

Ageing, Health and Pensions in Europe: An Economic Perspective

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Foreword

If there are topics that need long-term foresight and planning in Europe in general, and in research in particular, ageing is certainly one of them. Ageing challenges policy as well as science policy and, being the fastest ageing continent, Europe can become the leading force in the world in solving the policy questions – but only if proper scientific analyses ground the measures. That is exactly where ESF Forward Look projects can play a key role by setting the science agenda: they define the research questions for scientists, as well as for research funders and research performing organisations, to help them interpret the societal developments and find the best solutions to the problems.

The ESF Forward Look project 'Ageing, Health and Pensions in Europe' has identified the main research challenges in Europe for economists and social scientists concerning welfare regimes, pension provision, public health, employment, income security and well-being. It has developed a research agenda that exploits the diversity of European pension, welfare and health systems to study causal links between institutional arrangements, individual decision making, labour force transitions, financial security, health and general well-being of older age groups.

The project started in early 2008 and ended in the spring of 2009 with a final conference. The most important research institutions and stakeholders took part either in the specific workshops or in the conference in order to take stock of the past research and define future questions. The events did not simply focus on research, but included foresight exercises with SWOT analyses and road-mapping efforts. A substantial Forward Look Final Report 'Ageing, Health and Pensions in Europe: An Economic Perspective', published and launched together with the present Science Policy Briefing, provides the reader with an overview of the state of the art and new ideas in the research area.

The leading scientists participating in the foresight project supported by ESF have done their job; the next step is to do research in order to answer the questions defined and, in parallel, to provide the scientists with the necessary infrastructure and funding so that they can contribute to the interpretation of, and solutions to, the problems stemming from ageing in Europe.

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What is the Issue?

The ageing of populations is one of the main economic and social developments shaping the 21st century. Population ageing affects welfare states: it creates the need for reforms of pension and health care systems, which will have large consequences for European labour markets and the health and well-being of European citizens. Yet, ageing also yields opportunities and benefits, raising important questions such as: how can societies benefit longer from the talents of the ageing population, and how can human resources be maintained better during the entire life course? Since the population is ageing faster in Europe than in other continents, Europe can take the lead in the social innovation aimed at successful ageing.

Most of the topics relevant to the economics of ageing, health and pensions fit into one of three broad policy and research themes: labour market issues, income security and the well-being of older age groups.

Labour market issues

The theme involves a key policy concern of European policy makers: how to keep older people at work and how to increase the average retirement age? Previous research has demonstrated that retirement decisions depend not only on economic factors such as the possibility of receiving generous early retirement benefits, but also on non-economic factors like job characteristics and quality of work, job satisfaction, health status, social networks, attitudes of employers and co-workers and peer group behaviour. In many countries, generous early retirement benefits have been abolished and workers want to retire later. The crucial issue then becomes whether firms are willing to employ these people and to organise the work in such a way that the job remains doable and attractive. This may involve accommodation of the work place, reorganising tasks, part-time work and phased retirement, etc. Investing in human capital and in new skills required by changing technologies through on-the-job training seems crucial to keep older workers productive enough in relation to their costs. But employer attitudes and perceptions of older workers also play an important role.

Income security

Income security is about the many features of state and occupational pension systems, risk sharing between generations, individual decisions on voluntary retirement savings (e.g., portfolio choice, housing), consumption patterns before and after retirement, financial knowledge and planning, etc. The most important ways to provide old age financial security in Europe are a government system of old age social security provision (first pillar pensions), occupational pensions through private pension funds (second pillar pensions), and voluntary household savings for retirement, for example, through life insurance (third pillar pensions). Other forms of household savings can also be used. A specific example is owner-occupied housing, where housing costs in retirement may be cut or where a reverse mortgage or the proceeds of selling



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the house can be used to finance (part of) the cost of living in old age. In some countries financial support by family members also plays a role. The main question is how public policy can help to guarantee an adequate combination of these various ways of obtaining financial security. On the one hand, people's preferences and opportunities vary, which provides argument for giving individuals their own responsibility and the freedom to make the best choices in their own situation. On the other hand, recent research has made it very clear that people have great difficulty understanding financial products and long-term planning, and often do not make the decisions that are in their own best interest.

Well-being of older age groups

This theme not only comprises economic status but is also driven by other factors that determine quality of life: psychological well-being, family contacts and other social networks and inter- and intra-generational transfers, time use and satisfaction with daily activities (including paid work and volunteer work), physical and mental health (and health behaviour and prevention), availability of formal and informal long-term care, and other aspects of welfare regimes and the health care system.

A distinction can be made between various stages of the life cycle. For the younger age groups (until age 70 or perhaps 75; there is obviously no strict threshold here), formal work and other socially productive activities play a major role. Good working conditions and opportunities to remain socially productive after (early) retirement can contribute to greater well-being. Intrinsic and extrinsic rewards for these activities are crucial. At older ages, physical and mental health problems often lead to an increasing dependency on formal and informal health care. Mobility tends to diminish, which increases the importance of housing and living arrangements. Social networks play an important role at all ages – becoming smaller and more family centred at older ages. The role of family networks changes with an individual's age, from giving support to parents and to children and grandchildren to receiving support from younger generations. The importance of social networks also varies with the national context determining the intergenerational balance of income and wealth, and the nature of the housing market.

Why is the Topic Important for Science in Europe?

The socioeconomic, cultural and policy diversity of Europe can be exploited to learn more about causal links between ageing, pensions, welfare regimes, retirement decisions, health outcomes and well-being. Understanding the impact of population ageing can benefit substantially from a cross-national comparative point of view; comparing different policy approaches and exploring the consequences of various policy changes in different institutional and business cycle environments helps enormously to learn about the impact of policy. Understanding how individuals make their decisions and gaining insight into the mechanisms that drive their well-being are key to analysing the functioning of institutions and markets and therefore also to obtaining insight into the potential consequences of economic and non-economic policies for the economy as a whole.

The topic is relevant not only for science but also for public policy: the economics of ageing, pensions and health are at the top of the policy agenda in Europe and in almost all individual European countries. To illustrate, a few important policy-relevant research questions on the three themes identified above are listed below:

Labour market issues

- What are the economic and non-economic factors that drive employment of older workers? And how effective are specific policies to increase the retirement age, to make working longer attractive for employees, and to make older workers more attractive to firms?
- How does labour-market flexibility affect the position of older workers? How desirable is gradual retirement – for workers, employers and the economy?
- How can life-long learning be promoted in an effective way? Is education the key to the European employment problem in the long run?

Financial security

- Should pay-as-you-go systems be supplemented by funded pensions? Should collective pensions be promoted or individual ones?
- Which restrictions must be imposed on financial institutions such as pension funds? What is the optimal portfolio allocation of a funded pension system, and how does it depend on institutional context?
- Which policy interventions can help people make optimal life-cycle saving and investment decisions – particularly for financially illiterate vulnerable groups that do not adequately prepare for retirement?

Well-being of older age groups

- What are the consequences of working longer for well-being at an older age? And how do other socially productive activities affect well-being?
- How can the Internet and e-networking play a role in enriching social networks?

- How should the increasing costs of health care be forecast and dealt with? How can long-term care and long-term care insurance be better organised?

Why must ESF speak on this Issue now?

Although research cooperation between a limited set of countries already exists, the scope for making progress at the European level is substantial. For example, the international diversity in institutions on the organisation of health care and old age social security cannot be exploited without thorough institutional knowledge of all countries at a detailed level – something that is not currently available. In fact, many European researchers analyse US data because US institutions are better documented and US data are easier to access than institutions and data in European countries.

Where research networks and international cooperation within Europe exist, Central and Eastern Europe are often underrepresented among the participating countries. ESF can play a leading role in stimulating initiatives that improve research cooperation. In particular, it can help involve Central and Eastern Europe, where the same ageing-related issues that play a role in Western Europe will most likely dominate the policy agenda ten years from now. The fact that Central and Eastern European countries are fully integrated in ESF makes ESF particularly suitable for this role. To stimulate cooperation between Western and Central and Eastern European countries, ESF can support a European network of researchers in both East and West that aims at preparing bottom-up initiatives for large-scale research and infrastructural projects on the topics identified above.

With its links to national research policy organisations in all member countries, ESF is also in an ideal position to convince all European countries of the usefulness of international data collection projects and infrastructures that make the data easily accessible to researchers in all countries. Since the funding of international infrastructural projects (e.g., the ESFRI [European Strategy Forum on Research Infrastructures] roadmap) depends increasingly on support by national science foundations, the ESF is ideally placed to take the lead in view of its coordinating role between national agencies.

Progress and Gaps in Understanding

Labour markets

Many existing studies focus on how financial incentives and other factors influence workers' retirement decisions – and this seems relatively well understood. There appears to be common agreement that financial incentives have a strong effect on whether older people are willing to continue working, provided that other factors

(such as health, job characteristics, employer attitudes and family-related tasks such as taking care of their parents) do not prevent them from working.

Much less empirical research is being done on the demand side of the labour market. Particularly when policy measures stimulating labour supply become effective and older workers want to keep their jobs or find new jobs, the issue of whether there is enough demand for these older workers becomes important. In this connection, the few existing studies addressing the crucial question of how the productivity of older workers compares to the costs of their labour (and how this differs for younger workers) do not lead to unambiguous conclusions. Substantial progress has been made on developing the theoretical framework to analyse human capital investment throughout the life cycle. The implications of the theory, however, depend on parameters that have to be estimated in empirical work. Unfortunately, estimates that are reliable enough to obtain firm policy conclusions are still lacking.

Negative stereotypes and prejudice against older workers, although diminishing, are still strongly embedded in society. Moreover, where employers' perceptions are more positive, those perceptions are often not translated into actions that improve employability of older age groups. Cross-country evidence suggests that measures such as legislation against age discrimination or public campaigns to promote the view of older workers are useful, but more work is needed to determine the right combination of policy measures.

Financial security

The benchmark model in economics to study financial security in old age and analyse household savings and portfolio choice for retirement is the life-cycle model. It states that rational individuals, taking into account the institutional framework in which they operate, plan their consumption decisions over their lifetime as well as possible given the available information. For example, if they know that their future income will be lower, they save now so that they can maintain a higher consumption level in the future. The stylised version of this life-cycle model, in which individuals save during their working life to provide for consumption in old age, is conceptually well understood and lends itself to intuitive and simple measures of savings adequacy, such as individual replacement rates. Much richer versions of the model have added real-life features such as labour-supply decisions and retirement choices, the timing of income receipts, uncertainty over future earnings, rates of return, length of life and health conditions, all generating scope, even in old age, for *precautionary savings*. Other motives for saving, such as bequests, have also been added. More work is being done, such as incorporating housing and accounting for flexible retirement as a possible way to hedge against risky returns on retirement assets.

The empirical evidence, implicitly or explicitly based on the life-cycle model, is mixed and largely based on data from the US. Most of the more recent studies using more sophisticated models find that saving is adequate for the large majority of the population and that *under*

saving is concentrated among households with low socioeconomic status. Little empirical work has been done for European countries, where saving adequacy may be quite different because of the differences in institutional retirement savings.

The most recent literature has documented significant departures from the model of individuals and households who are able to solve difficult economic optimisation problems and make the decisions that are in their own best interest. In particular, it has pointed to a lack of financial literacy and interest in planning for retirement, and to behavioural and psychological factors that lead to sub-optimal decisions. Lack of planning is concentrated among specific groups of the population, such as those with low educational attainment. Alternative psychological theories that can explain suboptimal and time-inconsistent decisions (like mental accounting, loss aversion and hyperbolic discounting) have been developed, but more work is needed to incorporate them in rigorous theoretical and empirical life-cycle models.

Well-being of older age groups

Social participation within and beyond the family (formal or volunteer work, informal care, civic and political participation, etc.) yields impressive benefits, which include increased emotional well-being, better health and even increased longevity. Research has also demonstrated the positive mental health effects of appropriate rewards, and of having personal control and autonomy over these activities. For the age groups still engaged in formal work, recent studies have particularly emphasised the importance of job characteristics and the negative mental health consequences of stressful work in combination with low control over one's own tasks.

We know that social networks are crucial for the well-being of older age groups. Intergenerational family bonds usually remain strong throughout adulthood and old age, involving the provision and receipt of financial and social support. A crucial question is whether social networks will remain equally important in the future. Increasing labour force participation and later retirement may reduce the time that can be spent to help parents, especially for the 'sandwich generation' with a double obligation of care for dependent parents and children. The nature of the social networks may change, also because of increasing geographical distance – but findings on the frequency of contact, emotional closeness and the exchange of support suggest that this does not lead to deterioration of the relationship between generations. Moreover, non-kin social networks can fill the gap if family networks weaken. Recent evidence also suggests that welfare-state provisions, instead of crowding out family support, enable the family to provide new intergenerational support and transfers.

Subjective well-being (SWB) refers to an evaluation of an individual's life from his or her *own perspective*. Substantial progress has been made in conceptualising and measuring SWB, and empirical studies highlight the importance of life circumstances and social indicators for SWB of older adults: low income, low educational status as well as functional deficits are associated with



reduced life satisfaction, low happiness and reduced self-esteem in old age. The effectiveness of interventions like psychotherapy and mental health services for older age groups has been established. Longitudinal studies show that the recovery of SWB after a negative shock may be slow and incomplete. For instance, adaptation to widowhood took about seven years on average. SWB decline in response to severe disability was even more pronounced, and adaptation took longer or never happened at all.

Ageing and health care

It is often claimed that the expected demographic changes will result in an acceleration of health expenditure. But this argument deserves to be examined more closely. A distinction can be made between medical treatment and long-term care. First, a high share of medical treatment is concentrated around the end of life. Second, various studies show that the increasing possibilities created by the progress of medical technology are a leading explanatory factor of the increase in health care expenditure. It is not the fact that people live longer that drives the rise of health care expenditure, but rather the increase in medical treatment possibilities. The central empirical issue here is to determine the importance of medical technology for better health and quality of life.

The demand for long-term care for chronic illness or disability can be expected to rise over the next 20 to 30 years, as a result of larger numbers of older persons, and a steep increase in the numbers of the oldest old. For this reason, long-term care issues are becoming increasingly important on the health and social policy agendas of developed countries. Informal care provided at home by family members, friends or voluntary organisations is the most important source of long-term care in all OECD countries. The theoretical framework for the future cost of long-term care demonstrates how a combination of social, environmental and health factors change the expected length of life, the likelihood of the most common causes of death, and the prevalence of chronic diseases in successive population cohorts.

People live longer and spend more years in good health, and this trend will continue in the next decades, but it is much harder to say whether the number of years that people live in bad health will increase or decrease. This is not predicted by theory and remains an empirical question. On the one hand, many studies predict favourable disability trends that could have a substantial mitigating effect on the future demand for long-term care, but on the other hand the rapidly-growing number of very old persons can nonetheless be expected to increase long-term care spending.

Research Priorities

Our analysis of strengths, weaknesses, opportunities and threats of the research on these policy questions yields three important and promising topics of European research on the economics and social science of ageing.

The first is *employability of individuals at early old age*, with emphasis on employer attitudes, productivity of older workers and institutional factors, which are studied less often and understood less well than the retirement decisions of the workers. Where pension reforms have stimulated older workers to remain in the labour force, keeping them at work requires demand conditions to be satisfied. Jobs and working conditions must be attractive to the workers, but the workers must also be attractive to the firms. This involves not only economic factors like skills, productivity and costs but also employer perceptions and attitudes of employers and co-workers towards older workers, which vary across countries and can be influenced by age-management policies. Subsidies for hiring or investing in older workers may help; the effects of employment protection and other features of labour-market flexibility and opportunities for self-employment after a career job need to be better understood. Job characteristics, the organisation of work, accommodation of workers with a disability, positive attitudes of employers and the recognition of the comparative advantages of older workers can increase their productivity. The variation across Europe in institutions and institutional reforms needs to be better exploited in order to improve our understanding of the mechanisms at work and the relationships between these economic and non-economic factors.

The second research priority concerns *collective versus individual responsibility for retirement saving*, to guarantee financial security in the years after retirement until late old age. The crucial question is how to reconcile the tension between paternalism and collective risk sharing, on the one hand, and freedom of choice and heterogeneity of preferences on the other. The consequences of financial illiteracy and sub-optimal decisions need to be better understood in rigorous modelling frameworks supported by empirical research. The institutional diversity in Europe, with its many pension reforms and with experiments with various combinations of (minimum) state pensions, occupational pensions and voluntary contributions to retirement savings plans can be exploited to a greater extent.

The third priority concerns the long-term and short-term determinants of *health, health care use and well-being* in later old age. We need to understand better the mechanisms that link conditions earlier in life (including socioeconomic conditions) to health and well-being at an older age. The variety in European health-care systems and reforms of these systems can be exploited to understand better how various systems benefit different socioeconomic groups within reasonable bounds of cost effectiveness. The relationships between economic welfare, housing conditions and living environments, social networks, cognitive skills, health care demand, and mental and physical health at ages where the latter start to deteriorate need to be studied in different cultures involving distinct family networks and cultural and historical norms – in addition to different health care arrangements and other institutions.



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Recommendations for Action

What is required to make European research on the three priorities feasible and successful? The most important needs that have been identified in the project involve various sorts of data – administrative and survey data at the individual and the firm level, as well as data on the institutions in the European countries. Moreover, we need better access to and documentation of these data (and to already existing data), and the forging of greater coordination in the European research agenda on these priorities.

We recommend developing a European economic centre of expertise with institutional knowledge on labour market institutions, financial, pension and social security institutions and health care systems, accounting for the reforms that lead to heterogeneity as to which arrangement applies to which individual at a given point in time. The possibilities of a broad European network aimed at international exchange of country-specific survey and administrative data in the field of ageing, health and pensions need to be explored. Such a network could build on SHARE, the Survey of Health, Ageing and Retirement in Europe.

The fact that data exist is not enough – they also need to be used. To achieve this, the costs and conditions for using the data should not constitute an impediment. Moreover, the data must come in a user-friendly format with adequate documentation. Substantial investments are needed to construct and

update such documentation. Workshops helping researchers and programmers to become familiar with the data are also useful.

Existing European research networks and leading research institutes can play a key role in taking these actions. The European Science Foundation can facilitate this by initiating this interaction and by stimulating cooperation with Central and Eastern European countries, which are underrepresented in the current networks.

A European network is needed that focuses on research on ageing from an economic perspective with input from other social sciences and public health. This would be complementary to the existing ERA-NET network for the social sciences, which lacks the focus on economics. The core would be experts in economics, but there would be room for non-economists working on adjacent topics, such as the three research priorities identified above. Moreover, in relation to such a research network, a European forum should be created for exchange of knowledge between academics, business and public policy. Interaction with the private pension industry (insurance companies, pension funds, banks) and policy makers in governments is crucially important for academic research to be able to contribute to the most urgent policy questions and to have access to relevant expertise and data.

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