



AGEING AND WELFARE SYSTEMS
WHAT HAVE WE LEARNED?
A Comparative EU-US Perspective

CONFERENCE PROCEEDINGS AND CONTRIBUTIONS
24–25 January 2003, Brussels

JØRGEN MORTENSEN, EDITOR

Organised by CEPS in the framework of the
European Network of Economic Policy
Research Institutes (ENEPRI)

Contents

Programme	1
Background	3
Increase in the demographic dependency ratio	3
Fall in the share of the life cycle devoted to work	4
Political concerns	4
The approach of the European Commission	4
Approach in North America.....	4
ENEPRI activities on ageing and its consequences	5
A confrontation between European and North American research.....	5
The conference programme	5
Introductory speech by Governor Guy Quaden, National Bank of Belgium	6
Conference proceedings	8
Session 1: Ageing, labour markets and migration in an enlarging EU	8
Session 2: Sustainability of welfare systems	11
Session 3: What have we learned from research on ageing? A comparative EU-US perspective...21	
Transcript: Oral contributions	24
Session 1: Ageing, labour markets and migration in an enlarging EU.....	24
Session 2: Sustainability of welfare systems.....	35
Session 3: What have we learned from research on ageing? A comparative EU-US perspective ..52	
Transcript: Round Table – Scanning the future	70
List of Contributors	88

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Programme

<i>Friday 24 January</i>	
9:00 – 9:30	Registration, coffee
9:30 – 10:00	Welcome: Guy Quaden , Governor, National Bank of Belgium, Daniel Gros , Director of CEPS
Session 1. Ageing, labour markets and migration in an enlarging EU Chair: Lionel Fontagné, Director CEPIL, Paris	
10:00 – 10:30	Immigration – Panacea or danger for the EU? : Tito Boeri , Professor, University of Bocconi, Milano
10:30 – 11:00	Fewer younger people: Less unemployment? : Juan Jimeno , FEDEA, Madrid
11:00 – 11:15	Break
11:15 – 13:00	Contributed papers (parallel sessions)
	<p>Session A.</p> <ol style="list-style-type: none"> EU Growth, Ageing and Enlargement, by Karl Pichelmann, European Commission, DG Economic and Financial Affairs Demographic evolutions and unemployment: An analysis of French labour markets with workers generations, by Jean Chateau, Jean-Louis Guérin and Florence Legros, CEPIL The influence of wage and unemployment differentials on labour mobility in the EU: A meta-analysis, by Sjef Ederveen (CPB) and Nick Bardsley <p>Session B.</p> <ol style="list-style-type: none"> Immigration and the Dutch economy: Labour market effects, by Rob Euwals and Hans Roodenburg, CPB Migration and regional adjustment to asymmetric shocks in transition economies, by Jan Fidrmuc, ECARES (Université Libre de Bruxelles) Migration policy, irregular migration and social security, by M. Alofs, University of Antwerpen
13:00 – 14:30	Lunch

14:30 – 15:30	Budgetary costs of ageing : Henri Bogaert , Director, Belgian Federal Planning Bureau, Chairman of the Working Group on Ageing of the Economic Policy Committee Discussant: Martin Werding , IFO, Munich
15:30 – 16:15	Scenarios for health care systems in an ageing society : Erika Schulz , Senior Researcher, DIW, Berlin Discussant: Howard Oxley , OECD Economics Department
16:15 – 16:30	Break
16:30 – 18:30	Contributed papers (parallel sessions)
	Session C. 7. How will we provide and pay for long-term care?, by Bernard Casey , LSE 8. Ageing and Pensions in the Euro Area. Survey and Projection Results by P.C. Rother, M. Catenaro and G. Schwab , ECB 9. Macroeconomic consequences of pension reforms in Europe: an investigation with the Ingénue model , by Equipe Ingénue , CEPII Session D. 10. Population Ageing, Electoral Behaviour and Early Retirement , by Florence Legros , CEPII 11. Assessing the political sustainability of parametric social security reforms: The case of Italy , by Marcello D'Amato , University of Salerno, and Vicenzo Galasso , IGIER, University of Bocconi and CEPR
20:00	Dinner, venue – National Bank of Belgium , 3 Boulevard de Berlaymont
<i>Saturday 25 January</i>	
Session 3. What have we learned from research on ageing? A comparative EU-US perspective. Chair: Daniel Gros, Director CEPS	
9:00– 9:45	Ageing, Pensions and Welfare Systems: What have we learned in Europe? : Richard Blundell , Professor, Department of Economics, University College of London, United Kingdom Discussant: Timothy M. Smeeding , Director, Center for Policy Research, Syracuse University, Director, Luxembourg Income Study
9:45 – 10:30	What have we learned in the US? : Robert J. Willis , Institute for Social Research, University of Michigan, Director, Health and Retirement Study Discussant: Arie Kapteyn , Tilburg University and Rand Corporation
10:30 – 10:45	Break
10:45 – 11:45	Contributed papers 12. Demographic risks: A European perspective , by Juha Alho , Joensuu University, Finland 13. Behavioural sclerosis, myopia, and the evolution of the welfare state , by Bengt-Arne Wickström , Vice President, DIW
11:45– 13:30	Round table. Scanning the future: What do we need to know? Richard Blundell , University College, London; Robert J. Willis , Institute for Social Research, University of Michigan; Axel Börsch-Supan , University of Mannheim, Fiorella Kostoris Padoa-Schioppa , President, ISAE, Rome; Alan Walker , University of Sheffield and member of the Steering Group of the European Forum on Population Ageing Research, Timothy M. Smeeding , Director, Center for Policy Research, Syracuse University, Director, Luxembourg Income Study.
13:30– 14:30	Cocktails and snacks

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*JØRGEN MORTENSEN, EDITOR***

Background

Ageing of the European population

During the coming decades the European Union and, indeed, large parts of the world, will be confronted with *unprecedented demographic changes*, generally characterised as ‘ageing of the population’. In reality, ageing is the combined outcome of two distinct phenomena: firstly the secular decline in mortality and the resulting increase in life expectancy and secondly the pronounced decline in fertility since 1970 in most European countries and which followed the baby boom in the first post-war decade.

The decline in fertility during the recent decades is now being reflected in a significant decline in the number of entrants into the labour market, while the baby-boom generations are approaching retirement age. Consequently the ageing of the population will first and most importantly be reflected in a pronounced ageing of the EU labour force.

According to the baseline projections prepared by Eurostat (1999 version), the total population in the EU (EU15) can be expected to rise from about 376 million in 2000 to 386 million in 2020 but will thereafter decline to reach 364 million in 2050. The 2050 level is thus expected to be some 3% below that of 2000. Within this overall total there will, however, be huge changes in the number of persons in the different cohorts.

Increase in the demographic dependency ratio

The number of persons in the age groups of up to 54 years is expected to decline significantly. A particularly strong decline is expected for the highly active age groups from 30 to 39 years, with the number of persons aged 30-34 expected to be down by 31.5% and the number of persons aged 35-39 by 29.7% between 2000 and 2050. For the other age groups in the range of up to 54 years the declines are less pronounced but still considerably higher than the overall average for the population. This decline in the most active age groups is already taking place during the first one or two decades and will continue during the whole period.

Furthermore, the combined effect of the rise in life expectancy and the decline in the number of persons in the active age groups will result in a *huge increase in the demographic dependency ratio*

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(the number of persons in the age groups above the conventional threshold of 65 years in proportion to the number of persons in the active age groups (say 15 to 64 years). Although the ‘economic dependency ratio’ (the ratio of the number of inactive persons to the number of persons employed) may not necessarily rise in parallel with the demographic dependency ratio, there is no doubt that a major challenge for both the EU society and economy is now building up.

Fall in the share of the life cycle devoted to work

The ageing of the EU population takes place in a context of the emergence of the ‘knowledge society’ in which the allocation of total life-time between education, work, leisure and retirement has been profoundly modified. In fact, on one side, the duration of education (investment in human capital) has been considerably increased. On the other side, the duration of retirement has been raised as a result of a lowering of the average retirement age in a context of a rise in life expectancy. Consequently, the proportion of the life-cycle allocated to gainful work has fallen dramatically over the last hundred years.

Political concerns

A number of studies of the consequences of ageing, notably of the consequences for the financing of pensions, were launched during the course of the 1980s. Early on the international organisations took steps to increase public awareness of the emerging challenges. In 1982 the UN and in 1988 the OECD (and again in a report published in 1998) stressed that population ageing presented the OECD countries with a “complex and formidable set of interrelated challenges”.¹ In 1994 the World Bank prepared a major report on *Averting the Old Age Crisis*.

The approach of the European Commission

Over the last two decades the *European institutions* have been increasingly concerned with these issues. A comprehensive analysis of the economic consequences of population ageing was published in 1999 in a Commission Economic Paper (Directorate-General for Economic and Financial Affairs).² Furthermore, a working group on the consequences of ageing under the Economic Policy Committee has produced two important studies, one in 2000 on the impact of ageing on public pension systems³ and in 2002 one on the reform challenges facing public pension systems.⁴

Approach in North America

In North America the ageing of the population is not expected to be as pronounced as in Europe and Japan. Nevertheless, the consequences of ageing had already moved into focus in the 1980s as an academic and political concern. In the United States the National Research Council and the National Academy of Sciences undertook major initiatives.⁵ A special purpose institute, the National Institute on Aging⁶ sponsored a comprehensive research activity on the consequences of ageing undertaken by the National Bureau of Economic Research. In July 2001 the US Academy of Sciences’ Committee on

¹ OECD (1998), *Maintaining Prosperity in an Ageing Society*, OECD, Paris.

² K. Mc Morrow and W. Roeger (1999), *The Economic Consequences of Ageing Populations*, Economic Paper N° 138, European Commission, Directorate-General for Economic and Financial Affairs, November.

³ European Commission (2000), *Progress Report to the Ecofin Council on the Impact of ageing populations on public pension systems*, EPC/ECFIN/581/00 (06.11.2000).+

⁴ European Commission (2002), *Reform challenges facing public pension systems: the impact of certain parametric reforms on pension expenditure*, EPC/ECFIN/237/02.

⁵ National Research Council (2001), *Preparing for an aging society: data needs and the benefits of cross-national research to public policies*, National Academy Press, Washington D.C.

⁶ The English spelling of ‘ageing’ is maintained in the text with the exception of official names of institutions or titles or quotations of documents.

Population produced a comprehensive review of statistical and political issues, which was presented at an international workshop organised by the European Commission in that month.⁷

ENEPRI activities on ageing and its consequences

Within the *European Network of Economic Policy Research Institutes (ENEPRI)*, a number of workshops and research projects have already been devoted to studies of various aspects of the process of population ageing and associated issues:

- ✓ workshop in Berlin on the consequences for health care and the implications of ageing for growth, employment and financial stability;
- ✓ workshop in London on social security and pension reform;
- ✓ workshop on the use of generational accounting to analyse welfare and intergenerational distribution;
- ✓ workshops on the properties on micro- and macro-econometric models as tools for analysis of long-term prospects;
- ✓ workshop on the relationship between ageing, skills and labour markets;
- ✓ workshop on the implications of ageing for savings and capital flows; and a
- ✓ workshop on welfare systems and policy competition given the prospects of increasing pressure on social security resources as a result of population ageing.

The proceedings and contributed papers from these workshops are available on the ENEPRI website <http://www.enepri.org>.

A confrontation between European and North American research

The purpose of the ENEPRI/CEPS conference was to take stock of developments, present key works on population ageing from inside and outside the Network and, not least, to take stock of the state of research in the Europe and North America. The conference therefore, in particular, devoted a part of the agenda to a general discussion between key researchers in Europe and North America concerning the present situation and to preparing an outline of the research agenda for the coming years.

The conference programme

The conference involved three main sessions devoted respectively to:

- the consequences of ageing for the labour market;
- sustainability of welfare systems; and
- lessons from research on ageing – a comparative EU-US perspective.

The final session was concluded by a Round Table providing a forum for confrontation of European and North American perspectives on the future research on ageing.

⁷ National Research Council (2001), *Preparing for an Aging World: The case for Cross-National Research*, National Academy Press.

Introductory Speech by Governor Guy Quaden National Bank of Belgium

Ladies and gentlemen,

I am very pleased to welcome you all at the National Bank of Belgium and to open this ambitious two-day conference on population ageing.

The steadily increasing life expectancy in our countries is very good news but, as you know, combined with the dramatic decline of birth rates after the baby boom in the 1950s and the 1960s it implies that populations in a large number of countries are ageing rapidly. Ultimately, the elderly dependency ratio will rise gradually but substantially. To put it more clearly: our children will have to cater for a growing number of pensioners.

Even if ageing pressures will in most cases only culminate from the second decade of the current century onwards – when the baby boom generation starts to retire from the labour market – the economics profession has a long-standing interest in population ageing. As early as the 1980s, individual authors or international bodies singled out ageing as one of the biggest economic challenges of the future. The first task at hand for economic researchers was obviously to estimate the size of the problem: What is it that we are facing? How bad will it be? Most studies initially focused on the pensions problem and the budgetary impact of ageing. Two remarks in that respect:

- Subsequent studies revealed that, contrary to what is still often thought, pension expenditure is not the only budgetary item that will soar because of population ageing. The ageing problem is as much a health care problem, for instance, as it is a pension problem. On the other hand, one should not forget that ageing will have a beneficial effect on other spending categories like child allowances and education expenditure. Hence, the net budgetary cost of ageing can be somewhat lower than the projected increase in pension and health care spending. All in all, even taking into account the large degree of uncertainty inherent in this kind of exercise, ageing will undoubtedly weigh substantially on future governments' budgets.
- One should refrain, however, from simplifying a problem as complex as population ageing into a kind of bill for the governments to pay. Ageing will have a substantial impact on a wide range of economic variables without speaking of other serious aspects of the social life, from activity growth to unemployment, from national saving to the composition of private consumption and yes, I am a central banker, from asset prices to inflation. Hence, it goes without saying that ageing requires a holistic approach on our behalf.

From the very beginning central bankers have always been keen observers of, if not active contributors to the research on ageing. Any shock that has a sizeable impact on the macroeconomic environment should be taken into account when setting monetary policy and, as we have seen, the potential consequences of population ageing, for the government accounts, for instance, can hardly be underestimated. Considering the impact that the combination, in a number of European countries, of sizeable tax cuts and an, altogether limited, slump in activity growth currently has on public finances, it is quite unsettling to imagine what kind of havoc can be wreaked in government budgets by inappropriate policy responses to population ageing. If what we are currently witnessing is the budgetary fall out of a mild economic storm, then, surely, the ageing problem should be compared to a genuine earthquake.

All in all, it is a problem that can only be countered by a well-balanced and consistent strategy that should be put into action as soon and as determinedly as possible. The lines along which action should be taken have been clearly identified. First, governments should get their fiscal houses in order before ageing really starts to kick in; excessive deficits should be avoided and countries that still face a high public debt ought to continue and, if necessary, intensify debt reduction. Second, economic policy has to be geared towards increasing productivity growth and the employment rate – especially of older workers – so as to broaden the tax base as much as possible. Third, the buoyant growth of health care

spending needs to be analysed and the individual pension entitlements, both in the private and in the public sector, need to be thoroughly assessed taking into account also the development of second- and third-pillar schemes. In addition, governments of some countries should consider in what way the latter schemes can be encouraged further, either by tax abatement or by regulation. Considering present market returns, it's probably needless to add, however, that second and third pillars based on capitalisation in the stock market, can not by themselves provide a miracle solution, contrary to what some people advocated previously.

Any viable solution to the ageing crisis is bound to be a blend of those three ingredients: it would be very easy, for instance, to offset the upward pressure on government spending coming from the rising number of elderly by simply reducing the average pension to a basic-needs level and to turn the health care system into a two-tier one, where public insurance is very limited and only the richest part of the population has access to new technologies via private schemes, but that would simply amount to a hollowing out of the welfare state, which our fellow citizens and myself do not wish.

Taking stock of the policy response to the ongoing research on ageing, I guess it is fair to say that the results so far have been mixed. On the plus side, one can not deny that ageing features prominently on the political agenda and, in many countries, significant steps are being taken. Several countries are reforming or are set to reform their pension systems with a view to improving the sustainability of public finances. Considerable progress towards sound fiscal positions is also made in some countries. In a high-debt country like Belgium - and you will hopefully forgive me that I take this example - a special pension fund, the so-called Silver Fund, has been created within the government sector in order to clearly visualise the link between debt reduction and the impending costs of ageing and to enhance public support for further fiscal consolidation.

However, there are also some worrying trends. First, fiscal consolidation has not been commendable everywhere with some countries in the euro area clearly showing signs of post Maastricht fiscal fatigue. Even worse is the fact that, following the problems that those countries are experiencing now, the credibility of the Stability and Growth Pact and the whole institutional framework is constantly undermined either by calling into question sensible rules or by resorting to creative accounting. The ECB Governing Council has recently confirmed in the strongest possible terms its support for both the Pact, which, if applied correctly, offers enough leeway to reconcile short-term flexibility and long-term sustainability of public finances, and the 3 p.c. of GDP deficit ceiling. Second, policies geared towards market liberalisation, increased research and development and human capital formation, which could spur long run productivity growth, have been hesitant at most in many cases. Third, even if some initiatives have aimed at increasing the employment rate of older workers, progress has generally been slow, partly due to popular resistance. Still too often, negative temporary demand shocks, both at the macro and the micro level, crystallise into permanent institutional arrangements that put downward pressure on the effective retirement age and, hence, undermine future governments' capacity, if not to ward off the ageing crisis, then at least to soften its impact.

If we do not want the famous Lisbon objectives to become just a slightly offbeat alternative scenario in our projections, rather than realistic targets, then, clearly, more action is needed in these areas. All in all, it is essential that policy makers fully understand that the window of opportunity that we have now, will not last forever. We should be aware of the fact that we still have a lot of convincing to do. Earlier on I have likened the ageing problem to an earthquake. Contrary to a regular earthquake, however, we can predict almost exactly when and where it will hit us. In addition, the quake will not take the form of a big bang but will reach its full impact only very gradually: its disrupting ripples will be felt throughout the following decades. And although it is hard to give precise estimates of the amount of damage that it will do, this is the kind of earthquake that is certain to shake the very foundations of our modern welfare states. It is our task, as economic researchers, policy advisors and, ultimately, policy makers, to make sure that, by the time ageing really starts to kick in, these foundations can withstand the blow. I firmly believe that conferences like this one bringing together a host of distinguished researchers from both sides of the Atlantic are a crucial step in reaching this objective. (For further information, follow the link to [Welcome by Guy Quaden](#)).

Conference Proceedings

Session 1. Ageing, Labour Markets and Migration in an Enlarging EU

Chair: Lionel Fontagné, Director CEPPII, Paris.

Tito Boeri of Bocconi University, Milano, addressed the question: Immigration – Panacea or danger for the EU?

Tito Boeri first argued that the influx of migrants could only modestly contribute to the intergenerational consistency of otherwise unsustainable public pension systems. In fact, the number of immigrants would have to be much larger and the stays longer than at present. In addition not all migrants actually contribute to pension systems. However, he argued that migrants are much more mobile than natives and that migration therefore might support economic growth by “greasing the wheels” of European labour markets. Furthermore, enlargement would not constitute a remedy to the ageing of the European population. In fact at present the population aged 65 and above in 2001 amounted to 16.5% of the total in the EU and to 13.2% in the accession countries. In 2050, according to present baseline projections, the share of elderly (65+) may reach practically the same level, 29.2% in EU15 and 29.3 in the new EU member states.

Tito Boeri argued that the EU by creating new obstacles to immigration might aggravate present policy dilemmas. Already illegal immigration is considerably higher and legal immigration considerably lower in the EU than in the US. Further restrictions to immigration might actually generate additional illegal migration implying that migrants might not even contribute at all to the financing of welfare systems. Without actually making specific recommendations, he mentioned as possible policy options to restrict access to welfare by migrants or to adopt selective migration policies such as the “points systems” applied in Canada and New Zealand (See also Boeri’s paper [Immigration – Panacea or danger for the EU?](#))

Juan Jimeno, FEDEA, Madrid, then addresses the question as to whether the prospective decline in the entry into labour market over the coming one or two decades could be expected to lead to a lowering of unemployment. Juan Jimeno first stressed that a mechanical projection of employment and unemployment, on the assumption of unchanged age/gender employment/unemployment rates, would lead to a lowering of the overall rate of employment on average for the EU from 63.5% in 2000 to 62.9% in 2010 and to 61.9% in 2020. The rate of unemployment would remain constant at 8.4%. However, as workers of different ages are imperfect substitutes and relative wages of different age groups are inflexible unemployment of each group may according to certain studies increase with its relative size (cohort crowding out). (See also Jimeno’s paper, [Fewer younger people: Less unemployment?](#).)

Juan Jimeno concluded that demographic change will affect the age structure of both population and of the labour market. Changes in the age structure of the labour force might affect aggregate unemployment through composition effects and may also affect age/gender specific employment rates. However, there was some controversy concerning the sign and magnitude of the effects on the age/gender specific unemployment rates and there were reasons to believe that (as in the case of labour market effects of migration) the effects of ageing on the labour market would depend on the specific labour market institutions and regulatory framework.

In the perspective of enlargement and the resulting further liberalisation of labour movements within the enlarged EU a key issue is, however, whether migration will actually respond to wage and unemployment differentials. This was the subject of [The influence of wage and unemployment differentials on labour mobility in the EU: A meta-analysis](#), a paper by **Sjef Ederveen** and **Nick Bardsley**, from respectively the Netherlands Bureau for Economic Policy analysis (CPB) and the University of Nottingham. Presenting an analysis of the results of 24 studies of the determinants of migration within or between countries, the paper showed that on average for the studies examined a 1

percentage point increase in the wage in the host country could lead to an increase of 0.7 points in the inward flow of migration, corresponding to an elasticity of 0.7. A one percentage point increase in the rate of unemployment in the host country would, on average for the 24 studies examined lead to a lowering of the inward flow of migration by 0.25 %. The authors also examined the effects of certain dummies, such as the size of the region/country, house prices, the origin of the data (Eurostat or national sources) and the particular position of certain countries. The general conclusion was that, within the range of data and countries considered, unemployment differentials would appear to have only modest impact on flows of migration. For wage differentials the elasticity appears to be somewhat higher, suggestion that the increase in income differentials resulting from the EU enlargement could indeed be expected to increase the incentives for migration.

Another frequently advanced argument: that that ageing process will per se lead to a lowering of unemployment, was seriously questioned in a paper by **Jean Château, Jean-Louis Guérin and Florence Legros** (CEPII, France), [*Demographic evolutions and unemployment: An analysis of French labour markets with workers generations*](#). The paper presents the results of simulations using an economic model in which the labour market is segmented in age groups. In each age group the alternative income that workers may receive depends upon their age, assistance income for the younger ones and pre-retirement income for the elderly. Wage bargaining power is thus different for different labour market segments.

In sharp contrast to the “standard wisdom” the matching model applied to the French data shows that, under the realistic assumptions imposed, the doubling of the ratio of pensioners to the active population, in the absence of reforms could lead to an increase in the “fiscal wedge” (the difference between gross and net wage). This would lead to a lowering of labour supply and, consequently, to a rise in unemployment. This could be countered by an increase in mandatory work duration but for this measure to be successful there would need to be change in the firms’ behaviour towards senior workers. The authors, however, stressed that further paths of research should be explored such as notably a more explicit modelisation of the trade-off between work and leisure, better perception of the productivity of different age groups etc.

In general economic analysis immigration is on the whole assumed to have positive net effects on the national income of the host country essentially by allowing a more efficient allocation of resources. Using a General Equilibrium Model calibrated to the Dutch economy, **Rob Euwals and Hans Roodenburg** of the Netherlands Bureau for Economic Policy Analysis (CPN) however show that the “immigration surplus” may at best be small and possibly even negative (see [*Immigration and the Dutch economy: Labour market effects*](#)). In fact, an arrival of immigrants causes adjustments in wages and the return to capital. However, the size and direction of the adjustments depend upon the flexibility of wages and of the stock of capital. The authors argue that if capital is relatively immobile within Europe capital owners may gain from immigration. In the case of mobile capital high-skilled labour may gain while low-skilled workers may lose. If wages are relatively rigid (the most likely assumption for the Netherlands) immigration might increase unemployment among natives. Various studies reviewed by the authors however suggest that overall employment effects of immigration may be small. This would suggest that immigration might not contribute as much as argued by Juan Jimeno (see above) to enhancing labour market flexibility in the EU. The authors however stress that further research, for example of regional breakdown of migration, may be needed before firm conclusions can be drawn.

Margo Alofs of the Faculty of Applied Economics, University of Antwerpen, based on an inter-temporal dynamic migration model with human capital accumulation, shows that migration is a Pareto-improving measure (see [*Migration policy, irregular migration and social security*](#)). That is, all economic migrants and the indigenous income and age groups existing at the time of arrival would be better off. However, the welfare gains will be overturned if strict migration quotas lead to enhanced illegal immigration. Illegal migration in fact undermines the legal economy and does not support the social welfare system and may push more migrants into the criminal sphere. Furthermore, being more

lenient with respect to illegal migration may be counterproductive in reducing the stream of legal migration.

Margo Alofs, therefore, concludes that it is preferable to trace and repatriate illegal migrants than to curtail the legal entry of migrants. A corollary is that young legal migrants alleviate the fiscal burden by their contribution to the welfare system in the host country. Furthermore, a less restrictive policy with respect to legal migration simultaneously addresses the adverse effects of illegal immigration.

Another issue is, of course, whether migration may help to facilitate regional adjustment to asymmetric shocks in the home country of migrants. Evidence presented by **Jan Fidrmuc** (ECARES, Free University of Brussels and ZEI, University of Bonn) however, suggests that migration in transition countries has little to offer in terms of contribution to adjustments. Studying for the Czech Republic, Hungary, Poland and Slovakia the response of inter-regional migration flows to fluctuations in unemployment and wage differentials, he finds only weak effects on net migration. A rise in unemployment does appear to discourage both immigration and emigration, rendering the capacity of net migration to reduce regional disparities rather small, even if it is statistically significant. The results for the four transition economies are on the whole consistent with estimates undertaken by the author for Italy, Spain and Portugal (see [*Migration and regional adjustment to asymmetric shocks in transition economies*](#)).

Jan Fidrmuc therefore concludes that since migratory flows show little response to wage and employment differentials, regional disparities will not become smoothed away by migration. In fact it would take decades rather than years for even moderately large unemployment and wage differentials to be eliminated solely by way of migration. Furthermore, in view of the relatively low labour mobility in the major accession countries, the author does not expect massive East-West migration in the wake of the next EU enlargement. Furthermore, because of the low efficacy of migration in smoothing away inter-regional differentials in unemployment and wages, an early membership of the EU is not necessarily, in the opinion of Fidrmuc, the optimal policy choice. According to Fidrmuc, EMU membership implies loss of autonomy in monetary policy and imposes important limitations on counter-cyclical fiscal policy. As the transition countries continue to face different shocks than the EMU core, at least in the medium term, they may benefit from retaining the option to adjust their exchange rates.

Session 2. Sustainability of Welfare Systems

Chair: Henk Don, Director, CPB Netherlands Bureau of Economic Policy Analysis

As an introduction to this session **Henri Bogaert**, Director, Belgian Federal Planning Bureau, Chairman of the Working Group on Ageing of the Economic Policy Committee presented the main findings of the study of the impact of ageing on public pension systems and health care expenditure undertaken by the Working Group (see [Budgetary costs of ageing](#)).

Henri Bogaert initially pointed out that the prospective increase in the old-age dependency ratio with no change in the age specific pension and health care expenditure would lead to an increase in pension spending in proportion to GDP on average for the EU of more than 6 percentage points while health care expenditure would rise by 2.7 percentage points.

The Group has then prepared illustrative estimates of certain changes in the basic “parameters” of the pension systems. Due to the large differences in the basic structure of the pension systems such changes would have varying effects on the overall pension expenditure in proportion to GDP in 2050.

The Working Group simulated on an illustrative basis three selected options for reforming the basic parameters of the public pension systems of the member states⁸. The comparability of the evaluated impact of the different parametric reform options presented in the report depends highly, amongst other things, on the underlying social protection systems, the actuarial indexation rules and the legal retirement age. The country comparisons need therefore to be interpreted with great caution. Overall the results indicate that all assumed changes in the parameters had a noticeable impact on expected pension expenditure although, as a rule, the various reforms taken alone would only partly absorb the expected increase in pension expenditure by 2050.

The first simulation showed that a reduction of the indexation of pensions by half a percentage point per year in earning-related pension systems would absorb approximately 30% of the expected increase in pension expenditure. In flat-rate systems (Denmark, Ireland, Netherlands and the UK) the effects of lowering indexation would be much greater but as a result the replacement rate of the flat-rate part of public pensions would decrease considerably and thus lower the standard of living of the pensioners.

The second simulation showed that raising the effective retirement age from its present level of close to 60 to an average age of 65 would go a long way to compensate the effects of ageing. According to the simulation, if workers were to work one additional year before retiring, the level of pension expenditure on pensions in proportion to GDP would be reduced by 0.84 percentage points. At the same time growth would be boosted by over 13%, thereby going a long way towards offsetting the GDP loss associated with ageing over the next 50 years and avoiding large changes in income distribution.

The third simulation started from the notion that, from the point of view of inter-generational equity and given the same contribution rate and the same active lifetime, a cohort with higher life expectancy should have a proportionally lower pensions; The simulations showed that on average approximately 45% of the expected increase in pension expenditure is the result of the expected increase in life expectancy. Adjustment of the benefits to account for life expectancy could thus have a very significant impact (0.4 to 1.9 percentage points) albeit at the expense of a progressively lower replacement rate for pension benefits.

⁸ The following is an extract of the Executive Summary of the Report from the Working Group

Table 1. Illustrative impact of certain parametric reform as a share of GDP in 2050

	Increase in pension expenditure, baseline projection	Half a percentage point change in the indexation of pensions	Raising the effective retirement age by one year	Reducing benefits in line with increase in life expectancy
Flat-rate systems				
DK	2.8	2.7	-1.0	-1.7
IRL	4.4	1.6	-0.4	-
NL	5.7	2.7	-1.1	-
UK	0	0.6	-0.2	-0.5
Earnings-related systems				
A	2.5	1.0	-	-
B	3.3	0.5	-	-
FIN	4.6	0.9	-0.6	-1.5
F	3.7	-	-0.9	-
D	5.0	-	-0.7	-1.6
I	0.3	1.2	-0.1	-0.4
P	3.4	2.0	-0.34	-1.9
E	7.9	1.9	-	-
S	1.7	-	-0.3	+1.1

Source: Report of the Working Group on Ageing

The Working Group concluded – in line with the conclusions of the Lisbon and Barcelona European Councils - that in some countries a clear policy priority should be placed on increasing the activity rate of older workers by providing strong incentives for the elderly workers to remain in the labour force or by introducing disincentives to early retirement. It was however recognised that this would be unlikely to materialise unless the present incentives to early retirement in most member states were eliminated or substantially reduced. Furthermore, based on the findings of the third simulation the Group recommended that reform strategies take account of the time spent in retirement in proportion to the time spent in activity.

Commenting on the presentation by Mr Bogaert, **Martin Werding**, ifo/CESifo, Munich, argued that the project implemented by the EPC Working Group (in parallel with similar work at the OECD) represented a very valuable effort, resulting in progress with respect to detailed simulation for a total of 25 OECD countries. He stressed, however, that the particular approach involving simulations by national experts on the basis of broadly comparable assumptions involved some gain with respect to details but loss in comparability. Nevertheless, wherever the national experts had complied with the set of assumptions suggested by the coordinators (the Working Group and the OEC Secretariat) these

appeared to be workable. As no hard test of consistency was feasible, running a broad variety of sensitivity analysis was crucial for assessing the findings.

Analysing the initial estimates of the “mechanical” effects of ageing on pension expenditure, Martin Werding underlined the considerable diversity of results, due essentially to the differences with respect to institutional build-up and nature of regimes. He consequently saw a need for a broader comparison of benefit systems and in particular of the “generosity” of pension systems as a means to formulate a more consistent view of the overall economic cost of ageing.

Drawing to a considerable extent on the findings of the ongoing ENEPRI/AGIR research project on *Ageing, Health and Retirement in the EU countries (AGIR)*, **Erika Schultz**, DIW, Berlin initially underlined the complexity of the analysis of health, morbidity and health care expenditure. She pointed out that health care expenditure was the result of the combined operation of demographic factors, morbidity of the various age groups, use and supply of health care services, health care insurance schemes, medical technology, life style, genetic conditions and the general economic framework. However, in all EU countries, health expenditure increases with age and since the share of elderly in the total population will rise sharply over coming decades we may expect to increase public spending on health care. This development may contribute to pressures on public finance coming in addition to the likely increase in spending due to the pressure coming from pensions (see [Scenarios for health care systems in an ageing society](#)).

Erika Schultz first of all underlined that life expectancy is not an appropriate indicator for the global health status of the population. In fact, for the analysis of the impact of ageing it is preferable to introduce a distinction between the number of years in good health (Healthy-Life Expectancy) and the number of years in bad health and/or disability. Increasingly the future of health care is therefore analysed in terms of three basic scenarios: Compression of morbidity, dynamic equilibrium or expansion of morbidity:

- A. Compression of morbidity involves a reduction in the *proportion* of life lived in chronic ill-health. An optimistic assumption will be that the number of years spent in ill-health/disability will remain constant as life expectancy increases.
- B. Expansion of morbidity is defined as an increase in the *proportion* of life lived in chronic ill-health/disability. A pessimistic assumption may that the age-specific morbidity rates will remain unchanged as life expectancy increases but it is by no means excluded that age-specific morbidity may even get worse.
- C. “Dynamic equilibrium” is defined as a scenario in which the increase in life expectancy is accompanied by a shift of morbidity to higher ages in such a way that the duration of morbidity remains more or less constant in proportion to the overall life expectancy. In practical terms, thus, in this scenario a 5% rise in life expectancy would be accompanied by a 5% increase in the (average) duration of morbidity/disability for the population in question.

Erika Schultz then presented a brief overview of some indicators for the development of health life expectancy during the recent past and providing a basis for projections for the development over the coming decades. In her opinion no clear trend towards compression of morbidity had been discerned so far in the research within the AGIR project:

- In several countries the length of hospital stays in a given population showed a decline but the number of hospital discharges an increase. This could be interpreted more as a change in policy (more out-patient care) than as a change in morbidity.
- The European Community Household Panel (still to be further analysed) in general showed no decline in age-specific self-declared health status or in the prevalence of a number of indicators of disability.
- Various estimates of healthy life expectancy such as the Disability-adjusted life expectancy (WHO) or Disability-free life expectancy (the REVES network) in general

showed some improvement following the increase in overall life expectancy but an increase in the proportion of life in morbidity.

- Available scattered and incomplete data are therefore consistent with some overall expansion of morbidity in proportion to total life expectancy.

According to Erika Schultz, a projection based on constant (current) age/gender- and diagnosis specific hospital utilisation rates would in Germany lead to an increase in hospital days of 34% from 2000 to 2050. If utilisation rates were additionally specified as between survivors and decedents in their last year, second last and third last year before death, the projection would lead to a more moderate increase of 24% in the number of hospital days. Consequently, there was a need for a more detailed data not only on age-specific prevalence but also on the use of health and hospital care with a breakdown between survivors and decedents.

In his comments to the presentation by Erika Schultz, **Howard Oxley**, Directorate for Economic Affairs, OECD, underlined in particular the high level of uncertainty attached to the projections. In fact, in the preparation of these scenarios countries have not allowed for other factors such as lengthening of lifetimes, the possible lowering of morbidity, technological change, changes in the relative price of health care, lowering of the capacity of the family to care for the elderly and other potential changes in demand for care and social choices.

In particular, Howard Oxley argued that the ongoing reduction in the size of families would mean fewer children to care for the elderly and grand parents. Furthermore, the anticipated increase in the labour market participation rate for women could also reduce their capacity to care for their parents. This effect could be further enforced due to an increase in the retirement age. This could thus enhance pressures for a larger role of the state in the provision of care for the elderly.

However, this may induce new conflicts as publicly provided care already now is rationed in most countries. Policies should therefore aim at minimizing long-term care costs while aiming at improving the quality of care and maintaining widespread access. There was also the option of reducing the demand for health care by reducing morbidity and disability through improved prevention. However, there would be no assurance that this option would be less expensive. It would nevertheless be necessary to encourage later entry into long-term care through a wider application of user charges. More generally, there might also be a need for increasing cost sharing at the cost of some reduction of ambitions concerning equity.

Howard Oxley finally stressed the need for a better management of care, improved oversight of care providers, careful control with relative prices of health care (albeit with due regard to ensuring appropriate supply) and to exert better control over the diffusion and application of new technology in the health sector.

On the issue of health care, **Bernard Casey**, London School of Economics (ex-OECD official) argued that while the purpose of the seminar was to ask “what we have learnt”, the principal conclusion of his paper was that we have scarcely started learning about paying for long term care. However he argued that some points could be made.

First, he stressed that little information was available about how formal care is provided. Data sources fail to adequately separate nursing care and personal care and to understand what formal care is being provided and by whom. The boundary between nursing care and personal care costs is, by necessity, a fuzzy one, but it is one that proves conflicts between different branches of government and different agencies as to who pays for what, when. The decentralisation of care and the greater reliance on non-profit and for profit providers also implies greater difficulty in collecting adequate data. Related to this, little is known about informal care providers and little about the formal care workforce.

Second, too little is known about the relative costs of alternative forms of provision. Data show *per capita* costs in different kinds of institutions and the costs of care provided at home relative to care provided in institutions. However, there are few like-for-like comparisons available that allow us to overcome “selection bias”. Thus there is a need for more “evidence”, so that public bodies, older

people and older people's families can make "evidence based" decisions. Over and above this, there is a need to know more about the "costs" of informal care provision and the costs of substituting formal for informal care.

Third, the demands for formal care that are likely to arise have probably been grossly underestimated. Too much faith has been placed in a substantial amount of care being provided informally and changes in household structures and labour market behaviour that are likely to occur have not been taken sufficiently into account. Indeed, at many points advocate behavioural change – higher labour force participation – are advocated that will aggravate the demand for formal care.

Fourth, we have been insufficiently innovative in finding financing solutions. The debate has centred upon long-term care insurance and upon equity release. His paper faulted both approaches and argued for an alternative that recognises the importance of assets and tries to find an efficient and equitable way of calling upon them. More attention and research should be devoted to this idea.

Lastly, Bernard Casey argued the need to recognise that it is undesirable for the *relative* position of older people to deteriorate. We probably do not wish to see them experience lower incomes or lower levels of physical and psychic well-being. We probably recognise that, in the same way as adequate pensions is a vital element in ensuring the maintenance of the former, adequate long-term care provision is a vital element in ensuring the maintenance of the latter. In his view, what we are less willing to recognise is that to realise this aim, some redistribution of resources is required. He stressed that such redistribution will not be redistribution within a stagnant economy but within a growing one arguing that this would make it a little bit easier in the short term and much easier in the longer term. He concluded that societal ageing is a longer-term challenge and that, to respond to it, policy makers needed to find longer-term solutions that ensure an equitable distribution of its costs and do not mean that these are borne largely or entirely older people themselves, and particularly by the very old. That we cannot escape from this task is something we still have to learn.

With respect to the future of pension systems, numerical projections undertaken within the European Central Bank arrive at results in line with those of the EPC Working Group on Ageing. A paper by **P.C. Rother, M. Catenaro and G. Schwab** ([Ageing and Pensions in the Euro Area. Survey and Projection Results](#)) presented the results of a partial equilibrium analysis for the four major Eurogroup countries (Germany, France, Italy and Spain), showing both two baseline scenarios for pension expenditure and scenarios simulating various reform options.

The numerical projections undertaken by the ECB team underline the urgency of pension reform and provide an assessment of the viability of alternative reform approaches. In the baseline scenario pension expenditure for the EU as a whole in proportion to GDP is projected to rise by more than 4 percentage points between 2000 and 2050.⁹ With more or less unchanged 2000 contribution rates¹⁰ and relatively optimistic assumptions concerning labour market and private sector employment, the pension system is then in this study projected to incur deficits as from 2010 rising to a level of 4.5% of GDP by 2050. Assuming a real rate of interest of 4% per annum, the present discounted value of the future deficits is calculated at 51% of GDP. With unchanged labour market participation and a real rate of interest of 3% the present value of the future deficits would, in fact, be as high as 90% of GDP.

The paper argues that only comprehensive and profound reform will ensure permanent financial viability of the public pension systems while partial reform is found incapable of solving the ageing problem despite favourable macroeconomic assumptions.

The partial reform scenario is based on a combination of three parameters:

⁹ An internal study by the Directorate-General for Economic and Financial Affairs of the European Commission actually projects an increase of more than 7 percentage points, but on the assumption of unchanged labour market participation rates and pension system « generosity » (McMorrow and Roeger (2002)).

¹⁰ Due to the complex and opaque nature of the various national pension systems the authors have calculated hypothetical contribution rates balancing the pension system in 2000.

- A gradual increase in the effective retirement age by one year until 2010 with unchanged replacement rates;
- An increase in the contribution rate by 10%, e.g. from 30 to 33% of the gross wage; and
- A reduction in average replacement rates sufficient to balance the system, i.e. reducing the present value of deficits to zero in 2002.

However, this scenario is not considered viable. The authors argue that the assumed rise in contribution rates will raise the disincentives to work (at least in the official economy) so that the projected increase in employment rates will remain out of reach.¹¹ Furthermore, the reform only balances the pay-as-you-go systems through 2050 but leaves them in substantial deficits after that date. Consequently there remains a need for additional reform to ensure balance in a longer perspective.

The paper therefore presents a more comprehensive reform scenario assuming a *partial* shift to a funded scheme. In all four countries, contribution rates to the pay-as-you-go system are reduced immediately and permanently by 6 percentage points. The corresponding amount is invested into a funded scheme assumed to carry a net return of 4% after taxes and administrative costs. All working age generations participate in the partial shift to funding and replacement rates for new old-age pensioners are reduced to achieve balance of the system (zero present value of the deficits). Effective retirement ages and labour market developments are assumed to be as in the partial reform scenario.

The scenario calculations show that comprehensive reform combining the features of the partial reform and a partial shift to funding can ensure permanent financial viability of the public pension system and induce necessary employment growth. Shifting part of the PAYG contributions into a funded pillar and reducing replacement rates makes the PAYG systems fully sustainable. New pensioners offset the reductions in replacement rates through benefits from the funded pillar but *total* replacement rates remain below those of the partial reform until 2040. The authors therefore underline that the distribution of this reform burden is a political question. In addition to leaving it on new pensioners as in the reform scenario, it could be shifted partly to current pensioners through lower indexation,¹² on future generations through raising public debt or a combination of the two.

Although ageing is now increasingly perceived as a world-wide phenomenon the pace of ageing shows considerable disparity between the major regions. This may give rise to capital movements and beneficial exchanges between regions with different demographic developments. While the papers presented above and most of other studies of the consequences of ageing do not explicitly take account of these aspects of ageing, a paper by the French **Ingénue-team**¹³ aims explicitly at evaluating the potential magnitude of equilibrating capital flows (see [Macroeconomic consequences of pension reforms in Europe: an investigation with the Ingénue model](#)).

The study makes use of an international overlapping generations model (INGENUE) dividing the world into six regions: three developed (i) the European Union, (ii) North America, Australia and New Zealand and (iii) Japan) and three developing areas ((iv) emerging economies with an already ageing population, (v) emerging economies just starting their demographic transition; and (vi) developing countries with a high fertility).

The model is calibrated with the UN (1998) demographic projections completed with parameter values for households' and firms' behaviour and with macroeconomic data for the period 1970-1995 as well

¹¹ This is consistent with the results of the general equilibrium model estimates presented in the paper by Château, Guérin and Legros, presented in the first session of this conference.

¹² As simulated in the scenarios by the Working Group on Ageing presented elsewhere in this note.

¹³ The team consists of staff members from three French research institutes : CEPII, OFCE and CEPREMAP.

as exogenous growth rates and assumptions on international technological convergence and, finally, the structure of pension schemes in the different regions. Projections are undertaken for the period up to 2100. Specifically for Europe, the baseline scenario assumes persistence of an effective retirement age of 60 and a replacement rate of 70%. In the baseline scenario the contribution rate is assumed to adapt so as to balance the public pension system.

The simulations yield a slowly converging equilibrium path for the world economy involving a decline in the world rate of interest during the first three decades and then approximate stability for the remainder of the century. The growth rate of aggregate (real) GDP is projected to decline from about 3.3% to about 2.5% by 2030 and to remain at this level during the remainder of the century. In the three developing regions the rate of growth is projected to converge to wards 3% per annum while in the three developed regions the rate of growth of GDP is projected to converge towards 3% per annum (from 4-6% at the beginning of the century).

In the baseline scenario, Western Europe and Japan are, during the first two decades, exporting capital (current external account in surplus) with the three developing regions and North America attracting capital. After 2020 the Japanese current account starts fluctuating around equilibrium. And after 2030 Europe plunges into a persistent current account deficit, reaching almost 5% of GDP in 2055. During the second half of the century current account balances converge to within a range of +/- 1% of GDP.

Three European reform scenarios were then calculated: (A) constant contribution rate with the replacement rate adjusted so as to balance the public pension schemes; (B) increasing the legal retirement age from 60 to 65 over the period 2000-2020 and; (C) indexing pensions on gross instead of net wages. The policy measures are in each case assumed to be perfectly anticipated by households and firms, implying that their major direct and immediate effects are on the private saving ratio (in response to the reforms of public pension systems, households adjust their saving so as to smoothen life-cycle income and consumption (labour supply is in these scenarios assumed to be constant!). In general scenarios A and C deliver a less favourable overall development of the European current external account while increasing the legal retirement age (scenario B) results in the persistence of a current account surplus during the whole period.

The paper shows that large capital flows between the main regions help considerably in smoothing the long accumulation cycles arising from ageing and fluctuations in the size of population. It concludes by stressing that the prospect of large discrepancies between domestic saving and investment raises the question of the sustainability of such trends and, hence, of the more precise forms of capital flows and of the institutional environment and regulation of international financial markets.

Observation of the pension form debate shows that retiree lobbies have displayed strong opposition to reforms aimed at retrenching the PAYG systems. Furthermore, the electoral activity of the elderly is generally more dynamic than that of the young. In France, 95 per cent of retirees are registered to vote, compared to 86 per cent of the young generations. And among registered voters, 85 per cent of the elderly vote as compared to 78 per cent for the whole population. In addition, retirees are well represented within trade unions, notable in the Southern European countries. An important issue for public policy is therefore the impact of ageing of the population on electoral behaviour and other expressions of political preferences of the citizens.

A paper by **Florence Legros**, CEPII and University of Paris Dauphine, presents an analysis of the conflicts between retired and nearly retired and workers in a general equilibrium model with overlapping generations ([*Population Ageing, Electoral Behaviour and Early Retirement*](#)). It then analyses different voting configurations according to utility functions and electoral majority in three different scenarios for maximisation:

- Maximisation of the general social welfare by the “social planner”;
- Electoral majority of the young generation; and
- Electoral majority of the older generation in the specific perspective of increasing life expectancy.

As demonstrated in the paper, a key (economic) issue is the level of the rate of return on capital in general in relation to the rate of return of the PAYG system and the “weight” attributed to the younger generations by the “social planner”. An additional issue is however the way in which the “social planner” defines social welfare and in particular the weight put to the future needs of the younger generations.

In the concluding remarks Florence Legros underlines that when the PAYG scheme is not perceived as inefficient (it provides the same yield as savings) the major channel by which the contribution rate has an impact on welfare is through the interest rate. In this configuration there are two reasons why the retirement age is lower than it would be if the individual were free to choose:

- First, when the authorities underweight the younger generation, the older generation is powerful and demands a low retirement age, which is obtained with a high contribution rate;
- Second, when retired people have an electoral majority.

In contrast, if the economy suffers from a significant lack of capital accumulation, if the interest rate is much higher than the rate of return of the PAYG scheme, and if people perceive that the PAYG scheme is not efficient, then the younger generations of wage earners will choose a higher retirement rate than the authorities. This is due to their ignoring the impact of such an increase on the real wage. The authorities are led to diminish the contribution rate to increase the incentives for individuals to save more, and to retire earlier (the discounted income is not reduced any more if the PAYG represents a smaller share of this income). The older generation wants to diminish the contribution rate and the retirement age at the same time, in this case, a conclusion which is not really consistent with observation.

Whether old people retire so soon because they do not perceive any difference between the interest rate and the PAYG rate of return, it should be concluded that the egoistic case is relevant. In an extreme configuration of this case, if a demographic shift gives the electoral majority to the elderly, and if the older generations do not care about the other generations (including the forthcoming older generations), the older generation can select a high contribution rate, linked to a low retirement age. The intermediate configuration, in which the elderly only take care of old generations (including subsequent ones) can be interpreted as myopic: the old generation does not want any rolling back of the welfare state, despite the unknown effects on younger generations.

The conclusion that the elderly, if voting in accordance with their “interest” as expressed in their welfare function, will express preference for an increase in the contribution rate and a low retirement age is also emerging from a study of the political sustainability of the recent (1992/1995) reforms of the Italian pension system. This is illustrated in [*Assessing the political sustainability of parametric social security reforms: The case of Italy*](#), a paper by **Marcello D’Amato and Vincenzo Galasso** (respectively University of Salerno and IGIER, Bocconi University). The authors present the results of simulations in an overlapping-generations model in which individuals play the double role of economic agents and of voters in the elections that determine the level of the rate of contribution (social security tax) required to balance the pension scheme.

The authors simulate two versions of the model, one where agents are only heterogeneous with respect to age (basic model), and another where they differ also with respect to education level, income, survival probabilities and retirement age.

The results obtained in the basic version of the model suggest that, in the absence of the 1992/95 reforms (Amato-Dini reforms), the ageing process would have driven the equilibrium tax rate supported by majority voting from 38% in 1992 to 58.1 in 2050. The provisions in the Amato-Dini reforms are able to limit the increase only partially: Under majority voting the equilibrium tax rate would increase to 51% for an average retirement age of 62 years and to 46.8% if the average retirement age is increased to 65. However, a raise in the retirement age would induce voters to increase the generosity of the system (i.e. the replacement rate).

The results of the second version of the model (heterogeneity in education, income, electoral participation, surviving probabilities and retirement age) confirms that the new regime is only partially able to reduce the upward trend in the social security tax. The bottom line of the analysis is that, given the prospective ageing, the only feature of the new regime that appears to have a relevant impact on the equilibrium tax rate is an increase in the retirement age. This is, according to the authors, encouraging since the reforms paved the way for a steady rise in the effective retirement age. It should be noted, furthermore, that the simulations do not include the likely effects on labour supply of future increases in the tax rate which could induce additional distortions in the economy as shown in the paper by Château, Guérin and Legros presented in another session of this conference (see above).

With respect to the political economy of ageing differences in electoral preferences may, however, not be the only problem. As stressed in [Behavioural sclerosis, myopia, and the evolution of the welfare state](#), a paper by **Bengt-Arne Wickström** Humboldt University Berlin and DIW Berlin), the political process does not work gradually and might never reach a steady state. On their side individuals adjust their behaviour, taking advantage of the incentive structure of the system. However, as they grow older lose the capacity to adjust to new parameters. In terms of economic analysis, this implies that behaviour in later periods of an individual's life to a greater extent will be governed by income effects and to a lesser extent by substitution effects.

In his paper Bengt-Arne Wickström formulates a model with a number of cohorts of equal size within which individuals have different abilities. The distribution of abilities is assumed to be the same for each cohort and within each cohort individuals consume leisure and a composite good of all market goods, possibly including a publicly provided (collective or individual) good, which may be termed "public good". The latter may be both a classical collective good and income redistribution. In the younger cohorts the degree of substitutability between leisure, market goods and the publicly provided good is relatively high but in older cohorts the shape of the indifference curve will change and the pattern of consumption will become more rigid.

By analysing various possible solutions to the model, Wickström then shows that on the given assumptions the marginal effects of a tax increase on the "supply of funds for redistribution" are greater in the short than in the long run. He also shows that the steady-state tax rate will be higher than what is optimal if individuals are "myopic", that is if they overestimate the benefits of short-term gains from income redistribution and underestimate the long-term effects of the associated tax hike.

Wickström finally infers that possibly when older generations develop behavioural sclerosis (and myopia) behaviour may possibly change under in drastic circumstances (for example in a context of political crisis). This would imply that for example only large reductions in social benefit levels would move individuals back into the labour while marginal reductions would have little or no effect at all.

Most available studies of the consequences of ageing have started from the demographic projections compiled by the UN, the OECD, Eurostat and, of course, projections by national statistical or demographic institutions. Most or all of these demographic projections include variants based on higher or lower assumptions concerning mortality, fertility and migration. Most of the analyses of the consequences of ageing and of the policy options or reforms are based mainly on the baseline scenarios, assumed to represent the most "likely" outcome. However, as stressed in [Demographic risks: A European perspective](#), a contribution by **Juha Alho** (University of Jyväskylä, Finland), uncertainty in demographic forecasts is much higher than generally thought. In fact, looking back a century we find that demographic flows (births, deaths and migration) have been non-stationary and unpredictable. For example the emergence of the post-war baby-boom was not anticipated by official forecasters in Europe or the United States nor was the rapid decline in mortality during the 20th century.

When errors of different components have all been in the same "direction", the error of a 30-year forecast of the total population has sometimes been as high as 20%. At other times errors in mortality and fertility may have compensated for each other and errors for the total population have been more accurate. However, in such case the errors concerning the age structure have then been very high. For

example certain studies have found errors of over 25% for the number of persons in specific age groups over just 15 years.

Since relatively little is known concerning the determinants of *fertility*, demographic projections normally assume only moderate changes in fertility, at least in baseline simulations. There is also a clear tendency to assume only moderate and gradual changes in fertility even in the longer term. A review by Juha Alho of even recent developments in a number of developed countries however, shows that fertility has been particularly volatile in Europe during the last 40-50 years.

As far as *life expectancy* is concerned the “best practice life expectancy” (the life expectancy of the country that at any point in time has the highest life expectancy) has risen almost linearly by about 0.25 year annually for the last 160 years or so. However for individual countries the evolution has been substantially more erratic with periods of rapid improvement followed by periods with little or no improvement. Furthermore the life expectancy of the elderly has not risen in line with the LE at birth and has been more erratic with a tendency towards slowing down in recent years in certain countries.

Even without considering the contribution from migration, the paper by Juha Alho shows that stochastic simulations of future demographic developments, including explicit data on the statistical errors (variance) of past developments of the main components have the potential of offering a pertinent alternative to the mechanistic projections based on standard assumptions. By introducing the ranges of probability of the central projections, such stochastic simulations offer a measure of reliability of projections and, thus, a measure of the potential risk of taking policy decisions on the basis of erroneous assumptions.

Session 3: What Have We Learned from Research on Ageing? A Comparative EU-US Perspective

Chair: Daniel Gros, Director, CEPS.

Richard Blundell, Institute for Fiscal Studies and University College, London, initially provided a broad review of the current know-how in, and policy implications of, the research on ageing in Europe. He pointed to six main issues as being of particular importance for policy making:

- Life expectancy;
- Disability-free life-times;
- Labour market attachment and routes to retirement;
- Disability benefits and other “early retirement” incentives;
- Labour market transition; and
- Family labour supply and caring issues.

He underlined that all developed countries had experienced an increase in life expectancy. However, international trends in life expectancy at age 65 also showed some striking discrepancies: whereas in 1961 life expectancy at 65 was at approximately the same level in the UK, the US, France and Japan, the latter country has experienced a more pronounced increase than the other three and in 1997 was some two years ahead of the UK and also ahead of the level in US and France. During this period life expectancy at 65 in Japan had thus improved by more than five years as against only 1.2 year in the US.

He also stressed that according to available estimates for the UK disability-free life-expectancy had increased considerably less than the rise in overall life expectancy, suggesting an expansion of morbidity among the elderly.

Turning the labour force developments and retirement behaviour, Richard Blundell stressed in particular that in a number of countries the route to retirement did not only pass through early retirement but also for many elderly persons through stages of disability or unemployment with associated benefits. He therefore saw a need for a general review of incentives to retire, including analysis of evidence for wealth effects and the respective role of the incentives provided by private pensions and occupational pensions and to calculate the full option value (discounted present value) of future value of earning as measured against the present value of pensions. In this respect it would also be essential to include family labour supply interactions and incentives.

Richard Blundell then presented “counter-factual” simulations based on the NBER project (published in the volume edited by Gruber and Wise) but assuming an increase in the retirement age, some reduction of the replacement rate and actuarial adjustment of the annuity in the age interval from 60 to 70. A reform involving these measures would significantly reduce the option value of early retirement and induce a significant enhancement of the sustainability of the pension systems.

Specifically for the UK, Richard Blundell saw several reasons for expecting an “endogenous” rise in the effective age of retirement over the next decade or two. This would result from a prospective decline in the generosity of the state pension system, decline in the generosity of the invalidity/disability schemes, increase in the retirement age for women, reduction in opportunities to create exits to retirement in defined-benefit schemes, a general move from defined-benefit to defined-contribution schemes and reform of the public sector retirement scheme.

Finally Richard Blundell stressed the pressing need for an improvement of the data supply for demographic and health care analysis. Two research projects under implementation (the SHARE (EU) and ELSA (UK) projects) would be of considerable importance in this respect. However, there was a need for additional cross-disciplinary surveys in order to study the dynamic relationships and to

develop better predictors of the disablement process and measurement of retirement incentives (see Blundell's paper, [Ageing, Pensions and Welfare Systems: What have we learned in Europe?](#)).

(Discussion by Timothy Smeeding and presentation of elements of the LIS)

The main features of research on ageing and retirement in the United States were then presented by **Robert J. Willis**, Director, Health and Retirement Study (HRS), Institute of Social Research, University of Michigan. Robert Willis pointed out that the HRS was a longitudinal survey of more than 22,000 persons, funded by the National Institute on Aging with additional support from the Social Security Administration. From its inception the HRS was designed through a multidisciplinary effort to provide data for a community of scientific and policy researchers studying the economics and demography of ageing. The HRS data base had become an extremely important source of data for the research community with more than two thousand registered users and a record of more than 400 papers written using HRS data.

The HRS core data set contained information on health and health care, labour market status, income and expenditure and family status. However, linkages to other surveys, for example of home dementia, social security, health insurance, Medicare and national death index could provide additional scope for cross-section analysis and analysis of transition. The analytical potential of the HRS was therefore enormous and would be further enhanced when data from the SHARE and ELSA projects would come on stream and allow additional cross-national analysis.

Robert Willis then presented some essential findings of the research on ageing in the US using the HRS and other available data. He stressed in particular the strong correlation of health and economic status, with evidence pointing towards an impact of economic status on health during the first part of the life-cycle and effect of health on wealth during the later phases (age 50-70). Furthermore, in the low-income groups a high proportion of Medicare beneficiaries cut down on prescription drugs and therefore did not make use of the potential benefits of the medical support.

He pointed out that there was evidence of an improvement of the state of health among the elderly but it was still an open question whether this was a firm trend. Furthermore there was now strong evidence that dementia will be a growing problem even if other forms of disability are decreasing. Like Richard Blundell, Robert Willis stressed the need for a deeper analysis of the interaction of disability policy and retirement. In fact, the Gruber-Wise study had found disability policy to be one important source of variation in labour force participation. However, reform of disability policy would require knowledge of labour supply effects of alternative policies and, not least, of the potential effects of reforms on the welfare of "truly disabled". He did underline, however, that against the wide-spread opinion that disability pensions were granted too generously the HRS data showed no evidence of a bias in self-reported disability. Clearly self-reported disabled were much less healthy than non-disabled and there were indications that self-reported disability provided a better measure of the prevalence of disability than the social security award system. (See the paper by Willis, [What have we learned in the US?](#)).

In his discussion of the presentation by Robert Willis, **Arie Kapteyn**, Rand Corporation, ex-University of Tilburg, stressed that we had still some way to go to obtain sufficiently reliable and consistent data for international comparisons. Micro-data available in several countries were of uneven quality and there was a lack of relevant information on covariates such as health care or family support. International comparison were likely to be very instructive for policy design and data from ELSA and SHARE once on stream would help a lot to support comparative analysis. However, Arie Kapteyn stressed that health and disability were also the outcome of cultural norms and that whether one can or cannot work is also dependent on workplace accommodation (for example for disabled persons).

In a written contribution to the conference, **Alan Walker**, Professor of Social Policy, University of Sheffield, UK and member of the Steering Group of the European Forum on Population Ageing Research provided an overview of the genesis, aims and work programme of the Forum.

A principal feature of the Forum is to organise meetings at which representatives from the national research programmes and centres in the field of population ageing from each country (responsible for policy and funding) in the field of population ageing will discuss potential synergies between national programmes and potential avenues for collaboration; relationships between the key action and national programmes and centres; share information and identify gaps in knowledge and agree mechanisms for disseminating information. Feeding into the Forum will be the results of six workshops on three priority topics in ageing research. The workshops are multi-disciplinary scientific meetings designed to identify gaps in research, future avenues for research and potential partners for collaboration. The three agreed priority topics are demography, longevity and genetics; health care and management; and quality of life in old age. In addition it is proposed to hold a user consultation conference in which policy makers, NGOs, the public and private sector providers can make an input to the process of priority setting for research on ageing. The whole coordination effort is managed by a Steering Group drawn from eight member states, the DGs for Research and Employment and Social Affairs and a member from the EU NGO representing older people AGE. Finally, there will be a range of dissemination techniques designed to reach specific user communities and the general public, including a web site, research reviews, newsletter and scientific papers.

Reports from the first two workshops held in the autumn of 2002, on “Quality of Life and Health” and “Care Management”, are available from the Forum website www.shef.ac.uk/ageingresearch and the report of the third workshop, held in January 2003, was to be posted there shortly after the conference.

Transcript: Oral Contributions

Session 1. Ageing, Labour Markets and Migration in an Enlarging EU

Tito Boeri: Immigration: panacea or danger for the EU? (10.00 – 10.30)

I believe it is possible to give a qualitative answer to this question, to say yes or no. The issue, this is a bit more of a broader consideration that I would like to make of course. Daniel was suggesting that one should say at the beginning a few things about the general idea, the purpose of this exercise and of this network. I think the key issue of further research in this field is to go beyond qualitative assessment, simply qualitative results. It would be much better if you could to make all the research on ageing and on pension in general more policy relevant. We should try as much as we can to go beyond simply qualitative results, and trying to get more precise results. While instead we are forced to really draw on theoretical results and on very imprecise projection about many relevant variables that are involved. If the research in the field of pension is getting more results that are relevant for policy, in particular there are works done in recent years on political economy of reforms. Some of these works will be presented here. But there has been also been work that has been done in analysing what are really the constraints of the pension system, whether they are looking for politically feasible reforms, desperate attempts to fish for better improvements or reforms without loss.

There's not really much, we really are far from getting results that are useful for policy making. In particular what should be about the appropriate speed for some reforms. How slow can they be? And to really make serious progress in this respect, you really need to have more and better data that allow us to analyse the multidimensional features of ageing and their implications on pensions, labour market, on decisions to retire, and these various things. So, just as general point I wish to make. So I will provide an answer which will be qualitative, but not really very precise. In my talk, I will just start by saying just a few things about ageing, population and younger migrants, and why there's this general idea that migration could be a panacea for the pension problem and for the ageing problem in Europe. Then I will say a few things about the contribution of immigration to the sustainability of the pension systems, to which extent in particular that migration can be something really help us in solving the inconsistency of the pension arrangement – the intergenerational inconsistency of the pension arrangement in many countries. Then I will say something about a broader problem, migration is not only an issue related to pension. It is more generally related to welfare systems. I will assess whether there is, how is it important this issue of welfare shopping for people coming in Europe and using the our drawings, our welfare systems, and how this welfare shopping interact with the location choices of migrants. Then I will say something about the policy dilemmas that are raised by this, by all of this.

I want to say upfront the main conclusions of my story. So the key question was whether migrants can indeed pay for our pensions? My answer is, well, no. They can only modestly contribute to intergenerational consistency of our unsustainable public pension system. So migration is not certainly the solution to the unsustainability of our pension systems. Yet migration can be useful, can be helpful in solving these problems, only in an indirect way. In other words, migration can support stronger growth in Europe. And in particular, can do so by 'greasing the wheels' of the European labour market. In particular making, giving the degree of flexibility and mobility that Europe desperately needs, and do that, that could really induce and contribute to stronger growth in Europe. So that's really the role that migration can play in my view, and in favouring, in helping the situation of the pension system.

A few data to discuss why people tend to think that migration can be useful for solving our pension problems. It is true in general this stock of migrants is younger. The population and the age structure of migrants are more favourable in this respect than the one of natives. These are results of the European Committee Household panel, and just compare the average of EU citizens and the average age of non-EU citizens. You see that most countries indeed that migrants are significantly younger

than the native population. And more importantly, one has to look at the inflows, other than simply stocks. Also the age of distribution of inflows, migration inflows, is relatively favourable in this respect. Although it is not as young as it is sometimes being thought. This is the largest immigration country in Europe, Germany, and you see that you get the median migrant on the central age group. So it's certainly that they are younger than the European population. There is also some discussion about whether enlargement can also, would involve younger Europe, there will be paper discussing this much more in detail than what I can say in this general overview. Well, the answer is no. The enlargement has not much to do with having a younger Europe. It is true that currently via population age 65 and above in the accession countries is lower than in the current member of EU. But demographic projections tell us that this situation will be more or less the same in the current EU members and in the accession states by the year 2050. By that time, we will have roughly 30% of the population in both areas aged 65 and more. Or to say it in a different way old age dependency ratio in the order of 50% in both areas. So there is one pensioner for every two members of the working age population. So enlargement is something important but it has not much to do with changing the demographic scenario for Europe in general.

But migration instead, certainly migration from outside the, also outside the accession countries involves, tends to involved younger people. And there are reasons, economic reasons for this, because the fear of migration suggest that clearly given that there is, present, value problem that migrants solve, will be the age composition of migrants is such that to favour migration in particular by young people. But the fact that we get young people here that does clearly not mean, it's not immediately clear from this; this can really help in solving pension problems. There are a number of studies that have been carried out in assessing what could be the fiscal impact of migration. And in particular, in how they can really contribute to the financing of the pension system. I just quote one of the studies that has been done in Italy using generational accounting. And to just give you some results. The key conclusion is that we would need very large numbers of migrants, really, to contribute to any significantly to solving our problems. In particular these studies starting from a base line, a no migration scenario, in which the young generation would have to pay the equivalent of 130,000 Euros in net present value terms of taxes to satisfy the intertemporal budget constraint imposed by the current pension arrangements in Italy.

With the yearly migration of about 50,000 workers, people getting in and working at regular jobs and so on, which is more or less according to historical experience, this is true, but in the last few years migration in Italy has somewhat exaggerated. But if you look at the last 15 years, this is a reasonable number; this burden on the young generation will be reduced by only like something like 6%, so it would reduce from 130,000 Euros to about 123,000 Euros. I am aware of similar studies being carried out in other countries; I know that [Hans and Barsupans] analysing these things for Germany for instance, the broad conclusion is generally the same. Small effects, in order to get a more sizable effects, we would really need to get a larger inflows of migrants. And there are also many covers to these results; via these results we are assuming long stays and regular employments throughout these people. So these people come in, young, and start contributing to this system for their entire working life. While we know that instead, that migrants stay for short stays, for example in Italy they average five years. And often they go back to their own countries, and the types of convention and agreement, bilateral agreements, with sending countries allow for very generous repatriation schemes. For instance in Italy, all the contributions are delivered with 5% net interest. So it's a very high and generous scheme – one that is provided to people repatriating their contribution at the end of their work experience.

Moreover, and this is perhaps the more serious problem, that the abuses of contributions that migrants can pay to the financing of our pension system. Most of the employment of migrants is shadowed BOE is not simply the shortcut of my last name but it's simply the back-of-the-envelope calculation. Refer to Italy, this is simply to just get an idea of the relevance of shadow employment among migrants. We had in 1999 about 1.25 million regular foreigners in Italy, according to the last amnesty that was carried out during the last fall, we had about 675,000 requests for regularisation in Italy. So if we just take the share between the two, you get, you should take into account that part of the regular

foreigners in '99 were not in working age, you get the shadow rate of the proportion of people who were in Italy in a working age and not in a regular position is of the order of 35 to 40%. So the proportion of potential employed people being in the shadow economy, so not really being contributing to our welfare system and pension system, is very large. The shadow rate for Italy in general, for the Italian citizen, is of the order of 15%, 10 to 15%. So you see that for the migrants it's much larger the issue of shadow employment.

So, certainly if once you factor in also the fact that most of the migrants come in and don't have a regular employment, the contribution that they can provide to the pension system is even low. Besides this, there's also this issue that they not, will provide less financing to our pension system and all these reasons that I was quoting, short stay short employment and so on, but they also draw on the welfare system of the European countries. These are some of the proportions, some dependency ratios, the proportion of people who are getting, receiving benefits for different types of schemes. It also drew on the European Community Household panel. You see that clearly if you've considered the pension given also the age structures of migrants, you see the proportion of migrants receiving pension is significantly lower than the one of EU citizens. But if you considered other schemes, you see there instead that you typically have larger dependency ratio among migrants than EU natives. You see this in the case of unemployment benefits, you see this in the case of family benefits, you can repeat this type of exercise for all the other schemes. Fortunately the European Community Household panel provides quite a good breakdown of the various types of benefits provided to citizens and non-EU citizens.

To a larger extent this larger dependency of migrants on cash transfers or social transfers provided by the European states have to do with the characteristics of migrants. They arrive with relatively large families and they are unskilled, they are subject to more frequent unemployment spells. So all of these, given their characteristics, their low education or whatever, so all of these contribute to explain as to why they are more likely to draw benefits than natives. But it is not entirely due to that. This is simply the predicted based on their characteristics and dependency ratios, so you just run a probit on the probability of being in that condition, and use this information to estimate what could be the dependency ratio, which is due to the characteristics of the migrants vis-à-vis the natives. But so if you instead that you take the actual dependency minus the actual dependency, then you'll get what's called the residual dependency. So what is not explained by the composition of the migrants, the characteristics of the migrants, and you see that in some countries it's still positive. It's not very large, but in some countries you get, generally the countries with the most generous welfare system in place, but in countries like Denmark, migrants have *ceteris paribus*, all other things equal, 15 to 16% higher probability of drawing benefits than the natives. So some of these results are really again, these are small numbers, but the fiscal effects of this is more. But some of these results, some of these effects can feed the perceptions among the European citizens that migrants sometimes come in to draw and to really abuse our relatively rich welfare system.

So let me just summarise what we did so far. Migration can do little to improve pension directly, because one, we would need a very large number of people coming in, and long stays. And secondly, ageing is not only an EU phenomenon, and here I was clearly making a reference to enlargement, clearly the countries of enlargement is not clearly a solution in this respect. Not all migrants contribute to the pension system, there's a significant shadow employment among migrants. And there's also some residual dependency on social transfers, so even controlling for the compositional factors, they tend to draw partly our benefits and cast transfers. But can we say that also indirectly, I don't think that welfare shopping is really the main determinant of migration choices. Migrants come in because the main migration decision is largely driven by employment opportunities, but searching for jobs in the EU. And even after arriving, this is something which less learned, even after arriving to the country of destination, immigrants are more mobile than natives. So they have a much higher propensity to move. This is just again some data from the European Community Household panel. In general we have among EU citizens the propensity to move, to change residences are very low. We have about 1 out of 200 EU citizens does that every year.

So if you look instead among non-EU citizens, the proportion is much larger, at about seven non-EU citizens out of 100, so it's significantly larger than in the case of EU citizens. And this happens in the presence of large and persistent regional unemployment differentials and regional mismatch in the allocation of vacancies and jobseekers that have been widely documented. So Europe needs this type of mobility to accomplish special arbitrary, to reduce regional inequalities, and to push for to induce convergence in productivity levels across regions, which will inevitably involve stronger growth. And migrants really in deciding where to go, tend to really make their location decisions in the light of the underlining labour market. So when they come in, and when they relocate after arriving, they would naturally move to the regions where there is more overheating in the labour market, higher productivity in regions, inducing these type of convergence. This chart is very revealing in this respect because it shows migration from the eastern countries to Germany and it suggests that people didn't go to the eastern Länder of Germany, with a poorer labour conditions, they all went to the western part. And in particular, the southwestern part of Germany, where there is a more brilliant labour market conditions. So by doing this, this 'greasing the wheel' effect associated with migration is very important in improving the functioning of the European labour market, and inducing faster growth.

These are results obtained by using the much richer data structure, which are allowed in the United States by [George Borjas]. It shows that, with no time to go into the details in explaining this chart, but it simply shows in presence of the larger number of migrants, there is a faster convergence of wage levels and productivity, I supposed, across states in the United States. So really, migrants accomplish this very important special arbitrage effect and by doing this, they really induce stronger growth. There are also some attempts to estimate the effect on this impact on growth of migration, the numbers are relatively small for the United States, and similarly the size are not done for Europe, I believe that the numbers are not that small, but in any event, this would be something that would be consistent. So in the end it will come out with an overall significant numbers. But here we start with the policy dilemmas. And this is really the closure of my speech, of my story. So, we see that Europe needs migrants, more than to finance directly our pension system, to accomplish this type of special arbitrage, but to foster growth in this way. But Europeans seem today to oppose migration, in Europe we have general support for zero-migration scenario, unlike the US, where people seem to accept, according to opinion polls, a not increasing migration flows, but they accept the idea that there's not a zero-migration. The fact is that Europeans oppose migration and induce governments to adopt over-restrictive policies.

And there are unrealistic restrictions to regular migration in presence of labour market conditions that induce migration, so there are employment opportunities here for the migrants, induce illegal migration. So we have the worst combination, because we get only illegal migrants in and these illegal migrants of course by definition cannot contribute to paying our pension system and the welfare system. So this again may feed the negative perception of Europeans vis-à-vis the migrants, and so on and so forth. And indeed if you look at the compositions of migration, besides the size of migration to Europe and US, the key difference is illegal migration. We have roughly the same numbers in respect to the population, but we have a much more illegal migration than the US, and this again is a factor of. So to summarise, migration cannot solve the European pension problem. However it may foster growth by bringing in the mobile labour force Europe needs. However voters are against migration, partly for economic reasons, and you know we know that this is partly fed by real reasons like welfare dependency of migrants, although small in scale, it is something which has some truth, and in democracy we know that governments will follow that rule.

What to do then? This is difficult to say, and we have no time to discuss it in detail. One option that has been explored somewhat is restricting access to welfare by migrants, but I think that this is a very complicated thing, and I, but it may at the end reduce this mobility and this propensity to move in Europe. There are also some proposals about applying origins principle, or delaying integration principle, no time to discuss it in detail. In my view, the price of this is in terms of efficiency, I am not talking about the equity here. It would really reduce mobility in Europe even more. Imposing more generous welfare states elsewhere, is again I don't think really it's the solution. Adopt selective migration policies point systems like in Canada, there has been some talks in Europe about these types

of schemes, also doesn't seem to be really solution in my view. And the last one, which may not sound very democratic, is to do a Ulysses and the Sirens, which is to tie to the governments somewhat to have and apply a more realistic migration policies. The idea here is to delegate authority as it was done in the case of monetary policies to some pan European approach migration, and EU-wide migration policy. There is still room to do that, if you look at the Eurobarometer survey, there is still support in Europe for having an EU-wide migration, but the consensus about this is eroding away. So if you want to move to EU wide migration policy, I think we would have to go fast. I'll stop here.

Lionel Fontagné: thank you Tito for this very articulated story. So migrants can only modestly contribute to the sustainability of the pension system. At least because the Enlargement does not imply a younger Europe, and the same time they can be very helpful in an indirect way because they adjust the grease-the-wheels of the labour market in Europe, but as your conclusion that you have reached upon, we are engaged upon a vicious cycle associated with the perception of voters. So I suggest that we just take the second talk immediately, and then we keep a 15 minutes or 20 minutes for discussion. So Juan, that's your turn.

Juan Jimeno: Fewer young people: less employment? (10.30 – 11.00)

Okay, I'm going to try to give an answer to this question, which is: What is going to happen to unemployment, given the changes in the age population structure? This is unavoidable over the next decades. There are two reasons why you might be interested in this question. One is obvious; one is about the functioning of the labour market. The most certain change that is going to happen to the European labour market over the next decades is demographics. The population composition by age is going to change, and this change is going to be reflected not only in the usual dependency ratio that we analysed, like old people, retired people over working age population, but also within working age population, there are going to be substantial changes in the population structure very soon. The second reason why you might be interested in this question is pension analysis – if you are doing pension analysis, this is also a very relevant issue because of two things. If you are interested in forecasting pension expenditure into the future, under the defined benefits system that we have in Europe, pension expenditures are going to depend on labour market histories of people. And then if labour market changes, because of demographics or something else, this is going to be reflected in the pension liabilities that you are going to face in the future.

Moreover, under the pay-as-you-go schemes that we have, to finance pension liabilities, this is also going to be very relevant. Sometimes you hear, well, maybe you hear that immigration is a solution for the pension system because there will be more people working. And we just hear that this is false. You also hear that, well, in Europe there are many people unemployed, many people not participating in the labour market, so maybe we can sustain the labour market by, sustain the pension by improving the labour market status of the European population. Well, let's see what demographics can do for that. So what I'm going to do, is first very quickly illustrate this demographic change in the working age population, then I'm going to discuss two channels through which demographic change might affect unemployment or employment rates. This is first the compositional effect: just suppose that ages specific rates, unemployment and unemployment rates, remain constant at some level and then you change the weights of these population groups, what will happen? Of course, this is a very naïve approach, they're also likely to be also indirect effects of demographics on unemployment, age-specific unemployment. So I will say a few words about what design effects might be. And then I will conclude with a summary of evidence that we have so far, and some conjectures, and from these conjectures I will give an answer to the question of the talk.

Okay, in this graph you have, you've seen the latest forecast from Eurostat, the weight of the three population groups. In this case, it's the 15 to 24, population age 15 to 24. Afterwards I will show you 25 to 54, then 55 to 64. In the right hand side, you have the weight in population, age 15, 64. And in the other panel, you have the weight in labour force, assuming that participation rate remain at the level that they had in 2000. So take the participation rate in 2000, and then using this population forecast, predict the composition of the labour force in 2000 and 2020. We've just seen that in those graphs is that, well, the proportion of young people in the working age population is going to decrease

by one and a half percentage points in the whole EU. By EU, I mean the EU is as of today: between 2000 and 2020. So in a very short period, in two decades, young people, the weight in the working population is going to be reduced by one and half percentage points. In some countries, the decrease is going to be even larger. If you look at Spain, Ireland, Italy, the fall in these weights is going to be around three, four percentage points. The difference across countries is basically due to the timing in the baby boom. The timing in the baby boom took place earlier in the Nordic countries, so the decrease is going to be lower in Nordic countries. But it took place much later in Southern Europe, so the decrease is going to be larger in Southern Europe.

In the other panel, you see that this change in the weight of young people is going to be translated into the labour force, and again the weight in the labour force for the whole Union is going to decrease by one percentage point for this population group in the next two decades. And in some countries, it's going to be a large shock, the decrease is going to be about four percentage points. And it takes place very quickly. If you look for instance again, in Spain, Ireland, even in Italy, you see that between 2000 and 2010, in ten years, there's going to be a significant change. This change of course is also happening in the other groups. Here you have the population age 25 to 54. Here the decrease in the weight, in the working age population is going to be three and a half percentage points between 2000 and 2020. And in the working age population, it is 3 percentage points. Again, there are significant differences across countries, and the reason is the same. For the population age 55 to 64, what happens is of course is the contrary. What happens is the increase in the weight of this population, in working age population is five and half percentage points. And in the labour force, it's four percentage points.

So, suppose that we take these changes in weights, we take that this population groups are going to change. We know the employment and unemployment rate by groups in the year 2000, what will happen? How will this change in population weight be reflected in employment and unemployment rates? Here I took just six population groups, distinguished between males and females, and the three age groups that I discussed before. And the main assumption is that employment and unemployment by groups is not affected by demographics. As I said, this is a very naïve approach, and there's an reasons that this is not going to happen, that there are going to be effects on this age specific groups. But let's take for a moment that this is what happens. Well, then this is the result. In those two panels, you have the employment rates and the unemployment rates in the EU and the countries, the member countries, 2000, 2010 and 2020. Just the demographic change, the compositions effects, will produce a decrease in the employment rate in the European Union as a whole, of about almost two percentage points between 2010 and 2020. And of course, as the population is ageing, and the employment rates are lower among all the groups, this implies this composition effects.

And again, they are different across countries – which has to do with differences in age-specific employment rates, and the timing of the baby boom, as I said before. But the trend is clearly towards less employment – less employment in the EU. So if the goal is to reach this 70% employment rate by the year 2010, well, we have to move quickly because, well, as you see there, the demographic trends is playing against thus far. In the case of unemployment, this composition effect is not very large. In the EU as a whole, you see the demographic change does not create a composition effect on the aggregate unemployment, basically the difference between those three periods in time is 0.05. So it's not reflected in the table. Okay? But again, as I've said, they are different across countries. The trend is more worrying in the southern Europe, because there the population is ageing more quickly. But this is what this simple calculation will tell us. But again this is a very naïve calculation, we know that there might be indirect effects on unemployment, on age specific unemployment. And here are some disagreements depending on the theoretical framework that you use to analyse the labour market. Supposed that you take a stock model, like the standard demand and supply model, in which workers of different age are imperfect substitutes. So as the compositional labour supply will change, then two things might happen. One is that relative wages adjust, and therefore unemployment is not affected. Or relative wages do not adjust, and then unemployment of each of the specific groups will change. Okay?

Probably, the more correct assumption, relative wages, at least in the short run, do not adjust. Particularly in Europe, where we have the type of labour market institutions that we have. And therefore if there is imperfect substitution of workers of different ages, or relative wages, do not adjust, then what happens is that unemployment is increasing in the share of each population group. This is a very old hypothesis in unemployment probabilities, and in terms of wages. There is an alternative scenario, which is related to what Tito Boeri was telling before, which is this fluidity hypothesis, the mobility theme. Suppose that there is a [fissional] market, and then in that [fissional] market, the equilibrium of unemployment depends on the course of creating vacancies and the turnover rate, and how people search for jobs. Then in the labour market in which people are more mobile, are more active searching for jobs, then the equilibrium unemployment rate is lower. And in particular there's a paper by Robert [Samar] last year, or two years ago, in the Quarterly Journal of Economics, in which he argues that in the US, the States with the a younger population have lower unemployment rates. And he formalised this finding by this [fissional] labour market on the job search.

In fact, the results that he finds, is that the elasticity of the unemployment rate with respect to youth, to the youths there, is minus 1.5. Even he finds that the unemployment of prime age adults, prime age workers, is decreasing in the [surge] of young population. And he finds an amazingly high elasticity of minus 2. This is for the US. [ALIS] studies, or other studies, using data across countries find very different results. Here is a paper by [Corraman and Newmark] and then a paper by a co-author of mine and myself, using a panel of OECD countries. And usually when you analyse cross-country data, what you find is the opposite result. You find support for the cohort-crowding hypothesis. Of course these results are derived from the experience of the baby boom that we have in the '60s and the '70s, and with this data, what you find is that the elasticity of youth unemployment is positive, relative to the youths [surge] in the population. And that the unemployment rate of prime age workers, either is not affected, by the [surge] of the young population, or is slightly positively affected, it's slightly increased. The elasticity that you find there are in the range of 0.2.

Other people have look at the regional studies within European countries. I know two of these studies. One is done by FEDEA, by [Nankia] and other staffs there, there we look at the panel of Spanish regions with replicate similar analysis, but with the Spanish data, and we don't find the results that [Scheimar] finds for the US, we find basically support for the cohort-crowding hypothesis. I mean larger youth population implies larger youth unemployment. There is another study for the Swedish labour market, and there the results are in the middle. On the one hand, what he finds, [Oscar Nordstrom], a larger population of young people implies lower unemployment rate for young people, but has no effect on the prime-age workers. So he finds basically a negative elasticity here, but zero when [Scheimar] found an elasticity of minus 2. So there's some contradictory evidence on what, based upon past experience on what might happen with population ageing. There are other studies using a different approach, in the session after this one, there will be presented a paper about France using calibration methods. And in this simulation results, the larger young population [surge], I hope I am not misquoting the results, a larger population [surge] increase the unemployment rate of, no sorry, the demographics change in the future, which means a lower population [surge] will increase unemployment rate of all the workers.

And it will remain constant, the unemployment rate of young workers. So, how can we explain this contradictory evidence based on past experiences? Well, [Scheimar] in his papers talks about this capital mobility thing. Basically what he said is that in regional studies, capital mobility is perfect, so the young population increases, vacancies are created, depending on the supply, well, between countries, there is no capital mobility. And therefore the results might be different. That's one explanation. Another explanation is labour market institutions. We have good reasons to believe that the effects of shocks in labour markets are dependent of the institutions governing the functioning of those labour markets. In the paper I did with Rodriguez [Panenfoula], we find that labour market institutions have different effects on population of different characteristics. Also there is a paper by [Angreous and Coular] on immigration, say that the impact of immigration on the labour market performance on natives, depends on the institutions in that particular labour market. So in particular, the effects are more negative, the more rigid the labour market is.

So let me show you some preliminary evidence about this. These are regressions results, using the standard data sets that labour economists use to analyse the effects of institutions. The first line gives you the results, the coefficients on the [cell] of youth population, on a regression trying to explain prime age unemployment rates and youth unemployment rates. You see the coefficients are positive, these are cross-country data, and this is consistent with the previous evidence. This is a regression with country, time effects, and institutions in it also. The second part of the table gives you the coefficients, on the coefficients on the [surge] youth population when you interact with these institutions, and you see basically [institution, life, employment rate] and coordination, Union coordination in which city, seems to play a role at explaining the effects of changing demographics in unemployment age and unemployment rate. For male youths, unemployment rates, employment protection legislation increase the impact of the population on unemployment rate. So you have an increase of youth population, and if employment protection legislation is restrictive, the increase in youth unemployment is high. And the same goes for female unemployment rates.

Lionel Fontagné: I am afraid that you are out of time.

Juan Jimeno: I will finish. So this is very preliminary evidence. But let me just finish by answering the question in the title of the talk. There are reasons to believe, either you take the [fissional] labour market approach, or if you take the standard approach, there are reasons to believe that there are going to be significant effects of changing demographics in the labour market. And there are reasons to believe that those effects depend on the labour market institutions that you have in place. So we need to prepare for, to face this demographic change, we should continue thinking about labour market institutions. So the answer is we don't know, but it will depend on what we do with labour market institutions.

Lionel Fontagné: thank you Juan for this very clear-cut answer, which is, uh, it depends. So I think that we have maybe ten minutes left, Daniel, you are the organiser. So ten minutes for questions from the floor. Who speaks first?

Bernard Casey: what I get the impression is that we actually don't know very much about substitutability between critical groups on the labour market, and much of the work that we do have is been about young people and prime age people, some between men and women. But we don't have very much age by sex that takes into account the older part of the work force, which is shown to be highly important. And I'm not sure how much we actually also have for substitutability between the domestic and various kinds of migrants, although Tito might or might not have said a bit more about that.

Tito Boeri: there have been a number of studies looking at the impact of migration on wages, and employment of natives. They tend to generalise, even in presence, which is rather surprising, even in the presence of the institutional types, Juan was characterising before, minimum wage, collective wage agreements, employment protection and this type of things. You really don't seem to observe very sizable effects on employment, unemployment of natives, and on wages of natives. There are a number of covers that apply to this analysis, very serious measurement problems, because we really have a very poor measurement of migration flows. Yet we have some ideas of the composition and the regional allocation of migrants, so in a way, we should still see this by looking at the regional data on unemployment and wages, some type of effect. The answer that can be provided is that even in highly regulated labour market, as the Europeans have, migration continues to play this of the 'greasing the wheel' effect. You really don't see strong effects on wages, and employment just because migrants tend to go to the regions where there is more overheating in the labour market, so they play this partial arbitrage effect. So that could be possibly be an answer to the fact that even in Europe we don't see much of, I wonder whether Juan has to say something.

Juan Jimeno: well, no. Just one caveat is that in this paper by [Angreous and Coular], what they find is that although the effects are small, more regulations means more negative effects on the labour market performance of natives when immigrants come. On the substitutability thing, yah I think the problem it's very difficult to estimate this elasticity of substitution between workers of different ages

in a scenario in which you have two things going on at the same time, not only the demographics change, which is the changing education rates of population. And in some countries, the increase in education has been a spectacular over the last decades. And the second thing is that you have technological change, you have changes in technology. You have a skill buyer, technological progress or whatever you want to call it. So given the data that we have, and given this constraint, I think it's very difficult to get precise estimates of the elasticity of the substitutions. But still, I strongly believe that workers of different ages are imperfect substitutes. Not because they have different education, but just because they have different ages. And this implies that the demographic change is going to affect either the relative wages or relative unemployment – but by how much? Well, it will depend on this elasticity of substitution that we don't know.

Lionel Fontagné: okay, thank you. Since this discussion is recorded, it will be preferable to introduce yourself. It was Bernard Casey that now, maybe a second question?

Howard Oxley: Howard Oxley, OECD. I'm just wondering if you've given some reflection of the fact that during these periods, in which we've been experiencing, there's been a steady but a slowing of the labour force in terms of levels. And now we're going to be going into a period in which there will be decline in labour force, and well, you see things in terms of shares, but that doesn't show much modification. Or it didn't to my mind, show much modification. You're maybe into a quite different labour environment when you've got declining labour force, and people are searching for workers, don't know how that's going to work out in terms of macroeconomics demand and supply, but nonetheless that's an entirely different environment. I was wondering if anyone has given some thought about that or how does that fit into the framework that you've been dealing with?

Juan Jimeno: in fact, the theoretical model developed by Robert [Scheimar] is a model in which the [social-barometer] that youth change in population growth is not population share. Okay? In Scheimar's model, what happens is equilibrium unemployment is decreasing in population growth. So if you take that [fissional] labour market approach, the answer will be less population growth, higher equilibrium unemployment.

Karl Pichelmann: Karl Pichelmann, European Commission. Unfortunately, I can say I agree with the main thrust of Tito's arguments, so I have a relatively minor remark, and this relates to this question of the residual welfare dependency probability of migrants. I mean, as far as I understood, Tito you said that this might be related to the generosity of the benefits scheme, which I agree is plausible. But it could also be relate to the driving forces of migration, I mean they're different across countries. I mean, in countries where migration is more driven by direct labour migration, and the kind of 'guest worker' system like for example, Germany, Switzerland and Austria, I mean this residual dependency probability might be smaller. While it tends to be higher in countries where migration is also driven by factors like, more driven like by refugees, asylum seekers, things like that, as it is in many countries where colonial ties are more important. I mean in these countries, you tend to find higher dependency probabilities. Now the upshot of this is that future migration, I mean, is more driven by say the pull factor of decreasing labour force in Europe, I mean then this residual welfare dependency probability might be less of a problem actually. (See the paper by Pichelmann, [EU Growth, Ageing and Enlargement](#).)

Lionel Fontagné: any reactions?

Tito Boeri: well no, certainly there's some truth in what Karl is saying that there are regulations preventing immigrants from working in some countries, and clearly they themselves are creating a welfare dependency. So by moving this type of regulation, I think that matters could improve. And yet I'm not sure it is entirely, first of all, the type of residual dependency that we've observe is not only related to the composition of migration in terms of refugees versus guest workers or temporary migrants in general. We do observe that we have a larger residual dependency in countries that don't have very large refugee programmes, and the other way around. For instance, in Sweden, we don't see in many cases stronger residual dependencies, as it would be for, if we were accept the idea of the refugees being the main [involve]. So I don't think it is only that. Also, in general, I don't think the

fact that people come in is really very much a fact that they are coming for work is not very much has to do with the regulation of guest migration and temporary migration. The driving force is always that one, it's not because there are these types of regulations that we know that are also very poorly enforced. Now perhaps one has to look more at the nature of the welfare system, so whether if you have the more Bismarkian versus the Beveridge type of systems. When if you have a more insurance-based system, you may have migrants are in less of a position to draw benefits because they don't have yet accumulate the minimum employment record, minimum contribution record, to draw the benefits. In general, the residual dependency is observed. Indeed more strongly for schemes, assistance schemes, which often have an insurance component. In my view, it may tell us more that, the problem cannot be solved only by changing regulations concerning migration. It is more of a problem of perhaps coordination among European countries in dealing with non-insurance component of the welfare system, the social assistance particular.

Lionel Fontagné: maybe we should take three last questions. Just one question in the back, one in the middle and if there are any additional questions, yes, one here.

Michel Englert: Michel Englert from the Federal Planning Bureau of Brussels, my question is for Juan Jimeno. First we have one observation and then one question. My observation is that of course, it's obvious that ageing has a negative impact on participation rates, but in some countries there is also an increasing trend for the participation of women to the labour market. In the case of Belgium for instance, for the projection that we've made, we use very conservative assumptions for the evolution of participation rate of women, namely we assumed that there the probability of retiring early from the labour market for women is the same as it is now. But only due to the fact that the participation rate for young female generation is higher, you have a mechanical impact of increased participation rate in the first part of the 21st century. In our projection this more than compensates the mechanical effects of ageing on participation rates. My question is about the effect of ageing on unemployment. I'm wondering if you have had a look on the impact of ageing on unemployment gaps. Because the, of course the question, one possibility is to look at the effect of ageing on [structural – *this could be just an economic term that I don't know*] unemployment, I don't know which figures you have used in fact, [structural] unemployment or observed unemployment? But it would be interesting to have a look at the impact of the decrease of the labour force on the unemployment gaps. Thank you.

Lionel Fontagné: maybe we take the three questions first. Yeah?

Timothy M. Smeeding: Tim Smeeding, Syracuse University and Luxembourg Income Study. Tito, the increasing family benefits may actually be good news, because no one said here anything about the fertility of migrants. And in fact, if those migrants are bringing children with them, they are going to need family benefits and education, but they're going to be the next generation of workers too. So it's kind of mixed, the difference between refugees, family migrants and as Karl mentioned, *Gästearbeiters*, is very different. So some types of you'll have to pay, excuse me, are liable to be good.

Lionel Fontagné: and very last question?

Peter Smith: Peter Smith, European Commission. I'm a bit confused about one aspect Tito's presentation. I understood, as he said that the primary effects particularly on pensions of immigration was not likely to be large, but then he cited the Italian study that with only 15,000 migrants per year, you got a six percent reduction. Now, does that mean that if you have four times that number of migrants, you would get a 24 percent reduction? Four times that number of migrants is in fact not a huge number for a country the size of Italy. Of course there are all the other elements there that would have to be for the formal economy, there would have to be unemployment, but certainly compare for the UK for instance, four times that number is no big deal

Lionel Fontagné: thank you for this question. I've heard that linear relationship, somewhere else ratio.

Juan Jimeno: I will answer the question. Yah, it's true that participation of women is increasing and this might go against some of the calculations that I've made. I have two remarks about this observation. One is that in some countries the participation of women is already very high. And it's difficult to see how much can increase. In the Scandinavia, and in many countries, it's very high. It's true that in other countries, particularly in Southern Europe, the participation rate of women, older women, is very low, and it's going to increase significantly in the future. But on the other hand, you have the decreasing trend in the participation rate of males, between 55 and 64. So that's the first remark. The second remark is that this calculation I make with the simplistic assumption that the participation rate remains constant at the 2000 level; you can make it with some alternative assumption, with some alternative participation rates. And in fact, I did it for Spain, and the only way that Spain can achieve the goal of the 70% employment rate, given the demographics change that we are going to have, is half the same age specific rates than the US. So we need a very big change, even though you have this increasing participation rate, and things like that. You'll have a very big change in the unemployment rate. And about the structural versus cyclical unemployment, well I didn't have time to explain the regression that I've showed you.

But I ran those regressions with two different data sets. One with annual data, and one with five-year average, which is the typical approach of studies looking at effects of the labour market institutions. Typically labour market institutions are thought to be equilibrium unemployment, and therefore people use long-term average. In fact, what you find is the effect of the demographic variable is not very different when you look at the annual and structural unemployment. So, you find both, you find in fact similar effects for both data sets. So the effect of the unemployment gaps, I can give you the precise estimates.

Tito Boeri: yes, migrants via their fertility rates for natives, at least for the first generation, then they tend to assimilate a bit the level of the fertility rates of the natives as well, so this type of effect slows down over time. In terms of the native fiscal contribution of migrants, you typically have visual studies that are more formal; some else have been done in Europe. But the more interesting results are for the US. You typically have a migrant, initially is a net contributor, because he becomes on his own because he's working, then he brings in the family, then he becomes a net recipient of the transfer from the state because of education, school and also the family benefits and this type of things. And this, this phase of, negative phase fiscal finances is bound to be larger in Europe because of the types of schemes that we have in place, and then he starts being a native contributor over time. Again, once the kid starts working and so on, the family, migration in this view is a long-term investment, so I fully agree. The type of picture that I was providing is a static one, and I'm not taking into consideration that you have to pay a price initially then to get a very larger reward afterwards. Yet in the times of policy-making, and in particular in the views of perception of the voters, what matters is sometimes the immediate situation.

And the fact that these people are drawing the benefits, this is certainly something to be said, it's an important point. Italian numbers look small, why do I say that they look small? Because, as I said, the results that I've obtained for Italy were assuming first of all that all of these people are coming, and starts contributing the day after, and staying there forever. So, for their entire working life. This is certainly not going to happen, as we know, and the increasing numbers of migrants given the type of political constraint, I think there's really an initial political constraint, acceptability of large number of migrants in the countries involves that these people can only come on a base where they cannot contribute, because they would only come illegally. So these, in my view, are already overestimating the actual results.

Lionel Fontagné: thank you very much to Tito and Juan, the very last question is where is our coffee break at this stage is worth or not? The answer I think it's definitely yes. And I've checked with Daniel, so we're allowed to take it for ten minutes, and then we come back. Thank you.

Session 2. Sustainability of Welfare Systems

Henri Bogaert: Budgetary costs of Ageing (14.30 – 15.30)

Thank you chairman. Well, I would like to bring you up to date with the work being carried out in the Economic Policy Committee. Our activities have increased substantially over the past three years. Mostly on account of the recognition that sums and sustainable public finances are crucial for the long-term sustainability of the Economic and Monetary Union. We have written two main reports, one in 2001 and one in 2002. These reports are on the website of the Economic Policy Committee, and well, I try to summarise some parts of these reports. But I apologised that I cannot answer into the details. Let me first turn to the area where the EPC has been more active, namely on efforts to produce more comparable long-term projection for public spending on pension, health care and long-term care for the elderly. These projections are prepared in corporation of the Commission services November 2001, not only cover old-age pensions, but most income transfers to persons age over 55, including early retirement pensions, disability, and survivor pensions, and all the transfers to the elderly. The health care projection covers acute care, hospital care, and medical services, as well as long-term care. These projections were made thus far by the EPC and the different members of the EPC, and there are 15 members plus the Commission, but also with the help of the OECD, namely Howard who is here at the table.

The projections were made using the models of the national authorities, but on the basis of common projections, common demographic projections, and on agreed assumptions on key macroeconomic parameters. In those fields that are mainly in the domain of subsidiarity, this is one of main advantage of the approach. Well, let me first say a few words on the common demographics projections, as you would have seen this morning. The demographics projections is the Eurostat projection, the results are well known. The population, the working age, 16 to 64, in the EU will fall by some 40 million persons in the coming 50 years. And the numbers of elderly persons, age 65 and more, will increase by about the same number. As a result, the old-age dependency ratio will double from 24% to 49% in 2050. Thus, as the work of the Commission has shown, assuming a no-policy change, this demographic phenomenon will entail a regular decrease of employment, and a progressive slow down of growth. Moreover, the expenditure on some of the main functions of the social security system will increase, putting at risk the sustainability of the public finances. And this is why mainly why the Minister of Finance is worried about. This is mainly the point why we are working on this at the EPC Committee.

Demographics however do not represent the whole picture. What matters more for growth, and pension system, is the balance between economically active persons in employment and inactive persons who must be supported. The negative impact of demographic developments can be partially offset if more persons of working age participate in the labour market and if employment rates are lower. What do we assume? The projection assumes that participation rates of women will continue as they have had in the past, this was discussed this morning. And already active reforms to pension and early retirement schemes, will succeed in reversing the trends towards lower retirement age. As a result of these assumptions, the number of persons employed is projected to decline by only 10 million persons. Even though the working age population will decline by 40 million persons. And this implies that whereas the old-age dependency ratio will double in coming decades, the so-called old-age economic dependency ratios, that is the number of old-age people per persons employed will only increase by 50%, that is in 2050. In our projection there will in the EU, one person age more than 55 for one person employed. This is different from the projections that were presented this morning by the Commission.

I should state however that these increases in employment rates should not be taken for granted. In some countries, policy actions may be needed to actually realise the assumed increase in employment level. For example, female participation rates may partly depend on more resources being devoted to childcare facilities. Also achieving an increased effective retirement age which will mean reversing a long historical trend, may require reforms of pension systems, disabilities and unemployment schemes

so that they provide better incentives to older workers to remain in the labour force. Now, overall the results indicate that spending on public pensions will increase by between 3 and 5% of GDP in most member states. There are however very large differences, as you can see, in the timing and scale of changes across the countries. The largest increase in pension spending is of 8% and 12% of GDP, have been projected for Spain and Greece respectively. There are no new demographic projections, national demographic projections that give other results, but I give you the results of the EPC projections.

It is also, it is useful to go a step further, and to consider the different explanatory factors that are driving the increasing pension spending. Demographic changes are by far the main driving force, on its own, the increase in the old-age dependency ratio will push up public spending on pension by over 6% of GDP in coming decades for the EU as a whole. As you can see in the next slides, the old-age dependency ratio contributes for more than 6%, but almost one third of this increase is offset by a fall in the average level of pension as measured by the benefits ratio. Why? In the methodology that we've applied, we've used the model of the different pension systems in the different countries, the institutional features are put into these models and this gives these benefits, with a no-policy change assumption. This is mainly due to indexation, the indexation rules hypothesis of the pensions and this is also due to reforms undertaken in the '90s which got to the pensions and entitlements. The largest falls in benefits ratio are projected in those member states that, for example Italy and the UK, where pension benefits after retirement are indexed to prices and not to wages. And especially in systems like the UK, where there is a flat rate system, when you have just an indexation to prices and not to wages, the replacement ratio decrease very hugely.

In addition to public spending on pensions, spending on health care and long-term care, is projected to rise by some 2 to 3% of GDP over the long term, up to 2050. It is obvious that the impact of ageing on public pension expenditure is largely uncertain, but in certain cases of health care, the uncertainty is even larger. At first sight, ageing and health care expenditure appear highly related, and patterns of average expenditure across age groups follow a well-defined pattern across countries. In particular, expenditures per head increase with age, and particularly high for the older age groups. The age profiles that you can see here, for expenditure per head on long-term care, oh no, this is only for acute health care, for long-term care, they show a similarly distinct patterns across member states. There is little, or no expenditure before old age, and then rapidly increasing levels of expenditures at higher rates, at higher age. Increases in the more traditional sectors of health care are relatively limited in most member states. On the other hand, increases in spending in long-term, on long-term care, could be dramatic in several member states, where public services of this kind are already well developed. You can see that for the Netherlands, Finland, Sweden or Denmark, the Nordic countries.

The ageing population, this is mainly, and not the demographic impact on health care expenditure. But the ageing population will thus be responsible for large demands in health and long-term care expenditures in the coming decades. But other factors also come into play. For instance, the profile could move to the right if it is related to the life expectancy. For instance, there is a link between death, the age of death, and the expenditure. And also in recent decades the demand and supply factors have prevailed, like access of technology, are perhaps the main driving force for increase in expenditure. Several member states have made national projections for complimentary age related expenditures. For instance, education, childcare, and other social transfers. But these point to some limited, some limited expenditure savings. So I would like now to draw five main conclusions from the results of the projection that we have drawn.

First, ageing population will lead to substantial pressures for increase public expenditures on pension, health and long-term care in coming decades. In many member states, further reforms noticed of pension and early retirement schemes will be unavoidable. Second, the very big differences between member states as regards to the budgetary impacts of ageing population show that the design of pension systems matters. Countries can learn valuable from successful reforms elsewhere. And EU has a key role to play in this regard. We are now working on a joint Commission and Council report on pensions, which will be presented at the European Spring Council, and which applies the so-called Open Methods of Coordination, the field of pension and health care. Third conclusion, raising

employment rate is a critical element in the strategy. And higher employment rates on their own will not suffice, it is important to not to be complacent as we have seen this morning, and to assume that higher employment will occur automatically or that it will somehow fully resolve the budgetary challenge. Fourth conclusion, this work on the budgetary implication of ageing populations needs to be complimented with work on the social implications – and in particular, on the adequacy of retirement income provisions.

This is undertaken by the Social Protection Committee. But I think that the members of that committee will agree with me that much still need to be done to have a better understanding of this objective. I've understood that it's also a research project which interests ENEPRI. And lastly, more work needs to be done to improve the quality and comparability of our projections. In particular it would useful to produce additional common projections on education spending, unemployment, and to look at the tax revenues entering into pension system, and this will be done by the working group on ageing of the EPC in 2003. So, when considering the specificities of the pension systems and the varieties of the challenges, strategies can be developed along three axes on which the member states can put different relative weights according to their room for manoeuvre. And this is the so-called three-pronged strategy, recognised by the Stockholm European Summit. Firstly, increase the employment rate of especially of older workers. This could lead to a double dividend, increase in employment and growth, and reduction of pension expenditures. That was also the target set, the reason for the target set at the Barcelona Summit, if you remember, to increase the effective retirement by five years within a certain time.

Secondly, the second axis is to reduce public debt, and accordingly the interest burden, in order to progressively have room for manoeuvre in the budget. This financial recommendation is also consistent with promoting savings and investments, and thus productivity. This is important as growth is clearly a challenge in a context of ageing population. A working group on ageing has also defined a set of financial sustainability indicators, which is now used in the assessment of the sustainability of public finances of the different stability and growth programmes of the member states. This assessment made by the Commission shows that without reforms, or higher primary surplus, half of the countries are facing the risks of unsustainability. Thirdly, reform the pensions systems, and especially through parametric reforms. For illustrative purposes, the EPC produced a number of additional projections on three selective options for parametric reforms. The first simulation assessed the spending impact of a reduction in the indexation of pension by half a percentage point per year. In earnings related system, such a measure could on average absolve 0.5 to 2 percentage points of the expected increase in pension expenditure by 2050.

This is one third of the increase and not more. In flat rate systems, the impact would be much greater, but involve of trade-off with regards to the relative living standards of pensioners. The second simulation examined the spending effect of increasing the effective retirement age by one year. Roughly speaking, if workers were to work one additional year, before retiring, public pension expenditures will be reduced by 0.6 to 1% of GDP over the period by 2050. Which corresponds to 10 to 30%, it depends on the country, of its expected increase. The third simulation looked at the spending effects of an adjustment of the benefits of increase in life expectancy. For instance, by implementing some kinds of actuarial mechanism within the public system for each cohort, like in the Swedish and the Italian reform. The projections suggest that approximately half of the expected increase in pension expenditure is the result of the increased life expectancy. Such a measure could thus reduce the expected increase of pension expenditure by 0.4 to 1.9% percentage compare to the baseline in 2050.

Thus additional projections show that across European pension system, there's no one single reform measure which could fully absolve the expected increase in pension expenditure by 2050. And clearly most countries need to raise, and could raise, the employment rate of older workers and the effective retirement age. But as you can see on the graph here, the gap, the room for manoeuvre is very different from country to country. Compare to current policies of member states, the pension system and other transfers, such as early retirement, disability, or unemployment benefits do not provide sufficient

incentives for older workers to remain active in the labour market. And the EPC considers that apart from removing barriers for female participation, reforms of these systems should mainly aim at reducing these incentives in the pension system, to remain in the labour market. And that means to strengthen the actuarial neutrality of the combined first and second pillar. But more than that, disability and unemployment benefits for older workers, and other systems should be designed in such a way as to restrict alternative or backdoor routes into early retirement.

Here you have on the slide the minimum age requirement for early retirement. We should however also note that retirement behaviour also depends on factors such as the state of labour markets for the older workers, or the health of the potential retiree. But this expresses the difficulty of the task, whenever the growth is sluggish, like for instance now. You know that this early retirement mechanism is one of the main mechanisms that explain the [historicists] hypothesis in the labour market. So it's very important to be aware of that when there is a slow down like now. Reforms of pension systems, especially parametric reforms, such as shifting indexation to prices instead of wages will reduce the average benefits ratio. There the room for manoeuvre is not the same in all member states. And we can assume that this room depends on the levels of income replacement in the different pension system, which is difficult to capture. It is a function of parameters, such as the statutory replacement rates, the number of years that is necessary for full carrier, the indexation rules, etc.

So a comparison of the relative replacement ratio of public pensions, calculated on the basis of a synthetic indicator for the hypothetical individual with a full carrier, shows that several member states could pursue reforms containing average pension benefits without endangering the general adequacy of old age provisions within their systems. But as you can see, this is far from being the case in all the countries. Thus, the room for manoeuvre there is also different from country to country. As you can see in some countries, the room for manoeuvre can be very narrow. In such cases, more funding, or financing means are required. And during the last decades, we have understood that increasing the contribution rates of the non-wage labour costs is not as good of a solution for unemployment. We also have seen that this morning. As a consequence, some countries are clearly basing their strategy on the reduction of their public debt, and in order to create an anchor for consolidation. Some of them are also building reserves also within the public sector.

A number of member states are also implementing, or are considering an expansion of occupational second pillar or privately funded third pillar pension schemes, which helps to diversify the income sources and the risks involved in the different types of pension schemes. They are helping to preserve the relative living standards of pensioners. I don't know if I have some time left, but I would like to simply to conclude based on this preparatory work by the EPC and by the Commission services, two important decisions have been taken in the past. First of all, the Stockholm European Council of March 21 called for the long-term sustainability of public finance to be reviewed in the annual stability and convergence programme for the member states, and in the broad economic policy guidelines. Then the Laeken European Summit decided to launch a coordinated procedure in the field of pensions, the first results of this coordination procedure will be delivered at the next Spring European Council in March. The EPC task is to mainly help the ECOFIN in assessing the sustainability of pensions, public finances in general.

This is an extremely complex task subject to a degree of uncertainty as you are all aware. The Commission and the EPC are proceeding with this task on a step-by-step basis, with each successive vintage stability and convergence programmes. It is clear however that more work remains to be done, in particular this year by the request of the ECOFIN Council the working group will continue to work on a more comprehensive assessment on the impact of ageing. And in 2004, with the new Eurostat projection, we will provide the next round of updated on the budgetary challenges of the ageing population. So as you can see, we are really making progress in Europe on the issue of pension, so there's certainly one thing that I've understood, the main consequences to me that my personal retirement is not for tomorrow. Thank you.

Henk Don: we have a discussant from for this paper, and that's Martin Werding from IFO, Munich.

Martin Werding: Responding to Henri Bogaert (14.30 – 15.30)

Okay, if we neglect interim report, Henri Bogaert has now turned two long reports at least into a short presentation, and to comment on these things is not an easy task. I'll try to do what he did, try to be selective and short as possible. One thing that I would like to start with is to say something friendly about the overall project. I mean in its class of project, and it's been a parallel effort ran by OECD and by the EU, it's been an ambitious project, and on the whole, I think it's turned out to be a successful. If we think what was in place of comparable studies, looking at different countries, at the long-term developments of age-related expenditures, in particular pension systems, then well, there were some comparisons ran by at OECD level, but the IMF staff, where national pension system were represented in a very stylised way. The sample of countries considered was always very small, just six or nine countries included. This time, simulations are much more detailed, much more specific about national institutions, and they cover all the countries of the EU-15. Or if you take the full OECD study, it's 25 countries, which have been covered. And all this has been done at reasonable cost, in terms at cross-country comparability. I guess the EU officials have benefited from the experience of the OECD in directing these kinds of things, in directing national authorities or government in running projections that can be compared up to a point. So on the whole, I think the results are fruitful.

I should perhaps tell you that I may not be entirely unbiased in my assessment. The German treasury decided not to do German projections on their own, instead, at least as far the pension projections are involved, and they commissioned IFO for doing these projections. One of the reasons is perhaps being that the people at the treasury felt that they would not like to see the results of such an exercise. On the other hand, I claim to have an independent view on what we had to do, and at the same time to being familiar with some of the things that turned out to be important when doing these simulations. Now, let's go ahead. What are the important choices involved in the general design of the experiment? One important thing is who should run simulations. Former studies were conducted by supranational experts, but just one research group, and the result was that they could not treat all the national pension systems and all the relevant details. And the alternative is to involve experts from the national level, then you have the detail but perhaps compatibility deteriorates.

The strategy chosen here to refer to national level experts and to put in a lot of guidance might be an appropriate strategy to coping with this trade off. So what kinds of models should be employed? From an economist perspective, general equilibrium models, especially if you want to look at the development of the total economy and how pensions fit in this general development. There are general equilibrium models, clearly that are much more attractive. On the other hand, the simple type of accounting models, which were mainly used for the exercise, I think Portugal first came up with a general equilibrium model, but then had to give that up because they couldn't make it fit to the assumptions imposed by the central, by those in charge of the overall project – and had to return to the accounting approach. And of course, again there are losses on both sides. The trade off is that with accounting, you can check the consistency on the national level, you can see whether interest rates to be assumed, whether wage developments to be assumed are really fitting each other for a given country. On the other hand, if all countries would use general equilibrium models, you couldn't make things comparable across countries – not at all. So in order to keep the whole thing tractable, I think the approach chosen is the only way to do this.

And then, what measures of prospective fiscal strains should be adopted? We have now seen results for pension expenditure, health care expenditure as a percentage of GDP – a GDP which in itself is somehow simulated. There was a more elaborate way of presenting the results, where we had to calculate the impact on public budgets, on annual surpluses or deficits, on accumulated debt. All this is macro-level, it's akin to the way fiscal policy decisions are taken. But somehow it's not too instructive about individuals perceive the rising boom, and how they would respond to that. So, individual level measures might be an alternative to look at in order to round off things. And at the same time, these calculations on annual deficits and debts, they ignore part of what the pension systems are about, because they ignore part of the inter-temporal links. They ignore part of, they neglect part of the

implicit depths of these systems. So things like generational accounting might be an alternative as well. The choice made here, it is related to policy-making. And for the purpose, it may be okay.

But there would be alternatives. I will be very brief on assumptions and will not go into details. My general impression was that wherever the researchers complied with what had been agreed upon, the set of assumptions have turned out to be sensible, or at least workable. I'll be silent on what's been called the Lisbon scenario here. That was an alternative set of assumptions supposed to be very optimistic, it was somehow incorrectly constructed. I said that I wouldn't go into details, and the baseline assumptions were in a sense, more workable if you wish. Of course, as I've said, you can't check consistency of these assumptions, and this is a drawback which you have to keep in mind when you interpreting the overall results. Clearly sensitivity tests are crucial, at least for the case of Germany, and if I remember well, for a few more countries. It was very clear that the results obtained were very robust, with changes in assumptions. And in that sense, assumptions made not have been correct or appropriate, not fully fitting in some cases, but if the results are robust then it tells you that the problems that may become visible will be there whatever happens to the overall economy – the problem in terms of increasing pension expenditure.

Now these are the results, we've seen them a minute ago. The situation in 2000 looked at in terms of pension expenditure per GDP, and the change over the next fifty years. We've seen that so I can go ahead. One very important thing is that we really don't know how the economy of all the EU-15 countries evolves over the next fifty years. So the projections aren't interesting in the sense that they should be interpreted as a point estimate of what happens to pension expenditure per GDP, health care expenditure per GDP. What's important about the whole exercise is that it shows the role of current institutions. It turned out, and I think this is an important result, that institutions matter – which surprisingly is hard to nail down. One strategy of doing so is the OECD and the EU, they wanted to see a set of policy simulations and parametric reforms with differing approaches. And this says something about the extent to which institutions are important and what could be achieved by changing current institutions. On the other hand, these simulations, as the baseline simulations, are not fully comparable, these simulations are not fully comparable as well. Perhaps an alternative way of looking at thing is something that we've prepared at IFO.

I'll just go through this very quickly. What we did is that we correlated the change in old age dependency, which is something like the demographic fundamentals, which is different across countries, to the projected change in pension expenditure, corrected for changes in the employment rate. Assuming what's left is the role of institutions. And as you can see, the 40 degrees line, which would indicate increasing old age dependency, converts into increasing expenditure by GDP on an one-to-one basis is far above most of the countries. Effectively, the average of countries have institutions that make sure that only about 50% of increasing old age dependency converts into increasing expenditure on relative terms. And then you could go ahead and just tick the different countries in a different way depending on institutional differences. Here for example, we have the pay-as-you-go systems, where there are partially funded systems. We differentiate those between ear marked contributions and general government budget finances, or mixed regimes, and the impressions that you get, they are not too clear-cut. This is one thing, it's a small sample, and you can't do much about that in terms of serious analysis. And also you can see that this category of mixed regimes may be far too broad.

Our impressions when to look into details was that whenever a country was to follow a clear-cut rule, financing public pensions, either from contributions, or from the general budget, or from a rule-based approach to mixing both, it's prone to increases over time is smaller than changes that could be expected in old age dependency. And you could go on like that, the types of benefits, mainly earnings related, mainly flat rate, benefits adjusted based upon wage indexation, CPI indexation or mixed – again an exercise or an example of the rules versus discretion debate. The final thing I want to mention, part of the conference is to state what have we learned, there's an important that we haven't learned yet, I think. Or we haven't learned very much about it. A very important institutional feature of pension systems, namely benefits levels, replacement rates if you wished, the generosity. There are

some comparative studies on that, and there are also some results on that in the EU report, but as far as I would judge these things, we haven't meaningful comparisons of benefit levels of public pension systems across countries. The best thing I know of is the OECD study of nine countries, but this is nine countries. And again, many aspects that might be relevant are missing. So, this might be an effort where things might be pursued further. That's all I want to say, thank you very much.

Henk Don: thank you very much indeed. I don't know if Mr Bogaert wants to react at this point, no? So we can take questions from the floor. We have ten or fifteen minutes to do that. Yes please.

Vincenzo Galasso: Vincenzo Galasso of University Bocconi, the question that I have is related to the projections that you have on the long-term care of elderly, which is an increase of 0.4, which seems very small to me. Going back to this question of accounting model versus general equilibrium model, I was wondering if this result is due to the fact that you're considering that in Italy most of the long-term care is taken care of by the families. This may be true in the year 2000, but I'm not sure it's going to be true in 2050. And in this sense, I think that this estimate of long-term care may be distorted downwards.

Henri Bogaert: yes, you may be right, I mean, this is contrary to the pension exercise, the health care exercise is much more mechanistic. You apply just the profile to the other demography, the demography of 2050. And you have just hear that the profile of long-term care, as it is now in terms percentages GDP per capita in 2000 in Italy. And so you're, the only impact is the only demography impact on this kind of figures. So if you think, I think you're right, there will be an endogenous, or an autonomous increase in this profile, I mean you will have a very different result. We have that also in the case of health care, in the report, I think it was just Belgium and the UK who performed a simulation with the long-term trend, which is not due to demography. And in the case of Belgium, you see that with a simple econometric equation that the impact in the long-run will be approximately doubled of the increase in the demography.

Henk Don: thank you, yes please?

[I think it is] Bernard Casey: I want to ask about the definition of public that was used here, and also to relate to Martin Werding's final point about the OECD nine-countries study, I again I have to claim some allegiance to something here. But it is the case that one talked here about public pension systems in a fairly narrowly defined fashion and across Europe; OECD systems are very different. The role of private or semi-private, or publicly supported private schemes is not an important, if for no other reason, it's often these schemes are tax subsidised. I'm not aware that tax subsidised schemes were taken into account, and I think that in order to get a better view of what's actually going, and something which might correct that very substantial differences between across countries even at time now, means that we actually have to look a little bit wider than at public pensions narrowly defined. That would also apply to other areas as well, but I'll talk about some of those later.

Henri Bogaert: yes, well, you're right, we have just the public pension schemes. We are, we were working on the impacts of ageing on tax revenues. There are some countries where there is a deep analysis of this impact, namely in the Netherlands, in the CPB and also in Sweden, I think, in Denmark also, and in other countries. If you look at where the impacts are very important, it's very simple, it's in the countries where there's a flat rate system and very low benefits, and there you have an important second and third pillar, and so where there's a tax shift from the present generation to the next one. I mean, and then you can know have deduction on the tax basis for those that are paying their contributions to the second or the third pillar, and in 2030 or 2040 when they will retire, they will pay these taxes. So there will be perhaps large increases in tax revenues coming from that. But I think it's really related now to the flat rate systems and namely the UK, Denmark and the Netherlands, and Ireland.

Henk Don: Yes please? Please use the microphone.

Martin Hutsebaut: Yes, Martin Hutsebaut, European Trade Union Administration. I just finalised this morning, the EUI benchmarking report 2003, the section on social protection, taxation, and

implicit tax. [**Henk Don:** can you speak closer to the microphone so people can hear you?] So I try to also the most recent figures, and comparative figures, based on terms, and I join what Bernard said – which is understandable. We are dealing today with a field of an area where terms do not always mean the same thing when you switch from [Blundart Scapeta] to take one example, to EPC, or EPC 2001 and EPC 2000. And to pick out one example, Germany, replacement rate of Germany, now you come up with 50%, one year later, you have 33%. [**Henri Bogaert:** yes] I can go on with examples, but this makes the whole discussion very confusing. This in itself is not dangerous, but what's dangerous is that one starts drawing conclusions on that, and you know how politicians are. If the figures suit them, they use them, and if it doesn't suit them, they don't. The problem for me is that the relationship which you put, and I'm a sociologist, and you're an economist, so we have a kind of different perspectives looking at the same things is that if I listen, ratio old age dependency, but besides this you can also speak about economic dependency, you can compare the numbers and expenditures on pensions, with the income basis, active labour, and dependent labour.

But you can also compare the expenditure on pensions with for instance the income of a national economy, because finally, and I would say that this perspective is more of the Bismarckian approach. It's the active population who supports the population who is no longer active. But in a lot of countries, it's not the active population, it's the national income, because if you switch to Denmark where you have the highest rate of public budget money used for financing of, with a very low labour costs, with very low indirect labour costs – that the sources of financing are completely different from what they are in Germany for instance. There they have indeed, or in France, to take the best example a relationship between social expenditures and social contributions. This model seems to me, I would say, would be appropriate for France, but much less for countries that have a different structure for financing. My main point here is that besides these methodological questions, for the time being, although the Open Method of Coordination has already been running for the pensions, not yet for health, that we are working and speaking and discussing on figures which are not precisely said is it public, or what is it public? Is it net or gross replacement rates? Because between net and gross, there's a huge difference. We are a little bit in the vague about the methodological, definitional, and even ex-post, if you compare the latest manual '96.

The application and the understanding of the figures is not evident. It's not evident. I think that the methodological efforts of all those who are concerned, and the working party between the OECD and the European Commission, is I think that there is preliminary work to be done before you start flying. You must first have your business in order before you start going up. Otherwise, it's the confusion?

Henk Don: I think the point is clear, can you please react?

Henri Bogaert: well, two technical remarks. I don't want to enter into the political debate on, but on the replacement rates. The comparison between the 2000 report and 2001, in 2000, we have spoken about the benefits ratio, but we have called that replacement rate at that time. What is it? It's simply the statistical figure just the amount of pension divided by the number of pensioner – and not more than that. In the last report that you mentioned, where you have this 50%, this is completely different methodology, it has not nothing to do with the projections – nothing. It's simply a, the computation of a typical case, where you take the main features, the main features, not all the features of every systems. And you see for a typical individual, working 45 or 40 years, with a parameter of the system et cetera, what is the replacement rate if he has a full care in this pension system. This can, this is something which allows us to compare the systems and the features of the systems, and not more than that. But as you said, one of the drawbacks, it's not a drawback, it was designed like that, we didn't take into account the tax revenues, the tax systems. The replacement rates are growth replacement rates, and not net replacement rates.

Because we wanted to have, in fact the internal rate of return, of the contribution given to the system, if you have a full care, et cetera, et cetera. In order to see, well, if you have a full care, is the system generous or not? Now, I completely agreed that this kind of analysis has many drawbacks, but it's, if you want to do more, I think it's a big, it's a big effort, per say. [**Henk Don:** can you add a sentence about the relevance of the financing structure? Whether it's tax or premium, or where does the money

come from? How does it affect your analysis?'] Well, no, it doesn't, we just have the, in the projections, we just projected the expenditures, and we took the tax revenues, well in the assessment of the sustainability, we just took the revenue, as constant in terms of GDP. So it's just in the computation of the sustainability indicated that we used the tax revenues, the tax contributions.

Henk Don: the point about whether it is national income or the active generation that raises the money, I think it's basically the same, because the active generation generates the national income. [**Henri Bogaert:** that's fair to say.] Any other questions? Yes?

Male speaker: could I just add a comment having just gone through the exercise with the EEC. If you want to get everything right before you get started, nothing will get done for a five-year period, it's extremely complicated and difficult when you're operating 25 countries when you're trying to hold things together. Very often it's the case that countries have never gotten into this exercise, and as a consequence, you get the spreadsheets with the simple static results, let's not talk now about any of the dynamics of what might happen, you get numbers that are all over the place. I mean, we spend an enormous amount of time trying to straighten out what the numbers are, so I sympathise with your difficulties. But from a practical point of view, it's really extremely difficult. I just want to say one thing, Henri has mentioned the question of the definition of different replacement rates, and I think it's probably right that you need to be very careful about what you're defining. If I can just point you to some results which Bernard Casey and myself, and above all, you'll find it in the *Economic Outlook*, the last *Economic Outlook*. You go through the exercise of creating models, which are synthetic if you like, which would provide broad characteristics that allow you to compare them on a pre-tax and after tax basis. And I think if you want to do a comparison on cross-countries, or as Henri said, a specific types of individuals, that sort of calculation is the type to go. But this type of analysis, which we've done, which is basically an in-depth, trying to assess what the fiscal situation is, is another animal. And the two are very difficult compare. So I, that's just a parenthesis.

Martin Hutsebaut: let me just say a one word reaction. I know Willem [Ademadeus'] calculation, gross net, which is a wonderful exercise and evaluate the whole picture. Nobody can do better than him. And you have recent data going to '97. But this is exactly what we need. What I criticise is the fact that there's not, are the Council of Ministers who take decisions knowing that they don't even provide the necessary data to be based on – where their policies should be based on. If you take the complimentary pension system, well at the Commission's level, they do not have aggregate figures for the UK. Now, UK is a country in which complimentary pension systems is extremely important. London says that we don't have data. This is not consistent, because policies are based upon facts. And not on estimations, or it becomes merely wishful thinking. And this is dangerous policy.

Henk Don: Henri, your final comment on that point. [**Henri Bogaert:** no.] Any others? I can allow one or two questions, yes please.

Catherine Fallon: it will not be a question but a comment, because I will not be able to be here tomorrow and when I listened to you about the question of fact, of establishing facts, but also about how to measure replacement rates. I think as a SPC is also part of the game in the pension system, and also in the on-going building system on health care, and also long-term care. I think we also have to look in the areas concerning the adequacies of pensions, all the different components in the future costs of health care systems. There is now through the DG Research a new framework programme, I don't know whether if you are aware of that, a line open for research in support of policies, where two areas have been open to one network of experts in order to assess the adequacy of the pension systems. And another is about the components of health care, I just want that to be said, because I was not sure it was said, if people are aware of these opportunities or are trying to build expert groups on these issues. Thank you.

Henk Don: thank you for your information. I suggest that we now move to the second part of this session, which is a presentation by Erika Schulz from Berlin on the scenarios for health care systems in an ageing society. Please.

Erika Schulz: Scenarios for health care systems in an ageing society (15.30 – 16.15)

I will follow up Henri's presentation, and I will come back to the health care system. Within our ENEPRI network we have a research project named AGIR. And AGIR is a running project so I cannot present you final results, but I can present you some ideas of AGIR and some first outcomes. The main aims of AGIR is to analyse the impact of living longer, that means increasing life expectancy and in much more better health on the retirement behaviour as well as the use of health care services and the need for long-term care by the elderly and to predict the implications for retirement and health expenditure. That seems similar to the presentation to Henri, but we have another focus, the focus is: What's the impact of increasing life expectancy and much better health? It endorses the hypothesis you know is the old compression hypothesis from [Friis]. So we have to look at whether this is true or not true, and for several EU countries. In my presentation I will focus on health care services, and we have in the morning and in the afternoon, as Henri already said to us, that we have not only a direct relation between life expectancy, population and health expenditure. We have the relation between increasing life expectancy, changes in disability and a toll of acute health status of the population.

And then we have the use of health care services, and that is only the demand side of health expenditure. We have also the supply side, and in most countries, we have the health insurance schemes that have a great impact on the supply side. And we have prices and costs, and we have three groups, factor groups, who have a great influence in all these fields here. That's at first, medical and technological progress. In Germany, there's this study that three quarters of the health expenditure growth in the last 40 years were driven by the technological progress. Three quarters. And the technological progress is not costless, it's the supply side, but if you have new medical treatments, you want to use this treatment, it's also on the demand side. Another group are that socio-economic determinants, healthy behaviour and genetic conditions. Such socio-economic determinants are income, education, and such on. And all, especially the behaviour, influences the morbidity, and the structure of the disability in the population and the use of the health care services. And we have the overall framework conditions, and that's policies, policy rules and assets, to the single field – and the overall economic development.

And these are important drivers of the health expenditure. So one task of our AGIR project is to only analyse this demand field, what means increasing life expectancy, to structure of morbidity and the use of health care services? The background, you know, the background it was in this day, in several presentations, health care expenditure increases with age, and the number of the elderly, especially the share of elderly persons within the population will rise sharply in the next decades, and therefore it is expected that we have a significant on public spending. And this figure, Henri showed you for a few minutes, that is health expenditure per head, and as you can see in all EU countries, we have the same figure, nearly the same figure. And that's the development of the population in the European Union, that's also Eurostat baseline scenario. It's the same scenario you have in the presentations before. I will show you the broadly, broad range between the development of the numbers of the elderly persons, elderly here age 60 and more in percentages. That's the average in the European Union, that's 57% increase.

And you see Ireland, 153%, and you see Italy only 39%, there's a broad difference between these countries. But in all countries, say they have a decreasing population, or they have an increasing population, such as Ireland or Luxembourg, they have all a great increase in the numbers, and the share of the elderly. This ageing process is caused by fertility rates, which are too low to ensure a natural replacement of the population, if you will know, in average 2.1 kids per woman for replacement level, the EU average is 1.5 and in the baseline scenario an increase to 1.7 in 2050, that's a low increase. But I think it's an optimistic variant. And we have increasing life expectancy. The average life expectancy at birth for men is projected to rise five years from 75 in year 2000 to 80 by 2050 – and for women, from 81 years in 2000 to 85 in 2050. AGIR focuses not on fertility rates and changes in fertility rates, we only focus on the life expectancy and increasing life expectancy, and you see also in the past there was a higher increase in life expectancy, that's 75 years for men, an average in the Union member states, and for women I think 8.3 years in the last 40 years.

And this is especially so for the life expectancy of the elderly. And you see we have an increase 3.5 years for men, an average of the European Union, and for women from 4.8 years. But we have long time series about life expectancy, increasing life expectancy in all EU countries. That's a common indicator for a global health status of a population, but only in the Europe indicator. We want to focus on the number of years lived in full health and then number of years lived in bad health. That has a, that means that we want to create healthy life expectancy, and life expectancy in disability. The World Health Organisation calculates healthy life expectancy, I think since 1999, and that's figure for 2001. And you see that the expectation of lost healthy years, and the minimum is in Denmark of 5.5 years for males, and 8.7 for females. And the highest lost of healthy years is realised in Portugal is 8.5 years for men, and 10.7 years for women. And you see the percentage, percentage of lost life, lost healthy life as it was in the total life expectancy, that's 7.3, 10.9, 11.7 and 13.4. And I think tomorrow you have the focus on the comparison between the European Union and the United States, and if you see this data here for the United States. On average, they are higher than the average in the European Union.

And that's nearly the same as in Portugal. We have now long term series of healthy life expectancy with age groups in general. And one task of AGIR is to calculate healthy life expectancy, or disability, adjusted life expectancy for several years in the past, divided by age groups and gender. That's one task. Another discussion is and I said this before, what means increasing life expectancy? Means that there's an increase in the years in full health and the increase in years in bad health go in line. With the overall increase in life expectancy are the increases in full health greater? Or are the increases in bad health greater? You know all this, we have three hypotheses. The first hypothesis that's one hypothesis that we have to prove in the AGIR, that's the compression hypothesis, which means we have medical and technological progress, we have a prevention of deaths, and we are able to reduce the life spent worth morbidity, or disability. We have other diseases, we have a change in the spectrum of diseases. That's compression hypothesis created by [Friis], you know this all. The other hypothesis is the expansion hypothesis that said yes, we have an increasing life expectancy, but the additional years are years in bad health because we have degenerative and chronic diseases, and they are especially in the older years.

So the most years, the most additional years are years in bad health. If you see, we have more life expectancy of females than of males, but we have also a higher percentage of years lost by disability, within the female groups – a higher percentage that can endorse these hypothesis of expansion of morbidity. And the third hypothesis is that we have an economic equilibrium that means both goes in line, but years in bad health and the years in good health go in line with the increasing of the overall life expectancy. We have the data from the Eurostat, that's men, men lived 75 years in the year 2000, and from World Health Organisation, they calculate that from these years, 69 years are in full health, and 6 years are years in bad health. These figures do not mention that all six years are years in bad health in the last six years, it's only for to show you that it's an effect for further projection. If you endorse the compression hypothesis and you have the expected increase in life expectancy of 80 years, you can expect for example to have 75.2 years in full health, and only 4.8 years in bad health. But if you endorse the expansion hypothesis, you can expect to have 8 years in bad health and only 72 years in full health. And you have the equilibrium hypothesis, which means that if the shares of the years in bad health are the same, that's 6.4 years in bad health, and 73.6 years in full health. And you see the difference, and which hypothesis you endorse you have another projection. So we have to check which of these hypotheses we can expect for the future.

Let us show what dataset. That's a comparison of changes to the years before of healthy life expectancy, hospital discharges and lengths of hospital stay. That means lines above the severed lines are always increases, such life expectancy, the green line, and the whole period you have increasing changes, increasing life expectancy, positive changes, and below you have a decrease in all these years, we have a decrease of the length of hospital stay. But if you look to the red line, there's no clear trend, we have an increase, decrease, increase, increase. That's no clear trend between life expectancy and hospital utilisation in Germany. If we look to the Netherlands, we have always a green line, that's the same with the one exception, we have an increasing life expectancy over the whole period, and in

the Netherlands, we have also a decrease in hospital discharges, and a decrease in the length of hospital stays. In the Netherlands, we could expect that an increasing life expectancy goes in line with a decreasing utilisation rates.

Another country is Belgium, we have also increasing life expectancy, decreasing length of hospital stay, and also no clear trends in the hospital discharges. There's another hypothesis that we have, a shift to higher ages of morbidity. And this shift to higher ages, we could empirical evidence only see in the Netherlands. You see, it's the same age, that's the blue curve, it's from 1993, and the red line is from year 2000. If you see this age group there are higher utilisation rates in the 1993 than in the year 2000, and overall age groups, you have a shift to higher ages. That's the figure for Belgium, that's another trend, we have no a decrease, an increase. All higher ages have higher utilisation rates. Only in the younger age groups, utilisation rates decreases. But that's no shift between these age groups, they have other diseases. The hospital treatments of younger have other diseases and hospital treatment than the elderly. And the figure of Germany is a little bit confused, that's a blue line, 1993, the grey line 1996, and the red line 1999. You have a high increase and then a decrease. So the empirical evidence for the first is not clear. And in the first time, what can we do? We take one prevalent rates hearts and constant, such as the study of the OECD and EU, and make projections.

Another discussion is, there's no discussion of the health status of the population is a main factor in the use of health care services. But the discussion is, is age the main driver? Or is the near to death the main driver? Study for the United States said, or came to the findings, if you only look to age, age groups and gender, and you make a forecast, you overestimate the further development of health expenditure by one-third. And if you look to the near to death, you have a lower future development of health expenditure. And we could prove this hypothesis only at this moment only for Germany. You know this figure, it is hospital utilisation, the hospital discharges for several EU countries by age groups, and also the length of hospital stays, they increase with age. That's the first traditional projection method, that's projection method A. Another projection method is that you additionally, additionally to the age groups, separate the hospital utilisation by survivors, that's the green line. The decedents in their third year before death, the decedents in their second year before death, and you see the decedents in their last year of life, and they have the highest utilisation rates.

After that, I take the projection method B, I said that I have this figure only for this moment for Germany, can present you the results for Germany. Projection method A is only differentiated in age, gender, and especially for Germany diagnosis groups. And projection method B additionally separates between survivors and descendent. The trend is the same, but the in the year 2050, the lower hospital, total hospital days spent in Germany in million days. That rises from 172 to 231, or 212. That's different from 19 million. That's not so high the difference, that's not so great. It is caused by the deaths, the numbers of deaths increases within this projection period of 50%. Yes, I finished now. So, but you see that the development changes in percentage, you see that the percentage change is 34 in the projection method A, and 24 in the projection method B. And then it endorses our goals in line with the US study, 24 is nearly two-thirds of 34. Okay, the summary. Empirical analyses show that the use of health care services and the health care expenditure are related to age. But other factors, such as medical and technological progress, health policies, or changing healthy behaviour, have also important influence on the development of health care systems. Life expectancy is a common, but rough indicator for the global health status of the population.

Disability adjusted life expectancy or healthy life expectancy are more adequate indicators for analyses of health care systems. An increase in life expectancy could be connected with a shift of morbidity to higher ages and a compression or expansion of the life span with disability. But the comparison of changes in life expectancy and hospital utilisation in some EU countries show no clear trend. The findings of the last projection with constant current age, gender, and diagnosis specific hospital utilisation rates lead to an increase of hospital days of 34% by 2050 in Germany. If the utilisation rates are additionally separated by survivors, and decedents in their last, second and third year before death the projections lead to a more moderate increase of 24%. This result goes in line with findings for the US.

Henk Don: thank you very much. We have a discussant following here, who is Howard Oxley from the OECD.

Howard Oxley: Responding to Erika Schulz (15.30 – 16.15)

Thank you chairman – first, a few quick comments on the paper that we’ve just heard. And then I’ll talk just a bit I think on some of the general issues that’s been raised at the OECD when we been working on some of these projections, and try to give a better idea, or perhaps a better feel, I cannot give you much of numbers to it – just some ideas of the most important things for policy analysis. Just some comments, I think it’s very important to try to highlight the links and the complexity of the relationship between increasing ageing on the one hand and the impact of lengthening life time. Let me say in the beginning that we all agree now, I think that’s well established, lengthening life times have been accompanied by decreasing morbidity will delay health care costs, and could have an impact which would reduce the overall increase in health care spending that the projections foresee. I am a bit more dubious about some of the information that’s been provided, not that I disagree with the numbers that are being thrown out, but I felt that the first thing that one wants to consider when you look at this type of analysis, is that it only looks at the supply side. It suggests that if the structures are the same, or if we consider staying in the same, in terms of supply and demand, that things will continue on. However, we know that demand is not going to remain constant.

Maybe I’ll talk about that just a bit later, as other things that you want to keep in mind. And the supply structures are going to change as well. And one of the focuses that’s been done on this speech on the hospital sectors, and you see that there’s declines in some of the countries in the number of the lengths of stays, one has to recall as well that this is perhaps a substitutional process which is going on. And which what we’re seeing is a move away from in-patient care towards out-patient care. And then that if you want to look at what the overall cost is, you would need to take into account changes in each one of those years which are indicated in the pharmaceutical and out-patient care. And both of those in the OECD countries have been rising more rapidly than hospital care for a variety of reasons, technological change being one, but also I suspect because the budgetary controls, which are put on hospitals, are much stronger, much tighter than they are on the pharmaceutical sectors, and in terms of pharmaceutical consumption. So I think there, these are good indicators, they help us see more clearly what’s going on, but I think given the time horizon that’s been included, which I think is five or six years, is probably too short a period given the length of time for real trends to appear to draw these strong conclusions.

Now that being said, I think I’ll go on to talk a bit on what we’ve been dealing with at the OECD. We’re in the midst of right now doing an analysis, an assessment of health care policies, so perhaps it’s a good time for me to just chat a bit about the elements of what we’ve done. Now the table in front of you, or at least the chart in which you’ve seen in front of you indicates the increases in health care spending for the EU area, and it draws very heavily on what Henri and the rest of the crew at the Commission has been producing. And it shows that for the average, the EU, which starts off at a level of 5.3% points of GDP in terms of public expenditure on health care, you will get an increase of about 1.7% points. When you add in the long term care, which is currently on average 1.3% points, you might get an additional 1%. So we’re in proportionate terms, you’ll see that the biggest increase going to be in the long term care, rather than in the area of acute care.

Now, let me say that these projections we all know are with a high degree of uncertainty, and I just wanted to chat a bit on the different levels of different elements of uncertainty. Now we’ve seen with the lengthening of the life is, I think it’s interesting to see what the results are of some of the projections which were done in terms of the EU exercise on health care. And Italy, the Netherlands and Sweden went out and provided using different methodology in each country to try and estimate what the impact would be in lengthening life times on health care expenditure. And recall here you’ve two effects, you’ve got the increasing in numbers of the elderly on the one hand, and you’re getting a delay in spending per elderly as life times lengthen (assuming that most of the health care costs are in the last years of life, or in the run up to a person’s demise). Now you can see for the three countries, you get reductions which are modest. The Netherlands is the largest, I think my bet would be to go

with Sweden, which has probably done it in the best way. I wouldn't go into the details of their projection procedure. But it does show, as Erika has mentioned, that there is about a 1.3, or 30% the spending they're using including the lengthening life time effect might be 30% less than the ones which we've used as central forecast, or the central projection.

Rather in the OECD and EU work, which would give about say 1% point, in the case of Sweden, dropping down to 0.7. So you see that there is an effect, an important effect. But I think on all, I will still argue in favour of, or concern, that there's going to be a bit of pressure on health care spending and let me just discuss a bit on why that might be the case. Now we've talked about lowering life times, and we've talked about lower morbidity within that context. I think the major element which concerns is the effect of increasing technological change. As Erika has mentioned, the estimates in the United States from [Newhouse] very approximate estimates, and we've got very similar numbers when we did this calculations in the mid 1990s at the OECD, was that you might see a residual after you've taken other things into account, which we've could put a number on. A residual of about half, and we attribute that to technological change, so that half of the increase in spending, say 1960s to the 1990s, which is probably due to this residual that we can't explain, but we talk about it as technological change. And as we move forward, we're going to see considerable number changes, which are probably going to make this trend continue.

Biotechnology is important, and at the moment it's rising, most of the indicators, there's an interesting short article by [Henry Arend] in *Health Policy* for those of you that are interested. Which suggest that there are a lot of things that are coming that are going to make a big difference to health. And health outcomes, but these are going to cost a considerable amount of money. So those who squeeze through, they're also going to have a higher price, and so we can expect that technological change to continue to drive health care in the future. And just to give us a hint on what's been going on in the past, I think it's interesting to note where that health care spending is increasing. This chart is for the United States, and the United States is always a bad example because it's always a bit atypical. But what it shows is the per capita health care costs by age groups, and it shows increases running from 1960s through to 1987. Now what that shows is that there's been very little increases in the health care spending per capita for lower age groups, but as time has gone on, you can see that the increase in spending has really been concentrated on the elderly. Now I don't know whether if that is going to continue or not, but you see the same profile in the case of France.

Where spending is risen very dramatically and for the elderly, and much less dramatically for the younger population. Which means that as people get older, the real question which comes up now is not so much whether or not morbidity and mortality are going to move together, but rather what's going to happen to the amount of spending per person who's older. And you can see now in the past at least, that the amount of spending has been concentrated in this group. And this takes into account, in some sense, the increase in longevity, because longevity has been increasing during this period as well. The limited data that we have suggest that disability has been declining as well. So the question here is where is that spending going to be concentrated? And also, if it continues to be concentrated among the elderly? If then, we may have a continuing rise in health care spending per capita, and continuing pressures on budgets as a consequence.

So I think that this gives you an indication, now just to say that one shouldn't be overly pessimistic about this, because this just shows those over 83 and 90 in the case of Finland. And you can see there that there's a parallel between the lines, and since there's no concentration in increased spending in the Netherlands over that shorter period. But nonetheless, it depends to some degree on the type of system that you're in. And both the case of the US and the case of France, are two countries where payment by service, pay per service, are relatively well anchored in the systems, and that may explain some of these differences. So that this type of increase is not an inevitable fact, but it does point to the fact that you may get increases over time. I think there's another element because we've talked a bit about general equilibrium, and I think that one of the issues that one wants to think about is what will happen to relative prices for health care. Now we know that health care is badly measured, and the price

indexes are extremely difficult to interpret, and in fact we've banned them from the data file at the OECD simply because we don't think they're worthy of attention in their present form.

But, what happens when you move into a period in which you have a very sharp increase in health care needs, because of ageing, just at the same time there's going to be a very sharp increase in the numbers of doctors and nurses going into retirement? Now [Prentship] has noted this at about 2010 to 2020, a good portion of the doctors are going to move into retirement and given the numerous clauses that are given in France, there are not going to be enough doctors to replace them. Now, that suggests to my mind that during this period when you're going to get increases in the demands for health care, you're going to have to attract more people into the health care sector. And that suggest as well that you're going to get increases in wages and salaries in health care workers, which may push up health care spending as well. So I think this as we move through, we have to keep in mind what's going to be happening to the labour force, and the types of changes which are going to appear. And since increase in demand for health care is probably going to be one of the elements of an expanding sector, then that's there we might see relative price effects and increasing cost of care occurring.

Someone mentioned the issue of the less-capacity of the family to care for the elderly. And this is really a concern for long-term care rather than acute care. And there once again, if we take a look for example at Southern European countries, where the tradition has been that the family takes care of the elderly, this is probably going to be one country, these countries are probably going to face very substantial and dramatic increases simply because you wouldn't be able to have a family able to care for the elderly. Because women will be working more, current trends continue, and the fact that the size of family is much smaller than it was before, and hence there will not be enough people to care for the elderly. Now how this works out in practice, one doesn't know. I think that it will inevitably mean that there will be more demands on the public sector for the supply of these services. These may be financed privately, but I suspect for a good proportion of the population, public spending will be in order. So that this is one other area where I think you can look towards increases in health care spending as well. And I think that the final point which is this changing demand for health cares and social choice. How much do you allow people to spend? As I said that nothing of this is inevitable. In all countries, perhaps the possible exception of the United States, there is a government controlled ration health care.

So the amount that's going actually to occur, and the terms of increase spending, is very much determined by the state. Nonetheless when you look at a number of countries, for example Canada and the United Kingdom come to mind, we've seen over the last five years that people are no longer willing to accept what they would consider in their own countries as second-rate health care. And so there might be some continue move, and continue pressure, particularly as new drugs, new treatments come into the market, to include these in the basic package of health care, and in health care insurance. So I think you can tend to see, tend to see these as being disseminated. And indeed you can see them disseminated more rapidly over the last decade, and they have been in the past. So I think that once again that there are these new techniques, new technologies arrive, that we're going to see those build into the basic health care packages and insurance, and what's covered. And once again, we're going see an upper-drift in health care spending.

So for all those reasons, I think we can see that there's some increase in health care spending even though there's probably going to be some off set that we've got health care, or at least morbidity reducing, or falling. Now as I've mentioned, just some quick policy issues. I think that the ones that I've just mentioned we'll probably end up seeing some increase in health care and health care costs. I think as a long-term care issue, one of the issues that I want to look at is, which has received not enough attention, is the need to try to reduce morbidity and disability by the elderly. We know that health care doesn't, statistical analysis at least show up as having very much of an effect on overall health outcomes. And in fact, it seems to be more at the present stage, societal factors which are play. And if these are going to be important, then governments should put more emphasis on them if we're going to control cost in the future. If we can encourage later entry into long-term care, possibly through user charges, that might another way of reducing any impacts on the public budgets. And I

think that greater family responsibility and how you organise that is probably an element of that, but it's a very difficult one.

And as I've mentioned, declining family size is going to have a big impact on whether or not we can have an impact there. I think it's well to minimise incentives towards excess demand and supply of care. And I'm not, the knee jerk reaction of the people at the OECD is that you want to increase user charges, and our view there is that probably you won't have much effect from user charges, and what you want to do is how you organise the supply side of the system. And I think the elements that we need to focus on are the need to improve oversight of care providers by public agencies through contracting arrangements. A lot of this is going on. You need to have more careful attention to paying on the relative prices, as I've said, you may end up having pressure growing on them. You need to look a bit further ahead in terms of manpower planning in the hospital sector, and in the medical professions as well, to try to smooth out any increases in relative prices or pressures on relative prices by acting now. And I think the last point, which is a much more difficult one, is going to be how policy makers take account on the diffusion of technology. And what they're going to be able to control. In most countries have now put in place systems, or arrangements in which you attempt to assess technology. But nonetheless, there's tremendous pressure from the public to include anything that improves even very marginally health care. And that's probably going to have a big impact on public decisions. Thanks very much.

Henk Don: thank you very much. Any questions? We have minus two minutes, so please only the most important points that you want to raise. Yes please.

Richard Blundell: only to underline the last point. I wonder what the rest of the OECD thought about of these conclusions, which contained the word 'controlled' very many times.

Howard Oxley: well, I don't think the OECD has any difficulty with that, indeed the directorate for employment, [DELSA] as we call it, sort of the social affairs, people who work on social affairs issues, would be most incline to deal with this. I don't, I mean the thing that characterises, if you like, there's a revealed preference in health care sector for government intervention. I mean there's so much market failure in this area that it's illusionary to imagine that you can allow market forces to play, and to expect to get some sort of control, at least to keep a lid on health care spending. I mean, most of the stuff, the material by Donald [Light] in the US for example, points out that every time in less developed countries that you see a free market imposed with private insurers, you end up getting an explosion in health care costs. And we do see in the two countries where you do have private insurance arrangements, which is Switzerland and the US, has been the dominant forms of insurance. In the US, there are a lot of state programmes which goes along with this, so one shouldn't characterise the US as just being a public system, or a private system. In both those cases, you do have very, very high levels of spending. And so I think that's it's just anecdotal, you certainly wouldn't want to put much weight on that kind of analyses. But I think there is a general view that a fairly hefty regulation is going to be the order of the day in the future. I don't see much, we're going to have to change the form of regulation, alright? We're going to have to try to change to improve the incentives and align the incentives better, but I don't think the regulations going to reduce, it's just changing the form to make it more effective.

Henk Don: insurance, and with the private suppliers in the system, and regulating the insurance system and the supply system in a particular way. If you want more information on that, I'll be happy to help you to our study on that, which is in Dutch so far, but will probably be out in English a summary soon. We hope that there's scope for market forces to bring the incentives in line with the preferences and need. Since if it's all planned, then you get all the problems of planned systems. Any other points? Yes please.

Male speaker (I think it's Vincenzo Galasso): yes, just a remark concerning the accessibility, because one of the main objectives now of Europe is to guarantee high quality, so also that everyone who is in need of service has access. And this is exactly, if there's one difference between the States and Europe, how many millions of people, because of the organisation of the system, the high

financial ceilings you have to get over before you are taken care of, when you are in need. I think that's very important that Europe, whatever be the political colour of the governments, that this is maintained, because the support of the public for that kind of policy is I think very important. And of course in the statistics, it's also a question of following prices, of comparing the 14% of GDP that you spend in the States, compare to what we're spending in Europe, it's 7, 8, 9%?

Henk Don: I think there's no disagreement on that point. Any other comments or questions?

A female speaker with either an Italian or Spanish accent: thank you for the presentation, very interesting. But I have another question, if we speak about the technology difference is one of the drivers of health costs, and then also that we think about the future of technology development. And I think that there is a tendency in several member states now to have technology assessment systems, and to share in their international network of their technology assessment. It was the US that's not playing that game. And I think there's also a stronger now mobility between the member states, and considering the fact that the health system is not only organised economically different, but also with different technological forms in the different member states. So how will the mobility pattern, increasing mobility between member states, increase or not increase costs? And increase or not increase incentives to use more international technology assessment systems in Europe?

Henk Don: either of you want to react?

Howard Oxley: that's a pretty hard one, I don't know whether if we've got anything sensible to say on that issue. No I don't have anything sensible to say.

Henk Don: I think we close the session with this difficult session and I give the floor to Jorgen Mortensen for some technical information on dinner. So listen carefully.

Session 3. What Have We Learned from Research on Ageing? A Comparative EU-US Perspective

Richard Blundell: What have we learned in Europe? (9.00 – 9.45)

About ageing, pension and welfare systems, I must say that this is largely drawing off a programme of work, comparative work, on pensions systems and retirement around the world, actually, it is run, or coordinated rather by the NBER, many of us here in fact are certainly on the stage of being involved in that. Some of what I will be discussing will come from that project, which has its success, and I'll discuss a little bit of that. What I thought that I would go through a few specific topics that relate rather strongly to what we have already seen in this conference, and few of the pictures are going to be very familiar. Beginning with the demographic and the health kind of facts that we've looked at already, but perhaps interpret this is more in the light of trying to understand the influence of pensions and welfare systems upon retirement. I guess it's pretty clear, that one way you can use this evidence is to think about how disability systems work and whether the increase in individuals taking disability as a method of early retirement is a tool related to the changes in health and disability status of those individuals. So that's the only way that I am going to use that information.

Of course that will lead straight into a discussion of labour market attachment and roots to retirement, of course it's very evident from what we've already seen in this conference that we all know that the typical age of retirement, or the point at which individuals retired, is very different to the retirement age in state or mandatory state system. So this much evidence of early retirement, and the retirement age as it were, is increasingly irrelevant for a lot of retirement decisions, or at least apparently so. And that brings you to look at what's going with early retirement and how we might think of it in terms of incentives through the, financial incentives I guess. I want to spend a little bit of time looking at the modelling labour market transitions, by the way, this is a highly un-technical, non-technical talk. I'm only going to spend a little while looking how we might think to modelling incentives, and in that it's just using that underpinnings of the NBER project. I want to look at a little bit more broadly, if time permits, other issues, in particular family labour supply, and coordination of retirement, and how that relates to caring of spouses and carrying for other people, and how we think about modelling that. One interesting thing about the comparative project that is being running simulations of how behaviour may be changed by reforms, and I might spend a little bit of time on that at the end. Is it possible, and how likely and how big the effects of changing financial incentives are, and in fact change in economic environment in impacting on, or perhaps increasing, retirement ages over the next decade or so.

I don't need to spend time on these kinds of things, these are what I know least about. Most people here know a lot more. Just to point out, the trends in life expectancy are increasing everywhere, and note too, it's most dramatically in Belgium. And if you look over the 61-97 period, I haven't gotten Belgium up there, that's why I noted it. Perhaps rather interestingly, from the family levels, I've applied the perspective, and many others actually in terms of how we think retirement incentives and who is looking after whom, we talked quite a bit yesterday about the role of other individuals in the family, and it's dramatic looking across Italy and the UK and how the differences between individuals over 75 living with someone other than their spouse. And of course I can do the same for single individuals and what have you. And you find, as what I have put here, 52% of women in Germany over 65 live alone, that only 23% in Portugal. And that's kind of an important feature in thinking about retirement incomes and support and retirement, and just what kind of incentives are driving individuals. I put there, at the very bottom if you can see it, a high and growing instance of joint retirement. This is a particularly interesting feature, something that I haven't realised, that the importance of joint retirement. And how it's increasingly important even more and above the fact that it's naturally increasing and its importance as more and more women become participants in the labour market. I'll look at that a little bit, maybe.

I suppose the first bit of evidence then is the one that we saw yesterday, this is just another set of data on healthy disability free and total life expectancy. I've drawn this for the UK because it shows the increases. As far as I can see, what we seem to find here is that it's difficult to find evidence for the compression of mobility – that is, the proportion of lifetime in disability is actually falling. But it's quite clear that the life expectancy, or disability life expectancy, even at an older ages like 65 are increasing systematically over time. You can see both life expectancy here and disability free life expectancy increasing, but life expectancy increasing certainly, if anything, is at a slightly higher rate. So you certainly get years, or expected years of disability. No evidence here of them really falling, but nonetheless as far as we are concerned here, we're just thinking about the impact of actual disability on individual's ability to work, say up to 65 or over. Then this just points to a decline in disability among work age and those over 65 over the period. And that's really all we want to gain from this. I guess from a working point of view, the note 2, which unfortunately is mainly drawn over, drawn from the US evidence from the [CIRPEN] and other data sources.

It's quite interesting because it looks at the reduction of disability rates on specific functions, and these specific functions are very related to kind of physical work, like lifting and what have you, and as far as I can tell, in a quick review of the literatures, just this last week. Is that on all of the standard disability functioning measures that you might think are relevant for work, they show a decline in older age groups. So I put a decline for every old age group, for every measure of physical functional ability. Of course that doesn't address the issue of other functioning, like mental functioning, your ability to cope with stress at work and those things, which seems much less well documented. And that's an important thing to do. And then we try to bring that together, this is all very familiar to you, easy going in the morning. And we see massive changes in activity rates across all, effectively all groups of men age 65 and above, from over the last three or four decades. The Netherlands in this ILO activity rates measures shows an enormous decline. You can get different declines depending on your precise measures of employment and dataset. But this is a fairly common set of figures that you'll have seen, with smaller declines in Sweden and Scandinavia generally. And of course very little decline really in Japan, I put Japan and the US at the end for comparison. That's very important here.

As far as I can tell, if you look at any measurable functioning disability, and all I've managed to do is compare those, there's some good measures in France by the way, and the UK and the US, there's almost no difference in the change of functional disability. So the decline, there's a rather nice study of the decline of functional disability among women in France that I got hold of recently, that shows very similar rates of decline to those reported in the [CIFF] data. And the reason I raise that is because if you look at what's happening to the functional disability, it looks very similar across these countries, I don't know about Japan, but the activity rates don't. So the first thing that you think of is that even if could be driven by disabilities, these declines, the differences surely can't be. And that's an important thing perhaps to take away from this. These figures are in fact, are the original figures, which draws the [Bureau] projects because here we've plotted the labour force participation of men, this is in the mid 90s, and it's certainly true by the way in the UK, I may show you the figures. Recently the unemployment rates have risen among older men, slowly but surely. And unfortunately not as surely as they decline. But nonetheless, they've risen. And you can pretty much document as to why that has occurred, and I might discuss that at the end. But it's an interesting feature.

Still up to 1995, the mid 90s, there were still no evidence to increases going on anywhere. They were all solid declines. But this decline you see here is just across ages, it's the attachment rate, and in across sections effectively. This isn't a cohort, but I doubt that matters too much here. And you get the two outliers, seems pretty much bound everywhere in the world. There's Japan at the top and Belgium at the bottom. And for the Belgians the brown line, and the famous kind of thing that you always remember is that at about age 55 or so, the labour force participation in Belgium begins to go towards 50%. So you get extremely low participation rates. And we can see that the bounding sets of other countries, Sweden, Spain, Italy and what have you. But there are a lot of variations there. Of course this gives some hope that we might be able to figure out what's driving the variations across countries that are bounded within the sets of between Japan and Belgium. And of course that was really the driving force of the [Bureau] project, was there any possible evidence that this could be driven by

financial pension incentives and what have you. I mean the first thing that you think of is that it's really unlikely that what's going on before 60 is driven by standard pension incentives, because most state systems would just don't have incentives to retire early below 60. And that's of course what makes you look at alternative routes to retirement, often through the state system, but through disability schemes.

Or if you're looking at somewhere like the UK, alternative pensions that are available. You'll see in a minute, that in the UK that 70% of retirees, even current retirees are covered by alternatives to this pure state system. And that's an important thing to look at. This, another famous kind of figures that comes out of many of these studies across Europe is the third, the third, the third rule that is by about the age of 64, that you find about no more than a third of men in work. About a third out on some kind of long term disability, or what have you, and a third on some kind of early retirement, um sorry, a third working. So you've got a third on early retirement and about a third working, if I've got that right, and about a third on long term sick and disabled. You can see where effectively all the lines cross, so it's quite clear, remember it, this is interesting, that in the UK the retirement age is 65, the normal retirement age. The first time at which you can claim state pension benefits is 65. So you're going to have to go a long way to explain this retirement pattern with purely state retirement system. But of course as soon as you look at the UK system, and its completeness with all the welfare, disability rules and occupation and private pensions, then the picture gets much more interpretable. This is a less nice looking picture, but I quite like it, maybe there are Belgians here who know the story behind this. But if you, if you look at this picture, but I'll flick it to the next one, which is the Netherlands, and I presumed that it was Arie who originally put the data together for this, and I have perhaps corrupted it badly.

But I always like this picture because in a sense Belgium and the Netherlands are similar aren't they? You know, next door to each other. And the lines are very similar in fact, but the one that here in the Netherlands that is called disability benefits, which rises just like in the UK by the way, up to about a third by the age of 65 for men, and in '95 the data was. Of course things have changed in the Netherlands on disability schemes. And you look at Belgium and you see exactly the same pattern, but this is not disability in fact. The disability scheme in Belgium is again the very light brown scheme, that's got much larger numbers in. The thin red line that is going up to about a third by the age of 65 for men is just early retirement schemes that have nothing to do directly with disability. What I found neat about this is that we have two schemes, two labour markets right close to each other with very similar patterns of exit before 65, but in one place, the one major route of exit is called the disability, and in the other it's just the mandatory retirement scheme that's operated between firms. And the government has a way of retiring older workers. So this is another indication that you have to be a little careful about how you think about these schemes, and one thing that you do want to do is to put them all together. So you wouldn't want to model just disability because disability is doing almost nothing in Belgium, you want to bring that together with the incentives underlying other schemes. And I think this, you can go through all the European countries with this, and I have rather similar pictures. But I'd like the UK, Netherlands and Belgium as rather nice ones to go through.

I've only picked on the UK because I know it, but the red line is the participation rate over time of, employment rate I should say. Participation to me means employment, and this doesn't include people actively searching, they are all in the non-employment group. I guess the thing that we all know that happened here was that certainly in many countries, especially in the UK, the major recession of the early '80s saw this big drop in participation, from up around 70, 80 or higher levels for older men, and falling and never really recovering at all, and then recession in the early '90s, another drop. And there are some indications even here of a rise, but not very much. So you get this jumping down. This is also very important because one thing that we know is that these jumps down were not caused by changes to the pension scheme. There are other things going on in the labour market than financial incentives through the pension scheme. But if you're looking for financial incentives effects, they operate more subtly, in the sense that these individuals, the real question is when you get these falls in unemployment, why isn't there a bounce back? What's going on there? What's keeping individuals out of the labour market?

And indeed, how is it so easy in some sense to drive workers out of work in such large numbers? And that's where we really want to look at the financial incentives. The reason I raise this is clearly that there's a lot going on, on the earnings opportunities side of employment when we think of retirement. That's completely covered in most reasonable models of retirement process, and I'll show you how that works in a minute. Often through the earnings opportunities that individuals have. The other phenomenon we see everywhere is, you don't see any patterns like this for women. But of course we know that covers up two things that are happening for women. One is that the younger cohorts have got higher levels of participation. And in fact if you look for any cohorts, the decline in employment later in life is rather similar between men and women. I'll show you in a minute some pictures. And this idea that participation appears fairly incentive for women is purely a cover up between cohort and time effects, cohort effects and the effects that are for women. For men the cohort effects are much less strong, so you see a different picture there. So anyways, one, again, I will use the UK for here, but this just shows you the massive importance over time now. This is coming from the early '80s to the current time really, the importance of the disability benefits, we call it invalidity or incapacity benefits as a root out of work for older men. And I suppose the one thing that's an interesting feature here by the way is that disability occurs quite young levels, young ages, I'll come back to that if I get time.

The reason that I point this out is that if you read the policy reviews in the UK, you'll hear the idea that the reforms in '95 was a major success because disability is dropping rapidly, which you can see if you look at the total number. But in fact that's purely the number of 65, and there's no evidence of a drop off, although there's a flattening out for other groups. There's a very mechanistic view of this, that is you're only eligible for, in the reform of '95, you're only eligible for disability if you were younger than 65. Although those who were already on disability could continue to collect it, and of course they're slowly dropping out of this sample as they aged. And you get back to the rule that only those, by the end of this you can see, that only those 65 and under can claim. That's quite important because, oh I am running out of time, I run out of time so quickly. Okay, women, interesting, there's no evidence of any slow down on disability for women. And that's an important piece of evidence here. I was going to just review the joint retirement in couples, because I've become interested in this, but I think I won't spend too much time on it.

But it is particularly interesting trying to explain what's going on here. Certainly if you're trying to explain female retirement in couples, it's quite important to recognise the big impact between spouses here. Couples tend to retire together, they tend to retire together much more evident by say the retirement ages in the system. And in fact you can see that their joint retirement is not driven by simple features of normal retirement ages. The UK is very interesting in that because women retire at age 60 and men at 65, and the difference between spouses' ages is about two years or a little less and yet half of them tend to retire within one year of each other. So you can tell immediately that it's got nothing to do with normal retirement ages directly, and that suggest that there's an even more complicated set of decisions going on, which are very natural among couples. I've got some evidence for the US here too. Okay, so the incentives to retire, state pension age increasingly irrelevant for retirement and many pathways to retirement, disability schemes, occupational pension. And the up shore of all these is that you need a general view of incentives to retire, and it imposes a massive demand on data, which will be the final point, but it is the point that everybody will make in this session.

Okay, the neat thing about the work that came out of the [Bureau] project, I think the recent work, is that it has shown evidence of a strong wealth effect, so simple financial incentives. There are two kinds out there, one kind is an accrual effect that arises through just the amount that your pension wealth rises as you delay retirement. And then there's a wealth effect, that is if you've got a lot of pension wealth and as soon as you can access it, then that's likely to have an effect on retirement. And those two seem to come through very clearly. But what's also clear is that you need to somewhat get an idea on incentives or financial payoffs that are available, and disability, unemployment insurance and what have you. If you look at replacement rates, we saw this yesterday so I wouldn't go through this, but if you were to take the UK in comparison to whatever, Germany or France, you'll see a much lower replacement rate through public transfers only, than you get when you just look at retirement

incomes. And of course this just tells you that in the UK for example, but this is also probably true in the Netherlands as well, that once you're above the 50th percentile, the bulk of income or coverage at least, is coming through private schemes or occupational. So again if you're looking at across countries, the state system is just but a small part of the incentives that you need to model. I'm not going to go through the UK scheme.

But this is the kind of thing that drives a lot of the research, and I'll have to be quick here. The first thing is if you're looking across type, this is survival probabilities by pension status, you can either look at hazard rates or survival probabilities, and what you find is that there's a lot of evidence that things are different across pension schemes in a way that makes you think that financial incentives and eligibility dates have a big impact. Of course you can see a big decline in survival at 65, that's the standard eligibility rate for men. But those of no occupational pension start leaving a lot earlier, and we're going to show that's driven quite significantly by the disability schemes, which are quite valuable to them because they're flat rate schemes. Whereas for those on occupational pensions, the decline starts around 55 when you can first start drawing down your wealth in many schemes, of course this is a very simple picture, but it gives a nice characterisation in the UK for women. I am not going to talk about Germany because Axel is here, but there are, there are lots of ways you can go through different countries and look at specific points in the retirement system, and work out how they're working. As I said, we have wealth effects, accrual effects, and pension age effects, and these seem to be really important drivers. This requires of course that you've got a lot of details and private schemes and what determines eligibility.

I won't go into the option value models in any detail at all. I thought about doing this just to show that even to try start thinking about this, financial incentives, you'll have to run through a complicated set of calculations. And one thing that's become clear out of the comparative project, is that the option value model is extremely simple and really doesn't work that well. And you need to put other features of retirement decisions into this, and one thing that's become clear is that even a simple model of retirement, you've really have a cruel effect that comes from the option value of waiting effectively. What's the value of waiting another year in terms of your pension's accrual? In addition you need a wealth effect that gives you some idea of how much wealth is affecting your decision to leave, directly leave employment. And pension age. Actually the wealth effect is really an important factor in the UK, of course many of these schemes now have got less wealth in them. And we're finding the wealth effect is an important driver for increasing retirement ages among those on, outside the public system. So I'm not going to go through this in any detail. I'll just talk two more minutes, sorry chairman. One thing I wanted to point out is that when you put all these in a reasonably carefully set up regression framework, you do get strong and significant effects of accrual on wealth and other characteristics that might drive retirement and I wouldn't go through all the details in this.

But it's just to prove this is just not something that you're looking at pictures and coming out with some ideas. There are some backgrounds to this, but I should also add that the standard option value model that you see talked about a lot, would just have the option value effect, and it wouldn't have a wealth effect. And pretty much in all the studies that I've looked at, the wealth effect, the pension wealth effect, and the age at which you're eligible to draw out pension wealth are really important drivers if you're trying to model pension. I'm going to, in terms of modelling, one thing that we've become very clear is that there are just some things that economic incentives can't explain. And one thing that's very clear is that the kind of normal age of retirement, some kind of social norm almost, is very hard to pin down precisely with any financial incentives. It's clearly related to the pension age, and the age in which you can first draw down benefits. But there's something stronger probably going on there, and I won't go into any detail. But that's important because what I wanted to conclude with some policy things. And again the project we've been involved in is quite useful here because it looked at a couple of reforms that might start to reverse the trend. And one of them was to just increase the pension age, and there it becomes very important how you interpret the age, the normal pension age in the data.

Do you assume that people will revolve to a new norm, in which most individuals are now retiring, as we increase the pension age, or do we just let financial incentives take their course? And the other type of reform is one that brings a more actuarially fair retirement system, early retirement system and deferral system. And those two kinds of reforms are important because they're the types of things that you begin to see being discussed across a wide set of countries. Whether we go straight for the pension age or whether we look at some change in the deferral, or actuarial adjustment that provide incentives for people to delay retirement, much like you would have in the US system for example. I won't go into these, again I apologised for saying that all the time. All I can say is that when you look at these reforms, they do appear, given the estimates from the current system, to have some impact. So there's some hope that reforms like these can do something to turn around retirement trends. So, are early retirement trends we saw in the 1990s likely to continue? That's something that we've worked on very carefully in the UK, and it's quite clear that they can't possibly continue. That's neither from the modelling or any other aspect that are likely to continue, and I wouldn't go through the details here, but we've done a careful study of the changes in retirement wealth, in the private and public system, to the changes in the way the disability schemes operate. And each one of these impact through these retirement probabilities, and you see a gradual increase in retirement ages, and that seems to be pulling through now for the last couple of years.

A final note! One thing you also learn by doing this is we just don't have anywhere near enough detail data to really pin down a lot of these effects. And of course Axel is here, who's running the coordinating the SHARE project and I've been involved in the British longitudinal survey of ageing, and Bob's here about the HRS, and these datasets are designed specifically to look at these. They are kind of central that as soon as you try to pick out the differential effects of disability versus other retirement schemes, versus pension incentives themselves, you've realised that you need a lot of information to identify those that come from measuring health status and other aspects of that. And you clearly need much better, precise measurements of pension incentives, and wealth to pin down these effects carefully. So I'm going to finish there, and sorry for going over.

Timothy M. Smeeding: Responding to Richard Blundell (9.00 – 9.45)

How's it going this morning everybody? There's not a lot I have to argue with that Richard said, but there are some points that I think need to be emphasised. It was ten years ago almost today, that Bob Willis and I actually were sitting in Taiwan. And a Dutchman named [Jules Tayes] was there, and he had the new results from a Dutch survey of retirement. And he asked the following question, this is ten years ago, 'What fraction of 61 and 62 year old men were still working in the Netherlands?' And I thought about it, and I thought that it must be pretty low, but no one would've guessed that it's 18% – less than 20%. Now, if like, if you do what I do, which is to drive the E411 from landing at the airport here to Luxembourg, which is what I've been doing for my project, which is the Luxembourg Income Study for 20 years, you understand this because the whole right hand lane is full of little Dutch cars with big trailers in the back. These people heading in and out, one whole lane. Now, it's 2003, it's 10 years later, what's new?

What's new is, no the cars are the same, there are Belgian cars with the red-white plates doing the same thing. That lane is completely crowded. In other words, there hasn't been a lot of change. This is not new, people knew this. In the past ten years, however, we have made a lot of progress. We've pinned down the approximate causes, I think, and we've done a lot of comparative projects, and we understand it a lot more. Okay? But we do know that early labour force exit is a serious issue. It's something that we have to change, but what we've also know from the past ten years. During that period, just that period, life expectancy at older ages has increased about a year and a half. Okay? Just in that ten years. And if you believe [Jim van Palen] and others, those changes are accelerating. And if you believe the bio-engineers, and the people out there who are pushing all sorts of new drugs, and other biotechnology, it may increase even more. Something is wrong here. Life is getting a lot longer. Healthy life expectancy, we can debate it, is certainly not getting shorter. It's probably getting a little bit longer. And people are retiring earlier.

Now on top of that, people are going to work later. People don't go to work right after middle school, or high school at 20s, people go to work at 25. What you're seeing is a tremendous compression of the period, that active period of life, in most modern societies. Now, not all – in the United States and in the United Kingdom, we've found, with their very flexible labour markets, which has pluses and minuses, I understand those, that labour force participation among men has actually risen in the last few years. And in the last year, in the United States, it has been driven primarily by the fall in wealth, because of the stock market. But the point that I am trying to make is that we can't go on like this. You just cannot. It's ten years later, we understand it a little bit better now, and we'll know a lot more about it in another ten years, once we've got SHARE and ELSA. But we know what's going on out there. And what are we going to do about it?

Increase the length of time that people work. That's it. We just have to do that. We have to raise all of the retirement ages. I think one of the very interesting and important points that Richard made, and this has been made before, I can see it in my own Luxembourg Income Study data looking at cohorts, you can see it in panel data, there are multiple routes out of the labour market at older ages in almost every country. In my country, there's really, you can take an occupational pension early in the United States with disability. But if you go to other countries, you'll find something called unemployment retirement in Germany. It's very scary, you're going to be unemployed for a while you're going on retirement, it's not like unemployed go back to work, unemployment retirement. Or early retirement schemes. Now remember in the '80s, when [Hans Jorgen Krup] and others in Germany were pushing these plans. We were going to retire the older cohorts of workers early and open up other jobs for younger workers. Well, they were half right. They certainly got the early retirement out of the way. But the system cannot afford this any more. Now if you ask what else we can do, well, there are not much taxable capacities in most these countries, direct cutting of benefits aren't going to work. So what do we do? We have to raise retirement age, and we have to do it now.

You cannot tell a 55 or 58 year old person now, who is liable to be still in the labour market, oh by the way, we're changing the rules, and next year you're going to have to wait until you're 61 or till 59 for your same programme. It can't be done. You have to do it ahead of time, you have to give people adequate notice, which means that you have to do it now. Right? It is not possible in my mind, a slightly different way in saying it, it is not possible to say in one hand that we have this increasing dependency ratio in old age, and we have no workers, and lots of people inactive and retirement, and to say that people in their 50s can't work more. I mean if there's a shortage of work, why can't they? Everything seems to be going, I understand, there are some questions, older workers could substitute younger workers, these are important, but I think increasingly they are. I think increasingly a more educated labour force in a less physically demanding work, and more enjoyable work, mean that there will be room for people to go into the labour force. I think this has to be. So if you do this, I think you can have some success. Not only should you have to do it now, you'll have to do, as it has been mentioned yesterday, the Swedes has done, which is to add an insurance policy against life expectancy at older ages. What the Swedes do is very simple. They say that right now, if you're born in 1948, let's say like I was, your retirement age will be 65, for retirement age.

But if life expectancy goes up another year, or two, before you get to 65, we're going to tell you 20 years before your retirement date, that you're not going to be able to retire at 65. You're going to retire at 66 or 67. So in another words, the insurance is that automatically you've raised the age of eligibility, particularly full eligibility, but also partial eligibility as life expectancy changes. Okay? The last thing is something that I don't want to forget in all this, sort of, from what we've learned from the Luxembourg Income Study and doing our cross-national work, we've mainly had a chance, and this is the same data that Professor Casey and his colleague [Amada] use in the nine countries OECD study, we've found that there's still a need in old age. There's still are, there are issues of benefit adequacy. They're not related to retirement. People don't fall into poverty when they retire, this just does not happen. What happens is, men marry younger women, women outlive their husbands, then they have the extra five years in the end. And in every country you look at, I don't care if the poverty rate is 5% or 3%, or 15 or 20%, three-quarters of the people you're going to find who are poor are older women,

and more than half of them are older women who are living alone. So the idea is after everything else is gone, what are you going to do for 75 and 80 years old women?

And there we have to be really careful about benefits adequacy. And we have to understand, my final point that these women are changing drastically. The biggest variance, and the biggest change that we're going to see in twenty years in the elderly, is the variance in women. Women are going to be of two types. They're going to be the type that has jobs and careers, just as the same the men in this room, including most of the women in this room. They'll have multiple pillars of retirement, they'll be able to stand on their own. But if you look at a country like the United States, you find that in 2020, over a quarter of the elderly women are either going to be divorced or never married. They look very different, they don't have good pensions, they don't have good assets. They rely very heavily on the public scheme, and if they don't reach a minimum level, acceptable level of keeping them from poverty and benefits adequacy, then all's lost. That's an important characteristic of these schemes that we have to maintain. So I don't want that to get lost. That's all I have to say, and I have another chance later on today to add some more, I just thought that I reiterate some of the points that Richard made, maybe add a little twist, maybe push the policy question a little further. Somebody's got to have the political courage, very very soon, to stand up and say we're going to have to change the ages of eligibility. And this new project that Richard mention, the second round of the NBER project, indicates that you can get a 30 or 35% reduction in the long term cost of retirement from such changes. You're going to have to do it, and we're going to have to do it soon. Thank you.

Daniel Gros: you got my vote. We're running a bit overtime, but the Americans on my left have some questions here, so please give us some time for some comments.

Juan Jimeno: just a point about early retirement. It's not only an issue of labour supply, it's also an issue of labour demand. What happens in many countries is that firms, the cheapest ways that they have to readjust the labour force, is early retirement schemes. Because firing costs are very high, because it's not possible to resolve the labour force when the negative shocks come. So it's not something to be face from a labour supply perspective, something has to be done also from a labour demand point of view. It's just a comment

Timothy M. Smeeding: I don't disagree. In fact what happens mainly in America most of the people who are working beyond 65 and into their 60s, have already retired from their lifetime job. And they're working in things call bridge jobs – which may be part-time, which may be more flexible, but which are less expensive to the employers because the employers don't have to provide for yet another pension, and more pension saving on top. So that's a flexibility that we have, that's part of what you find. Richard you want to say something.

Richard Blundell: yeah, slightly related is the cautionary side of this, is that we kind of know that the demand for low skilled workers is still relatively declining. And so the optimistic scenario is that people see wealth declining, and they see reasons why they should be increasing their retirement age. But clearly the opportunities in work for low skilled older workers are not increasing. If you look at the kind of real wage growth for that kind of worker in the US, it's hardly growing. The incentives or the opportunities in work are certainly going against a reversal in this trend. And that's something that you need to take into account.

Timothy M. Smeeding: you need a scheme for people who really can continue, and for whom there's not adequate demand. That's very difficult, and it probably has to be a vital skill of some sort, I would guess.

Bernard Casey: does any of the extended NBER work include demand side indicators in its modelling, as well as individual wealth, and individual income variables?

Richard Blundell: no, the way. The answer is that it's relatively poorly done, for a number of reasons. But the point that I've just made is there, clearly if you look at the incentive measures that you've put in, one thing that you have to put in that is the level of economic opportunity for that worker. They're

trading off – which is effectively their earnings and their likelihood in getting it. And so that's the really the point that I was making, so in that sense, you can say it's included.

Bernard Casey: what I am afraid to say I find it quite remarkable about a lot of these work is that one goes around and one finds it, yes there are incentives, and yes people respond to them, and we make a much play of this. I would've been terribly surprise if there were incentives there and people did not respond to them. That's what would've been news to me, and not that people did respond to incentives. And the question that we failed to ask is where did these incentives come from? Who put them there? When? And under what circumstances? And until we can start doing that, I think we are missing the point. We're just showing something that we all know, and it's not really very surprising.

Richard Blundell: well, you are attributing them to what schemes, you know the effects of the schemes, and the way you think about that is if we're going to reform the schemes, this is the way that they're going to have an effect. So that's it, we don't look at the political economy of why disability schemes were set up in the first place, why, you know, why it was such that there are these relatively easy ways of getting exits of older workers for firms to operate, that's a much harder, that's really trying to understand how the rules of the systems were developed. But you can think about how the, how you're reforming the system, and what impact that would have on behaviour – a small step.

Axel Börsch-Supan: yeah actually this combines both kinds of questions. I think it's really before you make strong remarks about what should be done, it's actually quite important to understand why it has been done in the first place. So this political economy question is really important. Now, if, coming back to the labour demand, it's actually employment protection legislation that plays a big role here. If you have an industry which sort of has to breathe and shrink, and growing is always easy, but shrinking is the big problem in the European countries where you have to adjust the basis of change. The only way that you can change this is using the older workers. So it's the only valve that these very inflexible labour markets have, because you can't fire anybody who's younger than it's eligible for early retirement. So early retirement is actually a necessity once you've accept the rigid European system of employment protection legislation And getting rid of early retirement means that you also have to change hiring and firing laws in the other part of labour law. And there you see that you really have a hard problem.

Timothy M. Smeeding: well it could be, well then it might very well be that early retirement was the path of least resistance. And that's the reason that it was brought in. Now whether that can be reversed, and how it can be reversed.

Axel Börsch-Supan: actually they have tried that elsewhere in France, and you get huge youth unemployment.

Timothy M. Smeeding: you can't afford to keep doing this, that's all.

Sjef Ederveen (or another Dutch speaker): very brief point about the statement that we all know that people respond to incentives, which may be true to all those in the room. I don't think that's true for politicians at all. And if you look at many of the schemes, when it came into place, there was very little discussion of incentives, and if there were, they were usually downplayed. For example, if you look at disability in the Netherlands, what I recalled from the early days when they were introduced. Incentives effects were greatly underestimated. So even if we think it's obvious, it's still extremely important to make that point repeatedly, and back it up with solid research.

Robert J. Willis: What have we learned in the US? (9.45 – 10.30)

What I am going to be doing is probably a bit of change of pace from the preceding discussions, and really picking up on the last point that Richard talked about. That in order to deal with a lot of issues and policies, and understand the consequences of policy changes, we really need better databases. I'm going to be talking about the health and retirement study in the United States, and as it's already been mentioned, there are really comparable and collaborating studies that are now under way in England, along with the ELSA project and in Europe the SHARE project. I wanted kind of go through in a little bit of detail what the HRS is, and therefore also describe a lot of what ELSA and what SHARE will

be, what ELSA will be becoming and what SHARE will be. And I think we'll try to illustrate some of the points, some of the progress that one can make in this. The HRS was begun as, out of a series of discussions in the mid 1980s, when it was clear that the United States was going to be facing, was an ageing society. And we're going to face serious policy issues concerning our social security system and our Medicare system, and the like. And it was also recognised that there was basically no database for us to look at it. So the planning of the HRS began in the mid 1980s and it got underway in 1992. What it is, is a longitudinal study of representative sample of 22,000 people in the United States, it's funded by the National Institute on Ageing, which is part of the National Institute of Health.

And it's really funded as a research tool. And it's one of the largest studies that the NRH funds. From the inception, the HRS was really designed to provide data for the community of scientific and policy researchers. It's data that's made freely available. One can go to the web and download it, and so forth. So that's an important thing. Just to talk about, this is a major investment by the NIH, it's a very expensive study. And it's having an impact, we've got over 400 papers that have been written, using the HRS. And that number of papers is actually accelerating now, because the data are becoming generally available, and as it's been mention here, it's been setting an international standard for similar studies in other countries. I think that one of things to stress here, one of the fundamental ideas that I think the international side is so interesting from a scientific point of view, as well as a policy point of view, is that really it's by, everyone in the United States for example faces the same social security system. Within the United States, we can attempt to study the effects of social security, but we don't really have very much variation that we can exploit to say how people would behave if we had a system that was somewhat different.

And by looking at the systems in other countries, we can attempt to do this. Another feature of the HRS is that it's really interdisciplinary, and it's really brought together experts and expertise, not only in economics but also in sociology, demography, psychology, medicine and public health. And I think in the process of collecting data in all of these domains, we're really opening up some new scientific opportunities as well, that's people being able to combine insights, research materials and theoretical perspectives that come from different disciplines. And I think that's having an effect. The content in the HRS covers all of these areas, health, health services, labour force, economic status, family structures, and in quite a lot of detail. And I'll be illustrating some of that as I go through. This is a kind of one slide that I like quite a bit, because it shows kind of the entire project, and let me just spend a moment on this slide. The survey, the 22,000 people that I've mentioned, began in 1992 with a cohort of people that were 51 to 61 years of age. And the original HRS was designed to follow people from pre-retirement, 51 to 61, and of course in the European setting, particularly the Dutch and Belgian setting, that's maybe starting too late. But in the US, some people are still working when they're in their early 50s.

And we follow individuals, individuals are interviewed and spouses of that individual is interviewed, and re-interviewed every two years. So this gives sort of a survey wave of '92, '94, '96 and so on. Very quickly it was realised that we should have studied the older people, so there's a companion study called AHEAD that begin with people aged 70 and up. And it started in 1993, and then the two studies were merged in 1998, and some new cohorts were brought in. People who were just entering their 50s, called the War Babies, excuse me, people who were just entering their 70s, and people who were just entering their 50s were brought in, in 1998. And the design is what we called a steady state design, which brings in every 6 years, we bring in new 6-year cohorts. So in 1998, the HRS became representative of the entire US population over age 50. And in 2004, the survey wave that we're designing now, we'll bring in people who were born in 1948 to '53, leaving the edge of the baby boom and we keep refreshing. So people, these older people that are dying off, the new people are being brought in, and our survey as a whole is replenishing just like the population does. We have also supplemented the basic HRS information in a variety of ways, we have a very intensive dementia project, which is doing in home clinical assessment of dementia status and I'll indicate why that's important in a little bit.

We've been doing some mail surveys, and we have some new consumptions, more detail measure in consumptions and time use. We've gotten that first round of that done, and we're going to be doing that longitudinally in 2004. We have an area, Kapteyn and I are, as Rand and HRS collaboration going on, on using the Internet as a survey vehicle. And we also have a linkages to various kinds of data, we have the United States private employer pensions is very important, we link to pension data and we have a linkage to social security data, which gives us lifetime earnings of people and benefits – the age we have linkages to Medicare and National Death Index and so on. This is sort of a picture in 2004 with the distribution of what people will look like. The bottom, the horizontal axis is age, people of all these ages, and these are the cohorts that came in, and these are the ones that I've mentioned. So the original HRS cohorts that were born in 1931 to 1941, we have seven waves of data and so on with the others. The analytical potential of the HRS, it allows you to do cross sectional analysis, and indeed it produces, the steady state design, it reproduces the replicated cross section. So in that sense it's like census data, or current data, or other kinds of cross sectional data sets. And that allows one to look for trends.

But in addition to that, we have the capacity for longitudinal analysis, and one can follow people from transit pre-retirement through retirement respectively. One has the capacity for cross cohort analysis and try to understand what's happening when we move from one cohort to the other, and now as I've mentioned earlier that we're developing capacity for cross-national analysis with the development of parallel datasets. I want to show a few of the things that kind of pointed at the topics that we've been discussing in this conference. In the United States, we can kind of think of the public and private provisions for the welfare of older Americans, encompassing savings and social security income, employer pensions, social security disability insurance, health insurance. That's below age 65 in the United States is primarily, and it's private, and it's primarily provided through employers, though not exclusively slow, and over 65, there's this Medicare system that we have. And then there's family help, family is an important institution. This gives you sort of the indications of the relative importance of these different types of assets. This is a distribution of wealth in the United States, and this illustrates a point that, very important, it's how heterogeneous and how unequal wealth is distributed. So this is the bottom five percentile, which nearly has no assets at all.

And in fact, you don't see this creeping up to a large numbers until you're getting into 10th to the 25th percentiles, and then this is the top five percentile, which in 1992 had over two and a half million dollars. So this is distribution, and if you look at what this is made up of, essentially this is social security wealth, which is the present discounted value of the social security benefits. And people get, that's almost all the wealth that one has at the lower distribution. So many people arrive at retirement with really nothing else besides, dominate wealth at the upper levels. That would include housing and so forth. So the personal assets include housing, other automobiles, checking accounts, and stocks, and so on and so forth. So these, so one thing that HRS does is to give a comprehensive measure of wealth from all these different sources. Just a paper that was done by Venti and Wise, show that's there a lot of heterogeneity, the amount of asset is heavily related to one's own lifetime income. But it's not, there's enormous of heterogeneity so there are even people at the very top of the income distribution who have very health, so it's the 10th percentile line.

So there's a lot of variation in wealth that comes from sources other than income. There's an important thing, there's been a lot of research focussing on, and it came up in a lot of the earlier discussions here. This is, I call it here the health-wealth nexus, which means that there's a very strong correlation between health and economic status, which I will show in a second. And a lot of the evidence points towards a big impact of economic status on health during first part of life cycle, and thus setting the stage. And by the time that one gets into their 50s, the causation running the opposite directions starts to become really quite powerful. Health variation can have strong impact on economic status, which then will have implications rest of the person's life. This is the kind of correlation between health and wealth with couples. So this is showing that basically if you have a husband and a wife, who are both have excellent health, in 1992 they had about 450,000 dollars worth, their net worth was about 450,000. If they were both in poor health, they have next to nothing in assets. So there's an order of magnitude, basically an order of magnitude difference for wealth and health in these households

depending on their health. Understanding this correlation is very important. There's been some work, for example, a paper by James Smith in the *Journal of Economic Perspectives* that looked at sort of what's the impact of a health event.

It shows the effective, that has a substantial effect on wealth. And a large of it is not coming through medical expenses. And indeed most of the medical expenses are insured. But wealth is nonetheless hit by health event; it has a strong negative effect on wealth. And a lot of it is coming through labour supply effects. So a person, for example, who becomes a heart attack at age 50, that's basically when people first start saving, if they drop out the labour market, they basically won't be saving anything. And they will arrive with very little wealth. This is a picture of, kind of a descriptive picture of health insurance by health status, and the basic point of this picture is to suggest that people in excellent health tends to also have a lot of employer provided insurance. And this uninsured group, which is of great concern to the United States, is very small. If you look at those in poor health on the other hand, the numbers of uninsured are actually not that large, but the sources of, you have Medicare and Medicaid, the welfare programmes are the ones that are providing much of the insurance. And sort of understanding the transitions involving health and transitions from basically private to public sources of health insurance is a very important thing. This is a big policy issue in the United States, it is covering prescription drugs.

Our Medicare programme currently does not provide for prescription drugs. In the HRS, there was a question asked 'have you ever not used the drugs that's been prescribed for you because of economic reasons'. And basically this shows that for people at the very lowest end part of income distribution, who don't have prescription drug coverage, as part of some kind of private insurance schemes about one in five says that they may have cut back on the use of drugs for economic reasons. One of the big issues that are coming up, we have talked about the compression of mobility and question of sort of what's happening in health. And in general, the trends, there's still controversies about this, but it does appear that there's declining disabilities at older ages, or at least not increasing disabilities, and perhaps it delays the age for the onset of disabilities will be the most regular finding. And that's generally true, however, one source of disability is dementia. Alzheimer disease and other forms dementia, and those have not nearly such an optimistic scenario. And in effectively the reason for this is essentially this, it's that hazard, or the likelihood of becoming demented, or being demented, is sharply increased with age.

So this is a picture from the health and retirement study of people who have a serious cognitive limitation, and by the time that you get to the people in their 80s, about 10%, by 85 about 20% of people have a serious cognitive deficit. Now why is that an issue? Well, first of all, cognitive losses means that those people is going to be requiring a lot of care. I'll quantify that in a second. But in addition, essentially in mortality from other sources, means that a larger fraction of the population will essentially survive to an age in which dementia occurs. So the dementia part of ageing is going to pose policy issues that are a lot stronger. A large portion has been mentioned yesterday, I think it was, a lot of care comes from families. And this is from HRS data that shows what's the relationship between the hours of care that are provided by, informal care that are provided by families, and severity of cognitive limitations. And here are people with normal cognition get about 5 hours of care from their family members. And people who have severe problems get about 40 hours a week. So you see this enormous strong correlation between amounts of care, and that's a cost of dementia, which tends to be largely borne through families in the United States. And again the question of what is the impact of smaller family sizes and the availability of that kind of cares an issue.

Here I'm going to try to go through in a little bit of detail sorts of the benefits of data and research in policy making. And I'm going to show work on analysis by John Rust on disability that will indicate, I think the sort of the kinds of uses, when I saw John present this at a workshop at Michigan a month or so ago, I thought that you can do the same thing that he's doing by using the SHARE data and the ELSA data and all through Europe. And you get a picture that would, I think, go through some of the themes that we've heard about earlier. First, I talked about the Gruber-Wise study, essentially the labour force trends, and another picture from the same study that Richard talked about, which shows

essentially from 1960 when work levels were really quite similar across these different countries. You saw the change on when there's little decline in Japan, and this is Belgium, where people stop working around, I guess around 1980 at older ages. And this is linked in their study to these incentives effects, and this sort of essentially a measure of tax rate on continued work. And the percent of early retirement, and you can see that countries are much arrayed along this line. That's the sort of major findings, and I wouldn't dwell on that since Richard's already talked about it.

That suggests disability policy reforms and the need for data. Well, variations in disability policies, as Richard already elaborated, is one of the important sources of variation in these changes in labour force participation. And reform of disability policy requires knowledge essentially of labour supply effects of alternative policies – and the effects of reforms, but I think that it also requires the consideration of the effects of reforms on the welfare of the truly disabled. That is, if it is the case that every 50-years old Dutchmen who's pulling this trailer, is truly disabled, there may be some Dutchmen in those age ranges who are disabled, and one can look at this. The United States has a disability programme that is quite different than the disability programmes that one finds in the United States. I'm just going to use this as an illustration on the kinds of questions that one can do. In the US, what happens is you have a person who feels that he or she is disabled, and they make an application for disability, and there's some medical evidence that's presented by the person. And there's a decision about whether or not that person is eligible for disability. And at that first stage, about 40% of the applicants, they say that they are disabled, of those whose applications are rejected, the other 60% they can appeal. And they can appeal to an administrative law judge, and at the appeals stage, it turns out that a fair amount of those that appealed are ultimately given disability.

Now in the policy description, there's been, the US disability programme sort of waxed and waned, when it gets really expensive, it tends to be political pressure to cut it back to make this stage tougher. And this appeal thing is kind of a safety valve on variations here, and the appeals process, somebody comes in with a lawyer. Well, I'm not going to tell you then very much about that. I want to go through. What you can do is that you can trace through all of these various steps of this thing. And what you can do with the HRS, actually what Rust does, is that you can actually trace through who are the people who are accepted are being rejected, what's their true state of health? And you can get that from data that we asked about disability, and why is it unconnected to work, and Rust shows we get unbiased measures. Here's evidence of sort of the disability effects on work that comes from the data, and in a way it's a testament to the quality of our data is that in two very different parts of the survey, we traced how much, whether people are working or not, by sort of retrospectively over the last two years, what month did they quit working.

And another part of the question that we've asked is when did you apply for disability? And the connection between the two is that people are quitting right at the time that they're applying for disability, and that could be an effect that is due to the sudden onset of acute conditions, or of course that they could be that they coordinate the application with their work status. In any case, we get good data on that. Rust then goes, we then predict what the relationship between a bunch of health characteristics and self-reported disability is, and we find no bias in reported disability and so forth. You can go through and look at the system and you can judge sort of what's happening in terms of the kind of their true disability through this award process. And you can trace the progress of our respondents, those who got awarded, of the 246 who were awarded disability, 189 were really disabled, and 57 weren't disabled. Conversely of those who's been rejected, there were 45 that were not disabled, and 52 were really disabled. The overall process essentially produces balance, a little misclassification. And what happens is that, and this is a more detailed thing, and I wouldn't go through it in any detail. But basically what happens is that there a lot of people who are truly disabled, who are rejected at the first stage, and the appeals process actually turns out to correct that. And a lot of the mechanisms by which the appeals process corrects it, appears to be through self-selection. Those people who are rejected, who are not disabled, tend to give up at that point. People who are, the other people do continue through.

And I argue that this would be relevant to Europe, in the sense that you can go through with any of the SHARE data, or ELSA data, you'll be able to go through and construct the same sort of analysis through the entire process in different European countries. It would enable one, I think, to start looking at questions about what would be the effective reform on the impact, not only on labour supply, but also on the distribution of benefits to those that are truly disabled.

Arie Kapteyn: Responding to Robert J. Willis (9.45 – 10.30)

I think this is the case where sort of unambiguously Europe can learn something from the US. I think generally Europeans are a little hesitant in sort of saying that Americans know things better than we do, but I think this is the case where there's really no reason for any reservation. The HRS is a wonderful example of how useful it is to invest in data collection and try to understand policy matters better by collecting better information. So what I would like to do is two things really, highlight a little bit what I think are the distinguishing characteristics of the HRS, and then I'll look at some of the topics that Bob Willis discussed briefly. And I'll concentrate on these topics that lend themselves best for international comparative research, because that's after all the theme of this conference. So I think if you look at HRS as an enterprise, and I would like to just dwell on that for a few minutes, it seems to me that the foremost characteristics are really the ones that I've listed here, and they're also the ones that Bob highlighted. The first thing that's extremely important, and still is less common than what one would hope, is that if you collect data, they should be available to just about everyone. There are obvious restrictions like confidentiality of individual response, for the rest there should be no restrictions whatsoever. It's a public resource and it should be used by as many people as possible simply to maximise the social benefits of that.

I think the second thing that we've learned from the HRS is that it's very important who does the design; it's very important that the design is done by people who have policy/research questions in mind. So you want to give it to people who know what they're doing essentially. And I think that the HRS again, if you look at the people who are involved in the US, it's exemplary on how to go about this. The third thing that actually you need because we have all sorts of data collection efforts all over the world but the third thing that's unique is its true multidisciplinary. And of course that's a word that's been used a lot with people, people always say is that we should do multidisciplinary work, and at the end of the day we do our own stuff and that's about it. And the HRS has come up with a model somehow that did bring these disciplines together and really managed to have a survey set up that does justice to the various disciplines. Now, there's also a downside to that of course. It's not the case that as a health survey, the HRS is probably not the best in the world, I mean there are health survey that are probably better simply because the only thing they do is health. And they sort of spend two hours measuring health. If you have a general social science survey, you cannot do that.

And you can think of better ways of measuring wealth probably if you spend two hours on just measuring wealth. So there's always a compromise there, you have to be willing to compromise in the different domains that you're looking at. But on the other hand, and I think the various publications and policy papers have been written on the basis of it, a testimony on the other hand, the true benefits of the multidisciplinary really pays off if you want to look at policy questions. And a final point, and that's really a message to whoever has the money to pay for this sort of thing, the HRS is extremely expensive by social science norms, by what we're used to. We're sort of used to doing things on the cheap. And it's really of course a testimony to the people who've decided to fund this, on the US side, that they understand that yes it's expensive but there's also enormous benefits. And there are benefits that you'll never get from the cheaper enterprises, the multidisciplinary enterprises, the enterprises that sort of for last a few years. So it's expensive but it does pay off, and I think Bob has sort of illustrated this in a number of dimensions, but there are many dimensions that I'm sure that he could have highlighted if he has had more time.

So let's, actually, how do I go back, right click or what? This is actually sort of one, this just illustrates the enormous return in investment I think, if you just see the numbers of users. I tend to compare this to datasets that I know, like in the Netherlands there are some datasets that are longitudinal and are pretty good, but for a long time, users are restricted. You can use it, but it's a bit difficult. And if you

sort of then look at it the cost of these datasets, and they're a lot cheaper, and if you look at the numbers of users, and you look at the numbers of papers that's been written on it, then you sort of do this on a per dollar basis, you've already seen that the HRS is actually a pretty good deal for your money. And I'm certain that the 400+ papers are actually underestimated. It's not just growing, but you know clearly that's one of things that are just hard to track down because people write papers but they don't always tell you, and so just, the number of people using it, and then the sort of common knowledge that comes from that. Of using these data and understanding these institutions is just amazing I think.

So let me just briefly go over a couple of the issues that Bob mentioned and highlight the international comparison aspects to it. So I've stolen some pictures from Bob, because he fortunately shared his PowerPoint presentation with me. So this is a picture that he shows, and he looks at sources of consumptions, really, in old age. He looks at wealth, but of course you can translate wealth that into consumption. So this really gives you an impression on how you can finance consumption at old age. Now I must say that it's a very bad taste to discuss a paper and then refer to your own work, so I apologised for that, but I'm going to do it anyways. So if you look at the picture that Bob highlighted inequality, certainly at the higher wealth deciles, how important private wealth is as a source of financing consumption. Now, with [Stan] Panis, I've looked at the case of Italy, the Netherlands, and the US, and other people have done the same thing, Axel has also worked on some of this. Now, there are two things that you find there, one is that if you look at the median replacement rate of some sort of generalised replacement rate. And by generalised, I mean that you add in not just annuity income, income that you get from various sources, like pensions or social security, but you also add in, let's say you knew the value of your wealth, you know that you have a lot of money in the bank, you can use that to finance consumption, so you add that in.

If you do that, and you compare across the US, the Netherlands and Italy for example, you find sort of very similar numbers. So what you find is that in a country that has less generous pension provisions, like the US, in a fewer households makes up for that by saving more. And of course again that's not surprising, because there's the incentives effect, and I guess in this room, we all say, well, that's really what should happen. So you might say from that perspective, it doesn't really matter that much what the policy is, because people will make up for it themselves. However, if you then look at the dispersions, so if you look at the inequality, not surprisingly you find a larger inequality in the US than you'll find in other countries. So if you look at policy, and you want to think about what sort of old age income provision you need. On the one hand, you have to look at behavioural effects, because you realised you don't really have to provide for everything as a government, because people can take care of themselves pretty well. On the other hand, if you worry about inequality, you still have to think about something. So that's an example where looking at similar datasets across countries, you learn sort of two things. One is about the importance of policy and the medium, but also about the importance of policy for dispersion.

The other one that, of course a lot of people have worked on that, Bob highlighted briefly is the health-wealth nexus: the simple fact that rich people live longer essentially. I think we understand part of it, but we don't understand all of it. It is another example that it is extremely important and also extremely interesting also to look at different countries. This is my second apology and then I'll shut up because the only paper where we, our name appears. Mike Hurd and I looked at this, and we looked at two different countries, we looked at two different countries with very different institutions, namely the United States and the Netherlands. And of course you find also in the Netherlands a very strong relationship between wealth and income on the one hand, and health on the other hand. You find this, there are many studies that show this, also in the international comparative perspective. We also write down a little model that actually shows that there's a relationship between health and inequality, and wealth and inequality essentially. So at the one end, inequality sort of generates the other on certain assumptions, and that's then documented in the dataset that we've used for the two countries. And of course what does matter are institutions, access to healthcare, earnings replacement if you cannot work for a while because you're ill, for obvious reasons these things matter quite a bit.

I certainly would not claim that we sort of fully understand the role of institutions relative to other aspects. But it seems to me that here, the internationally comparative perspective is bound to be particularly useful in understanding the role our institutions, and thereby informing policy. And again, in order to be able to do that, you need comparable data. Otherwise, it's pretty close to impossible to do that in a reasonable way. This is a picture that sort of struck me, I really know nothing to add, except to note that if you, actually Bob showed this to us also, just to note that the number of hours that relative will spend on helping people with serious cognitive impairment is bound to vary by country just on the basis of institutional set up also. If you have a lot of formalised care, let's say you have a country where if there are problems and there's enough government funding to provide formalised care for people who need help and old age. You would expect relatives to spend a lot less time than in other countries, and it will have to do with family relationship, like whether, Richard showed a picture of people over 75, the percentage of people over 75 living with relatives, because these things are clearly important. So that's another issue where policy really has an effect, because policy may affect family formations, and may affect the way people live with each other.

And policy may affect the amount of informal care. There are substitutions between these various forms of care that policy affects. And again if you want to understand that, you want to have a feel for the qualitative effect, of course at the end of the day it's the quantitative effect that matters if you think of policy. Because they determine how much you can afford to do, then again you want to understand this on the basis of comparable data. And then have careful looks at the institutions. The Gruber and Wise study, I have a little comment on the Gruber and Wise study, which is really sort of converse, I guess, to this previous picture that I've shown also. This is sort of the third generation, and I went down to the third round of the Gruber and Wise sort of stuff. The thing with the second and third round is that there we've started to use micro-data. So we have these micro-datasets from these different countries. And then you really run into trouble, and that's also pointed out to some extent, for the simple reasons that in some of the countries, the datasets are just inadequate. They're hard to compare, and certain variables are missing. And it was pointed that we really don't look at the demand side at all, because we really don't know anything about it. Health is not in there, because in many countries we don't know health. So it's sort of really important, covariates if you like, important other explanatory variables are missing because of inadequate data.

And that's another example where you would really like to know a lot more about the interviews in your sample than we know. Okay disability, I'm just going to make two comments about disability and then I'll shut up actually. So, this is, Bob again makes his point, that's relevant to any country pretty much because we all have disability schemes in place of one sort or another. Here I would like to just to point at a few problems that I didn't have time to highlight, because looking at disabilities across countries is an excellent example. That's really difficult. For one thing, disability is not well defined at all. Whether or not you considered someone to be disable to do work really depends on cultural norms. In one country you may say well, if you have this problem, you can still go to work. And in another country, you may say no, if you're in this shape, you cannot. Whether or not if one can work also depends on work place accommodation, so it really depends on the sort of things an employer will have in place for you to make it possible for you to function even if you're limited in one way or another. And more generally, the measurement of health status across languages is very difficult, and there is a whole industry now of people who are trying to come up with measures that are more objective. And Axel is one of the people who are working on that.

I'm ending with a pretty trivial conclusion, I'm afraid. On the one hand, I think that they are important, but gradually sort of we've all started to learn about their usefulness, and what a resource they are for learning about policy effects, and for learning about behavioural effects. And on the other hand, and of course I'm pleased to say that they also introduce new challenges, so that will keep us busy for a little while. Thank you.

Daniel Gros: okay, time for a few comments and questions, if people are not too tired already. Axel again.

Axel Börsch-Supan: two completely unrelated remarks. The one is about your pies on who's insured by health status, I think they might be quite misleading because there are tons of other covariates behind it – particularly age. I think that should at least be shown separately by age, because quite naturally the older people fall into the categories where they get Medicaid, or also maybe increasingly Medicare. And I am saying this because this is a hotly debated issue in Europe always in the end. And everybody has a prejudice that essentially a third of the year's population is left in the rain. And that is not true, and I think that's an important question to show, point to show.

Robert J. Willis: I think the picture I showed were all for people, you're all thinking of this, the three, those are 51 to 61 years old households only, they weren't the post-Medicare households. If you do a the same chart for people, so in the US context, I guess the health insurance for example, as I've mentioned private, and there are some people who are uninsured as I've shown or maybe insured through essentially means tested programmes. So one possible reason for that correlation has to do with those sets of institutions that are say quite different than from European institutions. If you look however, at the older ages, like if you constructed the same chart for people from the AHEAD dataset, for example who are over the age of 70, all of whom had access to the Medicare system. You see basically the same, the charts looked very similar.

Axel Börsch-Supan: but the conclusion which sort of was, you didn't draw it, but probably lots of people will do it, it's the poorer the health, the less the people are insured. [**Robert J. Willis:** yes.] And there's maybe some correlation in that direction, but it's much weaker than the usual myth indeed that Europe has it. I think that's an important distinction. [**Robert J. Willis:** okay, I agree with that.] The other thing was that was in Arie's remark, yeah look here. [**Background, Robert J. Willis:** yeah this was from the 51 to 61 years old.] Okay, that's important to know actually. So it's not passed 62, and it's not before 50. [**Background, Robert J. Willis:** so why don't they get Medicare then?] Oh in that sense it's obvious. [**Background, Robert J. Willis:** oh believe us, you don't want to learn that, it's unhealthy.] But here the thing is obvious, because you only get Medicare because you have poor health, if you're below 62. [**Background, Robert J. Willis:** actually, one of the reasons I've found when I first saw this, it's probably is well known to people more specialised in this area more than I do, is that...]

Robert J. Willis: in fact that the lack of insurance is, which is often highlighted in the newspaper, is not, it turns out that relatively few people are simply uncovered by insurance. But the root and the type of medical care that you get, the kind of time lag of sort of between, I was covered on my job, now I've lost my job, I no longer have coverage, I applied for Medicaid, and I get on to Medicaid and so forth. There's a very complex set of things that are underlying, the stories that are underlying, essentially the transitions from say somebody who at time t is up at the upper right hand corner, and somebody who at time $t + x$ that's down here at the poor health corner.

Axel Börsch-Supan: well the other point was just a small point, if you look at the payoff of the HRS per paper, I think you still pay more than 2 million dollars per paper on HRS. So that's a dangerous argument, I would actually argue that... [**Background, Arie Kapteyn:** two millions times 400, how much would that be?] No, each wave is how much? [**Background, Arie Kapteyn:** you want to reveal the total costs of the papers?] [Laughs.] I think it's more than 400 million which you've spent on the HRS? No? Less than a hundred, okay. In any case, but the amount of dollars gained in making reasonable policy proposal, by actually having good arguments, what is right and what is wrong, just in terms of facts, I think, [comments from background] exactly, and that's where you save money. It's not the research side.

Richard Blundell: I'm actually following up. I think what Axel said at the end, and that is, who is actually paying for the HRS, because it's actually very expensive. It also becomes a question for Axel, who is paying for the sort of European equivalent? I want to underline that we're supposed to be here under the title ENEPRI, which is got the word policy in it somewhere. What is the role of governments in this? And what is the role of the potentially, the European Commission, as the kind of equivalent to the large organisation that is America on the other side?

Robert J. Willis: well, I think I won't try to explain the European side of that. The American side of that on who's paying, well, it's ultimately the tax payers are paying for this. And they're doing so through the National Institute on Ageing, which is part of the National Institute of Health, which is, the bulk of money spent by NIH is really on bio-medical research. But I think for the last 20 or 25 years, the NIH has recognised that not all issues related to health are simply matters of bio-medical, are bio-medical issues, but there are also many economic and social issues that need to be understood along with this. So the NIH itself is essentially a scientific research organisation and the argument for the scientific research is often made that ultimately it will end up enhancing policy. But it's not, it's an indirect route, and if one asks the question, what's the connection between kind of scientific knowledge and policy, I think that's a very difficult, I think it's a very difficult link to make. Because it's a complicated one, but I think it's, nonetheless, it's one that we think it's real. And I think that's been the justification on the US side, I don't know, Axel might want to talk about on the European side.

Daniel Gros: why don't we do that later? I mean, if I may be open, we have our own table later, which can also address these issues. Information used to be a public good for me, and therefore there are some good reasons for governments to get involved. Okay, let's have a short coffee break, and then we're heading back to this room.

Transcript: Round Table: Scanning the Future

Daniel Gros: okay, we are about to conclude in an hour or so. Let me just give a brief introduction to this panel, as a little surprise to my panellists here. This conference is the concluding event of a network sponsored by the European Commission, as you know. That was some initial financing for this network that brought you here in ENEPRI. And we thought that it might be useful at this point to try to come to some conclusion in the sense that do we have some message that we would like to transmit to policy makers more at the European level than the national level, naturally I would say, since we are here. And I could see two types of message that we in a sense, we as a community assembled here, and also we are as CEPS who has often a very close link, I wouldn't say, but also contact with the Commission and we able to speak to some of these guys and sometimes even to influence their thinking a bit. So what I was hoping to get out of this panel here would be points that they would like to throw either at the policy makers at the European level in terms of what should be done in the area of ageing, welfare systems, and labour markets. Or alternatively, what would be, or what should be done in terms of research needs and financing of research. As I've said we are financed, or this particular event is financed by the European Commission. Perhaps you all know that financing of European research or research at the European level is about 5%, I think, of the sum of the financing provided by national governments, so keep in mind that I presumed it would be impossible for the Commissioner for the EU level to finance something close to the, what was it, the IHR, unless one finds completely different mechanisms or ways to coordinate this type of social economic research in Europe.

Now, the people around this table here have all worked on lots of aspect of this complex here, and I realised that they might have many messages. But ideally, I would get from each one of you, one point so that when we can offer some feedback to the brave ones that are still with us today. And then hopefully we can see whether there is an intersection that is supported by all the, or something that can make a coherent assemble. Since three other speakers here have already spoken earlier this morning, I have shifted them to the end, and I have given preference to Fiorella who has not spoken, Axel had some time to intervene. So the sequence will be Fiorella first, Axel, and then I will go to this part of the table. Fiorella, you can talk about anything, but no more than ten minutes. And for others, the time constraint will be even tighter.

Fiorella Kostoris Padoa-Schioppa: Then in this case, you should stop me, because I usually have some difficulties in starting, but also in stopping when I start. Well, um, I think so many things have already been said, I will try not to repeat, or at least repeat the least possibly, possibly try to put into discussion some of the new stuff or something which has not been stressed or pointed out in enough precision in my opinion at least. We discuss already essentially two topics, ageing, pension system, healthcare. And I will refer only to ageing and the pension system. Um, it has been said that life expectancy has increased, and it has been insisted, we have insisted on the fact that retirement age is essentially too low, and therefore we have to work more. The first point in which I want to insist on is the following. In my opinion, we have to work more in the older age, in two ways. Not only we have to postpone the retirement age, and this has been pointed out with some insistence, I would say, but we also have to work more, in the sense, that more social groups have to be put in work. And I have particularly in mind the fact that the female employment rate is particularly low at all ages in Europe – and in some countries in particular. And the problem exists also in older age.

It seems to me that this is a point which has to be stressed perhaps more than it has been done than up to now – at least the speakers that I have heard, not all of them. But because it seems to me that essentially in the pay-as-you-go system, what is relevant is the ratio between the active members of the society and the non-active members of the society. So, it's true that it is a problem to increase the number of active members of the society in the older age, for both genders. But certainly there is a more general problem, which is the one that I am mentioning. There is also another problem related to female. Female usually cost to public finance in terms of not only, in terms of survivals pensions, because as you know, in all Europe, and not only in Europe, they live longer, and usually they marry somebody who is older than they are, therefore they usually get the survival pension. And sometimes,

they get the survival pension at a very, of a considerable size, because they don't have any other pension. Given that they don't work, during the active life period, when they become older, they don't get any other pension. I think that therefore, putting into work more females, would be extremely important also because one would imagine that would reduce some survival pension, although it would increase the old age pension in the medium-long term.

I think also that the Lisbon target, which is, as you remember, is 60% into 2010 as the employment rate for the whole of Europe. From this point of view, it appears to me, a too low target. As you remember, the target is 70% for the average, for the overall population of employment rate – 60% for female, and 50% for old age people. I think one should in a sense insist, if I have one point to say to the Commission what should insist, a more ambitious target for females. Which is literally, already, very ambitious for some countries in Europe because as you know the female employment rate is unevenly distributed in Europe and the Mediterranean countries have a much lower employment rate right now. Um, then I would like to ask what policy proposals one should have in order to obtain a target like that? And I would insist on the fact that permanent education, training, active labour market policies, so to speak, could be extremely important because the female participation rate probably becomes easier in a sense at a certain point of time, I would say that there are many women in Europe who would like to have either no job at all, or only a part time job between 30 and 35 and 45. Now the birth rate is very reduced in Europe, but it is also postpone at the moment in which women have a child, the family, the couple have a child.

Therefore, I would say that it is very important to give the possibility to enter into the labour market, or re-enter into the labour market later, after a period of different jobs. And I would say that the woman who has proved to be able to raise children is certainly a person who can manage resources, human resources and financial resources. I think I have one more minute so I would say that it seems to me two more ideas telegraphic. The first one, it seems to me that in order to be able effectively to solve the problem of postponing the retirement age, one should in a sense not only eliminate excessive protection on labour, somebody mentioned this point this morning, but also increase in a sense the welfare protection, the assistance, the care for the poor. Those who would remain without any job, otherwise it's only wishful thinking. And the last point, it seems to me, that the sustainability of the pension system is certainly very doubtful in many countries, certainly in countries like Italy and Belgium, and France and so on. But, it seems to me that, politically speaking, the sustainability problem is not very important in our society because it concerns future generations. Therefore, it is extremely important that the Commission, which thank God, has some democratic deficit, that the Commission can take care of sustainability because people in the Commission is not voted by, and the median voter is not there to limit the consideration for this problem.

Daniel Gros: tell that to the people in the Convention on the Future of Europe, that is what makes the Commission more democratic. Excellent.

Axel Börsch-Supan: I think the topic was what we have learned, and particularly from the viewpoint of US-Europe. I actually wear two hats. One hat is being the coordinator of SHARE, which collects your data, modelling closely after the HRS, and the other hat I have, that is what I've spent most of my time on is co-chairing the committee on social reform commission. And from that perspective, I would have to say, that the problem that I think is pretty clear now. We have made a huge progress in the awareness of where the problems are, there are still gaps, the time that you have been talking about the ageing problem and that people may have stay up and said that how do you know that it may not exist at all. They are essentially over. So the European Union, the EPC and the SPC, the OECD have made great inroads. So the problem awareness is not the real problem, but the cure, we know very little about the cure – and on many dimensions. And I think now in sitting in a position in which we do have to make decisions, it's quite painfully clear that there are strategic gaps in our knowledge. They're costly gaps. And they are costly because every step done is quite costly. In terms of making of enemies, and every step not done is also costly, because we will have a budget problem. So you're torn between these two sides.

Making enemies is actually a serious problem because it may be, you said that well, that somebody will have to have the courage and say that this and that need to be done in a democratic government, obviously you have to re-elect it. And if you make proposals that undermine re-election, you might just as well stop. So the thing is, you have talked about the path of least resistance, finding these paths of least resistance – finding coalitions which generate at least of a chance of majority, that's number one issue to make any proposal, and you to be informed about this. You have to know where you can actually function, but they help very little in actually forming coalitions. So more work, empirical work, actually has to be done in finding who is in favour of which kind of proposals. And now giving that this little US-Europe kind of perspective, and let me sort of exaggerate this vastly, I think you'll learn nothing from the United States here. And there is actually, we learn very little about the policy process, it's very different, also it was unsuccessful in the United States.

Since the mid-80s, the reform process in the United States is essentially stalling. Well, there maybe not that need, but let's put it as provocatively as I say it on the table. But the second reason why we learn so little from the United States is that the institutional background, the political background in Europe is quite very different. You have to understand that to make any reasonable policy proposals. So this on the political side, and I think the political economy side has been underrated and more should be done, intellectual work, and empirical work. I mean this in terms of research. The other side is that if we don't do this step, it's also costly because we'll have budget problems and so where are the big gaps here. This discussion can take forever, so I'll just take three points which I think matter. One is retirement behaviour, we have talked a lot of about this today, but I think the progress has been overrated. Second, the second point that I want to make is on the uptake of own provision, we know very little about that. Sort of second and third pillar kind of issues, and in health, I think we have looked on the wrong issues – too much on the patients and too little on the doctors.

Now, I think the main lack, let me go back, what we know is obvious budget impacts. But budget impacts have two parts, one is the mechanical effect, you just cut down say the replacement rate, then it's easier to calculate how much you save in terms of how much you spend in percentages of GDP. But there is another effect, which is behavioural effect. And these behavioural effects may go either way, they may dampen the budgetary effect, but they may also strengthen them. And too little work is done on the behavioural effects. Essentially the only big research effort in that direction in terms of retirement age is a Gruber-Wise, and the spin-offs of the Gruber-Wise. And I think that is not enough work yet, and some of the results of the Gruber-Wise, again let me sort of overstate my point, I think are exaggerated. And they do not take care of the habitual patterns, they do not carefully take care about the changing of the normal retirement age, and the early retirement ages, which is almost impossible in this option value kind of models. But they are important, because habitual factors are drive people's behaviour. They do not take about the joint retirement of spouses and husbands, and that would definitely change things, but I don't know in which direction.

Like in the usual thing in European countries that women have a lower retirement age than men, this would be now change. They will be equalised. But I don't know whether that means that women will retire later, or men earlier. That makes a big difference. We have no estimates on the table. Um, we don't know the demand side, and this has been alluded to earlier, that the hardest argument, the political debate is the lump of labour fallacy, which comes ever and again, and we don't have good evidence to say well you're wrong. Every good economist knows why you're wrong, but that is not the line of argument, you have to have hard facts to show that it's wrong. And more work should be done here, and I am very convinced about the arguments which I've tried to make up earlier. That the entire discussion has a lot to do with employment protection legislation and the inability to fire people over the entire age range, and again that's a hot potato, and you would need more solid evidence. Because you would not solve the early retirement incentive debate unless you talk about solving the structural change in the labour force, and that has to do with hiring and firing.

So that's the retirement part. I will be very brief on the rest. Uptake of second pillars or third pillars: How much tax privilege is needed? That is a costly policy, we pay a lot of tax money and we throw it to the middle class in order to stimulate more savings, but we don't really know whether if we throw

too much or too little money. That is a big gap in our knowledge. And again, I think we know very little, we can learn very little from the United States here, because the background is so different, the experiences are so different. And we have little, and the institutions matter here, and we have little ways to actually measure this. The last point is health, we do talk, we do have knowledge about behavioural effects of changing healthcare regulations on the patient's side, we have the famous Rand experiment. And I think we can leverage some of these results to Europe. But that is not where the war is being fought, it's on the doctor's side. The doctors spend the money, the doctors make the decisions, the hospitals actually are reacting to incentives, and we have very little empirical evidence on how doctors' behaviour will change if the incentives within the system are changed – so more work has to be done actually there. And the healthcare part is at least as difficult to solve, at least, as the pension part of the problem. In the pension part, structures are easier, and vested interests are sort of easier to handle than those in the medical industry.

Let me end with the remark that the open method of coordination, which has been installed by the European Union, which is very helpful way to sort of slowly get to common goals, requires data. It requires comparable data on the levels of the targets of which are to be achieved, and that certainly is again where more work has to be done and will be sort of have superficial data. But all the kinds of progress has been made can easily be put into doubt, if you can see how differentially poverty rates are measured, and even the retirement ages are measured in these different countries. I don't have time to put on my second hat as SHARE coordinator, we may want to do this in the discussion, and I am glad...

Daniel Gros: time after the first round, I am keeping it very tight round. I've asked the three remaining speakers to stick to five minutes because they already had some time this morning.

Robert J. Willis: I want it to just say that I guess from Axel I learn that Europeans are damned if you do and damned if you don't. And you're looking for salvation. And unfortunately, what I also learned that salvation is not about to come from the US. That is a view that seems to be growing in Europe. So I don't know exactly where I want to, what I can do that's useful. I guess I want to bring up one aspect of policy change that's at least going on at the US side. I suspect it's quite, it's going to play itself out quite differently in Europe. Although I think it's going to play itself out. That has to do with this sort of basic thrust of a lot of policy in the US towards the elderly is essentially expanding the scope for individual choice. And for example, the idea of replacing a pay-as-you-go social security system with a fully funded system in which people can choose their own accounts. Sort of the position that the Bush administration is been trying to push, and it's indeed stalled as Axel said. But nonetheless there's that sort of move. There's the move towards sort of increasing the amount of individual choice within the health system. Now the problem that one confronts with sort of enhancing, I mean there's sort of a reason for enhancing choice is that there's a great deal of heterogeneity.

Some people want to retire early, not simply because they feel they want to enjoy a long retirement, the question is, that there's a social tension that comes between sort of a social welfare state in which there's a discrepancy between the sort of social benefits and costs of my working and the private benefits and costs of my working. And in some sense I think one of the challenges is to try to make these, it's to try to devise policies that will be relatively neutral. That will allow individuals to follow their own, what they view as best, without having their private choices, in some sense, imposed costs on others. I think that's a real challenge in a lot of these area, and you see in generally the typical problems with any kind of insurance schemes of adverse selection and moral hazard and the like, and sort of figure how one can undo that, and I think that's a considerable set of challenges. In the US context again, as one expand the scope of personal choice there's also that question of how does that plays itself out as individuals aged as their own capability and competencies change both with respect to age and cross-sectionally. I've been personally interested in issues for example about if we are to shift to a situation in which we have more investment choice, what would, how would the payoffs come to people who have not been accustomed, for example, to investing.

France and evidences suggest that people who, that many people sort of don't understand risks very well. And the people who have the poorest understanding of risks have tended to do rather badly in

terms of their getting payoffs in investments and tend to have smaller assets. I think, again in the US context, that there's this sort of question of between as one expands the areas for choice becomes less paternalistic about how choices are made, it increases potentially the people who will sort of all through the safety net. And once again have this kind of tension between the insurance aspect of social policies and the kind of personal expression aspects.

Richard Blundell: I'll be very brief and echo Axel's point on political economy but of course it's on one way to debate moving is to get more information, and I still think we lack lots of in terms of knowledge on that side. I should also echo his view about how far we've got on pension. I hope that I didn't have to try to oversell it too much. I pointed out that our understanding of how normal retirement age is, and interactions in family, and differences across types of people are very weak. And in fact, reflecting on this morning, let me focus on re-employment of older workers. I think that's pretty key to what we're looking at here. Two things, one is on the data side, really. It seems to me it's critical that we understand fully the likely stream of costs to the firm and to the workers, who benefits the firms or the workers of re-employment. And I think this covers the point on hiring and firing costs, by the way. It's harder to deal with employment legislation directly, but re-employing protection, but nonetheless. And there cross-country is just crying out for a good cross-country work on the kind of data that we shall have, because you take, talking earlier, somewhere like Denmark that has pretty much no firing costs. All the costs are borne through the tax system and benefits system. The firm itself has no firing costs in Spain, that's very different.

We can learn a lot about, looking at those two, about re-employment costs and how they're influencing decisions. And as far as I know, really nobody has done that in the kind of framework that is lay out in for example, in the bureau style project. But that does require details on a lot about the work place and the types of costs facing firms, and in addition of course, the types of eligibility that people will have to alternative programmes as Bob was talking about. The details that you really need to pin down, the disability eligibility and the way people move into that. So that's the kind of data need. On the policy side, I mean, I think the one really interesting issue, it's rather like Bob's point, if we could unhook retirement savings from retirement dates, and make it like a funded saving plan, that you can have some tax advantage or not. And then think about how the labour market, how re-employment probabilities, how labour markets will adjust to that. I think that would be a very useful thing to think through, so if we were, if we thought about moving more to DC or private schemes. Then many of the complications that we've discussed about re-employment probabilities are likely to disappear.

But what will that likely look like in terms of employment patterns, because as [Wawouso] pointed out, you would expect people to respond to wealth effects and retire early if they so wished. Of course, once you've unhook savings from retirements dates, it becomes much easier for people to pop back into work if they suffer the kind of wealth, dramatic wealth falls as individuals in private schemes have suffered in the last two years. And you know that places much more flexibility individuals being able to enhance their retirement incomes by responses in the labour market to shocks that have otherwise occurred. Because of the many, as I should add, many of the early retirement patents that we've saw in the early 90s were completely justifiable, and completely rationalisable on the basis of increased wealth, and or the incentives facing individuals. What's happened is that they've become less optimal from a society's point of view, and often from an individual's point of view as the sequence of economic events have turned out more recently.

Timothy M. Smeeding: I'm tempted to respond to Axel a little bit. Um, my message is a really simple one, and it comes, I think from my 20 years of experience at building the Luxembourg Income Study. It is hard to build cross-national comparative institutions, institutions which offered cross-national comparative data and research. But it's well worth it, and if the European Commission wants to wisely spend its money, it should spend it on efforts which collect harmonised, and make available, all three cross-national comparative data. If you're going understand retirement in Spain versus Germany, whereas in Spain 85% of the people own their own homes, and in Germany where half of the people rent their homes, that can be quite different. If you want to understand the re-employment issue, that

can be quite different. The similarities and differences are key to making policy – and to me, as efficient and as equitable as possible. So you really need to do this. And you need to do this in a way which emphasises coalitions of people who can work together, then emphasises people who can make this stuff available. Now, this European Community Household Panel access to that for the first five or six or seven years was impossibly bad. It was stupid.

You collect data, and then you sit on it. You don't let anybody use it, is just baloney. None of the researchers can make use of it, so the amount of learning that we've got from that was really small. The marginal cost of extra users was actually really low. There are ways of facilitating it – the learning, the coalition that build up, the numbers of people who were together. Now you've seen already today, for instance, how far, Arie Kapteyn made a wonderful point about how far you could and could not get in this NBER project. They didn't have cross-nationally comparable data, they knew researchers who were gone and they used what they could get, and they got a certain distance. And now they're handicapped because they don't understand the relationship between health and wealth, their family situations, health and wealth in their countries. SHARE will give them that information. People come to me for the last ten years, and say this is wonderful, why don't you do the same thing for wealth? Why don't you do the same thing for consumption? How about health status? How about family arrangements? Cohabitation means very different things in England than it does in Scandinavia for instance. And so forth. Well, I said I only have one lifetime and I put it all into this one project, and I am quite proud of it. But there are others out there waiting out there to do this. And it seems to me, the natural thing for FP6, the natural thing for the European Commission to do, is to try and foster these coordinated cooperative efforts that try and come to an understanding on how the labour market work, how people live and so forth. That's all. And it's a good investment in Europe's part. It's not a terribly expensive investment either. You'll find the social sciences are relatively cheap compared to the hard sciences. Universities took a little while to learn that, but they in generally do. Thank you.

Daniel Gros: I think we'll now broaden the discussion to the people in the audience. If you want to throw questions at the panel members here, go ahead. And then we'll have our second rounds here.

Male speaker (I think this is Alan Walker): I am amazed at what people do not learn as opposed to what they do learn, the course of some of these discussions, I was casting back to something which I think published 20 years ago, which is still being sort of, well, actually it's not being, people are all of a suddenly saying, gosh I'd never thought of that. I didn't actually say what it was, and I don't even say that I am alone in doing this. It actually has something to do with the same relationship between employment protection and legislation and early retirement, but these kinds of things, you see we don't even bother to learn about from what we have done in the past. And I find some of the discussions a little bit sterile, or not very helpful. The other thing, which I think we also failed to learn is the ephemeral nature of the political process, which we are trying to influence. And for those of you who have heard it before, it's a good story, it's worth repeating.

One of my favourite people was federal labour minister [Bloem], Axel knows federal labour minister [Bloem] in Germany, but in 1984, the German metal workers went out on strike for a 35-hour week in the face of rising unemployment in Germany. And they wanted to engage in work sharing, otherwise of labour activities. And the government didn't like this very much, and the German labour minister [Bloem] didn't like it either. So what he did was he tried to diverge from them by suggesting what we have is early retirement instead, and the legislation went through. And the day it went through, labour minister [Bloem] got up and he said “German workers”, he said, “in the interests of solidarity with the young people and your unemployed colleagues, please take advantage of early retirement’. However, German labour minister [Bloem] is also minister for social affairs, and therefore he has the pensions in his portfolio. And about a day afterward, labour minister [Bloem] had to get up with his pension and social affairs minister hat on, at which he said “Germans”, he said, “in the interests of the long term financial viability of pension systems, you must work longer”. There is this tension between short term and long term which goes on, I can tell you other stories. I can tell you a story about a meeting at the OECD, with the principal subject being how we can get people to work longer.

That was the theme of it. ILO was there, World Bank was there. Several people in this room were no doubt there. That was the message. That was one thing we perhaps all agreed on, we ought to work longer. Same day, same organisation, running around somewhere else, pushing pieces of paper under the door of every member staff over the age of 50 saying we better cut back, we're offering you a package. There is short-term-ism which is rivalling here. And until we can get over that mentality, I don't think we're going to get very far, that's the thing that we needed to learn.

Arie Kapteyn (I think, but it's from the audience): I think this is a wonderful example of how it's important to inform policy because it doesn't seem to me there's a conflict between short-term-ism and long-term-ism. It's simply between something that makes sense and something that doesn't. And of course the short-term-ism is indeed the lump of labour fallacy. And there the fallacy is that the people think that it actually works to send people home to sit behind the flowers at the early age. And I think if we know anything about how policy works, this doesn't actually work. So this is an example of where it's really important to sort of have better information, and better data, and in a sense, sort better arguments to explain which policies work and which don't. It doesn't mean that there's never a conflict between short term or long term, of course there is. But not as often as I would think than as people might think sometimes.

Daniel Gros: I would like to give an address to, can we learn anything from US policy making or action being taken in the areas of ageing and welfare systems? And or can we learn something from the US research programmes that have taken place there and whether we should basically imitate them. These seems to be two separate questions and since Axel already answered the first one, that will give him some time to speak about what he's doing. And let's just make a quick round of that one.

Fiorella Kostoris Padoa-Schioppa: I'm sorry I didn't catch the second question, but I'm going to try to answer to the first question. Actually, I don't believe that we cannot learn anything from the American case. But there are situations which are really different. I would like to point out one for example. One aspect on which the European pension system and the US, and for that matter the Japan pension system, are different is that the actual retirement age differs from the legal standard retirement age – much more in Europe than in the United States. The standard retirement age is more or less in Europe than in the States at around 65. But if you look at the data on the actual retirement age, at the effective retirement age, in the State it's really 65, and in Europe it ranges from 59 in France and in Italy to 62, 63, certainly it is much lower. Now this, it seems to me that there are many reasons probably for this, the major reasons, as pointed out by the people here, are that in Europe incentives. Not only incentives, but also possibilities in fact retire earlier because there are specific schemes, like pre-retirement schemes, unemployment pensions, inability pensions, depending on the different countries. And all that is due to the fact, the labour market essentially does not work as well in Europe as it does in the United States.

It is related to the excessive protection legislation, but it depends on many other issues. So one thing that we can learn from the States, in my opinion, is that we should look at this problem in a very comprehensive way. Certainly not try to reform only the old age pension, but all the pension system. And certainly not only the pension system, but also put more flexibility in the labour market, and to understand that there is also a relation between the labour market and the welfare system beyond, and besides the pension system. Second point that I would like to refer to is the one on information. Information is a really key point, and we know very little about, in comparative terms. I think one should distinguish between two problems. There are situations, variables, data, institutions, on which there is not enough comparable information. So we should insist on the Commission that they should do it, or finance networks to do it. But then there are also situations in which information does exist, but it has not enough diffusion. This in turn depends on two possible situations. There is sort of rationing through prices, sometimes they don't give you the information unless you pay. And sometimes you pay a lot for it.

And there is also another situation in which there is full rationing. You cannot even use the price in order to obtain the data, this is a terrible situation. For example, in Europe, not in the States, as far as I understand, they tell you that there's a privacy law. And given that there is no information

transparency law, they can only use privacy, but you cannot use the right to inform. Now, it seems to me that one should distinguish all these cases and try to have a different policy instruments to fight against these cases – short term and long term, that's my last point, if I have one more minute. I think there is no theoretical conflict, but there's certainly political conflict. And this is why I will be saying in my first turn, that one should insist on having sometimes, sort to speak, independent agencies – neutral authorities, not some kind of government, which is not voted, because essentially the long term problems are not taken into consideration by the democratic process, because, simply because the children who are not born yet do not vote. Because those who are already born, do not have in their utility function the children who are not born yet in the same way that they have themselves. So I am in favour of some democratic deficit, as I've said before, it seems to me that the Commission is one possible authority able to take care of the long-term problems. But there are other possibilities, and certainly, this is a subject which has been discussed at length, for example, by [Hayek].

Daniel Gros: So keep it lively, I'll just spring a surprise, we'll change a bit the sequence of the speakers. Why don't we start with you and go this way.

Richard Blundell: Quick on the US, what we learned from the US. I realised I don't read everybody's work. But nonetheless, thinking about understanding this, this kind of individuals and institutions. And one thing that I have learned, is that incredibly with similarities of individual behaviour, which probably people would find surprising. But what is really dramatically different is institutions. But if you look at the way we've looked at how individuals respond say to wealth and all those things, and their actions, incredible similarity, which gives you a lot of hope in a sense or more optimistic than Axel because what you can then learn by looking at the US, and this might be the medical system and the pension system, it's just the variations in institutions over a set of individuals, it's of course very difficult to draw massive conclusions from that. But it gives you the ability, and the nice thing about the US is that it's really quite different set of institutions, and you can think about for example what happens in an economy where you have a much higher level of employment to earnings and wages and all those things, which make up an very important part of this debate, which you just can't see in Europe because there just aren't any economies that have that of institutional structures.

Daniel Gros: Sorry, can I just make one point. So you wouldn't say that the UK is already the US in Europe?

Richard Blundell: Um, I'm maybe biased, because that may turn out to look like that. The UK still has a massively high level of non-employment. So for example if you want to look at what the institutional structures would look like if earnings and incomes into retirement, if you have more older people working, we can't really learn that from Europe. We can't learn it from the UK, but you can start to learn it by looking at the US, provided that you don't think the people are so different that there's no comparison to be made. What I'm saying is as far as I can tell, people are much less different than you would, that you might first think. That gives you some hope for these varying institutions over a given type of population.

Robert J. Willis: I'll also be quick and maybe just pick up on the points that Richard just made, and come back to this example that I gave in the paper by John Rust on disability. In a sense, one of the issues for evaluating policies is that you want to have information that in some sense is not in it of itself is not dependent on what policy is. And if you look at a lot of problem, if you look at the sort of standard work disability kinds of things that the statement of whether I am disabled or not, is very much connected to what I want to do, do I want to continue working or do I want to stop working and receive some benefits. In order to evaluate this kind of policy, you really want to have underlying information that is more general so that one can ask the question, kind of knowing something about the person's characteristic that are independent of the policy, what will the behaviour going to be? And I think that goes to Richard's point that the better that we can characterise the situation of individuals and families in different parts, in different countries, the more we can in a sense learn about the impact of these different institutions, holding constant the important individual characteristics that do vary. And I think that's again a reason for both wanting to collect these data, and I simply underline the points that Tim and others have made about the importance of making that

data available to people in a wide spread way. And I think that it actually advances the political argument. For example, have our data available to people who may have radically different policy views, but they can argue their views out but they're always vulnerable to the fact that they've gotta show that their arguments conveyed are shown in actual data.

Timothy M. Smeeding: I can pick up with Bob, I mean, there's two little points that I want to make. One is how can you learn anything from the US? Well, you can learn something about how clear it's the access to data, about the methods of examinations, the [Rous Maows] look like an interesting way to go through if you have the data, to go through the disability determination process and you're up. You can learn how to build a project where researchers build data that they can use in a multidisciplinary way from the HRS, in fact that's what ELSA and SHARE are doing. But it can't be just the US. This morning for instance we've heard somebody alluded to Poland, what can Europe learn from Poland? Well Poland, when it hit the wall in '89, and it had all of these inefficient industries, did what any politician would do in a short run: put everybody on retirement, inflate, print money and essentially, inflate, and write people checks and get them out of the labour market. But somehow Poland then turn them around, and were rational, reasonable retirement system. How did they do that? You shouldn't only also ask what you can learn from the US, what can you learn from the Swedes and the Danes? Okay?

Here you've got European style institutions and these people are working all the time. Men, women, part time, full time, all the way up to their sixties. They're missing work, which does give a lot of people pleasure, believe it or not, it's much easier than dealing with families sometimes, to take a very good point, and also being able to have a supportive system for children and the rest. There's something there that maybe you can learn from. So I think, I don't wanted to say, it's one thing to say what can I learn from America, and sometimes I, you know how natural and health insurance system that's for sure, but there are things that you can learn from other places too. If you look: if you do it in a comparative way, that's what you get.

Axel Börsch-Supan: I really appreciate Tim's points. I also appreciate your stress on how important the cross-national perspectives are. Now I think that there is particularly attractive for Europe, because in Europe you start from quite different positions. Within the European Union, there is a convergence process, so you have both variations in initial values but also in speed of change. And that is a very powerful, almost a laboratory, where you get a tons of natural, not so natural but experiments, historical experiments, which you can leverage to learn. And it would be just a shame not to use this kind of laboratory in the future. We really appreciate getting help of the European Union in doing this. One point by the way, where we also have a lot of leverage, which hadn't been used, or not used to that extent, is this lump of labour thing. I think there should be more work on work sharing across the European Union and how it worked and how it didn't work. Ariel's point was well taken, but we, there is not that much hard and easy to understand evidence. It is a difficult point, I understand. But to show that work sharing backfires, that it backfires if you give older workers a huge pension and then you suddenly get surprised at how the tax contribution go, and squeeze a wedge and create unemployment, and make the thing worst rather than better.

This line of reasoning I think can profit from more international comparative research. I would like the labour economists in this room to do more on this. But let me go back to SHARE. The other important dimension is multidisciplinary, which also has been reiterated by a few speakers here. And I think it's crucial. If I look at the Gruber-Wise exercise, and there's no health in it, and we're talking about retirement, it makes you sad. Because obviously retirement has something to do with health, and we better take care of it. But multi-dimensional data is not that easily available, and certainly not on a 12 country, 11 country line. And we have to work more. Now, SHARE is trying to do this. It is, as I'm being told, the largest grant which has been given from the EU in the fifth framework for the social sciences. It is very expensive thing, we still do it at 50% of the costs of the HRS. And I am not saying this to moan, but to tell you about how ambitious the project is. I think it can be done, but it's hard work. I have done the questionnaire, we actually have the third round of the questionnaire. So it's a

fairly stable instrument at this point. It has been pre-tested, quite successfully in the United Kingdom. Why in the UK, which is actually not part of the SHARE countries? Well, because it's English.

And how do you speak among all these researchers? Well, of course we take English as the common language, that's the researcher's language, and that's how we've developed our questionnaires. So we've tested in the UK. Right now, we're doing the translation. Doing the translation is a major adventure. Because there's all this temptation to put the little pet project now into, well, let's just pick, there's no Greek persons in this room? So let's pick Greece. My ability to read and speak Greek has limits, strong limits, so we have to devise instruments which puts discipline in the translation process, and we have worked long to actually do it. We have electronic discipline, we have a translation tool which binds the people. This translated questionnaire will be tested in June. This will be the real first true test to show whether if SHARE will be able to swim in the cold water. In November, we'll try out the sampling. And that's sound like a very technical aspect, but actually it's very very difficult. In these different European countries, to set up comparable samples, in some countries we can do the sample essentially by looking at the Internet. Where all Swedes are registered, we just pick one up. In other countries, we have to start the sampling from scratch, which will be very difficult. A year from now we'll have the first wave of data. We'll start collecting the first wave of data, this will be in the early March of 2004, we will have a very rigid schedule. So if we meet one and a half years from now, we can actually talk about data, which has been collected.

Daniel Gros: will that be freely available?

Axel Börsch-Supan: the data will be freely available, [clapping in background], we'll make two data sets available immediately, and more or less immediately make a preliminary data set. And everybody who uses that preliminary dataset has to say so, in a footnote to the paper, so it's at your risk actually to use it. Editing takes a while, but we don't want to use that as an excuse to sit on the data. The next wave will be in 2006, it should be quite clear, and let me phrase this again, a little bit exaggerated, you learn nothing about ageing in cross-sectional data. Ageing is a process, as we all know, and so it takes place over time. So comparing in as cross-section will give grossly misleading results because we confuse different cohorts and different ages. So it got to be a longitudinal dataset. So the next wave will be in 2006, and the third wave will be in 2008. Those two waves are not funded yet. We hope to get funding through the Sixth Framework Programme, and we are reasonably self-confident that we'll get it, but we need support because it's an expensive project. And hope that some of the people in this room will help give it support through the European network. Thank you.

Daniel Gros: what should be cut instead? What should be cut in order to make resources available for SHARE?

Axel Börsch-Supan: well, I am not sitting on the budget committee of the European Union. Let's just be sober here. SHARE costs about per wave, the order of magnitude, depend on the same size, between three and five million Euros per wave. That is little, what is spent say in the physical sciences. And I know technology, in the biomedical, it's really peanuts. So, you don't have to cut a lot.

Daniel Gros: but it has to cut somewhere. And I am afraid that everybody will come and say just spend a little bit more on this. Right? And to tell these guys that this is the easy part.

Axel Börsch-Supan: now, let me just make one point quite clearly. Now, if science should prevail, then we should use scientific method. And we should learn from the physicists, who do not speculate, but they actually use experiments. Now, one of the big drawbacks of economic and social sciences is that they didn't do this. Now we start doing this, we need a lab, we need data and that costs some price. And that's still much cheaper than looking for teeny-tiny particles in huge kinds of accelerators. But if we want advances in social sciences, and I count economics as part of the social sciences, then we need to have those devices. So it's a question of actually the progress of science here. And not only of addressing these more parochial issues of pension reform and health care reforms.

Daniel Gros: you can have the floor, but you would have to tell us if the data is freely available.

Timothy M. Smeeding: absolutely, absolutely freely available, and not only that, we'll help you use it. At some point, going to Google search engine and putting in Luxembourg Income Study in and you get 68,000 hits last time. It's available, it's a standard now, people look to it because we've worked really hard and we've been very open. And if people who have been critical are their problems as well as those people who have been behind it. And we try to listen to people. And I sense the same spirit from SHARE. I mean this is in essence the Hubble Telescope of the social sciences. This is how you look at your life and your situation. And it is much cheaper than the Hubble Telescope, and you're going to learn a lot more than you are from watching the stars, from watching people and watching their behaviour. And to fun, I think Axel it's really strongly that you can't learn anything from cross-sectional, you can, but certainly if you're in this process, you really have to fund three or four or five waves. It's really, I know the funding is a little bit different here, but it seems to me that it's quite low costs, and you've got to go, panels aren't worth anything, I mean unless you've got to go three or four waves. And when you start to understand change, and it's really hard work, Axel is, I know how hard part of it is, and this is much more ambitious than anything I've tried. But it really is relatively inexpensive for everything that you can learn from it. That's all.

Robert J. Willis: A question came up after my talk, on who finances the HRS, and I said the US tax payers and the National Institute on Ageing finances them, I should add the National Institute on Ageing has also helped finance ELSA and has put a little bit of money into SHARE as well. And the rationale for that is the scientific rationale. The question came up in the US on why we should be spending money on data collection in England. And the answer was that we will in fact learn from that, and we'll advance science by having the variation that we've talked about. I think, it sounds to me like, I think I wrote down a figure that I've heard, that 5% of research from Europe comes from the EU, and I guess the other 95% must come from the national governments. And it would strike me as one of the institutional issues that must be coming up. Will all national governments help finance something like SHARE? And if they do that, can they do it in a way that they don't start defeating its purpose.

That is, one of the purposes of SHARE is to create data that really are comparable across nations, where you do things in the same way. As soon as you have, say a national government, saying that they've got priority on learning this and that, we wanted to emphasise a different thing for our country. Then you would sort of undermine it, so I think there's probably an institutional angle that needs to be developed. In order to make sure a long term and viable instrument that does satisfy these scientific policies and objectives that we're talking about.

Richard Blundell: just one thing. One is ELSA we think of it as part of SHARE, so the English is not, and in fact it's so coincident now that it's pretty much the second or third wave, depending on how you're talking about 2004 will be exactly coincident with really the big wave of SHARE. The other point, I was going to raise, is the big pay off. SHARE, ELSA is funded half by the British government departments, and half by the National Institute on Ageing. And I tell you that, they're both important in making sure that the survey wasn't corrupted by national government's preferences for specific and odd details. And that's something, where a large amount of funding that's common, can be very helpful because the line here was that the NIH will never allow something that wouldn't allow for comparable research, which is true. And that allows us to have a lot more control over the scientific nature of the data than otherwise. Clearly that's something we can explore in SHARE as well.

Man from audience: Thank you, I like to hear more from both the US side and the EU side on relevance of the legal retirement age. I know that in the US that there's an early announcement raised the legal retirement age. And I think that has taken effect this year or last year. What has been the impact of the announcement? And what are the expected results, now that it's really going underway? So that would be the question to the US side. And the question on the European side would be, what would be the relevance of legal retirement age in the view of all the retirement schemes that we have, does it matter? If so, what should we do? Should we have an early announcement, as it was advocated earlier? Should we link it to longevity or what should we do? Would that be a road around the political

problems that Axel raise, if you can couple it to something objective if you'd like? As life expectancy, would that be a way to tackle the problem, does it help? Doesn't it help? What's your view?

Timothy M. Smeeding: the United States made that decision in 1983. It's just starting to take effect now. That's what I was trying to get at before. That the decision was made in the past, but then you know that you have a planning horizon. And I think the age of retirement in America, the official age of retirement doesn't mean as much, but for different reasons than in Europe. A lot more self-reliance as Richard pointed out. On your own wealth, shifting to define contribution pension plans now, and a flexible labour market, allows people more freedom to move back and forth. But as far as the public sector part goes, we're starting to inch it up. The question is now should we inch up the Medicare, the health side too, and so forth. Somehow we did it in '83, the question is that in the next four or five years if we can do something in our country that will make further changes again. Ten or fifteen years forward. That's how I see it anyways.

Fiorella Kostoris Padoa-Schioppa: well, I was mentioning before the fact that there might be a very large difference between the legal retirement and the effective retirement age. And this is because sometimes you made raise legal retirement age on one component of the pension system, but not on all components. And therefore, there is an exit on the different components of the pension system. Now, let me make one quick example. What we did in Italy, we had three pension reforms in the '90s, and the last one implied an increase in the legal retirement, not an increase, we changed to a flexibility system whereby it was possible to retire in the flexible interval of 57 and 65. But the same age for both men and women, whereas the current system is 60 for women, and 65 for men. Now, this implied to some extent, an increase in the so-called seniority, in the age of the seniority pension system. But in fact, it is a decrease in the old age, retirement age, in the old pension system, old age pension for the retirement age, because the propensity to retire for people is as soon as possible. So, the moment you tend to retire, is because you know the system is not sustainable, therefore you expect another reform to quickly come back. Therefore, in fact, it is a decrease of old age pension system of three years for women, from 60 to 57, and 8 years for men, from 65 to 57.

Male Speaker: surely the benefit is low when you start early?

Fiorella Kostoris Padoa-Schioppa: well, it's done so tough on fair actual basis, therefore it's considered to be, you'll get more when you are 65 because you will be paid for a lower number of years. In any case, the effective retirement age now is 59 in Italy, and the effective length of your life expectancy, for a man is 20 years, and for women it's 25.

Daniel Gros: that's after retirement?

Fiorella Kostoris Padoa-Schioppa: after retirement yes, after the retirement.

Axel Börsch-Supan: the political economy of retirement age changing is quite important. So you need long announcement phases, otherwise you never get a proposal through. Second, it's survives only if you get a broad coalition, so it needs to be as flexible as possible. In some sense you need to give the workers the flexibility between working longer and saving more. So you want to have a very flexible kind of regime, the Swedes actually have that quite nicely. And one of the first steps that you would have to do is to make it actually fair. So in some sense it doesn't matter, and you can get rid of retirement age altogether. But you need to have it automatically fair, and that answers your last part of the question. If you make it actually fair, then of course it embeds change in life expectancy, because the utilisation form will be dependent on that.

Male speaker from the audience (Italian): I just want to make a small comment on what Axel is saying about the length of transition in some sense. I think that's very touchy issue because for example, what the Italian, I mean what we did, was to have with the [Dino] reform a very long transition, which was basically done for political reasons, reasons were we didn't, or we couldn't touch the pension benefits for a large fraction of the population. Now, on one hand, this is good for political reasons because we were actually able to have a reform which the previous government, Berlusconi, one year earlier, couldn't do because he had a different plan. So on one hand if you have a

long transition you can have reform, but on the other hand, this reform has a very, they're not very effective, because you basically let a lot of people to stay with the old system. So in some sense this transition has to be in some sense as short as possible, provided of course that you can come up with some sort of political coalition.

Another male speaker from audience: just one remark, I'm worried about this actually fairness in the public system because you get a fair selection problem, people that think they'll live short will go in early, and people that expect to live longer will go in late. What about that?

Male speaker from audience: well, increasing the effective retirement age will certainly be a very sensible policy, but maybe difficult to achieve. But there are some other matters, smaller matters that seems to be possible to achieve politically and are effective within the pension system, because at the end, the retirement age is whatever it is, the pension ratio is whatever it is, the pension system has to adjust. And there are measures to adjust the pension system, the sustainability. Again, we could learn from the Swedish system, we have already mentioned here this while increases in life expectancy how it affects the pensions, and this longevity adjustment seems to be spreading from Sweden to other countries. Slowly, but it now applies to at least three countries, Finland, Latvia and Sweden. And there are other similar instruments. One is indexation, we have talked earlier about indexation usually in the context of wage, indexation in price, indexation in some combination. But there are other possibilities, the Swedish did discuss but didn't implement the indexation scheme, which I think is indexation to national income.

Or perhaps total wage bill, or something similar to that. In effect, they took account, or discuss taking into account the numbers of workers. Not just prices or wages, but also the democratic feature, directed in a similar fashion as the longevity assessment. And for some reasons, changes in pension indexation seem to be possible to make – easier instruments within the pension system to change, politically, for reasons that I don't understand, but that seems to be the case. So it's possible to do those things and they are effective, in the long run. And they make the risk sharing properties of the pension system perhaps more expensive. And if you can't do big things, we can certainly do some small things and make things better.

Women from the audience: thank you for that, officer of the Geneva association. I think the key issue five years ago was really to reform the pension system and the welfare benefits. And I think that we've learned a lot, that has been widely done in Europe, with the exception of France, and another a couple of exceptions. I think the main issue now is to turn towards employment, and to increase the participation weight of all the workers. Now, how to do it? You can't do it if you don't adapt working conditions of ageing workers and of course of the firms. So two things have to be done among many others. One is flexibility, when I talk about flexibility it's developing, promoting good data in work, in order to reconcile the needs of ageing workers when you think that often we have our older, very old parents to look after. And the other one is diversity of fund carriers. I think you will have the trade unions blocking changes and new policies if you don't promote diversity at [under] carriers. It would be very unfair to work longer for everybody depending on the availability of work, you've really got to promote diversity of fund carriers. So my main recommendation for the European Commission would be now to work much more with employers, trade unions and also the media in order to disseminate those new concepts, and because those policies are very long term policies, and we must not wait for the labour market to react in a few years to the short age of qualified workers. Those policies are very long term policies. Thank you.

Male speaker: thank you for your comments. One of the things that we worry about is a bit of the politically economy of change and how you get things through. One thing that strikes me is that we haven't talked a lot about it. Down the road, in terms of a social security contribution rate, which is going to work out. So what he's taking now is going to be imposed on the children later date. There seems to be no tools available, or very little tools available to distribute, early generation on counting help. But tools available to try and demonstrate these facts in a clear way to the general public. So it's extremely difficult to build a coalition. The reason that I say that is because I was interested in what the Americans were saying about the question of the move to choice, there's this big arguments about

this. But really, there's a second distribution issue. And the resistance is coming along to this, no one really understands what the distributional effect is. And the big worry is what the people that are going to be worst affected by this are the people, are those people that need to be protected by some sort of redistribution within existing systems. And I think that getting these issues out in the public, and not try to hide them away, is probably an important thing. And I, it's just a plea for tools to demonstrate a bit more clearly what's going on and what's going happen.

The point that you can get coalition says something about the information at the hands of the general public. As a counter example of this is what goes on in some of the Nordic countries when they're discussing changes to their social insurance, or to general transfer system, whether they got micro-simulation models of a different household, and they try demonstrate who's going to lose and who's going to win with tax changes or transfer changes. And they're able to build coalitions, and that's why you get the type of reforms so coherent in these countries, it's because they've got the tools available to do it. And the public, they're widely accepted and useful to the public. And looking at the French case, there's an enormous amount of discussion about the need for reform, but there's absolutely no information about what the impact would be.

Juan Jimeno: yeah yes, I want to follow on this point because there's much discussion about the situational impact of the pension system on the inter-generational basis but less about the intra-general impact, institutional impact of the pension system. And it seems to me that the kind of earning related pension system that we have in Europe are increasing inequality among the older cohorts, because basically what they are doing is to transfer the back shocks that people have at the older stages of their career into retirement. I mean, we know from the [Recycle] model that we are more unequal at the later stages in our working life with this simulated schemes, we are transferring those inequalities into retirement. That's one good thing about the fine contribution system. The defined contribution system doesn't have this back characteristic, and there's little work on inter-generational distribution in pension system. I've seen some paper for the US, but in Europe I haven't seen much about distribution and inequalities within cohorts, and how pension systems are increasing or maintaining these inequalities.

Male speaker: I like to undermine, underline, sorry, the last comment. I think this is something that which FP6 programme that was talked about, or mentioned briefly yesterday, which was looking, trying to look at well-being and income well-being indicators. It needs to look at, it needs to concentrate on a lot more than averages, but look at the distribution, and it needs to look at some simulated distributions based upon particular models. The other thing that I would like to say, and I'm going to push in now, and then I'll shut up entirely, is I come back to time frames. We sit here, I mean I was as guilty of this as anybody else, I showed something which shows 2000 and 2050, and the Commission does it and the OECD does it. Those of us who work with generational accounting models sometimes close these things something like 300 years in advance, or something like that. This seems to be immensely problematic, and I was taken by the penultimate invited paper on demographic projections and uncertainties. I mean, once we get much more than about 20 years down the line, the trumpet becomes so wide that I am not sure that we're actually kind of competent and capable of making decisions about them. I wonder if we're not all just adjusting our time frames where somewhat, we shouldn't be trying to make, as I am afraid that I rather regard the Swedish reforms as model that would last for a thousand years.

The last people who talked about things that were going to last about a thousand years were not very successful. I think we should perhaps be rather more modest in what we're trying to do, and perhaps we can actually build a little more credibility and confidence in what we're doing, if we do talk about somewhat shorter time frame. That's not the ephemeralism that I talked about earlier, but it might also be something that's rather a bit less ambitious than sometimes discussed. I think that also loses credibility, and does not become kind of political acceptable.

Daniel Gros: okay, Axel you had a comment on, can I just want to add one thing to it, Richard you might also want to take up. When he was saying that our own escalated pension schemes increase variability or inequalities of earnings at a later stage in life, that's true. But isn't that also one of the

only incentives remaining for people to work? Because they know that if they don't work, then at least it's not transmitted to the pension system later.

Juan Jimeno: I mean, you have this incentive with the fine contribution system, without this. The question is, how wide is the window on which you compute pensions. And in many countries, these earning related schemes compute pensions over the last 20, say 15 years of working life. In those years, inequalities are highest among people. And therefore you are increasing inequalities.

Of course you have caps, you have minimum and maximum pensions that to some extent eliminate this inequality, but on the same token, you can use this limit with the fines contribution system.

Axel Börsch-Supan: I want to point out two studies, which would answer these parts of your questions. One's done by AFS, Richard Disney and Paul Johnson, that came out as a book two years ago or so. And the other one is an OECD. Those two studies are actually related to each other, which came out as a working paper I guess, it's called 'Family resources and retirement'. And it actually looks at distribution, and it's quite impressive to see how the different pillars look like. And what consequences for distribution they have. It turns out that the fines contribution plan actually increase, rather than decrease, because those people who earn more do save more than proportionally more. So it could be a different instrument, but in fact that hasn't been seen in this paper.

Juan Jimeno: yeah, it might be true that the defined-contribution system increases inequality, if you don't use the same caps that you use that you use for the defined-benefit system. The minimum and the maximum, which is typically people do, when they, I raise this point because I did this simulation for Spain, I have a paper.

Fiorella Kostoris Padoa-Schioppa: one small point, it seems to me that the differences are not between the defined-contribution and the defined-benefit, but between the fact that you may calculate the earnings relating only on a short term period of your life cycles. And the defined-contribution is usually calculated over your whole life cycle, that's the major difference, because otherwise one can may be equal to the other.

Juan Jimeno: one minor point, plus the fact, in various schemes you don't weight similarly the earnings at different stages in life. Usually you...

Robert J. Willis: I think the points were well raised, and it's clear that we don't, that we know that we have to deal with unexpected things out in the future, and sort of having a way to deal with that is important. I do think though that the notion of adopting a short time horizon, or a much shorter horizon, has a problem as well. And that is, in the US for example, we had a very large baby boom and we know we had a pay-as-you-go social security system and so we sat in, in 1983 or so, set up a so-called a social security trust fund, which means that we're in fact not paying off, it's not a purely pay-as-you-go, we're taking in more revenues than we're paying out. And that's been a political football up to this very moment, because politicians basically want to spend that, and we have adopted things like ten years time horizons that mean that we can essentially fool ourselves, using official benchmarks about what the budgetary implications are over the long term. So it's tempting to say that, because of uncertainty that one should adopt shorter horizons, I think that, but I don't think that's a solution. It seems like you need to develop institutions that cope with new things.

[Comment: have flexible institutions.]

Daniel Gros: to conclude this session, this conference. I want to thank everybody for having being so patient and discipline. I want to thank the National Bank of Belgium for providing its hospitality, and of course the EU for providing financing for getting all of us together – and hopefully that it will provide us to work together again in some other project. Thanks everybody.[Clap.] And there's a very light lunch outside for those who don't have to escape immediately.

Summary of proceedings: **Jørgen Mortensen, 21/07 2003**

Transcripts of oral contributions by **Hsuan Chou** (CEPS Intern and London School of Economics)

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