affirm that, in a general manner it can be said in the great majority of the cases, national action was stronger and more immediate in the former. This occurred for a variety of reasons, from the varied institutional composition of the two sectors within the member states, with social security policies being completely centralized and labour market policies being ‘mixed’, with
important management and decision making powers devolved to regional level, to the greater possibility that social security policies offered for working both through the introduction of restrictive homogeneous measures concerning the requirements for leaving employment early, and through the introduction of incentive/penalty mechanisms as a lever towards ‘virtuous’ individual behaviour, regardless of subjective and contextual conditions more or less favourable to their being brought into force. The increase in employment among the middle aged through management of the labour market as an objective is decisively more complex, both because of the lack of territorial homogeneity in the arrival of European and regional instructions and because — regardless of the more or less excellent regional policy plans — it is deeply immersed in the wider system of local convictions and economic and social relations.

Re the first part, that concerning the social security reforms the reform actions are more comparable (and comparative) than those taken concerning employment policies. Perhaps this is also because the former had, at the level of the single states’ institutional organization, central points of reference, being at the same time expression of national welfare culture, which, though diversified from a European lead, found in social security their first and most consolidated expression, bringing about the existence of more similar and more closely comparable institutions from one country to another with regard to structures and methods of governing the labour market. Simplifying things on this basis they acted, in line with European directives. On the one hand they began to put barriers and legislative chains in place against the various kinds of early exits from work. On the other they introduced the exit flexibility principle in relation to age, introducing increases and reductions in future pension incomes linked to the effective length of an individual’s employment, and introducing forms of gradual retirement. It has to be restated that though connected to the SEO, compared to social security reforms the European labour market reforms express a greater heterogeneity and hence a lesser trans and intra-national comparability. This is probably due to their being less closely a part of the historical events of European welfare, and also to their non-central state connotations, with more institutional local government allocations. The personalization of policies is moreover an activity that requires, beyond the differences of the national pathways more or less predisposed to the activation criterion, very high levels of resources and competences, not available in every national welfare scenario. Despite the limits of comparative empirical research into how to bring about employment among the middle aged it is still clear that the Scandinavian and Anglo Saxon countries, more than those of continental and Mediterranean Europe have set up relatively timely and integrated policies and practices for bringing about employment for the middle aged, aimed at both company level as well as at the level of employment system structures put in place by the territorial government.

By way of an example we will look briefly not only at Italy but at three countries characteristic of as many methods of approach to the subject of employment for the middle aged (see Figure 1). The best performances are (as is well known) those achieved by Finland considered on the European plane to be the case par excellence. Flexible ages of retirement (between 62 and 68 years) are in force, as have been, since the first years of the 21st century, integrated policy plans at national and sector and local level, in which an important role has been assigned to the territorial socio-economic players, France and the United Kingdom. Finland, for its ‘historically’ more integrated approach aimed at maintaining the working capability of the middle aged; France for the limits of coherence of its policies for keeping the middle aged in employment, perhaps overtaken today by the recent launch of a national plan directed at the world of employment; the United Kingdom is distinguished in its turn both for the presence of anti discrimination measures, and for the very forceful action of compulsory encouragement and personalized support through national plans and programmes aimed at bringing the middle aged into employment. France follows. Its action was characterized by contradictory policies until 2006 when the Villepin government launched an important national five year Plan based on five measures (socio-cultural representation; maintenance; re-entry; career
end; refinancing) and 31 lines. The United Kingdom’s performance is only just better than that of Italy, and it has relied on integration between (low) social security incomes and employment incomes. Important initiatives have been launched recently, among them the ‘New deal fifty plus’ (in 2002); ‘Pathways work’ (in 2005); the national age discrimination act (in 2006).

Figure 1: Some ‘simplified’ empirical evidence
(EU15 and four countries: France, Italy, Finland, United Kingdom)

![Figure 1: Some ‘simplified’ empirical evidence](image)

Source: Eurostat.

Italy is at the lowest levels of the average European performance, recording in 2006 a negative differential of 1.3 percentage points compared to overall European employment. The most analytic statistics have shown how the recent growth in employment among the older age groups has been characterized by a strong, particularly female presence in temporary, part time jobs. This would suggest both the ‘obligation’ to take insecure work on the part of those no longer able to find other jobs, and the possible convergence of the need for reciprocal ‘disengagement’ with the contemporaneous use of professional capabilities set in time (Cnel, Report on the employment market, 2006).

The average exit from work age in 2005 recorded a four months differential (EU=61,1; Italy=59,7) and on this subject it is interesting to note the contrasting trend in old age pensions. A recent study by Ires showed how between 2002 and 2006 the population of old age pensioners grew by around 25%. And that in any case the old age pension structure is going through unexpected change, above all with regards to the age profile which in the last four year period has moved decisively forward. In particular while in 2002 the age group most represented was that of the 60-64 year olds (followed by the 55-59 year olds) in 2006 the situation was markedly changed, with there being almost as many 65-69 year olds as there were in the group before them, and they were in second place among the old age pension age groups. It is further indicative that while early retirements show a net fall there has been a growth in the burden on the ‘Cassa integrazione e mobilità’ (translator’s note: a State fund within the scope of the National Social Security Institute — INPS) (also according to the study by Ires, between 2000 and 2004 the number of beneficiaries of these two funds rose from around 85,000 to 105,000). The age groups of the beneficiaries of these two funds were concentrated around those of retirement age (50-55 year olds 55-60 year olds), with a progressive growth among the latter which in the last five year period has become the majority age group (IRES: “Between Strategies and Exits. The Policies of Upgrading Employment Among the Middle Aged and the Activity of the Elderly, Printed, Rome, 2007).
4. Concluding Considerations

In view of the restructuring processes of the 80s and 90s, the ‘strong’ structure of ‘classic European welfare represented a safeguard element for the male workforce in full time and permanent employment. On the basis of the heavy handed and distorted use of the European social security regimes (rather than of employment policies) and in that they were placed in the pension regimes, the over 45s found themselves being saddled with an old age status (for purposes of employment). With the changed economic, social and demographic conditions a serious change in thinking concerning the European social protection system subsequently became necessary and it had to limit early exits, concentrating more on the activity of those more advanced in years. In this process the European Union played a fundamental guiding role for the member states, developing a process which culminated in the European Lisbon Strategy (2000), strengthened and amended following a mid term evaluation (2005). Accompanied by these encouragements and by the ongoing dialectic with the EU, member states introduced policies aimed at reversing the ‘early exits’ cycle, setting in motion, or developing measures both in the area of social security reforms and in that of the return to and taking up of employment, aimed at strengthening the over 45 year old workers, retaining them in and getting them back into work. This new process can still appear characterized by the long line of criteria restrictions on access to early exit and by the operation of the social security reforms launched in Europe around the mid 90s, including the increase in the retirement age, and in which were included the incentive/penalty mechanisms relating to longer or shorter employment duration. Of course there were also innovations on the labour market policy front. Among these the European employment Strategy created a significant push forward and brought harmonization. Experiences in this area however, are more recent, showing greater distinguishing points of ‘exemplariness’ while being less comparable, also given the una tantum characteristics of the national Plans launched in favour of employment among the middle aged and the decentralized government structure of national labour markets. In this framework the strongest and most visible actions are those promoted by the Nordic countries (which develop socially concerted re-organisation and employment and health policy) and by the United Kingdom (in which there is a distinctive combination of reforms, in the restrictive sense, of social security and the development of actions aimed at the employment of the weakest). In view of this the employment rates among the middle aged begin to rise again from the mid 90s, though with notable deviations from country to country (Italy is one of those at the tail end of this recovery) and often, thanks to the female contingent of the labour market (which probably responds to different reasons for participating in employment). However on average they generally fall far behind the objectives set at Lisbon.

To sum up, the long period of recovery in employment among the middle aged has been characterized by its path along two main policy directions: that relating to social security and that relating to labour market policies. At national level the two trends usually developed in a distinct manner, with a greater advance of and emphasis on the social security trend. Subsequently the attention focused, again usually also on the labour market (where the aim was to pass from passive income protection to putting the workforce into action) and in such a way as to bring about greater integration between the two areas. The reasons for the different timing are clear. It is undoubtedly easier, using central policy guidelines, to limit the various kinds of early exits (starting with the individual and voluntary ones) thus raising the real average retirement ages which in turn would influence the employment rates among those advanced in years.

In light of the overall framework of both changes in policy and results obtained in recent years it seems possible to conclude that it won’t be long before there are further adjustments to social security policies alone. In Italy above all it would be necessary today to proceed with conviction to the launching of integrated national sector and inter-sector policies; the
efficient bringing into force of regional and local policies and measures (developing the capacity of local structures for the personalization and placement of the middle aged), of thoroughly renovated company age cultures, capable of regenerating investment in the workforce, and finally to serious changes in the various forms of social behaviour, often subtly discriminatory, to which each of us is probably unwittingly prone.

REFERENCES
Comments on Working Longer: Comprehensiveness, Timeliness and Gradualness of Reforms

by Paolo Sestito

Working longer is an essential ingredient of the adaptation of our societies to the challenges posed by increased longevity. Working longer as a response to living longer trends is both feasible and optimal. This is because to a large extent the increase in longevity has also implied a postponement, over the life cycle, of many health impediments. Moreover, preventing those defects over the life cycle is potentially much more fruitful than reacting to them through early retirement policies or the provision of disability allowances. So, increasing the time span of the working life — vis-à-vis the increase in the overall life span — allows as to increase the resources available during retirement. The alternatives to this would be rather pauperistic, as one would have to either reduce the yearly income flows during a (lengthened) retirement period or put aside a larger amount of yearly resources during the working life. The nature of the pension system — a pay-as-you-go system financed by ad hoc labour income taxes or a system based upon the financial returns upon invested funds, a defined contribution system or a benefit defined system — does not change the intrinsic logic of what has just been said. So, whatever the details of the pension system, engineering a working longer response is a key ingredient of any sensible policy response to the demographic trends of the forthcoming decades.

While a quite natural and obvious response — actually working longer would tend to be the response, vis-à-vis a scenario of enhanced longevity, which would be selected by a hypothetical Robinson Crusoe making his life plans knowing from the outset that his life expectancy is longer than that of his predecessors — accomplishing such a working longer response is not so easy in the real world. To a large extent this is due to the need to engineer comprehensive, timely and yet gradual changes over many social and economic dimensions. The presence of traditional and institutionally determined rules and habits may lead to difficulties as changing those rules may not be easy — as many individuals will have made their own life plans on the basis of those rules. So, adapting the rules to a changing world, one in which a longer life may be enjoyed, is a difficult task, as rules needs to be well enshrined, in order to ease people’s lives and plans, and flexible enough in order to take account of the evolving circumstances.

As just said the changes need to be comprehensive as many different aspects of our lives have to be considered. The rules concerning retirement decisions, and those relevant to the amount of the pension incomes enjoyable when retired, are not the only relevant aspects. In the following I will briefly touch upon them but also on the broader changes needed in the functioning of the labour market in order to prevent the elderly, while physically able to work (and here there may also be the need to take preventive steps in order to avoid a deterioration of the health conditions over the life cycle), from being at a disadvantage vis-à-vis their

* Banca d’Italia, Economic Research Area, Department for Economic Structural Analysis. The opinions expressed here are those of the author alone and do not necessarily reflect those of the institution to which he belongs.
younger competitors in the labour market. The changes need to be timely, as in many cases preventive steps have to be taken: besides health conditions, the life long learning area is another example in which — because of the learning begets learning principle — only timely interventions may allow elderly workers to remain competitive in the labour market. Finally the changes need to be gradual as abrupt changes would not allow people to make their own decisions and adaptations. In what follows I will briefly touch upon some broad areas. I do not have the time to provide for a complete picture. So what is said here is not to be interpreted as an overall policy package plan. My intention is to touch upon some controversial issues widely discussed over recent years. The choice is partly due to what I know best. To some extent the intention is also to provide a vivid example of the comprehensiveness, timeliness and gradualness just advocated.

A first relevant area is that concerning the retirement rules, and the link between them and the rules governing the pension amounts granted by the first pillar pension schemes. As said, it would be incorrect to assume that either the retirement rules or the rules governing pension amounts (or both) are the only relevant factors which still induce people to retire too early. Nonetheless they surely matter a great deal (and here Italy is a good example, as it is clear that most of the increase in the average age at retirement experienced over the last decade is linked to the postponement of the minimum retirement age thresholds gradually imposed for the seniority pensions). The double challenge here is to allow for some flexibility in the retirement decision to be made by the individual while insuring that, over time, the decisions are responsive to the increased longevity trends. In principle, the 1995 reform provided for such a compromise, with its provision of an age window within which retirement was flexibly possible, the pension’s amount being positively tied to the postponement of actual retirement. The challenge would appear to be to fully adopt those principles envisaging a gradual and continuous over time raising of that age window. So one would keep the advantages of the presence of such an age window, adapting it to evolving demographic trends. Informing the individuals far enough in advance of such a raise would allow them (and firms as well) to adapt their behaviour in the labour as well as in the financial market. Unfortunately, the 1995 reform had postponed those principles too far into the future. Indeed, while the 57-65 boundaries envisaged for that window were possibly reasonable values given the mid 1990s demographic picture, they are much less so given the demographic picture, expected for the forthcoming decades. Furthermore, the subsequent policy interventions made in 2004 and in 2007 were quite confused and to a large extent contradicted the age window principles.

All too often the flexible retirement principles — and the age window discussed above in line with which individuals may decide to postpone retirement so accumulating further pensions rights — have been assumed to imply an absence of redistribution in the pension first pillar schemes. On the other hand, such an absence of redistribution may often imply that workers accumulating too few pensions rights — because of their low skills and their reduced employment and earning chances — risk ending up with inadequate pensions. The risk envisaged by many observers is that, in the future, too many retired people may become poor (in absolute or at least in relative terms), or that massive transfers will have to be arranged, ex-post jeopardizing the financial stability of the system as political pressure would mobilize additional resources (the financial stability now forecast for the system in the future decades is actually based upon a politically unpalatable reduction in the average pension amount). To a large extent the way-out of these risks is again in engineering an extension of the working life along the lines advocated above. An additional reflection is that there is no reason at all to rule out the possibility of some redistribution even in a notionally defined contribution system (such as the one introduced in Italy by the 1995 reform and later on, and more coherently, by Sweden and other countries). Actually, in those systems the insertion of some redistributive components — provided they are framed in such a way that, on average, the link between future pensions’ rights and longevity (and macroeconomic)
trends is maintained — might take account of the fact that low income individuals have on average a higher mortality risk.

A third remark concerning the first pillar pension scheme is that its transformation along the lines described above — towards a notional defined contribution nature with a moving over time retirement age window — would suggest the dismantling of the historic links between disability and old-age schemes. Such a separation — already made in countries like Sweden — does not imply that an ‘activation’ approach — so as to foster the labour market participation of disabled people — has to be neglected. Quite on the contrary, there is a risk that people impeded from retiring may be pushed towards the use of disability benefits (and countries like Sweden are a vivid example). The solution however is in fostering the correct labour market behaviour.

Activating elderly workers, after they may have been disenfranchised in the labour market, is however not enough. A preventive approach is often necessary, with respect to health conditions as well as to human capital and skills. A broader reflection on labour market functioning is needed.

A big issue concerns the link between the working longer approach and labour market flexibility. Quite often firms fear the working longer principle because of the presence of seniority pay regimes and because of the two tier labour market reforms of the last two decades, reforms which have eased the entrance into the labour market of low paid, flexible (and often temporarily engaged) youths. Here there is the need to adapt both workers’ and firms’ habits. A two tier market actually risks being the worst labour market environment for the elderly unemployed as firms may tend to prefer hiring youths while older people may find it extremely difficult to find new job opportunities once they have been dismissed. Over-protecting older workers from dismissals would risk exacerbating such a segmentation.

While working longer may not mean having a longer career in the same firm — actually many forces seem to operate in the opposite direction — firms will have to realize that elderly workers are increasingly a resource. Demography works in this direction as in the next decade there will be abundance of elderly people and lack of young recruits. Organizational changes need to be implemented. Health and human capital accumulation policies need to be implemented in a timely fashion. Again, pension rules and labour market functioning interact since having pensions rights linked to the whole working life contributions may help in this process, avoiding segmentation and non-linearity risks.
Pension Reforms in EU Member States: Progress and Challenges

by Ruth Paserman

1. Introduction: The Pension Challenge

Pension systems are one of the great achievements of the welfare States in Europe in the last century and remain a key element of our social model(s) also in this century. The fact that poverty is no longer the status quo for people who stop working and that many are able to maintain their standard of living after retirement are key achievements of social protection policies.

Public provision plays a central role in national pension systems, which are very diverse among the EU27, highlighting that there is no one-size-fits-all solution. While the basic goals of access, adequacy and financial sustainability are universal to all systems, there is a considerable degree of variation in design at the national level, notably as a result of historical differences regarding preferences for redistribution or individual choice.

The dominant proportion of total pension provision in almost all EU27 Member States is organised within the general government sector. Pension systems in Europe are generally built on a general statutory social security scheme, functioning on an unfunded basis (pay-as-you-go — payg — where current resources are providing the funds for paying out current benefits).

Benefits provided by those schemes are the major share of pension income for older people. The financing can be based on social security contributions (like for instance in DE, FR, ES or IT) or alternatively on taxes from the general budget (like in DK). Those schemes can nevertheless be designed in various ways, depending notably on the earnings — benefit link, for instance including flat-rate universal benefits (like in NL) or notionally defined contributions schemes where benefits are strongly related to former incomes (like in SE).

These schemes include (or are complemented by) minimum benefits for those who did not accrue sufficient pension rights. These schemes are also often complemented by funded schemes, be they statutory, occupational or voluntary: the first two categories include funded tiers of statutory schemes and all occupational schemes (where membership has a direct link to employment, be they mandatory or voluntary), while the third category includes individual schemes (voluntary where membership does not have a direct link to employment).

In spite of differences, one can depict the European general pension provision within four main clusters:

- Earnings related payg pensions, marginally complemented by occupational or voluntary pensions (notably PT, CY, CZ, MT, EL, ES, FR, LU, AT, SI, FI, RO). A number of Member States are also building reserves for their unfunded schemes (notably FI, but also BE, ES, FR or IE);

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1 The findings and conclusions expressed are solely those of the author and do not represent the views of the European Commission.
2 European Commission, Directorate General for Employment, Social Affairs and Equal Opportunities
• Earnings related payg pensions increasingly complemented by statutory funded pensions (PL, HU, EE, LT, LV, SK, BG, and SE);
• Mainly flat rate public payg pensions traditionally complemented (sometimes increasingly) by funded occupational pensions (notably IE, UK, NL, DK);
• Earnings related payg pensions complemented (traditionally and sometimes increasingly) by occupational or voluntary pensions (notably BE, IT, DE, SE).

In essence the pension challenge lies in the growing gap between two decisive parameters for any pension system: life expectancy and retirement age. The former increases continuously and the latter has declined. While it was normal to retire well after the age of 60 during the 1960’s, employment of older workers declined in the 1970s and 1980s in many countries. Despite recent increases, average ages of leaving the labour market remain well below the levels of the late 1960s (Figure 1).

Figure 1: Activity rates by gender in the EU 1970 and 2005

The decline in average effective retirement age (accompanied by an increase in the age of entering the labour market) runs contrary to the substantial increase in life expectancy during the same period. Life expectancy at 60 for EU25 has increased by about 4 years from 1960 to 2000. The most recent Eurostat projections see life expectancy in the EU25 at 65 increasing by a little more than another four years from 2004 to 2050.

In most Member States, people are now used to retiring at the average age of 60 after having started to work at around 20. In 2004, the related dependency ratio (population over 60, as a percentage of population in the 20-60 age brackets) amounted to a bit less than 40%. According to demographic projections, this ratio would increase in 2025 to almost 60% and in 2050 to 80%. To illustrate this one can notice that in 2025, the ratio of 65+ compared to 15-64 would be around 40%, but one would need to raise the age ceiling to 70 in 2050 to maintain this ratio.

The ageing challenge is common to all pension systems as all pension systems need to compensate for the decline in employment of older workers and the continuous increase in life expectancy. Pay as you go systems are directly affected by an ageing population as their
future contribution base is shrinking while the number of beneficiaries is increasing. Hence, if people retire at the same age, they will benefit from a pension for a longer period. This will need to be financed by future active populations or benefits would necessarily be lower. Funded systems may be safe in terms of contribution base, but the increase in life expectancy also implies some imbalance: if contributions are not increased and/or people do retire later, benefits would be lower. In the absence of reform, defined benefit (DB) systems would be unable to maintain their promises, while defined contribution (DC) systems would result in benefit levels well below what was foreseen when people paid in. In general, potential effects of ageing and a shift in the balance between active population and retired people on rates of returns and productivity affect both systems as well. Rates of returns affect future benefits in funded systems, while productivity affects contribution levels in unfunded systems.

2. The Open Method of Coordination in the Field of Pensions in the Context of the Lisbon Strategy

Pension reforms require long-term strategies. The process of reform itself is lengthy as pensions reforms are usually built on broad consensus as they are a fundamental part of our social protection systems and of social cohesion. Furthermore, States dedicate significant amounts of public expenditure to old age provision, which in light of demographic trends is set to grow significantly. Therefore reforms of pension systems should be seen both in the context of ensuring adequate and sustainable retirement provision, and in the context of sustainable public finances as a whole and sustainable growth across the EU.

The Laeken European Council of December 2001 recognised that there could be significant benefits by enhancing dialogue and co-operation on issues related to the reform of pension systems. It endorsed common objectives of adequacy, financial sustainability, adaptability, and a working method based on the open method of co-ordination (hereafter OMC).

The basic structure of this coordination process is as follows: Member States and the European Commission have agreed to work within the open method of coordination on social inclusion and social protection. The open method of coordination works through the common setting of objectives by the European Commission and the Council of Ministers, the reporting by the Member States on the basis of these objectives, and the Commission synthesising the findings in a report which is subsequently endorsed by the Council. Then, at the EU level, overall progress, challenges and arising areas of future concern are reported on, as are the type of action to be taken.

**Common objectives for pensions**

The common objectives of the OMC in the field of pensions are to provide adequate and sustainable pensions by ensuring: (g) adequate retirement incomes for all and access to pensions which allow people to maintain, to a reasonable degree, their living standard after retirement, in the spirit of solidarity and fairness between and within generations; (h) the financial sustainability of public and private pension schemes, bearing in mind pressures on public finances and the ageing of populations, and in the context of the three-pronged strategy for tackling the budgetary implications of ageing, notably by: supporting longer working lives and active ageing; by balancing contributions and benefits in an appropriate and socially fair manner; and by promoting the affordability and the security of funded and private schemes; (i) that pension systems are transparent, well adapted to the needs and aspirations of women and men and the requirements of modern societies, demographic ageing and structural change; that people receive the information they need to plan their retirement and that reforms are conducted on the basis of the broadest possible consensus.
There is agreement that the key objectives of pension reforms, adequacy, financial sustainability and adaptation of systems go together: pension systems should provide adequate retirement incomes in a financially sustainable way while adapting to societal and economic change. Member States presented a first round of National Strategy Reports in 2002 and a second in 2005. These have been synthesised in 2006 by the Commission in the Joint Report on Social Protection and Social Inclusion, endorsed by the European Council and by the Commission Services Paper, ‘Synthesis Report on Adequate and Sustainable Pensions’ and its annexes (country summaries and horizontal analysis).

The Synthesis Report noted that Member States had made substantial reforms in recent years, partly to address key sustainability issues presented by ageing populations, but also to ensure that reforms provided adequate pensions for all citizens. The report also confirmed that the reform of pension systems cannot be conducted within a vacuum and must be considered alongside labour market reforms and overall public spending plans.

The Synthesis Report identified a number of key issues requiring careful monitoring:

- A key challenge is to promote more and longer working (in particular the mobilisation of previously less active members within paid work, such as women and older workers).
- There is a need to promote adjustment of systems for the management of changes in life expectancy and the introduction of a life-cycle approach in their design.
- Pension systems should modernise and take better account of the changing and more flexible nature of careers (reflecting the role of carers, periods of training and education and job mobility).
- There is a need to ensure future adequate minimum pension provisions, which will probably gain in importance notably as regards indexation rules and possible disincentives to work or save.
- A fifth key issue is the financial sustainability of public pensions systems and monitoring of the effect on government budgets (including the impact private pension systems may have on public finances).
- The evolution and development of occupational and private funded pensions was also emphasised reflecting Member States’ efforts to reform existing structures, or develop funded provisions for the first time.
- It is important to enhance transparency and to promote better education and understanding of pension issues among the public.
- Regular review and adjustment mechanisms are important innovations not only for adapting systems over time but also to promote a better understanding of the need for reform in the face of demographic challenges.

In 2006 and 2007 the OMC concentrated on deepening knowledge and policy exchange on issues highlighted by the Synthesis report. The following sections summarises work on incentives for working longer, minimum income for pensioners and private pension provision.

3. Strengthening Incentives to Extend Working Lives

Working longer is an explicit European target in the Lisbon context, both through the objective of increasing the employment rate of older workers (aged 55-64) to 50% and through the objective of an increase of 5 years in the effective age of exit from the

labour market. Longer working lives result in more contribution years and fewer benefit years, thus contributing directly to the adequacy and sustainability of the pension system. Pension systems are an important part of labour market institutions through the provision of benefits. Therefore, it is of utmost importance that the incentive structure embedded in the pension system is supportive to employment. Over the last decade, the employment rate of older workers has increased, reversing a long declining trend. The employment rate of older workers (55–64 age brackets) has increased to 44% in 2006. But in spite of these recent increases, there is still a long way to go in order to reach the European target of 50% employment among older workers. These evolutions actually show significant discrepancies (Figure 2): the levels still differ and to a lesser extent so do the size of improvements. In any case compared to the huge declines (10 to 20 percentage points) observed earlier on, the improvements look small but as a signal of a changing trend they are important.

In nearly all Member States, recent reforms have strengthened incentives to extend working lives (especially for statutory schemes), and reduced access to early retirement. Working longer is generally encouraged by pension supplements and leaving earlier discouraged by actuarial reductions. Furthermore greater flexibility is provided in the timing of retirement, for example combining employment and partial retirement. In addition access to disability, sickness and incapacity schemes are being reviewed to eliminate other paths to early exit. While in defined contribution schemes, effective incentives are inherently embedded, some defined benefit schemes may require adaptation of eligibility rules and pension parameters (such as age limits of access to early or specific schemes, bonus/malus coefficients, etc.).

Most Member States are currently reviewing or reforming the conditions for taking-up of pensions, notably by adapting statutory retirement ages (like for instance DE, DK or UK), by introducing more flexibility in the choice of the path from work to retirement3, and also by reviewing conditions for early exits from the labour market.

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3 The SPC has adopted a study on flexibility in retirement provision in April 2007, that will shortly be available on the following web address: http://ec.europa.eu/employment_social/social_protection/pensions_en.htm
More flexibility in retirement age can be achieved through appropriate incentives to prolong working lives, but also through partial pension and possibilities of combining pensions with earnings. The strength of incentives to work longer appears as a key issue for the design of flexibility in retirement age. If incentives are too weak, this is an encouragement to retire earlier, and if incentives are too high, costs for public finances can be significant in the event of significant increase in average retirement age (notably as at higher ages, there is a risk of subsidising those who would have in any case postponed retirement). Besides, incentives should be strong enough for lower wages, both on efficiency (sustainability) and adequacy grounds. For the latter, reviewing the incentive structure should take place in respect of minimum income provision. But for lower ages (in particular before 60), the emphasis should be less on incentive structures than on restricting possibilities to exit the labour market before standard retirement age (except perhaps for special conditions, such as hazardous jobs).

Pension reforms give strong incentives to work longer and when well designed they reward doing so with adequate pensions. However there is a need to ensure that people can work effectively longer. Opening up employment opportunities for older workers through accelerating labour market reforms is essential. Pension systems can facilitate later retirement, but without suitable access for older workers to appropriate employment, they are unlikely to be particularly effective.

A key dimension of pension systems is that they relate not only to the current situation of older people but also to future developments, which are influenced by enacted reforms. In view of the potential high costs implied by the ageing of populations, most Member States are engaged in significant reforms of their pension systems, which will clearly impact on future pension benefits. Indeed, reforms are generally aimed at curbing the overall rise in pension expenditures, as expressed as a share of GDP.

To look at reform impacts from the perspective of an individual, the Social Protection Committee (SPC) has developed a highly theoretical instrument: theoretical replacement rates, calculated by Member States for 2005 and 2050 (see ISG report 2006). The work carried out highlights that reforms of statutory schemes will often lead to a decrease in replacement rates at given retirement ages, which also reflects the trend towards an increase in life expectancy at 60 or 65 (see 2007 Joint report on Social Protection and Social Inclusion, supporting documents, section 3.3).


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It should be noted that the evolution of replacement rates is assessed for given retirement ages and given contribution length, while most pension reforms actually plan an increase in at least one or both of these parameters. There are also calculations available — even more hypothetical — on private pension provision and the impact of working longer (graph 3): in an average Member State a combination of private pension savings that amounted to 5 percentage points over the working life and an increase in retirement age of two years would roughly maintain the 2005 replacement rate. This clearly highlights the risks for future adequacy of an insufficient increase of employment rates among 55-64.

4. Guaranteeing Minimum Retirement Income Provision and Solidarity

Besides general earnings related schemes, minimum income provisions for older people have an essential role in alleviating or reducing poverty risk amongst the elderly. While many reforms can reduce the average level of pensions, Members States pay attention to guaranteeing a decent minimum to all. A number of Member States have made reforms to their minimum systems with the aim of: increasing levels of benefits; making access to benefits easier; or replacing existing benefits with new systems. This reflects the growing attention that minimum incomes have received in recent years alongside reforms that many Member States have undertaken to their general pension systems.

Broadly speaking minimum provisions can be divided into 3 types (though it should be noted that some systems combine an element of 2 or 3 of these broad categories) (i) minimum pensions within the earnings related pensions systems that rely on contributions throughout a working life. These often offer a strong degree of solidarity, and are generally available with a fairly low threshold of contributory years and are subsequently almost universal in their coverage (ii) flat rate benefits for all older people with residency for a certain period of time being the criteria for receipt (iii) separate social assistance benefits, that are usually paid to those who do not meet residence criteria and/or have made too few contributions to the general system and subsequently have little or no income in old age. These are often subject to some form of means-test and are paid to ensure that individuals have the basics for adequate living, at times the social assistance rate is higher for the elderly, and maybe referred to as a Minimum Pension, or minimum income. Besides, older people generally benefit from other types of benefits which make an important contribution to their living standards (in particular health care services, housing benefits).

In a number of Member States, the risk of poverty for people in retirement ages is currently higher than for the active population (graph 4). It should be noted that the poverty gap of older people (i.e. income closer to the poverty line) in all but a few Member States is narrower than the general population. This is in part due to the provisions of minimum incomes to the elderly on the whole being higher than similar provisions that are available for the general population (such as general social assistance). Older women and oldest people are particularly at risk of poverty, mainly reflecting past accruals and ongoing indexation of pensions. Nevertheless, one should note that needs may be different and these numbers do not take good account of in kind benefits and housing costs (imputed rents).

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6 See SPC study on minimum income provision for older people (2006).
Member States are trying to maintain or even improve basic income protection, while pension reforms also tend to reduce the level of replacement rates for a given career length and profile. Future developments in the role of minimum income provision for older people are difficult to assess, as in the coming decades contradicting trends will be at play: the maturation of pension schemes and increase in female workforce participation will continue; the effects of past unemployment levels and an increase in partial employment will begin to develop; and there will be the effect of recent reforms (that often translate as a decrease in benefit levels). Partially as a result of the indexation rules, including those influenced by automatic adjustment mechanisms, replacement rates of people will lag behind the general evolution of incomes to various extents and sometimes substantially.

Another issue is whether minimum pensions or minimum benefits are indexed differently from earnings-related pensions and whether this can have unintended effects on the income distribution among pensioners. Recent developments show that more and more countries have switched to price or close to price indexation both for earnings-related schemes and for minimum pension schemes. Increasing minimum incomes by price inflation can be argued for on the grounds that consumption needs of pensioners may be stable or even decline with age, and therefore retaining a price link is sufficient. However, this also ensures a worsening of the relative income situation of pensioners and particularly for those on the lowest incomes. This is also reflected in poverty levels of the oldest pensioners usually being greater than that of their younger cohorts (though here there are a number of other factors that contribute to this differential). Calculations of theoretical replacement rates by the ISG suggest that this effect can be substantial, as replacement rates for a standard career generally decrease by around 5 to 10 percentage points 10 years after retirement (Figure 4). Those with little or no access to the general pension system are likely to be even more harshly affected where reductions of 10% to a low income is less sustainable.
5. Secure Private Pensions Provision

Many Member States place greater emphasis on the contribution private funded provision can make in ensuring adequate retirement incomes, emphasising the positive role of diversification of risk between public and private schemes for individuals. Ageing populations, notably the retiring of the baby-boom generation, means that the financial sustainability of pay-as-you-go systems requires close attention as the dependency ratio changes substantially. However, funded systems will also be affected by population ageing.

Several countries see a role for the private pension provision as part of the total pension provision. This has traditionally been the case in some Member States (like DK, NL and UK). Moreover, the importance of private pension provision has essentially been increased by the introduction of a funded tier of statutory schemes in a number of Member States like in SE, PL, HU, EE, LV, LT, and SK. Furthermore, a great number of countries have increased provisions for occupational or private schemes that complement public pensions (DE, IT, AT).

Table 1: Coverage and contribution to income of retired people of private pension provision

<table>
<thead>
<tr>
<th>Average contribution to the income of retired people</th>
<th>Low or negligible (&lt;10%)</th>
<th>Medium (between 10% and 25%)</th>
<th>High (&gt; 25%)</th>
<th>Very high (More or around 50%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coverage (% of the workforce)</td>
<td>EL FR IT</td>
<td>FI PT</td>
<td>BE EE HU PL SI</td>
<td>DK NL</td>
</tr>
</tbody>
</table>
However, while the expected contribution of privately managed pension schemes is projected to increase in the coming decades, in all but a few Member States, the public pay-as-you-go pension schemes are expected to remain the principal source of income for pensioners. This will allow Member States to maintain a degree of redistribution and solidarity that is necessary to provide fair incomes to all older people and to mitigate risks associated with private provision. Moreover, the trend towards a broader use of privately managed pension provision does not allow public policy to retreat from the area. A well functioning private pension market requires transparency and a competitive market for financial intermediaries. Monitoring and regulating private pension provision is becoming an important and complex task for public policy.

As far as private pensions are based on a wider use of voluntary private pensions, they are generally used more frequently by higher income groups. This could exacerbate the impact of reductions in the level of individual replacement rates in statutory pension systems especially for older pensioners. Hence there is whole set of measures in Member States to encourage private pension savings for all income groups. One obvious option is to go through employers and social partner agreements — occupational pensions. One other option is fiscal incentives — but costs to public budgets can be substantial and concerns have been articulated on distributional impacts. This also explains the debate in some Member States about making private savings mandatory, in particular if a major part of the pension provision should be based on private saving (as is the case in many new Member States) -some countries have done so notably in the North of Europe and in Eastern Europe. Recently, IT and the UK have moved for a so called Opt Out solution. Compulsory and opt out schemes have specific characteristics which distinguish them from traditional private funded systems in terms of freedom and choice on the one hand and risks and security on the other. If private pensions are to provide retirement incomes for people with lower incomes it is essential that Member States invest in good governance structures for them. Some Member States provide relatively favourable incentives for low-income people (DE, CZ) to participate in privately managed pension provision, but this may not be sufficient. The contribution of private pensions will benefit people who are actually covered and thus a significant share of pensioners will rely only on the contribution provided by statutory schemes.7

It is important that Member States monitor whether the actual development of private pension provision matches needs, by assessing levels of coverage and benefits and their distribution by age and socio-economic status. Moreover, privately managed schemes, as well as reserve funds of pay-as-you-go schemes have to operate at a sufficiently high level of security and efficiency. Rules on acceptable investment risks and prudent assumptions about future returns are important safeguards if their implementation is well enforced and monitored, while efficiency also means ensuring that administrative charges are kept low.

Finally, the translation of individual accounts into safe and secure annuities will become more and more important, in particular for the regimes recently introduced that will begin to provide first, partial benefits in a few years and often before the end of the decade (like in PL, EE, HU, LV, LT or SK).

7 See Joint report on Social Protection and Social Inclusion, 2007, supporting documents, section 3.3 for a presentation of issues linked to representativeness.
6. Conclusion

The NSRs highlight the interlinkages between the three broad objectives of pensions adequacy, sustainability and modernisation and the synergies and trade-offs between them. For reform strategies to be successful, all three elements must be present and considered together. Adequacy and sustainability of pensions cannot be achieved separately: they are mutually reinforcing in a virtuous or vicious circle.

*Figure 7: Projected evolutions of theoretical replacement rates (TRR) and pension expenditures for public pension schemes*

*Source: iSG and AWG projections (public pension schemes include the funded tier of statutory schemes).*
The evolution of theoretical replacement rates is linked to the evolution of pension expenditure. Member States with more positive developments of theoretical replacement rates appear to face more significant challenges as regards their future pension expenditures (Graph 8 for public statutory pensions) and are generally relatively less advanced in the process of pension reform (it should be noted that reforms up to 2004 are taken into account and that some Member States have introduced significant reforms since then).

If society does not develop an integrated approach linking adequacy and sustainability the risks are substantial. Unsustainable promises for future pensions jeopardise the possibility of adequate incomes in retirement. Inadequate accrual of pensions and delivery of low levels of income (or reducing pension provision previously promised) would create unforeseen pressures for the sustainability of public finances, as an increasing demand for ad-hoc revaluations of pensions and possible unexpected demands for other (even means-tested) social benefits can result in higher public expenditure. These situations could lead to sharp conflicts concerning the credibility of the pension system.

Increasing transparency in pension systems is important for both individuals (who need information and clarity in order to make long-term decisions) and governments (which need to develop monitoring tools for the long-term management of pension systems). A particularly interesting new feature of recent pension reforms is the introduction of automatic or semi-automatic mechanisms that contribute to a periodic monitoring of various sources of uncertainties - in particular demographic trends - and promote the likelihood of proportionate and timely reforms.

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SPC Special Study on Flexibility in retirement provision (2007, forthcoming).
Company Measures for Retention and Reintegration of Workers at Risk of Exclusion: European Experience with Older Workers

by Jorma Karppinen*

1. Introduction

Over the years, the European Foundation has conducted extensive research on workers at risk of exclusion. The reasons for exclusion are manifold, among them are most prominent:

- Low skill levels,
- Poor health,
- Disability,
- Age,
- Gender,
- Working conditions,
- Employment contract,
- Being migrant workers.

Very many of these workers at risk of exclusion do, however, want to find, remain in or return to employment. In many countries exclusion is not found only in ‘unemployment’ but in other forms of ‘inactivity’. Currently people with disability or long-term health problems are a particularly important group.

Poor health and disability increase the likelihood of both unemployment and early retirement: according to figures from the Labour Force Survey of 2002, 52% of people with disabilities are economically inactive compared with 28% of non-disabled people. A majority of workers with a disability have developed this during the course of their working life. As many of these disabilities are not visible, public awareness of this phenomenon is not very strong.

2. Policy Initiatives

But, there are, at different levels, policy initiatives which try to redress the situation. The following highlights some of the measures taken at the level of the European Union:

- 2005 — Report on the contribution of health to the economy of the EU.

* Director, European Foundation for the Improvement of Living and Working Conditions, Dublin.
Additionally, the European Foundation, as a policy advice body, has conducted its own research in this field, resulting in documentation of good practice, real-life examples from companies across the EU. Based on these, but also taking into account the accumulated knowledge of other reliable sources which have documented practices inside and outside of companies, a disability management model has been developed, based on these main pillars:

- Promoting employee health to create a healthy working environment.
- Managing identified risks through proactive responses to emerging conditions.
- Intervening early when an employee suffers an injury.
- Case managing or coordinating return to work for long-term absent employees.

The main thrust of these measures is trying to stem exclusion from work as a result of illness, injury or impairment. This process can be graphically illustrated as in Figure 1.

The main purpose of this wide range of initiatives and services both inside and outside the workplace lies in contributing to:

- access to,
- reintegration into
- retention of

employment by people with illness or disability.
The aim of such initiatives would be to:
- promote active rather than only administrative responses;
- develop awareness of the issue and an explicit ‘disability management’ focus;
- enhance coordination between services, and between services and the workplace;
- provide incentives for workers and employers to promote insertion and retention.

One of the main reasons why the concern about the ageing workforce has moved even higher on the European social policy agenda is its direct implication for employment, pensions, productivity and equal opportunities:
- From just another vulnerable group to core resource for mobilisation — these are key elements of economic and social strategy.
- From external phenomenon to integrated element in comprehensive EU policies, e.g. anti-discrimination policies and legislative efforts.
- From primary focus on tax/benefit structures to practices of age management in workplaces and labour markets.

This development has been going on for a fairly long period, some key steps having been:
- 1994 Essen Council conclusions first mentioned ‘older workers’ as a high risk group for exclusion from employment.
- EU Directive against discrimination in employment is being implemented, albeit slowly; there is also, as yet, relatively little experience in companies.
- Concerted EU-attempts, emphasising the joint role of companies and the social partners in fostering working conditions conducive to job retention in order to arrive at an approach that could be called ‘active ageing’ policy.
- Further, finance and other ministers in EU Member states have become aware of the implications for pensions and health care costs — and also for employment.

3. The Foundation’s Specific Contributions to the Debate

In support of these policy developments, the European Foundation has devoted its own resources and efforts to these issues over the past ten years. In summary, these have included:
- 1996-97: Age barriers in employment
- 1997-98: Case studies of ergonomic measures
- 2001-02: Survey on working conditions
- 2004-05: Employment initiatives for an ageing workforce (Emphasis on ‘good practice’ in EU15 and NMS)
- 2006-ongoing: Establishment and constant updating of Database of good practice, Report on developments over last decade Guide to age management

The first research on ‘good practice’ in age management took place in the mid-1990s. A decade later the Foundation organised a follow-up study in the same companies to see what had happened to their ‘good practice’ in the intervening 10 years. The database of age management on the Foundation’s website (www.eurofound.europa.eu) documents current practices in these companies as well as from 100 more companies, covering all 27 Member States. The follow-up covers more than 100 organisations that had begun to develop positive measures for attracting and retaining older workers. Some of the main characteristics of these case examples are:
• Three-quarters of these were in the private sector,
• Two-thirds had more than 500 employees,
• 25% had between 100 and 499 employees,
• 10% had around 100 employees.

The business case for companies to introduce ‘active ageing’ policies.

A market/business case can be made for companies to introduce ‘active ageing’ policies and measures. They will:
• Avoid labour and skills scarcity (and associated costs),
• Retain valuable experience,
• Provide good return on investment in training,
• Improve work satisfaction contributing to greater quality and productivity.

The concern about emerging labour shortages and premature loss of experienced, knowledgeable and skilled workers should indeed be a powerful incentive for companies to develop and employ ‘active ageing’ policies and practices for their workforces. A good case has been made in banking and retail, where a growing number of ageing customers feels more comfortable with and starts demanding ‘older’ service/sales personnel, i.e. service/sales personnel closer in age to the customers on the assumption that they understand the needs and wishes of the customer better than younger personnel.

In short, age diversity in companies equates to greater flexibility and synergy. Despite these potential business benefits, momentum for change exists only in a minority of companies.

A number of good practices in age management have been identified through the Foundation’s work. ‘Active ageing’ policies will bring benefits for workers and companies if one or more of these measures are deployed:
• Job recruitment without (hidden) age discrimination.
• Training, development and lifelong learning.
• Career development.
• Flexible working practices in terms of work organisation and working time arrangements.
• Health protection and promotion.
• Workplace design.
• Redeployment — internal mobility.
• Employment exit and transition to retirement.

Needless to say, optimal effect can be achieved through a comprehensive approach and through a combination of several or all of the above measures.

Despite these insights, contradictions, ambivalences, and ambiguities are more characteristic of reality at company level than this comprehensive approach.

During the proceedings of a conference organized by Business Europe in March 2007, it was estimated that only 6% of member organisations were actively preparing for demographic change. What are the potential pitfalls?
• Even if measures were taken in combination, they were not necessarily integrated.
• Measures were taken at some times but not others.
• Measures were taken for some groups but not others.

Despite of this less than perfect reality, it has to be acknowledged that there is evidence
of positive development in measures over the last decade:

- Most common measures are in training and development followed by flexible working
- Increase over time in the diversity and complexity of approaches to age management
- Tendency for measures to promote health and well-being to be reported more, and specific measures for recruitment or redeployment less
- Targeting of skilled manual workers still prominent but more attention to professional and managerial staff — and more attention to all age groups
- Little specific attention to low-skilled, or to gender issues

There is also new emphasis and increasing attention to issues of work-life balance for older workers (who often have care responsibilities) and increasing attention to maintaining workers health. However, the most common measures are still in training.

4. The Case for Looking at Staff and the Company Simultaneously

Many benefits of effective age management have been documented and reported. They include for staff:

- improved health;
- increased motivation
- increased job satisfaction;
- better relations with co-workers and managers;
- improved prospects for both employment and retirement;

Whereas for the organisation, these benefits have manifested themselves:

- securing good-quality of labour supply;
- reduced loss or absence of staff;
- improved team-working and productivity;
- better image;
- strengthened social dialogue

It must be stressed, however, that these insights are based on very few systematic evaluations. The major evidence is contained in the case studies the Foundation has undertaken over the years, and is based on the opinions of management and workers, in so far as representatives of both could be interviewed for the case studies.

There is an urgent need to make more companies aware of these experiences and the benefits of age management (as also for active disability management), if it is the intention to make good ‘active ageing’ measures the norm rather than a minority phenomenon.

5. Conclusions

- Comprehensive and coordinated approaches are possible and worthwhile —
  - need to extend awareness, commitment and implementation
  - counter discrimination
- Policies must consider the whole of working life —
  - working
  - learning
  - caring over the life course
• While the focus should be on prevention, some older workers need compensatory remedial provision e.g. life-long-learning (LLL) and assistance to increase their employability.
• Rethinking of pensions is going on - but will have to include disability and rehabilitation schemes.

Although key problems and barriers remain, such as indifference, or often negative attitudes to older workers, or even among older workers themselves, among workmates, line managers and employers, there is evidence that a more holistic thinking is gaining ground which will integrate different measures for different people, for different times in their (working) lives, for different companies.
Active Ageing and Pension Policies in the Context of the European Employment Strategy

by Martin Hutsebaut*

1. Introduction

Europe is ageing and the European workforce is ageing too. Between 1950 and 2000 the percentage of people over 65 years of age in the EU25 increased from 9.1% to 15.7%. By 2025 this group will represent 22.7% of the entire population. Between 2010 and 2030 in the EU25 the EC expects a drop in the number of (Source: Demographic Green Paper of the EC of 2005):

- children (0-14): by 8.9%
- young people (15-24): by 12.3%
- young adults (25-39): by 16%
- adults (40-54): by 10%

and an increase in the number of
- older workers (55-64): by 15.5%
- elderly people (65-79): by 37.4%

The Reasons for these demographic shifts are known:

   According to the Demographic Green Paper of the EC of 2005 the low fertility rate in the EU is the result of: late access to employment, job instability, expensive housing and lack of incentives (family benefits, parental leave, child care, equal pay).

2. Continuing increase in longevity.
   Important gains in life expectancy have been realised in the EU between 1960 and 2002: life expectancy for males at the age of 60 increased from around 16 to around 19 years; for females from around 18 to around 24 years. The most recent Eurostat projections see life expectancy in the EU25 at 65 to increase by another four years from 2004 to 2050 (4.4 years for men and 3.9 years for women).

* Secretary to the Directors’ Committee of the ETUI-REHS, Brussels.
While these demographic shifts were taking place, we noted a fall in the average effective retirement age in the EU in the 1970s and 1980s, a trend which ran contrary to the significant rise in life expectancy for the same period.

This drop in effective retirement age was mainly due to the development of pre- and early retirement systems in an effort to combat youth unemployment — a strategy that did not subsequently prove effective. In this way the number of contribution years decreased while the number of years in receipt of pension benefits was growing. This of course created a huge pressure on the pension systems and made reforms unavoidable.

### Table 1: Evolution of life expectancy at birth in some EU-countries

<table>
<thead>
<tr>
<th>Country</th>
<th>Average 1995-2000</th>
<th>2030</th>
<th>2050</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td>Male</td>
</tr>
<tr>
<td>Germany</td>
<td>75.1</td>
<td>81.0</td>
<td>79.2</td>
</tr>
<tr>
<td>France</td>
<td>75.2</td>
<td>82.7</td>
<td>79.3</td>
</tr>
<tr>
<td>Italy</td>
<td>76.2</td>
<td>82.6</td>
<td>80.1</td>
</tr>
<tr>
<td>The Netherlands</td>
<td>75.3</td>
<td>80.6</td>
<td>78.6</td>
</tr>
<tr>
<td>U.K.</td>
<td>74.0</td>
<td>79.8</td>
<td>79.3</td>
</tr>
<tr>
<td>Sweden</td>
<td>77.4</td>
<td>82.0</td>
<td>81.4</td>
</tr>
</tbody>
</table>

Source: Eurostat.

### Table 2: Average exit age from the labour force

<table>
<thead>
<tr>
<th>Country</th>
<th>1995-2000</th>
<th>2030</th>
<th>2050</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td>Male</td>
</tr>
<tr>
<td>Belgium</td>
<td>64.8</td>
<td>64.7</td>
<td>57.6</td>
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<tr>
<td>Germany</td>
<td>65.7</td>
<td>62.7</td>
<td>60.5</td>
</tr>
<tr>
<td>Denmark</td>
<td>67.1</td>
<td>63.0</td>
<td>60.7</td>
</tr>
<tr>
<td>Spain</td>
<td>68.1</td>
<td>68.9</td>
<td>61.4</td>
</tr>
<tr>
<td>France</td>
<td>66.1</td>
<td>69.0</td>
<td>59.2</td>
</tr>
<tr>
<td>Switzerland</td>
<td>67.7</td>
<td>67.2</td>
<td>64.6</td>
</tr>
<tr>
<td>Italy</td>
<td>66.9</td>
<td>64.0</td>
<td>60.6</td>
</tr>
<tr>
<td>The Netherlands</td>
<td>66.4</td>
<td>64.1</td>
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</tr>
<tr>
<td>Norway</td>
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<td>69.0</td>
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<tr>
<td>Sweden</td>
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<tr>
<td>UK</td>
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<tr>
<td>EU 25</td>
<td>-</td>
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</table>


### Table 3: Average exit age from the labour force

<table>
<thead>
<tr>
<th>Country</th>
<th>Desired pension age (active workers)</th>
<th>Expected pension age (active workers)</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>53</td>
<td>55</td>
</tr>
<tr>
<td>France</td>
<td>55</td>
<td>61</td>
</tr>
<tr>
<td>Spain</td>
<td>56</td>
<td>63</td>
</tr>
<tr>
<td>UK</td>
<td>56</td>
<td>62</td>
</tr>
<tr>
<td>Australia</td>
<td>56</td>
<td>62</td>
</tr>
<tr>
<td>United States</td>
<td>56</td>
<td>64</td>
</tr>
<tr>
<td>Italy</td>
<td>57</td>
<td>62</td>
</tr>
<tr>
<td>Belgium</td>
<td>57</td>
<td>61</td>
</tr>
<tr>
<td>Germany</td>
<td>59</td>
<td>63</td>
</tr>
<tr>
<td>The Netherlands</td>
<td>59</td>
<td>63</td>
</tr>
<tr>
<td>Japan</td>
<td>60</td>
<td>61</td>
</tr>
</tbody>
</table>

Source: AXA.
The ETUC believes that the challenges resulting from these demographic changes must be taken seriously because they could cause a dramatic fall in annual economic growth rates in Europe from 2 — 2.25% today to 1.25% in 2040. This reduction in economic growth could affect the sustainability of our social systems in general and of the pension and health systems in particular. Since the 1990s EU governments have followed a two-track approach: reforms of the pension systems went hand-in-hand with policies intended to push up the employment rates of older workers (55–64 years). These two policy fields are strongly interlinked.

The Lisbon Strategy, based on four pillars — growth, employment, social cohesion and sustainable development —, is highly relevant and extremely useful in the discussion on demographic change because it gives responses to these challenges.

### 2. Reform of the Pension Systems

In 1999 the European Commission presented its Communication on a Concerted Strategy for Modernising Social Protection. This communication, which focused on four key objectives — including ‘to make pension systems sustainable’ — was the start of a long-term Europewide reform process in the area of pensions.

---

1. This chapter draws upon the EC report Adequate and sustainable pensions — synthesis report 2006.
The Laeken European Council of December 2001 decided that Member States should cooperate on the question of reform of the pension system by seeking to achieve common objectives, namely, the adequacy of pensions, the financial sustainability of pension systems and the adaptability of pension systems (modernisation). The method to be used was the open method of coordination (OMC).

There has been substantial progress in reforming pension systems since 2003. Disincentives to work longer have been reduced and incentives strengthened; links between contributions and benefits have been tightened; and life expectancy has been further taken into account in pension systems. Moreover, the provision of supplementary pensions has been promoted and legislative frameworks have been improved.

Furthermore, some Member States have also tackled old-age poverty by increasing the levels of guaranteed minimum pensions.

Some Member States have introduced major reform packages. Germany, in addition to 2001 reforms (which led to a lower increase in first-pillar pension levels and the creation of State-supported, funded, voluntary, second- and third-pillar pensions), undertook, through the Sustainability Act of 2004, measures aimed at bringing levels of contribution rates into line with levels of benefits paid out. It also introduced a sustainability factor into the pension indexation formula, requiring additional adjustments if the ratio between contributors and beneficiaries worsens. In France, the 2003 reform improved long-term sustainability via an increase in the number of contribution years required for a full pension (this will be further increased in line with future increases in life expectancy), as well as via strengthened incentives to work longer.

Members of the public and private schemes are also treated more equitably now. In Austria, the 2004 and 2005 reforms make a major step towards a more sustainable pension scheme through a stronger link between contributions and benefits as well as an increase in the number of contribution years needed for a full pension. Incentives to work longer were also increased and incentives to take up early pensions decreased through a so-called bonus/malus system. This reform also introduces a much more uniform pension system across the public and private sectors and introduces the indexation of pensions to prices as of 2006. The Finnish pension reform, implemented mainly in 2003-2005, increased incentives to work by providing a higher accrual of pension rights for older workers and overhauling early retirement arrangements. It will also introduce a ‘life-time coefficient’ with the effect of adjusting future pensions in line with increases in life expectancy. Lithuania (in 2004) and Slovakia (in 2005) introduced a funded tier to their social security pension system, which will strengthen the sustainability of the statutory pay-as-you-go old-age pension scheme in the long run.

Concerning occupational and private pension schemes, the legislative framework was notably improved by the Netherlands and the United Kingdom. In the Netherlands, the principles for a new Financial Assessment Framework for supplementary pensions were established in 2004. These set tighter requirements, in particular for the size of reserves for collective private pension arrangements.

The Member States have continued adapting their existing systems. For example, Spain, Portugal, Belgium and Ireland have increased the levels of their guaranteed minimum pensions beyond the statutory index adjustments, while the United Kingdom has implemented Pension Credits. Portugal has strengthened incentives to work longer and fostered more equitable treatment of members of different schemes. Incentives to work longer have also been developed in a number of Member States including Luxembourg, the Netherlands (favourable tax conditions for the take-up of early pensions have been reduced and an innovative life-course arrangement, replacing early retirement arrangements, was introduced in 2006) and Italy (the 2004 reform plans a gradual increase of the age requirements for seniority pensions).
Some pension laws provide for periodic reviews as a basis for next steps in the reform process. For example, Spain renewed the Toledo Pact, thereby underlining the importance of dialogue with the social and economic players involved when it comes to monitoring present and future reform measures. Parliament is reviewing progress and future reform measures every five years.

As a response to future increases in life expectancy, a number of reforms are designed to stabilise pension systems through automatic adjustment mechanisms (as in SE, FI, PL, LV or DE) or periodically required reviews and adjustments (in AT, IT or FR). These adjustments will also promote a life-cycle approach.

A number of recent reforms have strengthened the benefit/contribution link of pension systems. Funded and national defined contribution schemes establish a strong link and links have been strengthened also in many defined-benefit schemes. This has occurred, firstly, through the introduction of longer contribution periods required for a full pension; secondly, by calculating full pensions on the basis of life-time earnings instead of final salary, thus reflecting more accurately contributions over an entire career, rather than just wage progression in later years; thirdly, by applying actuarial reductions/increases for early/deferred retirement, thereby contributing to a culture in which early retirement becomes less prevalent (this has occurred in a number of Member States, such as AT, FR, FI, ES, PT, NL or IT), this link having been already strengthened by previous reforms in many Member States, such as DE, BE or LU, HU, EE, LV, LT, PL, SK, SI or SE).

However, reinforcing the link between contributions and benefits has to be combined with a careful monitoring of the accrual of pension rights during breaks in careers — such as for childcare, other care responsibilities, on account of unemployment, sickness or for educational purposes — to ensure both adequacy and equity in retirement.

Less and less people follow the standard career of full-time, lifelong employment. Career breaks and part-time work are becoming more frequent. Member States have started to review pension provision for workers with atypical careers, with a view to easing access to statutory and supplementary pension schemes. For example, some Member States, in particular where the link between contributions and benefits has been strengthened, allow people to acquire pension credits for periods of short term contracts, part-time and voluntary work as well as for some types of break in the working career such as child and old-age care, education and unemployment.

Most of the Member States are gradually phasing out differences in legal retirement ages between men and women. Generally, workers who change employer frequently are better served by statutory schemes, and many statutory schemes have moved towards accommodating short-term contracts, while supplementary pension schemes (notably those which are linked to an individual employer), can disadvantage mobile workers.

Given the rising importance of supplementary schemes, some Member States (DK, DE, NL, UK) have improved the portability of supplementary pension rights which pose obstacles to workers’ mobility.

More and more countries have switched to price, or close to price, indexation both for earnings-related schemes and for minimum pension schemes.

Several countries see a role for private pension provision as part of the total pension provision. This has traditionally been the case in Member States (like DK, NL and UK). Moreover, the importance of private pension provision has essentially been increased by the introduction of a funded tier of statutory schemes in a number of Member States including SE, PL, HU, EE, LV, LT and SK. Furthermore, a great number of countries have increased provisions for occupational or private schemes that complement public pensions (DE, IT, AT).
In all but a few Member States the public pay-as-you-go pension schemes are expected to remain the principal source of income for pensioners. This will allow Member States to maintain a degree of redistribution and solidarity that is necessary to provide fair incomes to all older people. Privately managed schemes, as well as reserve funds of pay-as-you-go schemes, have to operate at a sufficiently high level of security and efficiency. Rules on acceptable investment risks and prudent assumptions about future returns are important safeguards if their implementation is well enforced and monitored, while efficiency also means ensuring that administrative charges are kept low.

Table 5: Evolution of theoretical replacement rates from 2005 to 2050

<table>
<thead>
<tr>
<th></th>
<th>Change in theoretical replacement rate in percentage points (2005-50)</th>
<th>Assumptions and background information</th>
<th>Decline in the net replacement rate, 10 years after retirement (in percentage points)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Net Total: Gross replacement rate</td>
<td>Statutory pensions</td>
<td>Occupational and voluntary pensions</td>
</tr>
<tr>
<td>BE</td>
<td>7</td>
<td>-2</td>
<td>6</td>
</tr>
<tr>
<td>CZ</td>
<td>-9</td>
<td>-8</td>
<td>-8</td>
</tr>
<tr>
<td>DK</td>
<td>5</td>
<td>15</td>
<td>-6</td>
</tr>
<tr>
<td>DE</td>
<td>4</td>
<td>5</td>
<td>-9</td>
</tr>
<tr>
<td>EE</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>EL</td>
<td>-5</td>
<td>-11</td>
<td>-11</td>
</tr>
<tr>
<td>ES</td>
<td>-5</td>
<td>-6</td>
<td>-6</td>
</tr>
<tr>
<td>FR</td>
<td>-17</td>
<td>-17</td>
<td>-17</td>
</tr>
<tr>
<td>IE</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>IT</td>
<td>4</td>
<td>1</td>
<td>-15</td>
</tr>
<tr>
<td>CY</td>
<td>18</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>LV</td>
<td>7</td>
<td>-7</td>
<td>-7</td>
</tr>
<tr>
<td>LT</td>
<td>-4</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>LU</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>HU</td>
<td>-1</td>
<td>12</td>
<td>13</td>
</tr>
<tr>
<td>MT</td>
<td>-27</td>
<td>-19</td>
<td>-19</td>
</tr>
<tr>
<td>NL</td>
<td>-2</td>
<td>-2</td>
<td>0</td>
</tr>
<tr>
<td>AT</td>
<td>14</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>PL</td>
<td>-34</td>
<td>-27</td>
<td>-27</td>
</tr>
<tr>
<td>PT</td>
<td>1</td>
<td>-5</td>
<td>-5</td>
</tr>
<tr>
<td>SI</td>
<td>-22</td>
<td>-25</td>
<td>-25</td>
</tr>
<tr>
<td>SK</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>FI</td>
<td>-1</td>
<td>-5</td>
<td>-5</td>
</tr>
<tr>
<td>SE</td>
<td>-14</td>
<td>-12</td>
<td>-13</td>
</tr>
<tr>
<td>UK</td>
<td>3</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>

Note: Source see box 2.1. (1) stands for not applicable or not available. Coverage rates refer to the coverage of the labour force and contribution rates to overall contribution rates as a share of gross wages (from employees and employers) used as assumptions for the calculation of theoretical replacement rates (coverage rates may differ from currently observed figures displayed in table 2.4; contribution rates may also differ from current levels reflecting for instance projected increases in contribution rates). (2) For Belgium, this refers to the overall Social Security contribution rate, due to its global management (b), for Denmark this does not include transfers from the general budget. The column referring to statutory pensions includes for some Member States (Estonia, Latvia, Lithuania, Hungary, Poland, Slovakia and Sweden) the mandatory funded tier, which is a defined contribution scheme. The column referring to occupational or voluntary schemes generally refers to defined contribution schemes, with the exception of Ireland, the Netherlands, Sweden and the United Kingdom, where defined benefit schemes have been considered.

### Table 6: Pension fund assets as a percentage of GDP

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Germany</td>
<td>7.0%</td>
<td>5.6%</td>
<td>6.5%</td>
<td>7.8%</td>
<td>8.7%</td>
</tr>
<tr>
<td>Austria</td>
<td>0.8%</td>
<td>2.0%</td>
<td>3.2%</td>
<td>4.4%</td>
<td>5.2%</td>
</tr>
<tr>
<td>Belgium</td>
<td>3.0%</td>
<td>3.6%</td>
<td>6.1%</td>
<td>4.0%</td>
<td>4.6%</td>
</tr>
<tr>
<td>Denmark</td>
<td>29.0%</td>
<td>23.2%</td>
<td>24.5%</td>
<td>24.2%</td>
<td>25.5%</td>
</tr>
<tr>
<td>Spain</td>
<td>1.0%</td>
<td>2.9%</td>
<td>6.2%</td>
<td>7.5%</td>
<td>7.9%</td>
</tr>
<tr>
<td>Finland</td>
<td>-</td>
<td>9.7%</td>
<td>9.1%</td>
<td>8.4%</td>
<td>8.9%</td>
</tr>
<tr>
<td>France</td>
<td>2.0%</td>
<td>4.7%</td>
<td>4.2%</td>
<td>3.5%</td>
<td>3.9%</td>
</tr>
<tr>
<td>Netherlands</td>
<td>78.3%</td>
<td>80.0%</td>
<td>111.4%</td>
<td>111.9%</td>
<td>121.4%</td>
</tr>
<tr>
<td>Ireland</td>
<td>-</td>
<td>-</td>
<td>43.9%</td>
<td>39.3%</td>
<td>43.2%</td>
</tr>
<tr>
<td>Italy</td>
<td>0.6%</td>
<td>1.7%</td>
<td>2.5%</td>
<td>2.8%</td>
<td>2.8%</td>
</tr>
<tr>
<td>Portugal</td>
<td>-</td>
<td>-</td>
<td>11.2%</td>
<td>12.5%</td>
<td>13.9%</td>
</tr>
<tr>
<td>UK</td>
<td>58.9%</td>
<td>76.2%</td>
<td>79.5%</td>
<td>64.4%</td>
<td>67.4%</td>
</tr>
<tr>
<td>Sweden</td>
<td>31.1%</td>
<td>33.8%</td>
<td>28.9%</td>
<td>48.3%</td>
<td>53.2%</td>
</tr>
<tr>
<td>Norway</td>
<td>4.8%</td>
<td>6.1%</td>
<td>7.1%</td>
<td>7.0%</td>
<td>7.3%</td>
</tr>
<tr>
<td>Switzerland</td>
<td>74.1%</td>
<td>88.8%</td>
<td>133.8%</td>
<td>115.8%</td>
<td>129.7%</td>
</tr>
</tbody>
</table>


### 3. European Pension Regulations and Directives

*Regulation n° 1408/71 of 14 June 1971* on the application of social security schemes to employed persons, to self-employed persons and to the members of their families moving within the Community, amended by Council Regulation n° 1606/98 of 29 June 1998 extending the field of application of Regulation 1408 to the special regimes of civil servants, guarantees:

- the aggregation of insurance or residence periods within the general schemes and the special schemes for civil servants in view of the acquisition of the right to benefits.
- equal revalorization of benefits for migrant workers and for nationals;
- aggregated pensions payable in the state of residence

Regulation 859/2003 extends the field of application of Regulation1408/71 to workers from third countries who are legally employed in the EU.


*Directive 98/49/EC of 29 June 1998* on safeguarding the supplementary pension rights of employed and self-employed persons moving within the Community guarantees:

- equality of treatment of migrant workers and national job changers as regards the preservation of vested pension rights: Member States must ensure the preservation of vested pension rights for members of a supplementary pension scheme in respect of whom contributions are no longer being made to that scheme as a consequence of their moving from one Member State to another, to the same extent as for members in respect of whom contributions are no longer being made but who remain within the same Member State;

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2 This Regulation will be replace by Regulation 883/2004 as soon as the implementation Regulation will be adopted (in 2009).
• cross-border payments of supplementary pension benefits, net of any taxes and transaction charges which may be applicable;
• as far as posted workers are concerned, Member States must enable contributions to continue to be made to a supplementary pension scheme established in a Member State by or on behalf of a posted worker who is a member of such a scheme during the period of his or her posting in another Member State. Where contributions continue to be made to a supplementary pension scheme in one Member State, the posted worker and his employer shall be exempted from any obligation to make contributions to a supplementary pension scheme in another Member State.

Communication COM (2001) 214 final of 19 April 2001 from the Commission on the elimination of tax obstacles to the cross-border provision of occupational pensions, supplements the Pension Fund Directive of 2003 and calls for the elimination of unduly restrictive or discriminatory tax rules that can act as a major disincentive to individuals wishing to contribute to pension schemes outside their home Member State and pensions institutions that wish to provide pensions across borders (pan-European pension institution). Member States must ensure that they grant the same tax deduction for contributions to domestic pension institutions and those established in other Member States. Equal treatment must similarly be granted in relation to the tax treatment of benefits. Under nearly all tax treaties between Member States pension benefits are taxable in the State of residence of the pensioner.

Directive 2003/41/EC of 3 June 2003 on the activities and supervision of institutions for occupational retirement provision aims at:
• establishing minimum prudential standards in order to ensure a high level of protection for the rights of future pensioners;
• ensuring that the institutions enjoy sufficient freedom to develop an effective investment policy;
• enabling a pension institution in one Member State (the home Member State) to manage company pension schemes in other Member States (the host Member States) by allowing cross-border management of occupational pension schemes while maintaining full compliance with the social and labour law of the host Member State.

Proposal for a Directive on improving the portability of supplementary pension rights, COM (2005) 507 final of 20 October 2005. In 2005 the European Commission proposed a draft directive on the portability of supplementary pension. The original objective of the proposal was to reduce the obstacles to workers’ mobility which stem from these schemes by improving the rights of workers moving within the Union and within the same Member State.

The proposal met with strong opposition in the Council. A breakthrough was achieved on the basis of a compromise proposal of the Finnish Presidency in November 2006.

On 20 June 2007 the European Parliament voted (under the co-decision procedure in first reading) a legislative resolution on this proposal which took over most of the amendments proposed by the Finnish Presidency.

The ETUC has regretted the minimalist approach adopted by the European Parliament in this matter and stressed that the Parliament has missed an opportunity to substantially improve the social rights of workers moving either within a Member State or within the Union and to significantly diminish the obstacles to their mobility. Not only has the provision in favour of employees moving from one company to another allowing them to transfer their ‘acquired rights’ been deleted from the text, but also the vesting period has been increased from two to five years!
A further matter that remains unresolved after the first reading in Parliament is the tax treatment of supplementary pensions: this important issue is not even raised, let alone resolved, by this initiative.

4. A European Trade Union View on the Future of Social Protection in General and of Pension Systems in Particular

4.1 The Defence of the Statutory Social Protection Systems

In the view of the European trade union movement, the statutory systems of social protection should remain the core of the European welfare state. These systems guarantee, better than any other, social welfare, social cohesion and social justice. They are also highly efficient in terms of poverty prevention and cost-effectiveness through their low administrative costs and non-profit-making status. In order to maintain and to increase their efficiency, the statutory social protection systems need to adapt both to the major changes in the labour market and new forms of work, and to the profound societal changes such as ageing, changes in family structures and the individualisation of our societies.

Apart from the fact that our social protection systems should respond to the growing need for active policies in favour of the millions of unemployed workers in the EU and the millions of job-seekers outside the EU, our systems should fully integrate the growing number of non-standard workers and of so-called ‘self-employed’, offering them equal rights and contribution obligations (see, in this context, the Preamble to the two framework agreements on atypical employment signed by the European social partners, in 1997 on part time work and in 1999 on fixed-term work). Greater flexibility in the labour market means higher economic insecurity and should go hand in hand with greater social security. In order to reconcile professional and family life, it is important that the social protection systems provide for the maintenance of social security entitlements during periods of parental leave and other types of career break (see, in this context, the European Framework Agreement on Parental Leave signed by the European social partners in 1996).

4.2 The Development of Occupational Pension Schemes

Besides the public social protection systems, supplementary insurance schemes, mainly of a contractual nature, are developing in Europe. This is particularly the case in the fields of pension insurance (occupational pension funds, group insurance schemes) and health insurance. The European trade union movement continues to give absolute priority to the public pension schemes based on solidarity between generations and financed on a ‘pay-as-you-go’ basis, and to statutory health insurance. Provisions for the development of second-pillar pension or health-care schemes are welcomed in so far as they do not infringe on the statutory systems, are not considered as alternatives to these systems, result from collective agreements and guarantee real rights to their members. Occupational pension funds should be organised on a collective basis, provide for compulsory membership and be accessible to non-standard workers. Mobile workers should be able to take full advantage of these supplementary schemes. The EU should (and has partially done so) set the legal framework for occupational pension schemes: guaranteeing workers’ rights and financial interests, equal rights for men and women, and portability rights; recognising the place and the role of the trade unions in the implementation, the monitoring and the investment policies of the supplementary schemes; and defining the prudential, transparency and taxation rules. The management of these funds should ensure a proper return on their investments as well as
respect for social and ethical standards in their investment policies and choices. In this way, complementary pension funds can become an important instrument for the promotion of employment, decent labour standards and the protection of the environment.

4.3 Towards Progressive and Flexible Retirement

The European trade union movement is also very concerned about the growing number of older workers leaving the labour force long before the statutory retirement age: while statutory retirement ages are reviewed in an upward direction, more and more older workers are confronted with an early exit from the labour market. The employment rates for older workers decrease sharply after the age of 55. The European trade union movement cannot accept HR policies that involve systemically removing older workers from employment. In specific circumstances (high levels of unemployment, industrial restructuring, hard or stressful labour, long employment and contribution record) full time early retirement schemes are justified. Preference should be given to a system of progressive and gradual retirement, whereby reduced working time is combined in a flexible manner with partial retirement. An employment and social protection policy which seeks to take full account of the interests of older workers is committed to investing in lifelong training and learning and, in so doing, contributes to the sustainability of our social protection schemes. Such a policy should be an integral part of a strategy aimed at reorganising working time over the life span.

4.4 Towards the Individualisation of Social Protection Rights

The European trade union movement is also in favour of an individualisation of social protection rights in order to allow each adult, irrespective of matrimonial or labour market status, to benefit from his or her own rights (as opposed to the system of derived rights) on the basis of own contributions. If it is to be successful, such a policy shift requires a social protection model based on universal rights complemented by insurance rights (based on professional activities and on social contributions), care services and facilities for dependent persons and for young children, career-break provisions for the same purposes, a new division of family tasks between partners and, finally, an adequate transitional period to move from derived rights to individual rights.

4.5 Safeguarding the Future Financing of Social Protection

Safeguarding the financial viability of the social security systems in the long run is a basic concern of the European trade union movement. Governments should guarantee that the financial resources of the social protection systems grow in line with current and future needs. The best way to achieve this objective is through the promotion of sustainable economic growth and the expansion of employment. In this context it should be stressed that the European trade union movement has strong reservations about many of the arguments put forward in favour of a reduction of non-wage labour costs: any proposal in this direction should be linked to job creation and address the question of alternative financing. To help promote employment, the long-term trend toward higher taxes on labour should be reversed by shifting the tax burden towards other factors of production and by broadening the financial base of social protection. The erosion of the traditional tax base has to be reversed by increased efforts on the part of the EU towards tax co-ordination and convergence. Broadening the financial base of social protection presupposes that all forms of income, and not only income from labour, and all kinds of labour, and not just employed labour, should contribute equally to the financing of
social welfare. Governments should therefore examine critically all existing tax exemptions, as well as all tax expenditures, especially those in favour of third-pillar provision (private pensions, life insurance policies, etc).

The full potential of the European single market and of the EMU in the areas of economic growth and job creation should be used not only for budgetary consolidation, but also for the consolidation of the social protection systems in the light of the ageing of our populations, and this must take place without weakening the redistribution effect and the solidarity principles which characterise the systems. The establishment of demographic reserve funds for public retirement pensions based on the increasing margins in the state budgets under EMU conditions (as has been done in the Netherlands, France, Belgium, Spain and Ireland) is an excellent example of such a policy. Governments should also guarantee the financing, on the basis of general tax revenues, of all non-contributory solidarity measures introduced into the social security systems.

5. Higher Employment Rates for Older Workers

The Lisbon European Council of 2000 adopted an ambitious plan for the future of Europe: by 2010 the EU should become the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion. It specifically stated that the overall aim of employment and economic policies should be to raise the employment rate to as close as possible to 70% by 2010 and to increase the employment rate for women to more than 60% by the same year, not least in order to reinforce the sustainability of social protection systems.

In addition to the 2010 Lisbon targets, the Stockholm European Council of 2001 set a new target of raising the average EU employment rate for older men and women (aged 55 to 64) to 50% by 2010. Another target relating to older workers was set by the Barcelona European Council in 2002. It focuses on the average labour market withdrawal age which is to rise by 5 years by 2010. Recognising the limited progress achieved so far towards these targets, the European Council decided in 2005 to re-launch the Lisbon Strategy and refocus priorities on economic growth and employment. As part of this, a new set of employment guidelines for the period 2005 to 2008 was adopted and these form part of the “Integrated Guidelines” package also adopted in 2005, which lays out a comprehensive strategy of macroeconomic, microeconomic and employment policies to redress Europe’s weak growth performance and insufficient job creation. The employment guidelines continue to reflect the EU’s overall goal of achieving full employment, quality and productivity at work, and social and territorial cohesion, and advocate a lifecycle approach to work that tackles the problems faced by all age groups. Three broad areas for action were defined (EC, Employment in Europe 2006, p. 28):

- Attract and retain more people in employment, increase labour supply and modernise social protection systems;
- Improve adaptability of workers and enterprises;
- Increase investment in human capital through better education and skills.

5.1 Where Are We in 2007?

As can be seen from Table 5 of the Employment report 2006 of the European Commission, the EU is far from achieving the original objectives set in Lisbon, Stockholm and Barcelona. In 2005 the overall employment rate in EU-25 was 63.8%; the female employment rate was 56.3%, while the employment rate among older members of the working-age population
was 42.5%. Compared to the year 2000, the overall employment rate had increased by only 1.4% points, the female employment rate by 2.7% points and the older workers’ rate by 5.9% points.

Looking at the figures per country, remarkable differences in employment rates are observed: several countries have already reached the general employment target. These include Denmark (75.9%), The Netherlands (73.2%), Sweden (72.5%) and the UK (71.7%). Other countries are still far behind the target: Italy (57.6%), Poland (52.8%), Belgium (61.1%) and France (63.1%). Only Denmark, Sweden and the UK have achieved the three employment targets set in Lisbon and Stockholm.

Table 5: Evolution of theoretical replacement rates from 2005 to 2050

<table>
<thead>
<tr>
<th>Countries</th>
<th>2010 target</th>
<th>70%</th>
<th>More than 60%</th>
<th>50%</th>
</tr>
</thead>
<tbody>
<tr>
<td>BE</td>
<td>6.11</td>
<td>0.8</td>
<td>0.6</td>
<td>8.9</td>
</tr>
<tr>
<td>CZ</td>
<td>6.48</td>
<td>0.6</td>
<td>-0.2</td>
<td>5.2</td>
</tr>
<tr>
<td>DK</td>
<td>7.59</td>
<td>0.2</td>
<td>-0.4</td>
<td>7.9</td>
</tr>
<tr>
<td>DE</td>
<td>6.54</td>
<td>0.4</td>
<td>-0.2</td>
<td>4.6</td>
</tr>
<tr>
<td>EE</td>
<td>6.44</td>
<td>1.4</td>
<td>4.0</td>
<td>5.6</td>
</tr>
<tr>
<td>EL</td>
<td>6.01</td>
<td>0.7</td>
<td>3.6</td>
<td>9.9</td>
</tr>
<tr>
<td>ES</td>
<td>6.3</td>
<td>2.2</td>
<td>7.0</td>
<td>6.7</td>
</tr>
<tr>
<td>FR</td>
<td>6.31</td>
<td>0.0</td>
<td>1.0</td>
<td>6.0</td>
</tr>
<tr>
<td>IE</td>
<td>6.76</td>
<td>1.3</td>
<td>2.4</td>
<td>5.8</td>
</tr>
<tr>
<td>IT</td>
<td>5.76</td>
<td>0.0</td>
<td>3.0</td>
<td>12.4</td>
</tr>
<tr>
<td>CY</td>
<td>6.85</td>
<td>-0.4</td>
<td>2.8</td>
<td>5.8</td>
</tr>
<tr>
<td>LV</td>
<td>6.3</td>
<td>1.0</td>
<td>5.8</td>
<td>6.7</td>
</tr>
<tr>
<td>LT</td>
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<td>1.4</td>
<td>3.5</td>
<td>7.4</td>
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<tr>
<td>LU</td>
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<td>1.1</td>
<td>0.9</td>
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<tr>
<td>HU</td>
<td>5.99</td>
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<td>0.6</td>
<td>5.1</td>
</tr>
<tr>
<td>MT</td>
<td>5.39</td>
<td>-0.1</td>
<td>-0.3</td>
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</tr>
<tr>
<td>NL</td>
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<td>0.1</td>
<td>0.3</td>
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</tr>
<tr>
<td>AT</td>
<td>6.86</td>
<td>0.8</td>
<td>0.1</td>
<td>1.4</td>
</tr>
<tr>
<td>PL</td>
<td>5.28</td>
<td>1.1</td>
<td>-2.2</td>
<td>17.2</td>
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<tr>
<td>PT</td>
<td>6.71</td>
<td>-0.3</td>
<td>-0.9</td>
<td>2.5</td>
</tr>
<tr>
<td>SI</td>
<td>6.6</td>
<td>0.7</td>
<td>3.2</td>
<td>4.0</td>
</tr>
<tr>
<td>SK</td>
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<td>0.7</td>
<td>0.9</td>
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</tr>
<tr>
<td>FI</td>
<td>6.84</td>
<td>0.8</td>
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<td>6.5</td>
</tr>
<tr>
<td>SE</td>
<td>7.2</td>
<td>0.4</td>
<td>-0.5</td>
<td>7.0</td>
</tr>
<tr>
<td>UK</td>
<td>7.17</td>
<td>0.1</td>
<td>0.1</td>
<td>8.5</td>
</tr>
</tbody>
</table>


As to the employment rate of older workers, remarkable progress has been made over the period 2000-2005 in Latvia (+13.5% points), Finland (+11.1% points) and Hungary (+10.8% points). As to the average exit age from the labour force, progress towards the Barcelona objective (to increase the average by 5 years) is very limited in the EU-25 area: from 60.4 years in 2002 the figure in 2005 was 60.9 years.
This means only half a year of progress over 3 years! It is important here to observe the huge differences between European countries as to the effective exit age from the labour market: between e.g. France (58.8 years) and Sweden (63.7 years) there is a difference of almost 5 years! All these figures prove that progress towards the quantitative objectives of the European Employment Strategy is difficult but possible.

6. What to Do in Order to Reach the Employment Target of 50% for Older Workers Throughout the EU?

A prerequisite for increasing the employment rate of workers in general and of older workers in particular is a high and sustained economic growth of our European economies and the creation of more quality employment. Therefore Europe needs to develop a new macroeconomic policy: the European Central Bank must become the guardian of price stability and growth and start to fulfil its double mandate.

The ETUC believes that in order to achieve active ageing an integrated approach is required involving a range of policies, instruments and players (including the social partners and the governments). Policies and partners should all work in the same direction.

The so-called substitution effect between older and younger workers is not that obvious: countries that were the most successful in increasing the employment rate of older workers (e.g. Finland) were also successful in increasing youth employment. “Old people will not damage job opportunities for the young” (V. Spidla, 2006).

A life-cycle approach is necessary: many of the measures and policies needed for active ageing should apply to all workers throughout their careers in order to be fully effective.

Incentives and disincentives deriving from the social security and taxation system are crucial for the success of active ageing. The main challenge for EU countries is to redesign their social security and taxation systems in such a way as to encourage older workers to remain in or to re-enter the labour market. Substantial tax and pension incentives can be convincing. ‘Carrot’ reforms seem to be more successful then ‘stick’-based reforms. Increasing the statutory retirement age does not seem to be the best way forward in tackling this problem: this measure could lead to ‘inactive’ ageing instead of ‘active’ ageing, especially if other pathways out of work are available. Older workers must be given the chance to opt for flexible and gradual retirement. For example, part-time retirement regimes, allowing for a combination of retirement and employment, are to be favoured.

Policies should be directed towards keeping workers ‘employable’ at all ages and preventing workers from getting ‘old’. Lifelong learning and vocational training are essential to keep up the employability of older workers. Skills need to be upgraded throughout the life course: starting training at age 50 will never compensate for the lack of training during the earlier years. Collective agreements have to make provisions for and invest in lifelong training for all workers.

Active labour market policies are of crucial importance too, especially in cases of restructuring and redundancies: instead of offering only passive financial support to unemployed people, part of the available budget should be used for active measures such as re-training, personal guidance and job creation schemes (e.g. in the social economy or through public employment programmes). Nor should the opportunities offered by the external labour market be overlooked.

Negative attitudes of employers towards older workers are often based on myths but can have far reaching consequences for older workers. M. Leibold and S. Voelpel, (Managing the Ageing Workforce. Challenges and Solutions, Wiley, 2006) analysed the myths and realities
about older workers and found out that very often the myths do not correspond to the reality.

A recent worldwide research project of the service group Manpower, conducted in 25 countries and involving 28,000 companies, found that only 14% of the companies surveyed had a specific recruitment policy for workers over 50 years of age: for Germany and the United States this figure is 18%; for France only 6%. Manpower also found that only 21% of the surveyed companies have a retention policy for older workers: the figure for Japan is 83% against only 8% for France.

Good working conditions and flexible work organisation also contribute to keeping older workers longer at work. Ergonomic measures and health and safety policies are important; greater autonomy in work (organisation) combined with a reduction in working hours are also important in order to persuade workers to stay on board.

Policies to reconcile work and family life are relevant for all age groups. Different life-cycle leave arrangements such as sabbaticals, career breaks, parental leave, time credits, educational leave and care leave are important instruments which can contribute to keeping workers longer in employment.

What is often overlooked in this debate is the importance of available and affordable care provisions for children and the elderly. The ‘sandwich’ generation with grandchildren and older parents, both in need of care, is often confronted with the dilemma: to withdraw from or to stay in the labour market. The question for them is how to respond to the personal desire to continue work while at the same time providing the grandchildren or the parents with the necessary support. Formal care services or infrastructures can help to facilitate the choices facing this generation.

REFERENCES
Changes in European Welfare: 
New Forms of Citizenship in Europe

by Bjørn Hvinden* and Håkan Johansson**

1. Introduction

In this paper we ask what consequences on-going changes in European welfare states have for social citizenship. These changes include greater economic openness and scope for cross-border mobility, shift in governments’ role from redistribution to social regulation of markets, neoliberalism and individualisation, the growing significance of human rights and anti-discrimination and new transnational channels for citizens’ participation.

After a review of these changes in contemporary welfare states we will outline an analytical framework to capture the implications of these changes for social citizenship. We expect shifts in the relative weight of different dimensions of citizens’ relations to the welfare state, as well as new hybrid forms of citizenship. Finally, we will illustrate these implications on the basis of a comparative study of citizenship in a number of European countries and within the European Union. Many of the implications can be summarised as a move toward active citizenship.

2. Challenges to Contemporary Welfare States

Many observers believe that the ‘stateness’ of contemporary welfare states is challenged ‘from above’, whether ‘above’ is called globalization, Europeanization or denationalization. They believe that this condition limits the de facto sovereignty of national governments, requires stricter budgetary discipline and new regulative measures, narrows the range of legitimate policy options and instruments at the state level, and shifts the balance between politics, markets and international courts as sources of material advantage, security and protection against risks.

But, arguably, national welfare states also face pressures ‘from below’. Citizens are challenging long-established bureaucratic or paternalistic modes of administration, rigidity and inflexibility — as well as the arbitrary exercise of discretionary powers. People have become more knowledgeable, self-confident and conscious of their rights when dealing with front-line agency staff and professional helpers. They expect to have the option of influencing decisions relating to their own welfare, whether these options are expressed through co-determination, user involvement, informed consent, group consultation or freedom of choice. The emerging regime of international human rights, along with the more particular development of institutions in the European context, gives more force and legitimacy to these expectations.

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* Dr. Bjørn Hvinden, Head of Research, Professor, NOVA Norwegian Social Research, P O Box  Elisenberg, bjorn hvinden@nova.no.
** Dr. Håkan Johansson, School of Health Sciences and Social Work, Växjö University, 9 Växjö, Sweden, Hakan.Johansson@vxu.se.
The outcome of these processes is complex and sometimes paradoxical changes in the relations between state and citizens. Citizens are expected (and themselves expect) to play more active roles in handling risks and promoting their own welfare. In some respects the move towards active citizenship corresponds to a more active role for the state; in other respects, it involves a more passive role for the state. Increasingly limitations of the scope for encompassing and redistributive welfare states (like the Nordic ones) leave more to the agency of citizens. Individual responsibility for achieving self-sufficiency, protection against risks, and the active use of available opportunities in the market becomes more important.

3. Economic Openness and Europeanization

With a more open and globalized world market, stronger competitive pressures, and economic integration in Europe, national governments have the impetus to take steps to prevent further growth or even reduce public spending. Many argue that ‘large’ encompassing and redistributive welfare states in particular have become too expensive — and therefore unsustainable — in a more competitive world, including the emerging single European market. Governments attempt to reduce costs and increase the effectiveness of existing public services, in combination with changing labour market conditions. Even in countries where public authorities have for a long time been the main provider of services, governments attempt to leave more to markets and private providers (e.g. by putting services out to open tender) and to encourage citizens to take greater individual responsibility for social risk protection (e.g. by offering partial tax exemption for personal pension plans).

With regard to these processes, scholars like Majone have argued that we will see a gradual shift of emphasis from redistributive welfare provision to promoting welfare objectives through ‘social regulation’ (Majone, 1993). Social regulation involves public efforts to influence the behaviour of non-governmental players, especially players operating in the market, in order to promote the realization of social objectives. Generally speaking, social regulation has the potential to strengthen citizens’ scope for exercising active citizenship through their participation in the market as workers and consumers.

Examples of social regulation include non-discrimination legislation and the setting of what the European Union defines as binding standards for universal design, meant to promote participation and equal opportunities for people with impairments (disabilities). Such regulative measures help to correct market imperfections or the undesirable consequences of unrestricted market competition, even if the need for correcting market failures is not necessarily the main impetus for introducing these measures (Majone, 2005). Compared with the introduction of new tax-financed redistributive provisions, social regulation is more compatible with an opening and liberalization of international markets (Hvinden, 2004). The existence of observable significant weakening of the redistributive effects of national welfare schemes or of increased inequalities after taxes and social transfers resulting from European integration is a complex issue that falls outside the scope of this paper.

In the on-going Europeanization process, the European Court of Justice (ECJ) has become an important player. The ECJ has taken on an active role in clarifying and eliminating the implications of common EU regulations for social policies (Leibfried 2005; Pollack 2003). The ECJ has made many decisions (under the single-market regulations) that have had substantial impact. For instance it has effectively extended EU citizens’ rights to have the authorities in their own country reimburse the costs of medical treatment in other member states (Ferrera, 2005; de Burca, 2005).

The European Commission is another significant player within the field of European welfare policy, as it has the authority to propose new European legislation. The Amsterdam
Treaty of 1997 gave the European Union power to combat discrimination on a number of different grounds and the Commission later proposed two related directives in 2000, complementing earlier EU legislation against gender discrimination. The first directive implements the principle of equal treatment between persons irrespective of racial and ethnic origin (Council Directive, 2000/43/EC). The second directive establishes a general framework for equal treatment in employment and occupation, covering discrimination on the grounds of religion or belief, disability, age or sexual orientation (Council Directive, 2000/78/EC). Member states are introducing laws — new or amended — and administrative provisions necessary to comply with these directives. The Commission supervises and monitors this ‘transposition’ of the two EU directives.

The Commission also has the power to initiate joint action programmes in the social field (EU, 1997). An ambition of several of these programmes has been to achieve greater similarity or convergence in the objectives of the social protection of member states, through what is now known as ‘the open method of coordination’. Although member states should agree on overall joint objectives, especially regarding the future direction of their schemes, they are free to choose the means necessary for accomplishing these objectives. The European Union has for instance developed programmes based on the open method of coordination in the areas of employment, pensions and social inclusion.

Following earlier initiatives from the OECD, the employment and inclusion programmes of the EU have emphasized the need to shift from ‘passive’ to ‘active’ policies. The primary goal of social protection schemes should be to promote labour market participation among people of working age. Only for those who cannot work at all should the main objective be to provide adequate and secure income support. A key goal is to make social protection schemes more ‘employment-friendly’, including to ‘make work pay’ and to ensure that the conditions, level and duration of benefits do not create disincentives to work. Similarly, the EU and the OECD declare that national governments should improve the ‘employability’ (skills, knowledge, etc.) of those who are at risk of becoming permanently excluded from economic activity and self-sufficiency. Likewise, governments should make continued payment of benefits for people of working age conditional on their accepting offers to take part in employment training measures, training courses, etc. Thus various forms of ‘activation’ of protection schemes, as well as of recipients of cash benefits or of citizens out of paid work should play a key role. As we will see, reforms of this kind are highly relevant for what we call active citizenship according to a socio-liberal understanding (Chs 4, 5 and 6).

In the case of old age pensions, achieving ‘sustainability’ means ensuring that the working population will not face disproportionate and unrealistic financial burdens resulting from the design of ‘pay as you go systems’, combined with populations ageing and insufficient economic growth. One way or the other, people must downscale their expectations of the level of their future pension, whilst shouldering a greater individual responsibility for securing the purchase power of the pension.

Many researchers see the aspects of EU economic integration, legislation and action programmes that we touch upon here as exemplifying new constraints on national governments’ freedom to design and change their systems of welfare provisions as they would like (e.g. Leibfried, 2005; Ferrera, 2005). Yet we do not wish to overstate the degree to which ‘Europeanization’ has diminished the decision-making capacity of member states (Cowles, et al., 2001; Olsen 2002). Moreover, ‘social issues’ or ‘social policy’ are still marginal within the common policy-making of the European Union and secondary to the complete establishment of a single (and now enlarged) European market. The focus of the European Union’s involvement in the ‘social dimension’ has mainly been to ensure that national schemes of social protection do not impede the free movement of goods, services, capital and labour within the single market. Member states have been reluctant to give up
control over their redistributive schemes like social security, employment, health and social services and have referred to the subsidiarity principle of the Maastricht Treaty. At the same time, several scholars have suggested that decision-makers at national level have not fully realized the consequences of the greater economic openness resulting from European integration (Leibfried 2005; Ferrera 2005).

4. The Incorporation of Human Rights in National Legislation

The development of an international regime of human rights and protection against discrimination has important implications for the rights, opportunities and scope of citizen participation. We will briefly point to some important examples:

- The United Nations convention on elimination of all discrimination against women (The Women’s Convention 1979) has — through ratification by national governments — granted women stronger formal protection.
- The adoption of UN Convention on the Rights of the Child has given children stronger formal rights than existed in most countries beforehand (UN Doc A/44/49 1989).
- A new Convention on the Rights of Persons with Disabilities and its Optional Protocol were adopted by the United Nations General Assembly on 13 December 2006, and are currently under ratification form Member States (A/RES/61/106 (2007)).
- Earlier international conventions on the rights of indigenous populations have for instance strengthened the rights of the Sami in Northern Europe and of the Inuits in Greenland (ILO 1989). Other groups like Travellers, Romani people and Jews have similarly achieved stronger legal protection against ethnic discrimination through the adoption of the European Framework Convention for the Protection of National Minorities (ETS No. ).

The overall impact of the emerging international regime of human rights and protection against discrimination has probably yet to be fully acknowledged, mapped and assessed. Most significantly, these developments appear to substantially improve the ‘opportunity structures’ (Tarrow 2003) of individuals and groups. Generally speaking, opportunity structures refer to institutional, political and legal environments that can encourage or discourage individual and collective action by affecting players’ expectations for success or failure. In our context, these structures may involve improved possibilities of achieving recognition from public authorities and of presenting claims against either public agencies or non-governmental players.

From this perspective, the transnational codification and strengthening of these rights seem to open up more active forms of citizenship, however it presupposes that people are aware of and knowledgeable about their rights and have the necessary resources for presenting claims. A related issue is whether there are bodies or organizations that can supervise implementation of — and monitor compliance with — the duties or requirements that these rights imply (Hvinden and Halvorsen, 2004).

Recently researchers have argued that the emergence of transnational regimes of human rights and non-discrimination provisions challenges the democratic dimension of the relationship between the (national) welfare state and its citizens (e.g. Østerud, et al., 2003). However, the emergence of these regimes does not point exclusively towards a weakening of the democratic basis for national welfare states. We suggest that this regime strengthens the opportunities for citizens to exercise agency in relation to the welfare state and, in particular, to strengthen the position and capabilities of minorities and others whom the previous and existing policies of nation states have marginalized or excluded. We see a potential for enriching social and political citizenship, contributing to improved conditions for full citizenship for a larger proportion of the total population, in terms of rights and
responsibilities, freedom of choice and participation. Such a contribution is significant, not only for concerns for equality of living conditions or economic efficiency but also for considerations concerning democracy.

5. Individualization

As we have seen, contemporary welfare states face various challenges ‘from below’. Widely accepted diagnoses of late-modern societies see a trend towards individualization and detraditionalization (e.g. Beck and Beck-Gernsheim, 2002, Beck and Willms, 2004). These are complex concepts that involve something greater and different from individuals becoming more egoistic, self-centred or simply occupied with their own well-being. One key argument is that traditional and more spontaneous forms of community, collectivity and solidarity between people have lost much of their practical significance. The late modern individual is increasingly becoming decoupled from these kinds of social units, while spontaneous development of community and solidarity between people is found more rarely. Beck and Beck-Gernsheim (ibid.) suggest that ‘solidarity’ increasingly can only be achieved through the determined and conscious efforts of individuals, based on their knowledge, skills and capacity for reflection, and their ability to negotiate a common understanding of the premises for the community or collective action. To the extent that people succeed in such efforts, the resulting community is likely to be more fleeting than more traditional and spontaneous forms of collectivity. Beck and Beck-Gernsheim picture the individual as ‘manufacturing’ his or her personal identity or personal biography as a ‘do-it-yourself’ biography. These discussions have important implications for current concerns in many welfare states.

First, redistributive welfare states like the Nordic ones have substantially contributed to the trend towards individualization, by providing individualized rights. They have thus made the individual less dependent on his or her family and kin, neighbourhood and local community as sources of help and support (Trädgårdh, 1997; Esping-Andersen, 1999; Supiot, 2004; Beck and Willms, 2004). At the same time individualization potentially undermines the social solidarity on which these welfare states are based. For instance, individualization can contribute to pressures for reducing the overall scope of such schemes and replacing them with a greater reliance on individual responsibility for protection against loss of income and other risks (e.g. through different forms of individual saving, private insurance or pension plans).

But individualization does not necessarily preclude popular support for and acceptance of redistributive public provisions. Rather it implies that the population regularly needs to reassess and confirm its support for such arrangements. That an arrangement has been in operation for a long time is not an argument for its continued existence. Political and organizational rationales require renewal for sustaining their legitimacy. Individualization will particularly challenge social benefit systems that presuppose a long-term perspective and a fairly stable joint understanding between the affected parties. For instance, public pension systems that are not based on earlier payment into funds but mainly operate on ‘pay as you go’ principles presuppose an ‘inter-generational contract’. According to the individualization perspective such contracts are largely a normative fiction. The willingness of new generations to comply with the expectation that they will cover the pension entitlements of earlier generations depends on whether they perceive their financial burden as reasonable and fair. If people believe that pension arrangements entail a disproportional redistribution across generations, this belief contributes to the political urgency of pension reforms.

More generally, the individualization perspective indicates that no one can take for granted the legitimacy of established systems of social protection, despite their having been envisioned as lasting for a long time. Thus governments may soon face the task of facilitating broader public participation in discussions about the premises, objectives, ambitions and
time horizons of such systems. Such public participation would also make it easier for governments to avoid what affected parties would perceive as broken promises and ‘moving the goal posts in the middle of the game’.

Second, the strengthening of human rights and protection against discrimination, combined with citizen awareness of these legislative changes, may reinforce rights consciousness and litigation on the part of citizens. Arguably, courts are to some extent replacing politically elected and accountable bodies as arenas for deciding who should get what. Based on this development especially in the US some scholars have warned that even Nordic countries will experience a looser link between decisions made by political bodies and the actual distribution of income and social well-being (Kagan 2001; Burke 2004). Consequently, we may witness a shift of attention from questions about the socially desirable and just distribution of resources to concerns on the part of individuals and groups about how to maximize their own gains. New inequities may be the result if welfare outcomes are becoming more dependent on what resources individuals and groups can draw on in pursuing their rights through the court system.

Third, we can also see that a number of changes in public welfare provisions are based on notions of individualization (or justified in terms of this trend), and a growing emphasis on providing ‘tailor-made’ individual (action) plans to accommodate the special needs and requirements of each person. Arguments in favour of this trend are that individuals today vary more in their preferences and actual life situations and that many measures would be ineffective if they were not responsive to these particularities. By rejecting what is often termed ‘one-size-fits-all’ provisions, especially in the area of employment, social and care services, in favour of individual plans based on negotiations between provider and user, or even ‘freedom of choice’, politicians themselves may also be contributing to raising citizens’ expectations and demands for individualized solutions, that is, adding to a further strengthening of the individualization trend.

6. Self-Organization

Many of the rights that citizens or groups of citizens claim have not simply been bestowed upon them. Social movements of women, ethnic minorities and people with impairments have campaigned for changes in legislation and public provision. They have increased policy-makers’ awareness of the issues, participated in the legislation and policy process, and worked to inform their constituencies about the opportunities created by new legislation and public provision. In some cases groups of citizens have even succeeded in sidestepping their national government through transnational networks, campaigning and lobbying supranational agencies or organizations to promote their case. The inclusion of the non-discrimination clause in Article 13 of the Amsterdam Treaty and the subsequent two directives would probably not have happened, had it not been for the active efforts of transnational networks of citizens. When such efforts are successful, reluctant national authorities then respond to pressure ‘from above’, that is, from the bodies of these supranational agencies or organizations and other member states.

More generally, organizations and advocacy groups acting on behalf of these broader social movements are of great significance in understanding the process of changing or restructuring social protection policies. This role of organizations, also found among groups in marginal positions, may be related to what we call the turn towards active citizenship according to a republican understanding. The organizations represent not only an immediate arena for social participation and self-directed activities but also, indirectly, a setting for building up self-confidence and capability for participation in the larger society and in negotiations with representatives of public authorities. The self-activity of various citizens
groups is not exclusively — or even mainly — directed towards obtaining stronger rights to particular material benefits. To a great extent, their efforts are concerned with recognition and identity politics (Fraser, 2005). Several groups are struggling against public policies that have exposed them to social and cultural domination, and denied them respect and dignity, even existence. They claim the right not to be made invisible and silent, but to be heard and taken seriously by governmental bodies. In many cases, such groups insist that society recognize their difference from the majority population, in terms of culture, life style, and their right to express this difference. According to some observers, concerns with recognition have somewhat replaced issues of socioeconomic redistribution in late modern and multicultural society (e.g. Young, 1990). Others, like Fraser, have argued that social justice requires policies of both redistribution and recognition. Even so, the international trend towards recognition politics is adding to the complexity of contemporary citizenship.

7. Pressures Within

Contemporary welfare states also face substantial challenges related to demographic changes. Most Western European states have ageing populations, thus adding to the demands on social protection schemes, especially public pension schemes of the ‘pay-as-you-go’ type. Leading scholars rank demographic ageing as one of the most important ‘internal’ challenges to welfare states (e.g. Pierson, 2003; Esping-Andersen, 1999). In addition, the long-term expansion of disability income and other de facto early retirement systems have boosted the calls for modernization and reform. Many countries have introduced reforms aimed at improving the long-term sustainability of public pension schemes, tightening the eligibility rules and administrative practices for pre-retirement schemes, restraining popular demands for early leave from the labour market and even increasing the actual average retirement age. Most European governments have, however, been reluctant to open for greater immigration flows from non-western countries as means of reducing demographic ageing. Yet without the existing immigration from these countries the population of many European countries would start to diminish in a few years time.

Finally, additional demands on the social protection system are generated as family life, patterns of partnering, and parenting and working careers become more changeable and fluid. Together with the trend towards individualization and the weakening of traditional social bonds, these changes may lead to new requirements for support from social protection systems during critical phases of adult life.

8. New Forms of Governance

The role of the state in welfare provision is undergoing change, as the state (centrally or locally) to a lesser extent is the sole or dominating provider of protection against risks. This trend is associated with the development of more complex and dynamic structures of governance over welfare provision (Newman, 2005; Johansson and Hvinden, 2005). In some respects, the state has taken on more active roles, e.g. in combating discrimination and social exclusion, and ‘activating’ the unemployed. In other respects, however, the state is retreating from its previous tasks, actively encouraging individuals and market players to provide the services and protection themselves.

We cannot simply view the new, more complex governance structures associated with these changes as a consequence of the more multifaceted forms of active citizenship emerging (e.g. in the Nordic countries). Neither can we view these new forms of citizenship as simply resulting from recent changes in the structures of welfare governance. The dynamic
relationship between the two is probably better captured by Weber’s concept of ‘elective affinity’ (Ringer 1997): a mutually enabling and active resonance between two social phenomena. This resonance also reinforces the general nature of the move towards active citizenship; it is not simply limited to one section or subgroup of the population.

9. Active Citizenship — An Analytical Framework

References to ‘active citizenship’ are frequently made by policy makers, journalists and scholars, albeit usually in a general, ad hoc or strongly context-dependent way. A good starting point for a more systematic treatment comes from David Miller (2000). In his discussion of the challenges that a multicultural society raises for citizenship Miller distinguishes between three main understandings of citizenship and, consequently, of active social citizenship:

First, citizenship in a socio-liberal sense is a relationship between the individual and the state, involving encompassing sets of mutual rights and obligations. Here, a move towards active citizenship could imply that the state asks its citizens to more actively fulfil specific duties, for instance taking part in different forms of welfare-to-work (activation) programmes in return for social benefits of different kinds. Similarly, immigrants who want to become permanent residents and eventually be granted state citizenship must go through specific introduction programmes, courses in the language and culture of the host country, etc. more often.

Second, in a libertarian sense, the relationship between state and individual is more narrowly conceived, with the emphasis on the self-responsibility and autonomy of the individual. The responsibilities and legitimate tasks of the state are therefore limited, to guaranteeing and protecting the few but fundamental rights of the individual. Individuals should be able to exercise choice and freely enter contracts to promote their own well-being and protection against risks of various kinds. According to this understanding, a move towards active citizenship could mean that citizens have greater scope for exercising individual choice and foresight, as knowledgeable consumers in a mixed welfare market.

Third, citizenship in a republican sense generally focuses on the citizen’s participation in the affairs of his or her community, and the expectation that the individual is committed to acknowledging and promoting the well-being of the community as a whole. A move towards active citizenship with this understanding could aim to achieve broader and more intensive citizen participation, both in deliberation and dialogue with relevant agencies and in self-directed activity. Increased participation might take both individual and collective forms. On the one hand, individual ‘users’ might engage in a dialogue to clarify the appropriate measures or courses of action; on the other hand, they might be involved in consultation and negotiation over the design and planning of new policies.

The exact meaning of the active and passive dimensions of social citizenship depends on what theoretical approach to social citizenship one adopts. In table 1 we give a simplified presentation of how the degree of ‘activeness’ may vary for all three understandings of citizenship.
Table 1: Analytical framework: Opening within and between models of social citizenship

<table>
<thead>
<tr>
<th>‘Opening up within’</th>
<th>Passive dimension</th>
<th>Active dimension</th>
</tr>
</thead>
<tbody>
<tr>
<td>Socio-liberal element</td>
<td>Focus on receiving and claiming of rights to benefits and services</td>
<td>Focus on fulfilment of duties, especially in return for entitlement to benefits and services - conditional rights</td>
</tr>
<tr>
<td>Libertarian element</td>
<td>Focus on welfare consumerism on the basis of managed and circumscribed ‘user choice’ or quasi-markets</td>
<td>Focus on the fulfilment of individual self-responsibility and exercise of choice in the private market</td>
</tr>
<tr>
<td>Republican element</td>
<td>Focus on managed participation in terms of user-involvement, informed consent or agency-directed self-help</td>
<td>Focus on self-governed activity, combined with co-responsibility for and commitment to participation in deliberation and decision-making on common affairs</td>
</tr>
</tbody>
</table>

More generally, we need to open our conceptualisation of social citizenship. This opening is partly a question of avoiding an arbitrary focus on either passive or active dimensions of social citizenship (regardless of how ‘passive’ or ‘active’ is constructed), but rather seeing these aspects in relation to each other and how they may even mutually condition each other (‘opening within’). Existing research on citizenship has tended to limit its attention to one of several possible perspectives or approaches to social citizenship, rather than asking how the elements of reality on which each of them focuses, may co-exist and interact with each other (‘opening between’).

While the ‘opening within’ of social citizenship concerns the horizontal relationships in Table 1, the ‘opening between’ of social citizenship refers to the vertical relationships, that is, the ways in which we may combine normative ideas and notions conventionally associated with different approaches to social citizenship. Currently, the active dimension of each approach and their combination are of particular interest, as illustrated by the on-going debates about welfare reform in Europe and most member states. In these debates we can observe several attempts to combine notions like: fulfilling duties (obligations); exercising choice and self-responsibility, and participating in deliberation and decision-making. Hence, one important task for future research is to describe and analyse how and why the resulting new and ‘hybrid’ forms of social citizenship give rise to tensions, conflicts and ambiguities.

10. The Analytical Framework in Use: Illustrations from a European Study

The analytical framework we have presented here has grown out of and developed as part of a research project funded by the Welfare Research Programme of the Nordic Council of Ministers. An inter-disciplinary team of researchers from the Nordic countries, Germany and United Kingdom carried out case-studies in these areas of welfare policy, legislation and practice:

• Activation — and reforms linking income maintenance and employment promotion.
• The scope for participation of marginal groups in deliberation and decision-making.
• The impact of human rights legislation on welfare, legal protection against discrimination, and social barriers to equal market participation.
• The coordination of social security systems to facilitate cross-border mobility
• Pension reform — and efforts to make pension systems sustainable

To see to what extent the case studies have clarified our three broad questions, in Table 2 we summarize the main implications of the case studies for the remaking of social citizenship — most directly within the Nordic welfare states but potentially beyond them.

10.1 Implications of Activation Reform

Activation reform has meant that the fulfilment of duties or activity requirements has been given greater emphasis within the income maintenance system for people of working age. To comply with such requirements has more or less become a condition for being granted cash benefits, for instance social assistance, unemployment benefit or sickness- and disability-related payments. Arguably this implies that underlying notions of a ‘balance’ between rights and duties, associated with the original socio-liberal understanding of citizenship has gained new or renewed significance.

Even more striking is the way in which activation reforms have adopted notions of ‘user participation’ and ‘co-determination’, and even “choice”, especially in the context of the joint formulation of individual action plans to promote self-sufficiency of the unemployed citizen. This seems paradoxical, given that the (initial or continued) granting of benefits like social assistance benefits is to a growing extent made conditional on the fulfilment of activity requirements, while non-compliance is met with negative sanctions (reduction or termination of payments). In other words, to the extent that the person is dependent on the cash benefits, an element of compulsion appears to contradict the notion of (freedom of) choice. Yet, according to the case study of activation reform in Finland it is possible to reconcile these elements in practice. On the other hand, the more diverse cases of Norway and Sweden suggest that the combination of forced and voluntary participation in activation reform has been less consistent and convincing in these countries. The experiences reported by unemployed citizens claiming social assistance in these countries indicate that the element of compulsion dominated over the elements of involvement and co-determination in individual action plans (if such plans existed at all). A more general implication of these findings is that when governments attempt to combine elements associated with different models of active citizenship, they may in practice suppress or neglect some of those elements.
### Table 1: Analytical framework: Opening within and between models of social citizenship

<table>
<thead>
<tr>
<th>Areas of national and European welfare policy, legislation and practice</th>
<th>Activation reform – the linking of income maintenance &amp; employment promotion</th>
<th>Scope for participation of marginal groups in deliberation and decision-making</th>
<th>Human rights and anti-discrimination legislation &amp; removal of barriers to equal market participation</th>
<th>Coordination of social security systems to facilitate cross-border mobility</th>
<th>Pension reform – efforts to make pension systems sustainable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Renewed emphasis of the active side in each model of citizenship ('opening within')</td>
<td>Increased weight to the fulfilment of duties &amp; activity requirements as conditions for being granted (continued) cash benefits</td>
<td>In spite of official calls for 'user involvement', ambivalence from national and local government towards collective and individual voice</td>
<td>Human rights and anti-discrimination provisions require active citizens to have practical significance; competent agency is necessary for realizing their potential</td>
<td>Individuals are expected to make more use of the opportunities &amp; scope for choice in the European labour market</td>
<td>Increased weight given to encouraging citizens to exercise self-responsibility and choice re personal pension planning &amp; timing of retirement (Chs 14)</td>
</tr>
<tr>
<td>2) Interplay of aspects from several models of citizenship ('opening between')</td>
<td>Stronger emphasis on rights/duties balance, as well as participation, even choice, in individual action plans</td>
<td>Unintended consequence of stricter enforcement of activation requirements: to facilitate self-organization and voice on the part of recipients</td>
<td>Human rights provisions might constrain the nature of activity requirements imposed on claimants; some redistributive provisions might help to combat discrimination</td>
<td>Efforts to prevent national social benefit rules from creating disincentives for the full realization of market citizenship</td>
<td>Economic security in old age to be based on a combination of public &amp; private provisions, public entitlements &amp; private contracts, &amp; property rights</td>
</tr>
<tr>
<td>3) Interaction and influence between European and national levels ('denationalization')</td>
<td>The EU promotion of active measures &amp; active social policy; corresponds more or less to national emphasis</td>
<td>The European Commission’s legitimizing of and support for marginal groups at European level; providing a source of influence at national level</td>
<td>The EU has introduced binding legislation, now incorporated in national legislation; transnational and national networks have campaigned for this</td>
<td>EU regime of coordination constrains national control of social security schemes</td>
<td>The EU seeks to stimulate national reforms of pension systems to make them sustainable and compatible with increased &amp; prolonged labour market participation</td>
</tr>
</tbody>
</table>
Finally we may note that the introduction or stronger enforcement of activity requirements in income security systems in the 1990s became part of EU policy, most clearly expressed within the European employment strategy. This suggests that such activity requirements have — or are about to — become an aspect of social citizenship in a great number of European countries. Yes, existing research gives us reason to expect that the extent to, and ways in which activity requirements are put into practice will vary considerably between European countries.

Perhaps with the exception of Finland, it is not obvious that the adoption of activation goals at European level has in any significant way influenced the introduction or reinforcement of activity requirements in the Nordic countries. Probably it is rather the other way around. Sweden and Norway especially had over a long period based their income maintenance systems in the ‘work line’, involving among other things activity requirements for people of working age who were claiming cash benefits. Moreover, the policy shift to activation happened in Denmark, Norway and Sweden in the late 1980s and early 1990s, long before activation was firmly established as an operational part of EU policy.

Traditionally welfare states belonging to the Southern and Western parts of Europe have subscribed much less than the Nordic countries to an activation rationale, with Continental welfare states in intermediate positions. In other words, many welfare states have relied on other mechanisms to promote labour market participation and self-sufficiency than activity requirements in fairly generous and encompassing systems of public income maintenance. The simplest of these mechanisms has obviously been the (assumed or actual) work-promoting incentive of low or non-existent public income transfers.

In the Nordic welfare states activity requirements have from the start been seen as a way of preventing excessive demand for public income transfers from citizens of working age, but also as expressions of a reciprocal ‘moral’ relationship between rights and duties, to be discharged by both the individual and the state (construed as representative of the societal community). In spite of the Nordic welfare states' general claim to be ‘universal’, the rights to cash benefits associated with social citizenship has to a great extent depended on past or current efforts of citizens, in the form of past employment and earnings or in current fulfilment of activity requirements with the aim of becoming employed (again). This aspect of Nordic welfare policy has undergone a renaissance in the last two decades. Against the backdrop of new patterns of unemployment, what many observers have perceived as excessive demand for income transfers, as well as the restated political ambition to promote inclusion and participation, policy-makers have added new elements to the traditional Nordic commitment to an active policy of social protection. This does not mean that schemes that mainly provide income maintenance for people of working age (‘passive’ provisions) have ceased to exist in the Nordic context. Rather we have seen the emergence of a more complex and dynamic relationship between the passive and active dimensions of the Nordic version of socio-liberal citizenship.

10.2 Implications of the Scope for Participation by Marginal Groups

Recent changes in society and public policy have improved the possibilities for marginal groups to become visible and be heard in the public sphere. The expanded opportunities for visibility and voice have partly come about as an intended result of public policy, for instance policy aimed at encouraging voluntary engagement and activity, self-help, dialogue and consultation with groups whose lives are affected by welfare provisions (‘users’). National and local authorities have also to some extent provided financial and practical support to self-organised associations. A more open and tolerant social and cultural climate has also contributed to the more favourable opportunity structures for collective action on the part
of groups at the margins of society; e.g. unemployed people claiming income maintenance benefits, people with impairments, and people belonging to ethnic minorities.

On the basis of these changes one can argue that the ideals of active participation in deliberation and decision-making in society, associated with republican citizenship, now also apply to groups who have previously been excluded or absent. The case studies that have examined the scope for active participation of marginal citizens, however, give a more mixed picture. These studies indicate that attempts by marginal groups to assert themselves in the public sphere and vis-à-vis political authorities and other more well-established players can be met by considerable ambivalence. This suggests that the legitimacy of active participation and independent voice on the part of marginal groups is still contested. On the other hand both the experiences of the self-organised groups in Denmark and Norway and the network of social NGOs in Sweden are promising, in the sense that despite resistance from more powerful players they have succeeded in obtaining greater visibility and influence on behalf of their constituencies. By contrast, Russian women who have married Norwegians met considerable obstacles to gaining legitimacy for their voice and obtaining access to arenas that would allow them to further develop their capabilities. These obstacles were to a great extent related to a combination of discrimination on grounds of gender and nationality.

Furthermore, from the case studies there also emerged another striking interaction between elements associated with different models of citizenship; in Denmark and Sweden the stronger enforcement of activity requirement in income security systems partly served as an impetus for the formation of self-organised associations of citizens out of work, and partly helped in establishing contact between the persons who eventually took the initiative for the organisational efforts, for instance because they had had been summoned to the same information meetings or group interviews.

Finally, our study has illustrated how the European Union, represented by the Commission, have contributed significantly to the formation and operation of transnational networks of national associations of marginal citizens. Through this, the Commission has also indirectly strengthened the position of networks and associations at national level, by providing legitimacy, valuable knowledge and support, and assistance to the building of political capacity and self-confidence of leaders and key activists. This has obviously improved the potential for the national networks and organisations for influencing public policy and creating greater scope for participation in deliberation and decision-making on the part of marginal citizens more generally.

10.3 Implications of New Human Rights and Anti-Discrimination Legislation

The incorporation of human rights and anti-discrimination provisions in national legislation represents a major challenge to established ways of thinking about social citizenship. This is particularly the case in the Nordic countries where citizens have become accustomed to seeing the welfare state as the main provider of benefits and services to the whole population. Policy-makers have paid less systematic attention to the role of the state as regulator of the behaviour of other largely non-governmental players with the aim of promoting individual welfare. Such regulation can take place by means of a range of bodies for monitoring, supervision and arbitration, and eventually through the court system. To a great extent the rights provided by regulatory provisions will only be implemented or realised to the extent that individuals — or agencies acting on their behalf — are aware of them and make competent use of them by filing complaints or through litigation. In this sense human rights and anti-discrimination provisions require that active citizenship should have practical significance.
Future research has yet to fully analyse how social regulation provisions actually affect the ways in which social citizenship is exercised by individuals, but the case studies provide some illustrations. For instance, one of the case-studies analyses how immigrant women in Denmark and Norway have promoted their welfare by taking cases of discrimination on the combined grounds of gender and ethnicity to court, on the basis of human rights provisions. Another chapter has demonstrated how the on-going implementation of the EC Frame Directive on equal opportunities in employment gives people with impairments in Europe additional instruments to find and keep suitable work. Other chapters have discussed how human rights provisions (e.g. to protect the individual’s dignity) have been used to question the nature of activity requirements imposed on participants in activation measures in Denmark. Moreover, in some European countries employers’ duty to provide reasonable accommodation for job seekers or employers with impairments is undermined unless public financial support can cover a part of the costs related to accommodation. Such cases will demand the combined active use of legal provisions of a regulatory as well as redistributive nature.

Finally, as already indicated, both human rights and anti-discrimination legislation clearly express a denationalisation of citizenship, in the sense that they involve rights that are shared by the inhabitants in several countries and a thus less dependent on nationality or residence in a particular national territory. Here it is also worth noting that transnational networks acting on behalf of citizens in Europe have campaigned and lobbied for the adoption of European legislation in this area.

10.4 The Significance of the European Regime for Coordination of Social Security Systems

The European Union seeks to promote cross-border mobility of labour. As one means of achieving this goal, it has established a legal regime for coordinating national social security systems. We can see this action as part of wider efforts to encourage the citizens of Europe to make active use of the opportunities provided by a single European market, both as workers and as consumers. As a result, national welfare states lose some control over the demand for their social provisions — and potentially lose the funding for these provisions. Member states can somewhat restrict welfare provisions to their own citizens, but they lose the control over the spatial location of their consumption; e.g. benefits provided by one state may become portable to others. European citizens have also gained wider scope for consuming welfare services in other countries, with the costs reimbursed by benefit systems operating in their own country. This extension of the rights provided under national social citizenship challenges the financial and administrative control of national welfare authorities.

To the extent that European citizens seek to make active use of the opportunities provided by the wider European market, the market will become a more important means of promoting the individual’s welfare, while belonging to a particular national welfare state will become relatively less significant. In this way more extensive cross-border mobility in Europe may contribute to a more long-term shift towards an increasing role for ‘market citizenship’ in general, as well as to the complex process referred to as ‘individualization’. More specifically, the shift to coordinating social security is making the provisions of national systems accessible to non-nationals, workers from other countries and other families. This process raises complex normative issues that are yet to be settled, not least because they relate to the question of what a future European social citizenship could entail.

10.5 Pension Reform — Efforts to Make Pension Systems Sustainable

Contemporary pension reform in many countries explicitly aims to strengthen the role
of self-responsibility and choice, in line with core normative ideas of Libertarian or Neo-Liberal citizenship. In this sense pension reforms are often meant to contribute to a greater role for market citizenship. The comparative analysis of national pension reforms in Finland, Germany, Norway and Sweden presented in this paper indicate, however, that various factors have constrained these efforts. More extensive scope for exercising individual choice has only been provided in Germany and Sweden, and even here it is more than doubtful that a large proportion of the population are fully aware of the choices open to them or feel competent to exploit the opportunities for exercising self-responsibility and choice regarding their economic security in old age. For many people in the four countries the main choice they exercise concerns the timing of their retirement, and even this decision is fraught with difficult judgments for the individual.

Currently, many governments make strong efforts to persuade people in their late middle age to postpone the time of retirement, and also provide financial incentives for such postponement. One can easily envisage here a situation where to remain in employment longer than many people would prefer, to a growing extent will be presented by governments as something near a ‘moral duty’ to society. Thus ‘active ageing’ can be constructed as an additional aspect of active citizenship. If so, the main reason will be the fact that for the large majority of the population the elements of private or market-based provisions for old age will in the foreseeable future only be smaller supplements to the provisions people will be entitled to through public pension schemes.

11. Concluding Comments

All in all, our European study has exemplified the ways in which our analytical framework may be helpful in capturing emerging dynamics and ambiguities in the area of social citizenship. More specifically, the summary of results illustrates the process of both ‘opening within- and ‘opening between’ in the notions of social citizenship which policy-makers are currently pursuing:

• Policy-makers and welfare reforms give stronger emphasis to the ‘active’ side of citizenship (as this is framed within each of the various ideal-type models) and this shift has been related to the transformations of societies and welfare policies outlined above.

• Normative ideas and notions conventionally associated with different models of citizenship — for instance ‘fulfilling duties’ (socio-liberal citizenship), ‘exercising choice and self-responsibility’ (libertarian citizenship), ‘participating in deliberation and decision-making’ (republican citizenship) are more often combined or intertwined in practice.

• At least in the context of activation reform these elements appear to sit uncomfortably together, leading in some cases to the suppression of elements in practice.

• We can also clearly observe a weakening of the strong bonds traditionally found between national welfare states and social citizenship, in the sense that the actual content of social citizenship is more greatly determined by international influences or interactions between national and supranational levels of government. Thus we see a trend toward the denationalization of social citizenship; not only in the Nordic countries, but throughout Europe. The trend towards denationalization appears to facilitate or reinforce two other trends: individualization and the marketization of citizenship.

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and its social and political consequences, Sage, London.


Ageing in Slovenia and Sustainability

by Aleksander Zidanšek

Abstract

According to the Statistical Office of the Republic of Slovenia there were 2,019,406 people living in Slovenia at the end of June 2007. In the first half of 2007 the population of Slovenia grew by 0.4%. The population had been slowly increasing since the census of 1991 at an annual rate of about 0.2%. In 2005 this rate increased to close to 0.3% and in 2006 to close to 0.4%. The rapid increase in population in 2007 is thus a continuation of the trend that started in 2005. While most of this increase is attributed to foreigners with temporary residence, the number of newborn babies has also been increasing steadily since 2000, when it reached its lowest number in its history since Slovenia’s independence — 17,160. The estimate for 2007 is about 19,900 newborn babies. Nevertheless the long term predictions are not so good, as the number of females between 25 and 35 is expected to decrease in about ten years, so the number of births is also expected to decrease in that time. These expectations are in agreement with a recent study on ageing population in Eastern Europe and the former Soviet Union, which anticipates Slovenia becoming the oldest country in this region, in the percentage of population above 65 and in the percentage of population below 14 and the average age. While in June 2007 the average age has grown to 41.0, it is expected to grow further to over 48 by 2025. Some predictions related to this demographic transition will be discussed.

1. Introduction

A recent World Bank study on the Third Transition of Ageing populations in Eastern Europe and the former Soviet Union showed that apart from Macedonia the population in all the countries without a majority Muslim population is expected to decrease, and in the countries with a Muslim majority the population will increase by 0 (Figure 1). In most countries the increase in average age will be even more dramatic than the decrease in population (Figure 2). Since these countries were experiencing a communist government less than 20 years ago, the authors of the World Bank study call this demographic transition ‘from red to gray’. Thus a comparatively short time after a relatively painful transition from a planned economy to a market economy the observed countries are expecting another potentially painful transition to an old society with a quarter of the population over 65 years old within about two decades. Ono and Maeda analyzed the effects of population ageing on economic growth and the environment in a two-period overlapping generations model...
of growth, ageing, and the environment. They showed that ageing may be beneficial to economic growth and the environment under perfect annuitisation, while possibly harmful under imperfect annuitisation3.

In the following chapters we analyze the consequences of this ageing red to gray transition in Slovenia on various aspects of sustainability.

2. Economic Consequences of the Red to Gray Transition

Since independence in 1991 and after the initial economic shock the GDP in Slovenia has been steadily increasing with rates moving between 2.5% and 5.5%. In 2007 the economic growth was the fastest in Slovenia’s history with 6.5% in the first nine months of 2007 (Figure 1).

While the population transition to gray started in the early 1980’s with about a 40% decrease in the annual number of births from about 30,000 to about 18,0004, the largest number of annual births was in 1902 with about one half of today’s population and about 45,000 annual births. The number of births fell to 17,321 in 2003 and has started to increase slowly since 2003, however it is expected to decrease again after 20155. This means that the number of births is well below the simple reproduction level, and immigration is needed to maintain the workforce necessary for economic development. Nevertheless in the long term the GDP growth is expected to decrease because of this population ageing until about 20306.

Figure 1: GDP growth in Slovenia between 1995 and 2007. The last point for 2007 is the estimate from period January — September 2007

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3. Social Consequences of the Red to Gray Transition

In 2006 Slovenia spent 17.1% of GDP on social security, 6.4% on education, 6.2% on health care. While the expenditure for education has been more or less constant since 2000, expenditures for social security and health care have decreased respectively from 17.5% and 6.5% in 2000.

The pension and social security system represents the most important social challenge of the red to gray transition. The number of retired people doubled between 1985 and 2000, so that from 3 active persons per one retired the ratio fell to 1.5 and is expected to decrease further. Since the basic system is of the pay-as-you-go type, this represents a huge challenge. Therefore additional voluntary pension insurance became popular, however it is still not yet widely accepted by the population. Hence a significant reform of the pension system is needed.

The education system also requires a significant restructuring. Namely, while the number of children in primary and secondary schools is decreasing due to the decreasing number of births, the number of enrolled students at university is increasing. While this is a positive development, the distribution among the disciplines is not very favourable, as there is a small number of students in natural sciences and technology and a large number of students in social sciences. While this ratio has improved slightly in the last few years, it is still very low and represents a challenge to the employability of university graduates.

4. Environmental Consequences of the Red to Gray Transition

Ono and Maeda showed that ageing has both positive and negative consequences on the natural environment. While on one hand a negative aspect of ageing is captured by a decrease in unintentional bequests thus lowering the level of young people’s wealth, the positive effect of ageing is represented by more investment in the environment in preparation for longer lives. Ono and Maeda demonstrated that the effect of ageing on the environment depends on annuitisation. While perfect annuitisation is beneficial to the environment, imperfect annuitisation is harmful. They also find that for industrial countries such as Slovenia the degree of consumption externality should be lowered and annuitisation set to zero in order to achieve sustainability in the ageing economy. While this might seem a mathematically possible solution, it is difficult to achieve in relation to reasonable economic growth, which is required if Slovenia is to reach its developmental targets. It is therefore important to seek alternative solutions, which might also be sustainable.

Such an alternative solution can only be found in the transition to a knowledge based society, where each person’s talents regardless of age are allowed to flourish. The most important preconditions for such a creative environment require as the first step a significant improvement in personal freedom, where the state’s role is to remove administrative and legislative barriers to knowledge, as well as to replace the current outdated tax system. The tax system is aimed at taxing most knowledge workers with incomes above average, who pay a nominal marginal income tax rate of 41%. When all other taxes are added the real marginal tax rate on additional income is about 60%. Without a significant decrease in the effective marginal tax rate on knowledge workers there is not much chance of significantly improving the role of knowledge in Slovenian society, and therefore not much chance of achieving the sustainable solution with a non zero annuitisation.
5. Conclusions

While population ageing in Slovenia is expected to bring many negative consequences, it is also linked with opportunities. On one hand the older population has more experience and this can be an asset in the knowledge based society as long as the pressures on social security and health costs are sustained with the healthy growth of the economy. The real challenge of the ageing transition in Slovenia is therefore in the application of knowledge and in the establishment of a creative environment, where each person’s talents regardless of age will flourish. Development since 2004 has been in the right direction, e.g. with a decrease in the top marginal income tax rate from 50% to 41% as well as a decrease in salary tax, however in view of the rapidly ageing population these changes should be significantly broader and faster in order that a sustainable knowledge based society might be achieved in Slovenia.

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Caring for a Family Member with Dementia: Evidence from a Cross Sectional Comparative Study on Caregiver Burden and Psychological Well-Being

by Cristian Balducci*, Maria Gabriella Melchiorre**, Sabrina Quattrini***, Giovanni Lamura**

Abstract

Background and aims: Previous research is not entirely consistent with regard to whether dementia caregivers are more adversely affected by their role than non dementia caregivers. The present study further explored this hypothesis by comparing 84 dementia dyads and 53 non dementia dyads in terms of caregiver burden and psychological well-being.

Methods: Dementia and non dementia dyads were initially described in detail to evaluate the comparability of the two sub-samples. Five multiple regression analyses were run to see whether patient dementia status significantly predicted the criterion variables (caregiver objective and subjective burden, stress, anxiety and depression), once the effect of potentially confounding factors has been taken into account. Results: Patient dementia status emerged as a significant predictor of caregiver stress and depression, as dementia caregivers reported higher levels of stress and a more depressed mood than non dementia caregivers. Moreover, it was also found that spouses of care recipients, rather than children or other relatives, reported the most negative consequences to themselves. Conclusions: These findings support the view that caring for a dementia patient may be a particularly troublesome experience and that dementia caregivers — especially if they are spouses — are in need of more support from formal care services.

Keywords: caregiving spouses, dementia, burden, stress, anxiety, depression

1. Introduction

Providing care to a dementia patient is a highly demanding task. This activity, which in the great part of cases is carried out by informal caregivers (Kneebone and Martin, 2003; Stone et al., 1987; Wiles, 2003), often causes them high levels of burden and distress, which in turn may lead to appreciable physical as well as psychological consequences (Barinaga, 1998; Di Gregorio et al., 2002; Macdonald and Dening, 2002; Marshall, 2001; Pinquart and Sorensen,

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* Department of Cognitive Science and Education, University of Trento, Via Matteo del Ben, 5, I-38068 Rovereto (TN), Italy, cristian.balducci_1@unitn.it.
** Corresponding author: Maria Gabriella Melchiorre, Department of Gerontological Research, I.N.R.C.A. (Italian National Research Centre on Aging: www.inrca.it), Via S. Margherita 5, 60124 Ancona, Italy, Tel: +39-071-8004887; Fax: +39-071-35941; e-mail: g.melchiorre@inrca.it.
*** Department of Gerontological Research, I.N.R.C.A. (Italian National Research Centre on Aging: www.inrca.it) Via S. Margherita 5, 60124 Ancona (AN) - Italy.
especially when an unfavourable physical and psychological status characterises the caregivers (Onishi, et al., 2005). In this respect, spouses of care recipients appear as those reporting the most considerable burden, given that they were repeatedly found to be more distressed and depressed than other relatives (Pinquart and Sorensen, 2003; Schulz, et al., 1998, 2004). Furthermore, in the case of spouses the emotional strain resulting from caregiving has been found to be an independent risk factor for mortality (Christakis and Allison, 2006; Schulz and Beach, 1999).

A question that is receiving increasing attention in this research area is whether caring for a dementia patient is comparatively worse than caring for a patient with other debilitating and chronic conditions, but a sufficient level of mental lucidity. It has been suggested (Light, et al., 1994) that there may be something unique about caring for a demented person, independently of caregiver characteristics and level of caregiving involvement. This may be related to the fact that dementia, contrary to other chronic conditions, progresses by erasing judgment, memory and the sense of self, thus finally compromising the bases for any form of interaction between the caregiver and the care recipient (MacRae, 2002), so that the severity of cognitive impairment has been clearly linked with depression in carers (Ballard, et al., 1995). Moreover, the behavioural changes associated with the onset of the disease (Hooker, et al., 2002) often render the care recipient much more difficult to look after. As a consequence, the caregiver may no longer manage to find benefits in his/her role.

However, while it appears understandable that the (cognitive, behavioural and affective) losses associated with the progression of the disease make dementia caregiving comparatively more stressful and burdensome, empirical evidence remains inconclusive on this. Clear-cut differences between dementia and non dementia caregivers emerged in some studies (Clipp and George, 1993; Holmen, et al., 2000; Ory, et al. 1999), with dementia caregivers reporting worse consequences in terms of self-rated health, emotional health, social life and financial status. Furthermore, dementia caregivers were also found to make use of more psychotropic agents than carers of cancer affected relatives (Clipp and George, 1993), suggesting that coping with the cognitive and behavioural decline of a person with dementia may be a particularly difficult task for his/her carer(s).

Such striking differences between the two groups of caregivers, however, were not replicated in other studies. For example, in a comparison between Alzheimer disease caregivers and Parkinson disease caregivers without coexisting dementia (Hooker, et al., 1998), it was found that while the former reported worse mental health consequences (anxiety, depression and a combination of positive and negative affect) than the latter, the pattern of results was inverted with respect to physical health consequences (perceived health and number of reported chronic conditions). In another study, which compared mild dementia caregivers with stroke and Parkinson disease caregivers (Tommessen, et al., 2002), no differences were found across the three diagnostic groups with respect to the psychosocial burden (perceived stress) experienced by the caregiver. Few, if any differences between caregiving groups emerged in a series of other studies (Canadian Study of Health and Ageing Working Group, 2002; Cattanach and Tebes, 1991; Draper, et al., 1992; Rabins, et al., 1990), and evidence has been also provided of an advantage of caregivers of cognitively impaired patients compared with caregivers of physically disabled patients (Yu, et al., 1993), as well as for lower levels of depression in spouses of demented Hispanic elders compared to spouses of cognitively impaired but not demented ones (Hinton, et al., 2003).

Despite these controversial results, this research area is an important one and deserves further attention: while most caregivers provide care to functionally disabled patients, forecasts for EU countries indicate that the number of people aged 65 and older with dementia disorders will increase substantially in the near future, growing from about 4 million in 2000 to about 4.8 million in 2015 (Berr, et al., 2005; Eurostat, 2003; Lobo, et al., 2000), and a similar
trend is expected to affect all main regions of the world (Cleusa, et al., 2005). Therefore, dementia caregiving will increasingly become one of the central facets of the caregiving phenomenon. If resources need to be directed to informal caregivers — not only to improve their own quality of life, but also to slow down deterioration in the cared-for (Leung, et al., 2007) or delay institutionalisation, which is much more frequent among demented people in all age groups (Jagger, et al., 2000), thus contributing to reduce the costs of health care (Bernabei, Landi and Zuccalà 2002; Michel et al., 2001; Stuart et al., 2005) — it is important to know under which circumstances a caregiver reports the worst consequences from his/her care activity, since this has relevant implications in terms of resources allocation.

In the light of the above considerations, the main aim of this study was to explore in depth the hypothesis that dementia caregiving has a stronger impact on caregivers than non dementia caregiving. We focused on caregiver burden, stress, and psychological well being. We reasoned that the inconsistency of previous findings in this area may be due to the existence of influential socio-demographic differences between dementia and non dementia caregivers which have not been appropriately taken into consideration. For example, as discussed earlier, caregiving spouses often show a higher level of distress than other relatives (Pinquart and Sorensen, 2003; Schulz, et al., 1995, 2004); therefore, if significantly more spouses are included among dementia caregivers in comparison to non dementia caregivers, the former will show a higher level of distress that may be unrelated to the patient’s dementia status. The reverse — with consequent results — is also possible. In the same way, evidence exists for the effect of caregiver gender and age, with female and older caregivers reporting higher levels of depression than, respectively, male and younger caregivers (Baumgarten, et al., 1992; Russo, et al., 1995). Care recipients’ characteristics may also play a role in this respect. To give an example, it was found (Miyamoto, et al., 2002) that caregivers of mobile demented patients report a greater burden than those of non mobile demented patients, thus suggesting that, when investigating differences between dementia and non dementia caregivers, patient functional status should be included in the model. Most previous research doesn’t seem to have paid enough attention to all these factors, which may explain why in some studies dementia caregivers reported greater strain than non dementia caregivers, while in others few (if any) differences emerged between the two groups.

On this background, we decided to further explore the comparative impact of dementia caregiving by using a three-step procedure of data analysis. We first developed a detailed description of the dyad caregiver-demented/non demented care recipient, to evaluate the extent to which the two chosen sub-samples were comparable. We then performed multivariate regression analyses, in order to determine whether patient dementia status significantly affected caregiver burden, stress and psychological well-being, once the effect of potentially confounding factors has been taken into account. Finally, by using a multivariate analysis of variance we sought support for a second hypothesis, namely that spouse caregivers would report worse consequences from caregiving than non spouse caregivers. This would bring further evidence for the particularly critical position of this group of carers.

2. Subjects and Methods

2.1 Sample

The overall sample was constituted by means of a random extraction from the lists of users of the ‘Scheduled Home Care’ (SHC) service provided in six National Health System districts of Central and North Eastern Italy (Ancona, Camerino, Fabriano, Senigallia, Bologna-Sud and Ferrara), which all granted ethical approval to the study. The SHC is a service targeted at patients who have been assessed by the local Health District’s Multidimensional Assessment
Unit and officially classified as “unable to reach the doctor’s general practice”, so that the general practitioner is granted a supplementary allowance to visit them at home, up to four times per month. This criterion of SHC eligibility allowed therefore the inclusion in the overall sample — represented by 413 older people (mean age: 84.44 years; range: 65-105) and their primary family carers (mean age: 60.07 years; range: 20-87 years) — of only caregivers of older people presenting at least a moderate degree of functional disability.

In this article we focused on two subgroups of this general sample: dementia and non dementia dyads. We identified dementia dyads as those in which the care recipient both suffered from one of the following illnesses (identified by means of dichotomous ‘yes/no’ items in the care recipient’s questionnaire): Alzheimer disease, Parkinson disease, dementia or senile dementia and reported a severe impairment (i.e., highest cognitive disability) as scored by the Short Portable Mental Status Questionnaire (SPMSQ) (Pfeiffer, 1975). We considered as non dementia dyads only those in which no formal diagnosis of any of the above mentioned illnesses was reported, and in which the care recipient showed no impairment (intact cognitive abilities) at the SPMSQ. We adopted this classification of the dyads, which is more stringent than that used in other studies (e.g. Ory, et al., 1999), to avoid misclassification of patients with mild and moderate cognitive disability, who might actually be affected by dementia or pre-dementia despite the lack of a formal diagnosis (Galluzzi, et al., 2001; Honig and Mayeux, 2001; Ravaglia, et al., 2003), whose disclosure is by many carers often not wished (Corner and Bond, 2004; Fahy, et al., 2003). By means of this procedure, we obtained two clearly distinct groups of dyads, to better show possible differences between dementia and non dementia caregivers. Moreover, since 22 care recipients attended a local Alzheimer day care centre on a more or less regular basis, we decided to exclude them and their caregivers from our analyses, in order to avoid possible bias due to the potentially positive effect due to the support received by using such service. This left data available for 84 non dementia dyads and 53 dementia dyads.

2.2 Methods and Statistical Analysis

Questionnaires: data have been collected by means of two semi-structured questionnaires, administered separated to the care recipient and to the caregiver by trained interviewers. Wherever possible, data were collected in a single meeting with the members of the dyad, during which the care recipient and caregiver were successively interviewed. In many cases, the caregiver attended the care recipient interview and, if appropriate, gave her/his support whenever the latter was not able to respond personally.

Care recipient questionnaire:

• In addition to basic socio-demographic measures, a module of 17 items from the EASY-Care questionnaire (Philp, 2000; Richardson, 2001) assessing patient functional disability was included. These items concern the ability to carry out activities of daily living (ADL) and instrumental activities of daily living (IADL), assigning a score to each response according to the relative weight of the explored activity in determining the overall functional disability. A total score of disability is obtained, which ranges from 0 to 100, with higher scores indicating higher functional disability. Cronbach’s alpha for this scale was .89 in the present study.

    Patient cognitive impairment was measured by administering the Short Portable Mental Status Questionnaire (Pfeiffer, 1975). We chose this tool because of its brevity (which prevented a possible drop out by the least cognitively fit), for it can be correctly administered by persons without formal neurological training (Welch and West, 1999), and because its scores are less easily affected by education, age and social class than for instance the Mini Mental Status Examination (MMSE), even though the MMSE has better sensitivity
and specificity (McKenzie, et al., 1996; Yeh and Liu, 2003). The SPSMQ is made up by ten items assessing patient orientation and general/personal information. Its total score is determined by counting the number of errors made by the patient (with scoring taking into account the patient’s educational level), and this is used to distinguish between four categories of cognitive functioning: intact, mild impairment, moderate impairment and severe impairment. Cronbach’s alpha for this tool was .93 in this study.

In addition, a measure of patient chronic conditions was used as an indicator of care recipient health status. This was accomplished by administering a checklist of 20 of the most relevant chronic pathologies reportedly diagnosed in the Italian population (heart diseases, diabetes, cancer, arthritis etc.), for each of which a ‘yes/no’ response was requested. The illnesses reported by the patient were added up in a new variable indicating the total number of chronic conditions affecting the patient. Alzheimer disease, dementia and senile dementia were excluded from the computation, since these were employed as inclusion criteria for the categorization dementia/non dementia dyads. On the other hand, Parkinson’s disease was included in the computation, since not all of the patients affected by this disease are dementia patients.

- Caregiver questionnaire:
  Caregiving circumstances. In addition to standard socio-demographic characteristics, the caregiver was asked about his/her relationship to the cared-for relative, and his/her place of residence in relation to the cared-for. Caregiving involvement was estimated in terms of duration (“How long have you been caring for your relative?”) and of intensity (“How many hours per week do you dedicate to the different caregiving activities?”). An indication of the social support available to the caregiver was also obtained, by asking him/her the following question: ‘How many persons may you rely upon, in case of necessity (please indicate up to a maximum of ten)?’. The total number of persons indicated by the caregiver was used as the measure of social support used in this study.

  Health condition. Caregiver health status was estimated by asking the ‘yes/no’ question: ‘Are you currently suffering from any particular illness?’. The total number of illnesses the caregiver was currently affected by was used as a health indicator, which was integrated by items indicating whether the caregiver had been hospitalised in the last year (‘yes/no’), as well as the total number of medications currently used by him/her. Two further questions explored caregiver smoking and drinking habits, while a final, summarising item asked: ‘On the whole, how do you judge your current health condition?’ (1 = very good; 5 = very bad). This last question may be a powerful predictor of patient health, since self-reported health questions have been found to predict morbidity and mortality even better than physicians’ ratings (Ferraro, et al., 1999; Spiers et al., 2003).

  Caregiver Burden. The caregiver was administered the Montgomery Burden Inventories, which investigate the two constructs of objective and subjective burden (Montgomery et al., 1985). We used seven items from the objective burden subscale, to explore how the caregiving activity has influenced seven different spheres of caregiver personal life (time to oneself, privacy, personal freedom, etc.). Responses for this tool are given on a five-point scale (-2 = improved a lot, +2 = worsened a lot, in this study). A Cronbach’s alpha of .81 was obtained here. With regard to the subjective burden measure, we used 11 items assessing how often the caregiver experiences particular feelings (usefulness, depression, guilt, etc.) in the relationship with the assisted relative. Responses are given on a five-point scale (1 = almost always, 5 = rarely or never). Cronbach’s alpha was .58 for this tool.

Stress. Caregiver stress was measured by the Relative’s Stress Scale (Greene, et al., 1982), which consists of fifteen items assessing the amount of stress and upset experienced by family caregivers of elderly relatives. Responses to items are given on a five-point scale
(0 = not at all, 4 = considerably). Cronbach’s alpha was .88 for this instrument.

**Anxiety.** The Zung Self-rating Anxiety Scale (Zung, 1971) was used to obtain a measure of caregiver anxiety. This scale is made of twenty items and responses are given on a four-point scale (1 = none or a little, 4 = most or all of the time, for 15 items; the reverse for the others). Cronbach’s alpha was .86 in the present study.

**Depression.** The Zung Self-rating Depression Scale (Zung, 1965) was used to measure caregiver depression. Twenty items make up this psychometric tool and responses are given on a four-point scale (1 = rarely, 4 = almost always, for 10 items; the reverse for the others). In this study, a Cronbach’s alpha of .85 was obtained for this measure.

### 3. Results

Care recipients’ characteristics are shown in Table 1. It can be seen that the dementia and non dementia sub-samples were similar with respect to most of the socio-demographics taken into consideration by the study: gender, age, educational level, marital status, personal and household net monthly income. Statistically significant differences between the two sub-samples emerged only in terms of functional disability and number of reported chronic conditions: while dementia care recipients showed on average a more severe functional disability (see Table 2 for details at the item level), non dementia care recipients reported a higher number of chronic conditions (see Table 3 for details).

| Table 1: Care recipient socio-demographic variables by dementia status |
|----------------------------------|-----------------|-----------------|--------------|
| **Care recipient related variables** | **Dementia (N = 53)** | **Non dementia (N = 84)** | **Statistics** |
| Gender (% female) | 66.0 | 65.5 | $\chi^2 (1) = .00$ |
| Mean Age | 82.6 (SD: 7.1) | 81.6 (SD: 9.1) | $t (135) = .71$ |
| Median educational level | Elementary school | Elementary school |
| Marital status (%) | | $\chi^2 (3) = 7.14$ |
| Single | 0 | 7.1 |
| Married | 45.3 | 40.5 |
| Separated/ Divorced | 3.8 | 0 |
| Widow/er | 50.9 | 52.4 |
| Median personal net monthly income (Euros) | 516.5-723.0 | 516.5-723.0 |
| Median household net monthly income (Euros) | 1032.9-1549.4 | 1032.9-1549.4 |
| Mean functional disability (EASYcare) | 80.9 (20.0) | 46.53 (22.0) | $t (110) = 8.49^{***}$ |
| Mean number of reported chronic conditions | 1.2 (1.4) | 2.2 (2.0) | $t (133.31) = 3.72^{***}$ |

* p < .05; ** p < .01; *** p < .001.
### Table 2: Care recipient ADLs/IADLs ability by dementia status

<table>
<thead>
<tr>
<th>Care recipient functional disability</th>
<th>Dementia</th>
<th>Non dementia</th>
<th>Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>(ADLs – Ability to:)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Move from bed to chair, if next</td>
<td>57.1</td>
<td>20.3</td>
<td>(\chi^2 (3) = 19.97^{***})</td>
</tr>
<tr>
<td>Use the toilet (or commode)</td>
<td>74.5</td>
<td>22.4</td>
<td>(\chi^2 (2) = 41.48^{***})</td>
</tr>
<tr>
<td>Have accidents with bladder</td>
<td>82.7</td>
<td>20.7</td>
<td>(\chi^2 (2) = 58.35^{*})</td>
</tr>
<tr>
<td>Have accidents with bowels</td>
<td>61.5</td>
<td>17.1</td>
<td>(\chi^2 (2) = 33.31^{***})</td>
</tr>
<tr>
<td>Use the bath/shower</td>
<td>100.0</td>
<td>91.8</td>
<td>(\chi^2 (1) = 4.07^{*})</td>
</tr>
<tr>
<td>Keep up personal appearance</td>
<td>100.0</td>
<td>56.1</td>
<td>(\chi^2 (1) = 30.7^{***})</td>
</tr>
<tr>
<td>Dress him/herself</td>
<td>79.6</td>
<td>27.3</td>
<td>(\chi^2 (2) = 35.38^{***})</td>
</tr>
<tr>
<td>Feed him/herself</td>
<td>59.6</td>
<td>7.3</td>
<td>(\chi^2 (2) = 52.63^{***})</td>
</tr>
<tr>
<td>(IADLs – Ability to:)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do housework</td>
<td>97.8</td>
<td>69.9</td>
<td>(\chi^2 (2) = 14.2^{**})</td>
</tr>
<tr>
<td>Prepare own meals</td>
<td>93.6</td>
<td>53.4</td>
<td>(\chi^2 (2) = 22.52^{***})</td>
</tr>
<tr>
<td>Go shopping</td>
<td>100.0</td>
<td>86.3</td>
<td>(\chi^2 (2) = 7.02^{*})</td>
</tr>
<tr>
<td>Handle own money</td>
<td>100.0</td>
<td>48.3</td>
<td>(\chi^2 (2) = 34.19^{***})</td>
</tr>
<tr>
<td>Use the telephone</td>
<td>95.6</td>
<td>10.0</td>
<td>(\chi^2 (2) = 76.14^{***})</td>
</tr>
<tr>
<td>Take own medicines</td>
<td>95.7</td>
<td>21.0</td>
<td>(\chi^2 (2) = 60.27^{***})</td>
</tr>
<tr>
<td>Walk outside</td>
<td>53.7</td>
<td>39.4</td>
<td>(\chi^2 (2) = 2.13)</td>
</tr>
<tr>
<td>Get around indoors</td>
<td>39.6</td>
<td>7.9</td>
<td>(\chi^2 (3) = 25.02^{***})</td>
</tr>
<tr>
<td>Manage stairs</td>
<td>57.4</td>
<td>46.6</td>
<td>(\chi^2 (2) = 1.36)</td>
</tr>
</tbody>
</table>

* p < .05; ** p < .01; *** p < .001.

### Table 3: Care recipient chronic conditions by dementia status

<table>
<thead>
<tr>
<th>Chronic conditions</th>
<th>Dementia</th>
<th>Non dementia</th>
<th>Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>(% reporting them)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diabetes</td>
<td>9.4</td>
<td>17.9</td>
<td>(\chi^2 (1) = 1.85)</td>
</tr>
<tr>
<td>Hypertension</td>
<td>9.4</td>
<td>27.4</td>
<td>(\chi^2 (1) = 6.44^{*})</td>
</tr>
<tr>
<td>Infarct</td>
<td>1.9</td>
<td>3.6</td>
<td>(\chi^2 (1) = .32)</td>
</tr>
<tr>
<td>Angina pectoris</td>
<td>0.0</td>
<td>4.8</td>
<td>(\chi^2 (1) = 2.6)</td>
</tr>
<tr>
<td>Other heart troubles</td>
<td>13.2</td>
<td>22.6</td>
<td>(\chi^2 (1) = 1.87)</td>
</tr>
<tr>
<td>Chronic bronchitis or emphysema</td>
<td>11.3</td>
<td>15.5</td>
<td>(\chi^2 (1) = .47)</td>
</tr>
<tr>
<td>Asthma</td>
<td>3.8</td>
<td>16.7</td>
<td>(\chi^2 (1) = 5.24^{*})</td>
</tr>
<tr>
<td>Allergic diseases</td>
<td>0.0</td>
<td>6.0</td>
<td>(\chi^2 (1) = 3.27 p = .07)</td>
</tr>
<tr>
<td>Tumour</td>
<td>0.0</td>
<td>11.9</td>
<td>(\chi^2 (1) = 6.81^{**})</td>
</tr>
<tr>
<td>Ulcers of the digestive system</td>
<td>0.0</td>
<td>4.8</td>
<td>(\chi^2 (1) = 2.6)</td>
</tr>
<tr>
<td>Calculus of the liver</td>
<td>3.8</td>
<td>10.7</td>
<td>(\chi^2 (1) = 2.12)</td>
</tr>
<tr>
<td>Cirrhosis of the liver</td>
<td>0.0</td>
<td>1.2</td>
<td>(\chi^2 (1) = 0.64)</td>
</tr>
<tr>
<td>Calculus of the kidney</td>
<td>0.0</td>
<td>4.8</td>
<td>(\chi^2 (1) = 2.6)</td>
</tr>
<tr>
<td>Arthritis</td>
<td>11.3</td>
<td>32.1</td>
<td>(\chi^2 (1) = 7.7^{**})</td>
</tr>
<tr>
<td>Osteoporosis</td>
<td>1.9</td>
<td>9.5</td>
<td>(\chi^2 (1) = 3.09 p = .08)</td>
</tr>
<tr>
<td>Parkinson disease</td>
<td>1.9</td>
<td>0.0</td>
<td>(\chi^2 (1) = .79)</td>
</tr>
<tr>
<td>Cerebral Ictus</td>
<td>13.2</td>
<td>19.0</td>
<td>(\chi^2 (1) = .79)</td>
</tr>
<tr>
<td>Traumas from fall</td>
<td>11.3</td>
<td>10.7</td>
<td>(\chi^2 (1) = .01)</td>
</tr>
</tbody>
</table>

* p < .05; ** p < .01; *** p < .001
Caregivers’ characteristics are reported in Table 4. Here, dementia and non dementia caregivers were comparable on all the variables related to the areas of the socio-demographics, caregiving circumstances and health status. This indicated that we obtained two highly homogeneous samples of caregivers with respect to these variables.

After this preliminary description of the dementia and non dementia dyads, five multiple regression analyses were run using the measures of caregiver burden, stress and psychological well being as criteria, and the variables on which dementia and non dementia dyads were found to differ (control variables) as well as care recipient dementia status as predictors. In Step 1, for all regression models we entered the control variables (care recipient functional disability, i.e. EASY care total score, and number of reported chronic conditions). In Step 2 of the analyses we entered the dementia status variable (1=dementia; 0=non dementia). The results for the five regression models are shown in Table 5.

Table 4: Caregiver-related variables (socio-demographics, caregiving circumstances and health status) by patient’s dementia status

<table>
<thead>
<tr>
<th>Caregiver related variables</th>
<th>Care recipient dementia status</th>
<th>Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Socio-demographic variables</td>
<td>Dementia</td>
<td>Non dementia</td>
</tr>
<tr>
<td>Gender (% female)</td>
<td>9.2</td>
<td>75.0</td>
</tr>
<tr>
<td>Mean Age</td>
<td>59.2 (SD: 12.7)</td>
<td>58.8 (SD: 14.5)</td>
</tr>
<tr>
<td>Median educational level</td>
<td>Elementary school</td>
<td>Elementary school</td>
</tr>
<tr>
<td>Marital status (%)</td>
<td> </td>
<td> </td>
</tr>
<tr>
<td>Single</td>
<td>9.4</td>
<td>16.7</td>
</tr>
<tr>
<td>Married</td>
<td>84.9</td>
<td>72.6</td>
</tr>
<tr>
<td>Separated/ Divorced</td>
<td>1.9</td>
<td>1.2</td>
</tr>
<tr>
<td>Widower</td>
<td>3.8</td>
<td>9.5</td>
</tr>
<tr>
<td>Employment status (% employed)</td>
<td>22.6</td>
<td>20.2</td>
</tr>
<tr>
<td>Median personal net monthly income (Euros)</td>
<td>309.9-516.5</td>
<td>309.9-516.5</td>
</tr>
<tr>
<td>Mean satisfaction with financial condition</td>
<td>2.7 (.8)</td>
<td>2.8 (.8)</td>
</tr>
<tr>
<td>Caregiving circumstances</td>
<td> </td>
<td> </td>
</tr>
<tr>
<td>Relationship to cared-for relative (%)</td>
<td> </td>
<td> </td>
</tr>
<tr>
<td>Spouse</td>
<td>22.6</td>
<td>28.6</td>
</tr>
<tr>
<td>Son/Daughter</td>
<td>60.4</td>
<td>42.8</td>
</tr>
<tr>
<td>Other</td>
<td>17.</td>
<td>28.6</td>
</tr>
<tr>
<td>Living with the cared-for relative (% yes)</td>
<td>81.1</td>
<td>76.2</td>
</tr>
<tr>
<td>Mean duration of caregiving (in years)</td>
<td>5.8 (4.6)</td>
<td>7.6 (7.5)</td>
</tr>
<tr>
<td>Mean hours per week dedicated to caregiving</td>
<td>91.5 (66.2)</td>
<td>76.0 (64.2)</td>
</tr>
<tr>
<td>Mean social Support available (n. of persons)</td>
<td>2.2 (1.3)</td>
<td>2.3 (1.5)</td>
</tr>
<tr>
<td>Health status</td>
<td> </td>
<td> </td>
</tr>
<tr>
<td>Currently suffering from any illness (% yes)</td>
<td>66</td>
<td>61.9</td>
</tr>
<tr>
<td>Mean total number of illnesses</td>
<td>1.2 (1.2)</td>
<td>1.2 (1.3)</td>
</tr>
<tr>
<td>Hospitalised in the last year (% yes)</td>
<td>7.7</td>
<td>12.0</td>
</tr>
<tr>
<td>Mean total number of medications used</td>
<td>1.3 (1.5)</td>
<td>1.0 (1.3)</td>
</tr>
<tr>
<td>Smoking habits (% yes)</td>
<td>35.8</td>
<td>46.4</td>
</tr>
<tr>
<td>Alcohol consumption habits (% yes)</td>
<td>52.8</td>
<td>65.5</td>
</tr>
<tr>
<td>Mean judgement of own current health condition</td>
<td>2.7 (.8)</td>
<td>2.5 (.8)</td>
</tr>
</tbody>
</table>

p < .05; ** p < .01; *** p < .001
Table 5: Multiple regression analyses of caregiver’s outcome measures regressed on care recipient dementia status (controlling for care recipient functional status and care recipient number of reported chronic conditions)^

<table>
<thead>
<tr>
<th>Step</th>
<th>Objective burden</th>
<th>Subjective burden</th>
<th>Stress</th>
<th>Anxiety</th>
<th>Depression</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td>F(2, 108)=8.23***</td>
<td>F(2, 108)=1.89</td>
<td>F(2, 108)=2.62</td>
<td>F(2, 108)=.46</td>
<td>F(2, 108)=2.19</td>
</tr>
<tr>
<td></td>
<td>R2 Change = .132</td>
<td>R2 Change = .034</td>
<td>R2 Change = .046</td>
<td>R2 Change = .01</td>
<td>R2 Change = .04</td>
</tr>
<tr>
<td>Step 2</td>
<td>F(1, 107)= 2.61</td>
<td>F(1, 107)= 0.39</td>
<td>F(1, 107)= 4.13*</td>
<td>F(1, 107)= 2.34</td>
<td>F(1, 107)= 4.73*</td>
</tr>
<tr>
<td></td>
<td>R2 Change = .021</td>
<td>R2 Change = .004</td>
<td>R2 Change = .035</td>
<td>R2 Change = .02</td>
<td>R2 Change = .04</td>
</tr>
<tr>
<td>Overall F</td>
<td>F(3, 107)= 6.44***</td>
<td>F(3, 107)= 1.38</td>
<td>F(3, 107)= 3.17*</td>
<td>F(3, 107)= 1.09</td>
<td>F(3, 107)= 3.09*</td>
</tr>
</tbody>
</table>

Intercept (unstandardised beta) | 1.87 | 21.62*** | 17.96*** | 35.16*** | 36.61*** |

Functional disability (Easy Care) | .25* | .12 | .05 | -.05 | -.15 |

Number of chronic conditions | .10 | .10 | .14 | .11 | .25 |

Dementia status (1= dementia; 0= non dementia) | .19 | .08 | .25* | .19 | .27* |

^: Unless otherwise stated, values related to single variables are standardized regression coefficients for the last step in each regression model. * p < .05; ** p < .01; *** p < .001

Together, the control variables explained a significant portion of variance only in the case of the caregiver objective burden (13.2%). Parameters’ estimates indicated that the care recipient functional status was the only factor to affect this outcome measure. The standardised regression coefficient (β) was positive, suggesting that the higher the patient’s functional disability, the higher the caregiver’s objective burden. Step 1 regression model was not significant for any of the other outcome measures. It should be noted that we didn’t expect the control variables to explain a high portion of variance on the caregivers outcome measures. This is because most of the variables (caregiver gender, age, education, income etc.) which are known to influence these outcome measures were not included in the regression models, since they were found to be equally distributed in the dementia and nondementia subsamples. When the dementia status variable was included (Table 3), it added a modest but significant portion of explained variance in the case of caregiver stress (3.5%) and depression (4.0%). This indicated that, even after controlling for potentially confounding variables, the care recipient dementia status significantly predicted caregiver stress and depression. Since the β values were in both cases positive, the results indicated that dementia caregivers reported higher levels of stress and depression than non dementia caregivers. After this, to seek evidence for our second hypothesis (i.e., that spouse caregivers would report worse consequences from caregiving than non spouse caregivers), we carried out on the overall sample (N=413) a multivariate analysis of variance (MANOVA; dependent variables: caregiver subjective burden, stress, anxiety and depression; grouping variable: caregiver relationship to patient), followed by Tukey HSD post hoc tests. The mean values for the different groups of caregivers are shown in Table 6.
Table 6: Comparison of Spouses vs. Son/Daughters vs. Other relatives on measures of burden and emotional well-being

<table>
<thead>
<tr>
<th>Caregiver’s Outcomes</th>
<th>Spouses (N = 74)</th>
<th>Sons/Daughters (N = 201)</th>
<th>Other relatives (N = 103)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective burden</td>
<td>5.9 (SE: .4)</td>
<td>5.7 (SE: .2)</td>
<td>4.8 (SE: .3)</td>
</tr>
<tr>
<td>Subjective burden</td>
<td>26.2 (.7)</td>
<td>25.6 (.4)</td>
<td>23.6 (.6)</td>
</tr>
<tr>
<td>Stress</td>
<td>27.3 (1.3)</td>
<td>25.0 (.8)</td>
<td>19.6 (1.1)</td>
</tr>
<tr>
<td>Anxiety</td>
<td>39.5 (1.2)</td>
<td>37.2 (.7)</td>
<td>34.5 (1.0)</td>
</tr>
<tr>
<td>Depression</td>
<td>42.4 (1.1)</td>
<td>38.5 (.7)</td>
<td>34.3 (1.0)</td>
</tr>
</tbody>
</table>

The overall MANOVA was statistically significant – Hotelling’s T: F(10.736)=4.08; p < .001 — and so were all the follow up tests: objective burden: F(2.373)=3.04, p<.05; subjective burden: F(2.373)=4.8, p<.01; stress: F(2.373)=11.42, p<.001; anxiety: F(2.373)=5.61, p<.01; depression: F(2.373)=15.3, p<.001. The post hoc analysis revealed homogeneous subsets of means, which showed that the three groups (Spouses: SP; Sons/Daughters: SD; Other relatives: Other) did not differ significantly on the objective burden measure. In terms of subjective burden, stress and anxiety spouses were not found to differ significantly from sons/daughters, the differences being mainly between spouses and sons/daughters as a group vs. other relatives (Subjective burden: SP = S/D, SP > Other; S/D > Other; Stress: SP = S/D, SP > Other, S/D > Other; Anxiety: SP=S/D, SP > Other, S/D = Other). However, results did show that spouses reported significantly higher levels of depression than sons/daughters, who in turn were significantly more depressed than other relatives (SP > S/D > Other). This finding replicated previous research in this area.

4. Discussion

The main aim of this study was to further explore the hypothesis that dementia caregiving has a stronger impact on caregivers than non dementia caregiving. The results provided support to this hypothesis: once the effect of potentially influential factors has been taken into account, dementia caregivers were still found to show higher levels of stress and depression than non dementia caregivers. Thus, the results of this study strongly support the view that caring for someone with a dementing illness may represent, to some extent, a different experience from caring for someone physically ill but lucid, and that this experience leads the caregiver to more negative consequences.

The reasons why dementia caregivers were found to show higher levels of stress and depression remain speculative, since we did not test them directly in our study. However, on the basis of previous research we can put forward possible explanations to shed light on our results. We assessed caregivers’ stress by means of the Relative’s Stress Scale (RSS), which focuses on the amount of strain and upset experienced by family caregivers of elderly relatives, tapping in its items several aspects of the emotional response of the caregiver. According to a widely shared cognitive model (Lazarus and Folkman, 1984), which has also been tested in the caregiving process (Kane and Kane, 2000), stress increases when an individual perceives a lack of resources to stem an environmental demand appraised as threatening. Thus, our finding that dementia caregivers scored higher on the RSS than non dementia caregivers, suggests that they more consistently perceived a lack of resources to meet their role demands. Since we controlled for the most influential contextual factors, we can hypothesise that the causes of the added stress showed by dementia caregivers may be sought in the peculiarities of the dementia caregiving relationship.
Dementia is a progressive disorder which leads to the inexorable dissolution of the patient’s personal identity. This means that, over time, reciprocity is greatly reduced in the caregiving relationship, with the possibility that even affection becomes finally unidirectional (Nagaratnam, et al., 2001). In these circumstances, it may be difficult for the caregiver to appropriately meet the cared-for’s needs (Woods, 2001) and, as a consequence, the caregiver may end up losing the benefits associated with his/her role. This has been reported as a highly stressful experience (Pearlin, et al., 1990), often associated with feelings of entrapment and guilt (Martin, et al., 2006). We believe that virtually all dementia caregivers in our study found themselves in these circumstances, given that all dementia patients suffered from a severe cognitive impairment and were presumably at one of the latest stage of the dementia process. Thus, this may explain the higher levels of strain showed by dementia caregivers.

If this explanation holds true, we would have expected to find also a significant difference on subjective burden between the two groups of caregivers. To the contrary, though dementia caregivers showed on average a higher score, the difference did not reach a statistical significance. However, it should be noted that we did not obtain a satisfactory internal consistency for this scale, which means that these results may not be deemed completely reliable.

As a further explanation for our findings, which also fits with the proposed cognitive model of stress, it can be thought that the dementia patients showed a consistent extent of behavioural problems. Such problems (e.g. wandering, agitation, aggressive behaviour) have been convincingly linked to caregiver stress and mental health (Hooker, et al., 2002; Pinquart and Sorensen, 2003). Since we did not take a measure of behavioural problems, we could not estimate the magnitude of their effect, and it is conceivable that a number of care recipients in the non-dementia sample actually had early dementia and might have been showing such symptoms, leading to a certain degree of burden in their caregivers, thus reducing the differential existing between the two subgroups. However, behavioural problems tend to decline as dementia progresses (McCarty, et al., 2000) and thus, keeping in mind the characteristics of the patients in our study — who were all at an advanced stage of the disease — we can consider that the effect of behavioural problems has been somewhat limited in our results.

In brief, despite the fact that the hypotheses we put forward may shed some light on our findings, it remains to be seen in future research why dementia caregiving is comparatively more stressful than other types of caregiving.

We assessed caregiver’s depression by means of the scale developed by Zung (1965), which continues to be used in studies of older adults (Kane and Kane, 2000). Depression has been defined as persistent sadness and decreased interest in pleasure activities. The items of the Zung’s scale, which have been derived from the clinical observation of depressed patients, include a number of psychosomatic symptoms associated with the disorder. Previous research (Hooker, et al., 1998, 2002) repeatedly found a causal link between stress and depression, so our results that dementia caregivers showed a higher frequency of depressive symptoms, may be seen as a consequence of their higher levels of perceived stress.

The findings of the present study are not in line with those that found no difference between dementia and non dementia caregivers (e.g. Canadian Study of Health and Ageing Working Group, 2002; Tommessen, et al., 2002). However, the findings of this study are at the same time less extreme than those reported by some other studies (Clipp and George, 1993; Holmen et al., 2000; Ory et al., 1999), in which clear cut differences between dementia and control caregivers were found on multiple indicators of well being. There may be a number of reasons for the inconsistency of these results. In our opinion, one of the most important reasons is that a detailed preliminary description of the dementia and non dementia dyads was not always carried out in previous research (e.g. Draper, et al., 1992; Hooker, et al., 1998), with the consequence that caregivers’ characteristics such as extent of involvement, income, gender
etc., but also patient characteristics, could not be taken into account. In a study in which such a detailed description was carried out (Ory, et al., 1999), the comparison between dementia and non dementia caregivers was entirely based on nonstandardised (and single-item) measures of well-being, which means that the results may not be considered entirely reliable. Moreover, in a number of circumstances studies focused on too few caregiver outcomes (e.g. Draper, et al., 1992; Tommessen, et al., 2002), and this means that different areas pertinent to caregiver well-being remained unexplored. Our study overcame such a disadvantage, and may thus be considered an important contribution to the current research in this area.

However, our study has a number of limitations too, which need to be borne in mind when generalising its results. First of all, like most previous research in this area, our study employed two relatively small samples of dementia and non dementia caregivers. Thus, the power of our statistical tests was reduced, which means that we may have not been able to detect more subtle differences between dementia and non dementia caregivers. Moreover, we focused on two clearly distinct groups of cared-for persons: dementia patients with a severe cognitive impairment vs. non dementia patients with intact cognitive abilities. In other words, we did not include dyads in which the cared-for had either a mild or a moderate cognitive impairment. We deliberately did this to avoid placing false negatives among the non dementia dyads (this is an issue to which previous research has not always paid enough attention, e.g. Ory, et al., 1999) and to test for the effect of patient dementia status on caregiver well-being under these extremely well defined conditions. By reducing the possibilities for misclassification, we increased the probability of observing differences between dementia and non dementia caregivers, if there are any. However, this means that a range restriction phenomenon with respect to patient cognitive abilities was at work in our study, and this also weakens the generalizability of our findings. Thus, even if we provided strong evidence that caring for someone with dementia is more troublesome than caring for someone with other debilitating and chronic conditions but mentally lucid, our results may not be generalized and taken as conclusive.

Further research in this area is therefore needed. In particular, we suggest building upon the present study and possibly following dementia and non dementia dyads longitudinally, since this study — as most previous research — has a cross sectional design that does not allow for causality to be judged. Moreover, the variables and constructs under investigation are dynamic in nature. By using repeated-measure designs, indicators of dementia caregivers’ well-being could be monitored over time, and their change observed as patients cognitively deteriorate. The recorded trends could then be compared with that showed by non dementia caregivers, thus allowing for invaluable information on similarities and differences between the two types of caregiving experiences to be gained.

In this study we also sought evidence for a second hypothesis, namely that spouses of care recipients would report the worst consequences from caregiving. The results provided support for this hypothesis, thus replicating previous research in this area. Independently of care recipients’ dementia status, spouses showed higher levels of objective and subjective burden, stress, anxiety and depression than other relatives. While in most cases spouses were not found to be significantly more compromised than sons/daughters, the results did show that spouses were significantly more depressed than all other relatives. This finding brings further evidence for the particularly critical position of this group of caregivers and should also cause great concern, given that the emotional strain experienced by spouse caregivers has been found to be an independent risk factor for mortality (Christakis and Allison, 2006; Schulz and Beach, 1999).

Though the results of this study may not be considered conclusive, they do suggest that dementia caregivers have a greater need for support from formal services. In the case of spouses, this need for help and support must be considered a priority. One possible approach to help family caregivers is adult day care, which provides a number of out of home services.
for older persons suffering from a variety of illnesses, including dementia. Adult day care allows caregivers to leave their role for a certain number of hours during the day or the week, so that they can take time for other activities and possibly restore their social and psychological resources, thus improving their stress and depression levels even after short periods of time (Zarit, et al., 1998). Recent research findings show however that the use of this service is associated to a higher risk of future institutionalisation (McCann, et al., 2005), especially when caregivers wait too long to begin using it (Gaugler and Zarit, 2001; Gaugler, et al., 2003), thus reducing the potential advantages deriving from appropriate training interventions (Coon et al., 2003; Gelmini, et al., 2001; Teri, et al., 2005).

5. Conclusions

While previous research’s findings remained inconsistent regarding the negative consequences suffered by carers of persons affected by dementia, the present study, by comparing two highly matched samples of caregivers and by taking into account several characteristics of the cared-for relative, provides strong evidence that dementia caregivers are more adversely affected by their role than their non dementia counterparts. In particular, this study showed that dementia caregivers reported higher levels of stress and a more depressed mood. However, more research is needed, especially of a longitudinal type and on larger samples of caregivers, to replicate the present findings, thus further strengthening their generalisability.

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1. Introduction

In recent years, especially as a result of the growing weight of China in the international economic scenario, the alarms concerning the alleged Chinese invasion of the West are multiplying: this fear is fomented, in particular, by the population consistency of the country, which has already passed 1,300 million inhabitants (in 2005) making it currently the most populated country in the world. The fear of a Chinese conquest is strong, so much so that the Center for Strategic and International Studies in Washington has even called the Chinese emigration a ‘tsunami on the horizon’. In reality this fear seems to be unsupported by statistical data: China represented 22% of the total world population in 1950, while today its share has decreased to 20%. Moreover considering the demographic weight of China, the 34 million Chinese (old and new generation) scattered around the world constitute a very insignificant figure. Furthermore China’s growth has been slowing considerably in recent years, so much so that in 25-30 years the other world demographic giant, India, will surpass it in terms of size. Moreover the country of the Dragon is now facing its own demographic problems, especially the process of demographic ageing (caused by the low birth rate and the increase in life expectancy) and the imbalances that characterize its structure (for example, the disproportions by sex). Both these problems are, as will be discussed further, direct consequences of the policies of birth control, the so called ‘one child policy’, started in 1981.

In the present contribution the main demographic characteristics of China will be presented, as will the figures concerning the ongoing demographic ageing process and the imbalances in the population structure generated by the national policies of birth control. Using data from the United Nations, the population projections under different scenarios will be analysed in order to appreciate what the future of China might possibly be if the current tendencies in mortality and fertility remain steady. Although with some differences, all the scenarios show that China will soon face levels of population ageing (expressed, for instance, as a share of old people out of the total population) higher than the current levels of European countries. Also the ‘one birth policy’ has caused a significant lack of females, because of the selection put into effect in favour of males, and this fact will strongly affect the ‘marriage market’, causing noteworthy social problems for the country.

2. Main Demographic Characteristics of China

In 1950 China counted slightly more than 554 million inhabitants; thirty five years later, in 1985, it had already passed a billion, and today it has over one billion, 00 million inhabitants. As a result of this growth, China has today a population density of 137 inhabitants per square
km, a value higher than those of western countries (for example, it is 32 inhabitant per square km in the USA and 114 in the European Union), but low if compared with other eastern countries (for instance, India has a population density of 336 inhabitants per square km, while Japan has 344). The median age of the population rose from a value of 23.9 years in 1950 to a value of 32.6 years.  

Table 1: Some demographic structure indicators for China (1950-2005)

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Population (thousands)</td>
<td>554,760</td>
<td>609,005</td>
<td>657,492</td>
<td>729,191</td>
<td>830,675</td>
<td>927,808</td>
<td>998,877</td>
<td>1,070,175</td>
<td>1,155,305</td>
<td>1,219,331</td>
<td>1,273,979</td>
<td>1,315,844</td>
</tr>
<tr>
<td>Male population (thousands)</td>
<td>288,200</td>
<td>314,727</td>
<td>338,494</td>
<td>375,124</td>
<td>427,348</td>
<td>477,851</td>
<td>514,711</td>
<td>551,305</td>
<td>595,934</td>
<td>628,309</td>
<td>655,211</td>
<td>675,852</td>
</tr>
<tr>
<td>Female population (thousands)</td>
<td>266,560</td>
<td>294,278</td>
<td>318,998</td>
<td>354,067</td>
<td>403,327</td>
<td>449,956</td>
<td>484,166</td>
<td>518,870</td>
<td>559,371</td>
<td>591,022</td>
<td>618,768</td>
<td>639,992</td>
</tr>
<tr>
<td>Population sex ratio (males per 100 females)</td>
<td>108.1</td>
<td>106.9</td>
<td>106.1</td>
<td>105.9</td>
<td>106.0</td>
<td>106.2</td>
<td>106.3</td>
<td>106.5</td>
<td>106.3</td>
<td>105.9</td>
<td>105.6</td>
<td></td>
</tr>
<tr>
<td>Percentage aged 0-4 (%)</td>
<td>13.7</td>
<td>16.5</td>
<td>14.2</td>
<td>15.4</td>
<td>15.9</td>
<td>13.6</td>
<td>10.0</td>
<td>9.5</td>
<td>10.3</td>
<td>8.5</td>
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<td>6.4</td>
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<td>Percentage aged 5-14 (%)</td>
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<td>20.6</td>
<td>24.7</td>
<td>24.8</td>
<td>23.8</td>
<td>25.9</td>
<td>25.5</td>
<td>20.8</td>
<td>17.4</td>
<td>18.0</td>
<td>17.3</td>
<td>15.0</td>
</tr>
<tr>
<td>Percentage aged 15-24 (%)</td>
<td>18.3</td>
<td>17.2</td>
<td>16.1</td>
<td>16.6</td>
<td>19.0</td>
<td>19.1</td>
<td>19.5</td>
<td>22.2</td>
<td>21.8</td>
<td>18.1</td>
<td>15.6</td>
<td>16.5</td>
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<tr>
<td>Percentage aged 60 or over (%)</td>
<td>7.5</td>
<td>7.6</td>
<td>7.2</td>
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<td>6.8</td>
<td>6.9</td>
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<td>10.1</td>
<td>10.9</td>
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<tr>
<td>Percentage aged 65 or over (%)</td>
<td>4.5</td>
<td>4.6</td>
<td>4.8</td>
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<td>5.6</td>
<td>6.1</td>
<td>6.8</td>
<td>7.6</td>
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<td>Percentage aged 80 or over (%)</td>
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<td>0.3</td>
<td>0.4</td>
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<td>0.5</td>
<td>0.6</td>
<td>0.4</td>
<td>0.7</td>
<td>0.7</td>
<td>0.9</td>
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<td>Percentage of women aged 15-49 (%)</td>
<td>50.3</td>
<td>46.9</td>
<td>45.3</td>
<td>44.5</td>
<td>45.5</td>
<td>45.8</td>
<td>49.0</td>
<td>53.4</td>
<td>55.8</td>
<td>56.5</td>
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<tr>
<td>Median age (years)</td>
<td>23.9</td>
<td>22.5</td>
<td>21.8</td>
<td>20.4</td>
<td>19.7</td>
<td>20.6</td>
<td>22.1</td>
<td>23.8</td>
<td>25.3</td>
<td>27.6</td>
<td>30.1</td>
<td>32.6</td>
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<tr>
<td>Population density (per square km)</td>
<td>58</td>
<td>63</td>
<td>69</td>
<td>76</td>
<td>87</td>
<td>97</td>
<td>104</td>
<td>112</td>
<td>120</td>
<td>127</td>
<td>133</td>
<td>137</td>
</tr>
</tbody>
</table>

Source: United Nations, 2006. * percentage calculated only on the women's group; all the other percentages are calculated on the total population.

3 To make a comparison with a western country and have an idea of the differences between China and the more developed countries of the world, it could be useful to know that, for instance, the median age of the Italian population is currently of 42.3 years.
The population sex ratio, which measures (per 100) the number of males for every female was at a comprehensible high level in 1950 (108.1%), when the population was younger than today, but even today it has an incomprehensible high value (105.6%), when it should be much lower according to the ongoing process of population ageing. Taking a look at the proportion of population aged 65 years and over (7.6%), and knowing that at the oldest ages females prevail, the population sex ratio should have been much lower than its current level. This disproportion, which will be examined in more detail in a later paragraph, is the result of the unnatural birth sex ratio, which strongly affects the sex ratio at higher ages and that of the total population. The increase in the proportion of the old share of the population caused, of course, a decrease in the other fractions, especially the youngest ones, as a direct consequence of the reduction of the birth rate: the percentage of the population aged 0-15 years fell from 33.6% in 1950 to 21.4% in 2005. Among these classes, the most important decrease is, obviously, that of children aged 0-4 years, where the percentage decreased over the same period from 13.7% to 6.4%.

Table 2 shows some indicators of the natural dynamic (which refers to births and deaths) of the Chinese population for five year intervals from 1950 to 2005. The population growth rate is equal to 0.65% in the period 2000-2005, while it was at 1.87% fifty years earlier. The crude birth rate fell from the value of 43.8% in the period 1950-1955 to a value of 13.6% today. In the historical series of data a slight recovery can be noticed in the birth rate in the period 1985-1990, during which it reached a value of 22.1%, while it was 20.4% in the previous five years, after which it started to fall again, reaching the value of 18.3% the following five years. Also the crude death rate strongly decreased, from the value of 25.1% of the mid twentieth century to the current value of 6.8%. The reduction of the death rate is the result of improved living conditions and the progress in medicine and health care. Despite the strong reduction in the crude death rate, China still shows a very high infant mortality rate, which is equal to 34.7% in the period 2000-2005 (it was even at 195% in 1950-1955). This aspect of mortality is very important, since the infant mortality rate can be considered a proper indicator of the ‘real’ level of social and economic development of a country.

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4 Since males are prevalent in younger ages because the sex ratio at birth is typically 105-106 males for 100 females (but it will be noticed that the Chinese one is far from typical), while females are prevalent in the oldest ages because of their greater longevity, for those populations which are still young the value of the total sex ratio is understandably higher than 100, because the population is more concentrated in the youngest age classes, where males prevail. On the other hand, those populations which are older have a value lower than 100, since the population is more concentrated in the oldest age classes.

5 China doesn’t have a very significant level of ageing today, but still this value of total sex ratio seems to be too high. For instance, in Italy, the population sex ratio was equal to 100.4% in 1861 (the date at which the country was unified), because it was pretty young, while by 1921 it had already reached a value below 100 (exactly at 98.8%) as the ageing process had not even begun yet. At that time the proportion of people aged 65 and over out of the total population was around 7%, even lower than the Chinese proportion of today (7.6%). So the comparison between the two countries shows an evident incongruence.

6 For instance, in Italy it is around 4% in 2005. The average values are of 6 deaths every 1,000 live births in the industrialized countries; 27% for Latin America and Caribbean countries and for Eastern Europe and countries of the former USSR; 29% for East Asia and Pacific countries; 46% for Middle East and North Africa countries; 85% for South Asia; 131% for Southern and Eastern Africa; 160% for Sub-Saharan Africa; and 180% for Central and West Africa. The world average is 72 deaths every 1,000 live births. So China has a value lower than the world average (which is, indeed, very high), but still very far from the value reached by the industrialized countries.

7 This shows again, if it is necessary, that economic development does not always completely correspond to what is called “human development”. Starting from the 50s, many economists, believing in the absolute association between economic growth and development, began to talk of the so called “trickle down mechanism”, according to which the growth of Gross Domestic Product (GDP and GDP per capita) would be automatically and certainly translated into a growth (at the level of the whole population) in terms of development, more employment, better living standards and reduction of inequality and poverty. So, because of this belief, the GDP began to be the only worry for economists and governments. Later, especially because the statistical data proved this theory to be wrong, attention moved to other indicators, such as “[...] availability of drinking water, sanitation, transport, health care, education, as well as a commitment adequately remunerated for anyone who wants to work [...]”(ILO, 1976a; see also, ILO 1976b). In the mid-80s Paul Streeten (e.g. 1981; Streeten et al., 1981) and Francis Stewart (e.g. 1985), both development economists, resumed and revised the theory of “basic needs”, starting from the premise that development is not only the achievement of a minimum threshold of income but the achievement of a state of “full life”, subverting the classical version of the direct relationship between growth and development, arguing that the satisfaction of needs is the basic element for growth. The basic needs, which are considered a prerequisite for a decent life, are usually identified as six: adequate nutrition, primary education, health, hygiene, the availability of drinking water, the availability of a dwelling with infrastructure associated with it.
The simultaneous observation of the evolution of crude birth and death rates allowed us to show the last two phases of the Chinese Demographic Transition, as shown in figure 1. The model of Demographic Transition is a theory used to explicate the long-term growth of a population. It is typically constituted by three phases, the first and the last where the birth and the death crude rates have similar values (high in the first phase and low in the third), and a second phase, which is the real transitional one, in which the distance between the two indicators is higher (with the birth rate at higher levels than the death rate), so the population grows. So the higher the distance between the negative and the positive natural indicator, the higher is the population growth rate: in fact, it is possible to notice that China showed the highest levels of percentage population growth rate in the periods 1965-1970.
and 1970-1975 (when it was, respectively, equal to 2.61% and 2.21%), which are exactly the periods, as can be seen in the graph, where the two lines are the furthest apart. The end of the Demographic Transition can be individualised in correspondence to that time when the crude birth rate and the crude death rate have similar values at a low level. It is possible therefore, to affirm that China will conclude its transition around 2020. It is necessary to underline that the forecasts of the United Nations for years after 2005 are based on a constant fertility scenario, which assumes that the level of fertility will not go lower or higher than the current value. Variations in the level of fertility could lead, of course, to a shift in the date of conclusion of the transitional process.

Figure 1: Last phases of the Demographic Transition in China (1950-2050)

As a result of the reduction in the crude death rate, the life expectancy rose from a value of 40.8 years in the period 1950-1955 for both sexes (39.3 for males and 42.3 for females) to a value 71.5 years in the period 2000-2005 (69.8 for males and 73.3 for females). So the life expectancy had a significant rise, but it’s still lower than the values reached by the western countries, where it is around 80 years (in Europe, in 2006 it was equal to 75.4 years for men and 81.5 for women). The increase in life expectancy is one of the two causes of the demographic ageing process (so called ‘ageing from above’), the other is the fertility reduction (‘ageing from below’), which has been extremely considerable in the last fifty years in China: the Total Fertility Rate (TFR), which expresses the number of children for each mother in fertile age (15-49 years) fell from a value of 6.22 to a value of 1.70, not very far from the value of western countries (the average value for UE27 in 2005 was 1.5 children per woman). What is interesting to evaluate is the value of the Net Reproduction Rate (per woman), since it expresses the number of daughters for each mother, and so gives a measure of the reproductive replacement: already in the 90s the Chinese value fell below 1.

3. Demographic Ageing Process and Structural Imbalances

Through the few figures shown both in Table 1 and Table 2, it has already been possible to outline the process of demographic ageing currently interesting China and which is
manifesting its first effects on the age and sex structure of the population. In 2006 China recorded a rate of natural increase of 5.89‰. To make a comparison with a more developed country, it could be sufficient to know that in Italy, in the same year, there was a slightly positive natural increase (equal to 0.0004‰) for the second time after the same value was recorded in 2004 thus interrupting the negative series that had lasted since 1993. The high natural increase is determined by the Chinese birth rate, equal to 12.4‰ (while, for instance, the Italian rate in 2006 was equal to 9.5‰), still high, but decreasing from the value of 13.6‰ of the previous year as shown in Table 2. The Chinese population distribution by age and sex can be effectively summarized by the population pyramid (Figure 2), which allows us to appreciate the structure still young, characterized by a still large base, albeit narrower than the central band, and a reduced presence in the higher age. Figure 2 also shows the shape of the demographic pyramid in 1950, putting in evidence the differences with today’s shape and the evolution of the population structure: the base in 1950 was larger, as an effect of the higher birth rate (which was 43.8‰ in the period 1950-1955, while the TFR was 6.33 child per woman), and the remarkable decreasing from every age class to the subsequent one, as an effect of the higher value of mortality at every age. As a result of this ‘filling’ of the middle and old classes, the Chinese median age rose from 23.9 years to 32.6 years, a considerable value but still far from that of the industrialized western countries (Italy, for instance, stands at just over 43).

Figure 2: Population pyramid of China. Comparison 1950-2006 (percentage values for each sex)


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11 Every percentage has been calculated referring to the total population for each sex and each considered year. So this means that the sum of all the frequencies of each pyramid is equal to 2 (or 200% if expressed per 100).
The rounded numbers reported in figure 6 refer to some peculiarities of the Chinese pyramid of 2006, that can be briefly explained as follows:

1. after the baby boom, there was a births deficit due to the famine of 1959-1961, which is evident (more for females than for males) from the fact that the previous class is smaller than the subsequent one while, according to the increasing of mortality after age 20, it should have been the opposite;
2. as can be seen in table 2, in the period 1965-1970 (during the so called Cultural Revolution) there was a recovery, defined ‘small baby boom’, due especially to the low age of marriage, which is obvious in the pyramid;
3. from 1975 the fertility starts falling because of the centralized policy of births control, as is plain from the size of the age classes 20-24 and 25-29 years;
4. beginning in the middle 80’s, the passage of many generations at the age of fertility caused a slight recovery in fertility (as can be seen in table 2 for the period 1985-1990) as a result of the cyclical growth in the two previous decades;
5. as a result of the ‘one child policy’, the fertility fell below the replacement level, causing a clear decrease in the number of annual births;
6. the application of practices such as the selective voluntary interruption of pregnancy, which caused an evident lack of females births, and the neglecting of daughters in favour of sons, which caused a higher mortality rate under 5 among females than among males result in a significant deficit of girls in the first age class.

So the different steps of the demographic development of China appear very clearly:\[12\]: the first, from 1950 to 1955, was a baby boom, followed by years of famine (that would have caused 15-30 million of deaths), which caused a decrease of births. During the Cultural Revolution there was a small recovery (known as small Baby Boom), followed by the a further decreasing phase, interrupted only by a little recovery in the second half of the 80’s, due to the fact that many persons of the small baby boom generation attained the fertile age, causing a slight increase in births. Since the 90’s onwards there begins a rapid drop of fertility to the current level of 1.7 children per woman.

As has already been noticed taking a look at the population pyramid for 2006, and observing the distribution by age and sex of the Chinese population, some structural imbalances can also be detected, surely due to demographic family planning policies put into practice by China that have gradually given rise to some ‘demographic anomalies’: for example, the sex ratio in the first considered age group (0-4 years) has a value of 122.66%, much higher than that typically found in all human populations\[13\] (in Italy, for example, in 2006 it was equal to 105.53%). This unusual value is the result of the selection process put in place inside households to ensure that the only child ‘granted’ by the driven system of birth control is male\[14\]. During 2005, according to official estimates, 1,540,436 induced abortions were carried out in China (National Bureau of Statistics of China, 2006), but this estimate certainly does not take into account the effect of illegal abortions that could greatly increase this value. Many international organizations have repeatedly sounded the alarm on the use of selective abortion (the scope of which is to select only the male foetuses) which, for obvious reasons relating to the determination of the sex of the unborn child, takes place almost always in the more advanced months of pregnancy.

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\[13\] As already explained, the sex ratio at birth is quite stable in all the human populations, and it attests to a value around 104-106 males for 100 females births.
\[14\] Already in 1990, the Nobel Prize recipient Amartya K. Sen noticed that at that time there were already a hundred million women missing in the world, especially in China and India.
Furthermore, the infant mortality rates of females are higher than those of males, contrary to what happens in the rest of the world\(^\text{15}\), where infant mortality is, under natural conditions, higher among males than among females. This anomaly in the infant mortality rates is the consequence of neglecting daughters, not giving them the same care, feeding, vaccinations as the sons; these practices are often fatal for daughters, causing a level of imbalance between the sexes which reaches a peak in China, where the mortality of females in this age group is \(28\%\) higher than that of males. This custom directly derives from the inferior standing of women in Chinese society, which is still characterized by a patriarchal system where a male child is still considered essential to maintain the family, to perpetuate the name and ensure social\(^\text{16}\) and biological reproduction.

Table 3: Infant mortality rates\(^\text{17}\) by sex (1950-2050)

<table>
<thead>
<tr>
<th>Period</th>
<th>Both sexes combined (per 1,000 births)</th>
<th>Male (per 1,000 male births)</th>
<th>Female (per 1,000 female births)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950-1955</td>
<td>195.0</td>
<td>218.3</td>
<td>169.4</td>
</tr>
<tr>
<td>1955-1960</td>
<td>178.7</td>
<td>198.7</td>
<td>156.6</td>
</tr>
<tr>
<td>1960-1965</td>
<td>120.7</td>
<td>129.8</td>
<td>110.7</td>
</tr>
<tr>
<td>1965-1970</td>
<td>80.8</td>
<td>83.4</td>
<td>78.0</td>
</tr>
<tr>
<td>1970-1975</td>
<td>61.1</td>
<td>61.5</td>
<td>60.7</td>
</tr>
<tr>
<td>1975-1980</td>
<td>52.0</td>
<td>52.3</td>
<td>51.7</td>
</tr>
<tr>
<td>1980-1985</td>
<td>52.0</td>
<td>52.7</td>
<td>51.3</td>
</tr>
<tr>
<td>1985-1990</td>
<td>50.0</td>
<td>51.0</td>
<td>48.9</td>
</tr>
<tr>
<td>1990-1995</td>
<td>47.1</td>
<td>39.1</td>
<td>56.0</td>
</tr>
<tr>
<td>1995-2000</td>
<td>41.5</td>
<td>34.9</td>
<td>48.6</td>
</tr>
<tr>
<td>2000-2005</td>
<td>34.7</td>
<td>27.6</td>
<td>42.5</td>
</tr>
<tr>
<td>2005-2010</td>
<td>30.7</td>
<td>24.6</td>
<td>37.4</td>
</tr>
<tr>
<td>2010-2015*</td>
<td>27.1</td>
<td>22.1</td>
<td>32.6</td>
</tr>
<tr>
<td>2015-2020*</td>
<td>24.1</td>
<td>20.0</td>
<td>28.7</td>
</tr>
<tr>
<td>2020-2025*</td>
<td>21.5</td>
<td>18.0</td>
<td>25.4</td>
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<td>2025-2030*</td>
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<tr>
<td>2030-2035*</td>
<td>17.3</td>
<td>14.6</td>
<td>20.2</td>
</tr>
<tr>
<td>2035-2040*</td>
<td>15.5</td>
<td>13.1</td>
<td>18.2</td>
</tr>
<tr>
<td>2040-2045*</td>
<td>14.0</td>
<td>11.7</td>
<td>16.4</td>
</tr>
<tr>
<td>2045-2050*</td>
<td>12.7</td>
<td>10.6</td>
<td>14.9</td>
</tr>
</tbody>
</table>

Source: United Nations, 2006. * Forecast (the same for every scenario)

\(^{15}\) Actually some other countries show imbalances similar to the Chinese ones, regarding infant mortality rates by sex; for example, in India it is \(7\%\) higher for girls than for boys, in Pakistan it is \(5\%\) higher, in Bangladesh \(3\%\). To make a comparison with countries which have similar levels of social development, for instance Muslim countries such as Tunisia, Egypt and Mauritania, the mortality of males in the first 5 years exceeds that of their female peers by certain percentage points, according to the norm commonly observed in the other countries of the world.

\(^{16}\) In China (but also in other Asiatic countries, such as Taiwan and South Korea), the absence of a male heir means the extinction of the family and the worship of ancestors. According to the Hindu religion, it is the condemnation of parents to wander forever, as tradition instructs the male child in the funeral rites at the time of their death. In India as in China, a daughter is just “of passage” in the parental home: when she will marry, she will leave her parents’ home and start to dedicate herself entirely to her “new” family and to her husband and from that moment on she will no longer have anything to do with her parents. In the Chinese countryside, it is a fact that we need to raise a child “to prepare for old age”, since there is no pension. “Breeding a daughter” says a Chinese saying, “is how to cultivate the field of another”, while for Indians it tantamount to “watering the garden of the nearby” (Attanè, 2006).

\(^{17}\) Infant mortality is defined and measured as the probability of dying between birth and exact age 1. It is expressed as deaths per 1,000 births.
Table 3 shows the evolution of infant mortality rates by sex and for both sexes combined. It is possible to put in evidence how, if there has been a general decrease in infant mortality, which has passed from the value of 195.0‰ in the period 1950-1955 to the value of 34.7‰ in the period 2000-2005, there has been an inversion in the equilibrium between the two sexes: while until 1990 the male infant mortality rate was higher than that of the females (as it normally is), from that period on that of females began to be higher than the male’s. Currently the male infant mortality rate in China is equal to 27.6‰, while that of females is much higher, reaching a value of 42.5‰. Also projections\(^\text{19}\) show that the female values will continue to be considerably higher than those of the male, although there will be a progressive reduction of the gap in percentage points between the two sexes.

Table 4 instead shows mortality under five years, putting into evidence how the lack of care for daughters takes place also after birth, causing a higher rate of mortality among little girls than among little boys. In the period 1995-2000, the mortality rate 0-5 was equal to 49‰ for both sexes combined, with a value for males of 43‰ and of 55‰ for females. Also in this case the projections show that there will probably be a reduction of mortality in this age class, but the gap between the two sexes will remain, although of smaller values than in the past. The United Nations estimated that in 2050 the mortality rate under five years will reduce to 14‰, with a lower value for males (13‰) and still higher for females (16‰).

**Table 4: Mortality rates under 5 years\(^{18}\) by sex (1950-2050)**

<table>
<thead>
<tr>
<th>Period</th>
<th>Both sexes combined (per 1,000 births)</th>
<th>Male (per 1,000 male births)</th>
<th>Female (per 1,000 female births)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995-2000</td>
<td>49</td>
<td>43</td>
<td>55</td>
</tr>
<tr>
<td>2000-2005</td>
<td>41</td>
<td>35</td>
<td>47</td>
</tr>
<tr>
<td>2005-2010</td>
<td>36</td>
<td>30</td>
<td>41</td>
</tr>
<tr>
<td>2010-2015*</td>
<td>31</td>
<td>27</td>
<td>36</td>
</tr>
<tr>
<td>2015-2020*</td>
<td>28</td>
<td>25</td>
<td>31</td>
</tr>
<tr>
<td>2020-2025*</td>
<td>25</td>
<td>22</td>
<td>27</td>
</tr>
<tr>
<td>2025-2030*</td>
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<td>2040-2045*</td>
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<td>17</td>
</tr>
<tr>
<td>2045-2050*</td>
<td>14</td>
<td>13</td>
<td>16</td>
</tr>
</tbody>
</table>

* Forecast (the same for every scenario)

Source: United Nations, 2006

\(^{18}\) Forecasts for infant mortality rates are the same for every scenario elaborated by the United Nations, since the phenomenon (measured through the rate) doesn’t depend on the evolution of fertility.

\(^{19}\) Mortality under age 5 is defined and measured as the probability of dying between birth and exact age 5. It is expressed as deaths per 1,000 births.
Concerning the future evolution of the Chinese structure, it is becoming more difficult to anticipate how the numerical imbalance between boys and girls will grow or recede. Hopefully attitudes will evolve towards greater gender equality (Attanè, 2005). In 2001 the Chinese authorities launched a campaign entitled ‘More consideration for girls’ to promote this equality and improve the living conditions of families with single girls, especially in rural areas. The goal is to bring the sex ratio at birth to a normal level by 2010. The Korean experience shows that it is possible to return to a more balanced value. In that country, indeed, the sex ratio at birth had risen in 1980 as in China, reaching 115 boys for every 100 girls in early to mid 1990. But it has fallen since mid-1990 to a lower level, about 110 boys for every 100 girls (Pison, 2004). The efforts of the Korean government to promote the status of women seem to be fruitful, and it can serve as a positive model for China in its efforts towards the achievement of a greater gender equality (Attanè, 2005).

Concerning the structural imbalances, it is also worthy of note that practices such as selective birth control and neglect in the management of females have produced a disproportion between the sexes not only in the first age classes, but also in the more advanced ones, as is already evident looking at the population pyramid, with consequences that are beginning to be felt even on the ‘marriage market’: for instance, the sex ratio in the age macro-class 20-44, which can be reasonably considered that more concerned with marriage, is more than 106%. It is estimated that from 2010, each year more than a million Chinese will not be able to achieve the desired marriage, because of a lack of women. The apex of this phenomenon will be reached in the middle of the next decade, when generations of boys will achieve the age of marriage, and many will see the chances of finding a wife mortgaged. In China, in fact, the imbalance between the sexes on the marriage market will become greater between 2010 and 2030, when about 1.6 million males per year will be at risk of not being able to get married. At first, the marriage market will be kind of ‘self-regulating’: those who would like to marry will increasingly turn to women of the younger cohorts, and then they will take recourse to two ‘women tanks’ till then holding little appeal, that of widows (finally bringing down the taboo of the second marriage), and especially that involving divorced, increasingly provided by the growing number of divorces. In any case, the candidate husbands must have a lot of patience looking for a wife and, on the whole, marry at a later age (Attanè, 2006). To respond to the growing demand for wives, especially in China but also in other Asiatic countries, transnational networks of ‘wives importation’ are springing up. On the China-Vietnamese border, for example, the migration of women for marriage purposes is booming. This phenomenon has more than one explanation: the first is the strong deficiency of women in southern provinces, while the second is strictly economic, and depends on the increased costs caused by the twin economic reforms of the 80s. It seems that for some poor Chinese families buying a bride is now the only affordable way to find a wife for their son. Moreover, this application meets the economic strategies of Vietnamese immigrant women who hope that marrying a Chinese man will lead to a better life than in their own country.

4. What About the Future?

China, as I have said, is still a young country, but also with regard to this aspect the effects of family policies will soon start to be felt. The percentage of over 65 years is today in China equal to 7.7%, a low value but, because of the conclusion of the transitional process, it will tend to grow a great deal in the future: as can be seen in Figure 3, the latest United Nations estimates

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20 Isabelle Attanè wrote an article about the structural imbalances in China and other Asiatic countries in Le Monde Diplomatique in July 2006. She concludes her article invoking the images of social collapse, citing the Lebanese Amin Maalouf’s novel of 1992 “The First Century After Beatrice”: “If tomorrow men and women could, by a simple way, decide the sex of these children, certain peoples would only choose boys. They would stop reproducing and, soon, disappear. Today a social flaw, the culture of the male will become a group suicide,” that what will happen will be an “autogenocide of misogynistic populations”.

on the future growth of China forecast for 2050 a percentage of people aged 65 and over of between 20.30% (high variant) and 27.8% (low variant), values even higher than those currently recorded in Western countries, which are today strongly interested in the process of population ageing\textsuperscript{22}. Indeed, as shown in the previous pages, China, due to a very restrictive policy regarding family planning (known as one-child policy) is ageing very quickly and therefore will soon have to face the structural imbalances that are already facing many more developed Western countries.

Figure 4 shows the evolution of the dependency ratios\textsuperscript{23} from 1950 to 2050: while the total dependency ratio and that of the child showed a first increasing phase until 1965 and then started to decline constantly until 2005, the elderly component of the ratio showed, instead, a steady level until 1990 and then an acceleration up to 2005. The projections of the dependency ratios estimated by the United Nations illustrate how the child dependency ratio will remain almost stable at low values, around changeable values comprised of those within the 33\% of the high variant (which is understandable, since this scenario foresees an increase in fertility, so a higher share of children within the total population) and the 17\% of the low variant (also logical, since it foresees the opposite of the high fertility scenario). Anyway the child component shouldn’t increase in the future. This is not the case for the old dependency ratio: all the scenarios predict a very important rise in the ratio, from the value of 11\% recorded in 2005, to values comprised within the 45\% of the low variant scenario and the 34\% of the high variant scenario. Obviously, the value of the total dependency ratio will be pulled up by the value of the old component.

\textit{Figure 3: Demographic forecasts of the percentage of population aged 65 and more under four different scenarios}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{dependency_ratios.png}
\caption{Demographic forecasts of the percentage of population aged 65 and more under four different scenarios}
\end{figure}

\textit{Source: own elaborations on United Nations, 2006.}

\textsuperscript{22} For instance, in 2006 the percentage of elderly in Italy was equal to 20\%.

\textsuperscript{23} The dependency ratios measure the “weight” of the unproductive groups of population (children and old people) on the productive (or potentially so) ones. It can be shared into two ratios, which measure, respectively the burden of the young component over the productive population and the load of the old component.
Population ageing will cause serious problems for the entire social system: many old people, in fact, will not have an enlarged family which can take care of them. The patriarchal family system, which the selection of male births and the preference accorded to sons were trying to protect, will be put in danger by these same practices. As an effect of the demographic transition and of the human practices, China is rapidly becoming what Cartier (1995) called a ‘société inverse’, characterized by a 4-2-1 model (Davoli, 2006): thanks to increasing life expectancy and the decreasing of mortality, there will be 4 old people, 2 adults and just 1 child (as an effect of reduced fertility). So the China family system is moving towards a model of ‘famille souche’, the family strain, in which new generations are added to the old, and towards a model of ‘feedback family’, in which old people are housed in the family of their children. Referring to the 4-2-1 model, the whole burden of care of older people will be on this last one component, in a society which is not yet provided with a social and welfare system.

Now that the Chinese ageing process is going strongly, and China is achieving its mature demographic stage, and now that the policy of births control is loosening and melting with the general trend of decline in population growth typical of the imperialist powers (Davoli, 2006), China will have to face social problems arising from demographic issues. Its ageing process is faster than those of the other Asian countries, since the demography was strongly ‘helped’ by man’s action in causing structural imbalances and disproportions. It seems very hard today to try to forecast what’s going to happen, from a demographic point of view, in China. Firstly it will be important that the policies to redress the gender gap and move towards a normal sex ratio at birth and at the following age classes be successful. But to make them effective, it will be surely necessary to work also on the social and anthropological customs of China, to ensure that women have a peer value with men within society.
Figure 4: Demographic forecasts of the dependency ratios (total, child and old age) under four different scenarios

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European Papers on the New Welfare, No. 9, February 2008, 212-215

The Silver Workers Institute: Active Retirees in Germany

by Jürgen Deller*, Patrick M. Liedtke**

1. First Empirical Survey Reveals Large Idle Potential for Economy and Society

A recently completed research project from Leuphana University Lueneburg and The Geneva Association, ‘think tank’ of the world leading insurance companies, gives a first empirical insight into the present situation and concrete expectations of paid and voluntarily active retirees (Silver Workers) in Germany. Research results are based on an extensive survey of approx. 150 active retirees ranging in age from 60 to 85 years. Study participants vary from former board member to former chambermaid. The study highlights crucial conditions for the increased mobilization of this relatively small section of the population of which we know very little. For this reason the study sheds light on the workplace of tomorrow, which makes early allowances for the huge economic and socio-political challenges of the demographic change.

Professor Jürgen Deller, head of the research project, comments: “We broke new ground doing this first empirical study of Silver Workers’ situation. Further research will and has to follow. Our results should encourage a goal-directed redesign of tomorrow’s age-based labor world. We think that this will be one of the crucial challenges for economy, politics and society. Leadership and Human Resources Management will change substantially”.

Patrick M. Liedtke, Secretary General and Managing Director of The Geneva Association, adds: “A better integration of Silver Workers in the working life is much more than just a question of old-age provisions. It’s a matter of substantial questions concerning companies’ competitiveness, stability of national budgets and societal exposure to a dramatically changing age structure of the population. Ultimately, the study at hand addresses the long-term basics of growth and welfare in a leading world economy”.

* Institute of Business Psychology Leuphana University of Lueneburg, Germany.
** Secretary General and Managing Director, The Geneva Association, Switzerland, secretariat@genevaassociation.org.
2. Covering Macroeconomic Growth Potential and Relieving Old-Age Pension Systems by Integrating Silver Workers

As a result of the demographic development, there is an increasing understanding of the lack of sustainability of existing pension schemes. Moreover, agencies are forecasting an intensified lack of specialized staff which will noticeably affect the growth of the German economy in the foreseeable future.

As people who are getting older maintain good mental and physical abilities, they decide, in increasing numbers to stay active in retirement and to actively pursue a job. The study shows that currently non-financial motives like seeking appreciation determine retirees’ activities. Due to foreseeable deficits of the existing pension funds, post-retirement activities could become a necessity for an increasing number of older employees.

Against this background, the present study draws a first empirical picture of the current situation and most important expectations of Silver Workers. Its aim is to give an impetus to the creation of a fourth pillar of old-age pension which is based on a combination of part-time work and old-age pension during transition to retirement. Besides the statutory, occupational and private pension scheme, the fourth pillar can contribute to the stabilization of pension systems and therefore of national budgets as well as ensure human capital.

3. Maintaining Competitiveness of the German Economy by Integrating Silver Workers

The impact of a strong fourth pillar goes much beyond relieving old-age pension systems and covering macroeconomic growth potential. German companies have to face up to the demographic change, irrespective of their size. This is also true for many other European countries, e.g. Italy. Those companies that set the course today for reasonable employment of older specialized staff will gain a key advantage in national and international competition tomorrow. They will benefit in the short term in view of a prevalent lack of specialized staff due to a booming economic situation in Germany.

This study provides an informative basis for companies regarding the design of tomorrow’s workforce which we think will become one of the most central leadership tasks. The willingness to start or to continue working in retirement in Germany exists — but companies have to provide adequate general conditions in order to benefit from the experience, expertise and social competences of active retirees: once they have gained a degree of freedom Silver Workers do not want to live without it. Occupation in retirement has to be varied in shape and form and provide meaning to Silver Workers’ life. Concretely, flexible measures which are adapted to a retiree’s individual needs, e.g. part-time work, have to be set up. Furthermore projects and tasks have to be structured in such a way as to accommodate the Silver Worker’s desire for independence and performance in his or her job. Moreover, to have a shot a the future, companies will have to train and provide new skills in order to efficiently employ older workers even after they have retired. The active retirees who were interviewed mentioned these elements and underlined that they are prepared and actually calling for this challenge.

Interviewees also point out their need to be appreciated and valued. The importance of an additional income in some cases seems to serve as evidence for this expressed appreciation. The results repeatedly accentuate the need for a culture of appreciation as a condition for an organizational integration of active retirees.

The following figure gives an overview of the most important expectations Silver Workers have of their employers.
4. Silver Workers as Sociopolitical Challenge

In Germany, Silver Workers still live a shadow existence compared to those in other countries. One decisive reason for this might be that for most German retirees an additional income is not absolutely necessary as the pension scheme is still basically working. But demographic and political developments indicate a different trend for the future where rethinking will be necessary from everyone.

At the moment, most of the interviewees are basically working because they simply like doing it. In the foreseeable future the general framework of old-age pension could change in such a way that income additional to old-age pension will be necessary for an increasing number of people. This will also require more flexibility from the persons concerned. It will be essential to retrain retirees in order to reemploy them, especially lower skilled staff.

A further reason for the still low impact of Silver Workers in Germany is the political framework. An extended working life is not covered in the law and is hindered for certain groups, e.g. civil servants. Employers and Employees still have to pay social security provisions which do not have a positive effect on the annuity rates but rather have a negative effect on the employee’s salary. The inescapable transition to these new working conditions is constrained by the current legal framework in Germany, which has to be extensively reformed.

Finally there is a lack of social acceptance of the mains reasons why Silver Workers want to keep on working, namely the desire to be accepted and to continue to play a continuing active role in the economy and society.
5. Recommended Actions for the Economy, Politics and Society

The following three central recommendations can be derived as a first empirical appraisal of the situation of the Silver Workers:

1. Enlargement of strategic HR management in order to systematically mobilize and integrate Silver Workers: We need flexible structures regarding working time and work design, supplemented by purposive advanced training measures in order to provide an attractive organizational environment for Silver Workers.

2. Promotion of a culture of appreciation for the elderly throughout organizations: The prevalent ‘mania for youth’ is reaching its limits — and not only because of the forecasted changes in the structure of the population. There seems to be a return to the recognition of the elderly’s longtime experience, substantial expertise and superior social competencies. These values have to be firmly positioned in the culture of an organization.

3. Establishment of an attractive legal framework for Silver Workers: The present regulatory vacuum has to be replaced by definite terms which put post-retirement work on a mandatory legal foundation. Due to the aforementioned economic and managerial reasons politicians should create efficient incentive structures which will promote the development of a strong fourth old-age pension pillar in Germany.
On the basis of a voluntary network, partly supported by The Geneva Association, The Risk Institute was established in order to extend the studies on the issues of risk, vulnerability and uncertainties to the broader cultural, economic, social and political levels of modern society.

The starting point defining the programme of action was an informal meeting held in Paris in 1986. Among the participants were Raymond Barre, Fabio Padoa, Richard Piani, Edward Ploman, Alvin and Heidi Toffler and Orio Giarini.


The book stresses the point that uncertainty is not just simply the result of inadequate or insufficient information. Every action extending into the future is by definition uncertain to varying degrees. Every ‘perfect system’ (or ideology) is a utopia, often a dangerous one: the total elimination of uncertainty in human societies implies the elimination of freedom. Learning and life are about the ability and capacity to cope, manage, face, contain and take advantage of risk and uncertainty.

In 2002, The Risk Institute published with Economica (Paris) the book *Itinéraire vers la retraite à 80 ans*. Ever since the The Risk Institute has been mainly concerned with a research programme on social and economic issues deriving from extending human life expectancy (usually and wrongly defined as the ‘ageing’ society), which is considered the most relevant social phenomenon of our times. This is particularly relevant in the context of the new service economy. The Risk Institute has contributed to the organisation of the conference on “Health, Ageing and Work” held in Trieste and Duino on 21-23 October 2004. On this basis, it has taken the initiative to publish these EUROPEAN PAPERS ON THE THE NEW WELFARE — The Counter-Ageing Society, in two versions (one in English and one in Italian), with the support of various institutions.

*Service Economics and Risk Management in a Nutshell*

- Economics is a social ‘science’ originating as a consequence of the industrial revolution, and developing for about two centuries. It is NOT the ‘science’ of economy per se, but of a specific phenomenon starting in the eighteenth century. It concentrates on the manufacturing of goods, and — culturally or philosophically — is linked to a deterministic thinking (quite valid, because useful, until the beginning of the last century). From all this derives the definitions of a series of fundamental concepts: value, equilibrium, productivity, the role of prices (explicit and implicit ones) etc.

- Within this framework the role and place of an important economic sector such as insurance remains secondary (rightly so at the time of Adam Smith). Uncertainty is linked to incomplete information. The basic paradigm is the reference to equilibrium, which implies complete information, even if in our era this is still admittedly imperfect. In this perspective, science is implicitly considered as a means to reduce the information gap and finally to eliminate it. And insurance with it. So, why bother to integrate insurance
(and risk management) in the basic studying and learning of economics? The very idea of imperfection is wrong as it is based on a kind of ideological determinism.

• The point is that information is by nature ‘imperfect’, because the value (economic value) is not the result of a static equilibrium, but of a dynamic disequilibrium. Even when economists like Samuelson admit dynamic analysis, the phenomena analysed are presented as series of sequentially static states.

• To really understand this, one has to go back to the process of producing wealth: the first step is to recognise that services today are production functions for over 80% of all resources used. Services are NOT a sector, but production tools in all economic activities. The most advanced ‘manufacturing-industrial’ companies are those where service functions are dominant: research, development, quality control in ‘production’, information, storage, distribution, utilisation, etc. and finally waste management (the ecological issues are totally integrated in the modern economic cycle in this way).

• The second step is to realise that the value of a service-based economy is not dependent on the existence of a ‘product’ (even if this is a service), but in its performance in time: this is the source of two basic forms of uncertainties. The first refers to the duration of performance in (future) time. The second to the events which might alter the mode and quality of this performance (and here we rediscover the notion of Risk Management).

All this leads to the idea that the pricing system of insurance is NOT just an odd case with reference to the rest of the economy (the famous question of the reversal of the costs and prices cycle): in the service economy, the pricing system of insurance based on uncertainty is now at the core of the whole economy. Whenever a ‘product’ is sold today, its future performance will add to the present price paid future foreseeable and unforeseeable costs. In most cases, higher than the cost of the initial ‘product’. Some ‘products’ then, as in the case of waste management and environmental costs, become a sort of negative public goods often paid for by taxes (determined ex post). The liability explosion is strictly interconnected with this issue.

It seems a paradox, but insurance (and risk management) is simply at the core of the modern, service-based economy. Just the opposite of the normal, current perception and understanding. For the moment, insurance will not make considerable progress as long as the basics of economics are still those deriving from the traditional (no longer existing in fact) industrial-manufacturing era. Obviously there is no question of services totally replacing manufacturing. They are both needed: there is no service without a tool and vice-versa. The question is just a reversal in the priorities (from hard products to services). And this alters the notion of value, from the one fixed in an equilibrium system between supply and demand at a given moment in time, to the one in which any price given at any moment in time is just a contract or commitment such as an insurance policy: most of the costs in the ‘utilisation’ process — or performance — (determining the real value of any economic system) intervene ‘later’ in time, and are inevitably just ‘probable’.

Linked to this process (and to the impact of technology) is an understanding of the notion of vulnerability as a basic reference to risk management. For more details on this issue, see the study on “The Limits to Certainty — Managing Risk in the Service Economy” published under the auspices of The Risk Institute and The Club of Rome’.

**Director: Orio Giarini**
orio.giarini@alice.it  
Via della Torretta, 10  
I - 34121 Trieste  
Tel./Fax +39 040 3222056  
Cell phone +39 333 868 4598  
www.newwelfare.org

risk_institute@genevaassociation.org  
Route de Malagnou, 53  
CH - 1208 Geneva  
Tel. +41 (0) 22 7076600  
Fax +41(0) 22 7367536  
Cell phone +41 79 3577910
Founded in Milan in 1987, Macros Research conducts surveys and researches in the area of Economics of Ageing with particular reference to their impact on the welfare State, pensions and health.

It belongs to the Macros Group, which is made up of two other companies: Macros Consulting, operating in the field of top management strategic consulting, and Macros Risk Management, a consulting company dealing with integrated risk management.

Since its inception, Macros Research has stood out for its international vision, which is confirmed by over 20 years of collaboration with the Geneva Association, the Risk Institute of Geneva-Milan-Trieste, as well as Italian and international Universities and research institutes.

Macros Research carries out research projects and studies according to a multidisciplinary approach in order to analyse and investigate – from both economic and financial perspectives — the management of economic and social risks in the public and private sectors.

The main research areas focus on the following topics:

- Pensions and Welfare systems in Italy and the OECD countries; Private savings and public pension systems; The Elderly and the Labour Market; Long Term Care; Insurance Economics; Risk Management.

Macros Research is one of the Italian key stakeholders, who support the global initiative of the World Economic Forum (WEF) concerning the discussion document “Financing Demographic Shifts: Pension and Healthcare Scenarios to 2030”. The initiative takes a global perspective and analyses a number of countries in further detail, particularly Italy and China.

It has published several books and articles and, with the Risk Institute, is the editor of the ‘European Papers on the New Welfare — the counter-ageing society’ and ‘I Quaderni Europei sul Nuovo Welfare — svecchiamento e società’.

Macros Research promotes conferences and seminars to create new insights into the future of the Welfare State and particularly about pensions and healthcare with the objective of defining strategic options for key stakeholders.

**President**  Angelo Scarioni  
**Research Manager**  Mara Tagliabue  
**Research Coordinator**  Angelo Paulli

**Headquarter**  Largo Donegani, 3  
I – 20121 Milano  
Ph. + 39 02 290 041 93  
Fax + 39 02 655 41 28  
segreteria@macrosresearch.it  
wwwmacrosgroup.it  
www.newwelfare.org
The Geneva Association is a unique non-profit worldwide organisation formed by some 80 Chief Executive Officers of the most important insurance companies in Europe, North America, South America, Asia, Africa and Australia. Its main goal is to research the growing economic importance of insurance activities in the major sectors of the economy.

The Geneva Association acts as a forum for its members, providing a unique worldwide platform for the top insurance CEOs. It organises the framework for its members and their companies to exchange ideas and discuss key strategic issues. To this end, it has established large international networks of experts and high-level industry platforms. The Geneva Association serves as a catalyst for progress in this unprecedented period of fundamental change in the insurance industry. It seeks to clarify the key role that insurance plays in the further development of the modern economy.

Its activities are focused around 6 research programmes which constitute the core of its research activities:

1) **Risk Management**: The aim of this programme is to research and illustrate the new risks in the emerging service economy.

2) **Insurance and Finance**: This research programme comprises academic and professional research activities in the fields of finance where they are relevant to the insurance and risk management sector.

3) **The Four Pillars — Research Programme on Social Security, Insurance, Savings and Employment**: To identify possible solutions to the problem of the future financing of pensions and, more generally, of social security in our post-industrial societies.

4) **Health and Ageing**: This programme seeks to bring together facts, figures and analyses linked to issues in health. The key is to test new and promising ideas, linking them to related studies and initiatives in the health sector and trying to find solutions for the future financing of healthcare.

5) **Insurance Economics**: It is dedicated to making an original contribution to the progress of insurance through promoting studies of the interdependence between economics and insurance, to highlighting the importance of risk and insurance economics as part of the modern general economic theory.

6) **PROGRESS (regulation and legal issues)**: This research programme focuses on questions related to regulation, supervision and international co-operation of insurance and financial services as well as other legal issues of importance.

Today, after more than 30 years of existence, The Geneva Association has become a fixture for the insurance world through the quality of its research and the expertise of its global networks.

*President: Henri de Castries (CEO, AXA, Paris)*

*Secretary General and Managing Director: Patrick Liedtke (Geneva)*
EurizonVita

EurizonVita, a company of Intesa Sanpaolo Group, is one of the leading life insurance and bancassurance companies in Italy. EurizonVita focuses on product innovation to develop state-of-the-art solutions to meet the new demands related to the changing socio-demographic trends in Italy and to the reform of the Italian pension system. EurizonVita offers traditional life policies, unit- and index-linked policies, pension solutions and funds, distributing its products through the Sanpaolo branches (now part of the new Intesa Sanpaolo Group), the Banca Fideuram and Sanpaolo Invest private bankers and its own network of pension specialists.

Fondiaria Sai Group

Fondiaria Sai Group is the third-largest Italian insurance group, second in the Property and Casualty field and first in motor insurance, with 10 billion euros in premiums collected, more than 9 million clients and around 6,000 employees. In distributing the insurance, financial and banking products and services of its prestigious brands (Sai, Fondiaria, Milano, NuovaMaa, La Previdente, Italia, Siat, Sasa, Liguria...) the Group can count on the most widespread, highly qualified consultancy and insurance-financial sales network on the national market (3,500 agencies, 1,500 financial advisors and almost 5,000 branches with bank-insurance agreements). The Group is present in the insurance industry with two listed companies (Fondiaria-Sai and Milano Assicurazioni) and more than 100 subsidiaries – operating in the real estate, agricultural, assistance and services sectors.

The Intesa Sanpaolo Group

The Intesa Sanpaolo Group is the leading banking group in Italy, where it serves about 10.5 million customers, and one of the top banking groups in Europe. It is the result of the recent merger between two banks that had previously played major roles in the consolidation process of the Italian banking industry, becoming two of the forefront players at domestic level. The Intesa Sanpaolo Group is the undisputed leader in Italy in financial activities addressed to both individuals and enterprises with the following market shares: pension funds (32%), asset management (31%), foreign transactions (27% market share in foreign trade payments), bancassurance (24%), factoring (23%) and banking intermediation (20% in customer loans and deposits). The Group also enjoys strategic coverage in Central-Eastern European markets where it is currently positioned among the top players in several countries. In fact, through its local subsidiaries, the Group ranks second in Albania, Croatia, Hungary, Serbia and Slovakia, fifth in Bosnia and Herzegovina and seventh in Slovenia. It is currently strengthening the foundations for growth in new areas such as the Mediterranean Basin with the recent acquisition of control of the Bank of Alexandria, the fourth largest bank in Egypt.
Modern societies are trying to develop concepts that allow them to protect their citizens and at the same time stay competitive in the globalised markets. The approach of the new welfare state is no longer to arrange for full coverage of (ideally) all risks but to replace the existing extraordinarily expensive systems with more targeted and efficient approaches. This is achieved through requiring people to assume more risks individually and to organise their adequate protection themselves. This so-called “risk shift from public to private”, unfortunately, has had as a consequence many half-hearted or partial reforms leading to ineffective working structures, inadequate employment arrangements, and ultimately an erosion of the protective systems rather than their real modernization.

In this report, the authors analyse work in all its forms in the modern service economy and propose several innovative solutions. Two of the most ambitious are: (1) Organising a basic layer of remunerated work for those who otherwise cannot find employment, keeping them active and engaged; and (2) the encouragement and empowerment of the elderly to stay in employment for many years beyond age 60 or 65 — not just as a simple prolongation of existing careers but at flexible terms (part-time work is the key component) that are more suitable to them.

About the Authors

Orio Giarini is Director of the Risk Institute in Trieste, a European research institution for the new welfare society, and Editor-in-Chief of The European Papers on the New Welfare. He was formerly Secretary General of “The Geneva Association”, Member of the Executive Board of the Club of Rome and professor at the University of Geneva, lecturing on the new service economy.

Patrick M. Liedtke is Secretary General and Managing Director of “The Geneva Association”, leading risk and insurance research organisation supported by the CEOs of the largest insurance companies in the world. He is Member of the Executive Board of the Club of Rome, Director of ASEC (Applied Services Economic Centre), Board Member of the European Group of Risk and Insurance Economists (EGRIE), and Editor-in-Chief of The Geneva Papers on Risk and Insurance — Issues and Practice.

To order copies of the book, please contact:

The Geneva Association - General Secretariat
53, route de Malagnou - CH-1208 Geneva - Tel.: +41-22-7076600 - Fax: +41-22-7367536
secretariat@genevaassociation.org - www.genevaassociation.org
While the reasons for working beyond sixty have become obvious, the how and for whom questions are the real topic of this new study by one of the best European specialists in the area. Work after sixty – if it is to be feasible and widespread – has to be on a part-time basis to meet the wishes and needs of workers and companies. This book provides an in-depth analysis of the growing importance of working beyond sixty and a comparative discussion of new policies in several EU Member States (Finland, Denmark, the United Kingdom, the Netherlands, Germany, France, Italy and others) as well as of best company practices.


GENEVIEVE REDAY-MULVEY, a social economist, is Head of ‘The Four Pillars’ Research Programme (search on Social Security, Insurance, Employment and Retirement), The Geneva Association, Geneva, Switzerland.
Fondiaria-Sai Group has always been aware of its responsibility to create not only shareholder value but also ethical value for its stakeholders: customers, employees, public authorities, local communities and entities that operate in the territory and in civil society. To foster a ‘culture of solidarity’ in our country, the Group has set up the Fondiaria-Sai Foundation — which provides contributions in the social-assistance and cultural sector — and publishes an annual Social Report, a document that reflects, in a tangible and transparent manner, the way in which the Company fulfils its social responsibilities adopting an original approach that, involving University students in drafting the Report, generates economic-social benefits.

Chairman
Jonella Ligresti

CEO & General Manager
Fausto Marchionni

Headquarter
Corso Galileo Galilei, 12
I – 10126 Torino
ph. +39.011.6657111
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