

‘‘New new’ Economics of the Welfare State’

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UPF. *Esmorzars de la
competitivitat* January 2010

'Turbulences' in Social Policy

- Social policy segmentation practices: say, among employment policies (unskilled labour and human capital), tax and benefit system (and market participation) and pension schemes (internal rates of return, pre-retirement incentives...)
- The increased life expectancy and changes in the consumers' time preference
- Labour market reforms: the 'German' model and job creation by reducing labour cost units
- Workfare policies to end absenteeism for welfare
- Tax revenue finance (the increases in the indirect share?)
- Spending reductions (current short term or long term investment?)
- The burden of the debts (intergenerational solidarity?)

The 'majors' under the present circumstances

- **Unskilled labour is linked to lower wages and/or high unemployment**
- **Unemployment is linked to poor health (*The Lancet* nov 17, 2008, Carol Jagger et al. Inequalities in healthy life years in the 25 Countries of the EU in 2005).**
- **Still some doubts on whether to interfere markets for lower inequality in wealth distribution or free markets and go for re-distributions: The capability of the regulatory and financial budget instruments. The efficiency/equity trade off and what it goes first.**
- **The paradox that increasing all income deciles utilisation of public services (improving quality, etc.), the redistributive impact of public spending diminishes, and the finance of this higher expenditure is more regressive**

The 'majors' under the present circumstances

- **Workfare strategies are superior to residual welfare once the employment is lost. (Otherwise, the impact of the crisis on employment is harder for workers on temporary contracts and people with lower levels of education).**
- **Workfare with complementary retraining and capital formation (for instance for those who did not complete upper secondary education) being a positive externality from the crisis. But the target should be investing human capital at the early stages**
- **New focus on taxation practices, zoning laws, corporate practices (production and design, marketing and retail distribution and pricing) and in general, contents of the economics and welfare policies (dual earner-models; general family policies and market oriented policy models and on migration in particular) (Epidemiology and the Macrosocial Determinants of Health S Putnam and S. Galea *Journal of Public Health Policy*, 29, 2008)**
- **To identify equitable finance in the present circumstances with higher taxes is misleading : larger contributions to be expected from expenditure reorientation. Fiscal duality to close budget deficits to be discussed against the burden of higher intergenerational debts**

The importance of Human capital formation from the early stages

- Cognitive and non-cognitive skills technology formation in dynamic settings for accumulative human capital: comprehensive enough from families, schools and firms.. for use and maintainance
- Plenty of complementarities and positive externalities of these strategies on several social policies (unemployment subsidies, welfare services, drug abuse, social cohestion...)

The importance of social conditioned cognitive and non-cognitive individuals' behaviour

It is estimated (McGinnis, Williams-Russo and Knickman, 2002) that for early deaths :

**40% are due to behavioural patterns;
30% to genetic predispositions;
15% to other social circumstances
and 10-15% to shortfalls in medical care**

(currently, however, 95% of the money spent on health is on treatment, nor on prevention).

- **-Cognitive and non-Cognitive skills (conscientiousness, self-regulation, motivation, time preference, far-sightedness, adventurousness (risk aversion), self-esteem...- affect welfare evolution through choices made by parents and children.**
- **Say: personal cognition for the links between education and health. Idem for self control and conscientiousness.**
- **Say non- cognitive ability in determining wages, schooling, social participation, teenage pregnancy, smoking, crime and success: plenty of empirical evidence (controlling for each of those factors). Idem for choices (according to time preference) and health –M Grossman, 2000). Idem for social and emotional factors and adult health (Ryff and Singer, 2005)**
- **Finish high school, work full time and married before having children *Creating an Opportunity Society*, I Sawhill and R Haskins (The Brookings Institution, 2009)**

- **Ability gaps between individuals and across socioeconomic groups are substantial and open up at early ages for both cognitive and non cognitive abilities. These gaps start early before school begins and they persist; once one controls for early family environments, the gaps substantially narrow: influence of maternal education, math scores or anti social behaviour at early ages (before 12) by income quartiles**
- **In general, gaps in health are not all about access to health care services: Paxson, Case, Currie (2006) prove that the access to health insurance is not the driver for the steepening health income gradient for child age between US and Canada. Family environment play a powerful role..**

- **Moreover, genes and environment interact to produce outcomes: environments affect gene expression. Plenty of evidence (Heckman) on the associations of genotypes. Gene –environment interactions examples: Child maltreatment and MAOA genotype; adult life stress and 5HTT genotype; breastfeeding and FDS2 genotype; Methylation patterns in young and old twins**
- **Family and environmental conditions in the early years are predictive of adult outcomes including health. In this sense, adverse childhood experiences and adult alcoholism, intravenous drug use, later suicide, antidepressant prescriptions, perpetrating domestic violence, unwanted pregnancies... In family contexts: divorced alone, married spouse absent, multiple sexual partners, three or more marriages...**

- **Grossman model works well for the opportunity costs of adult investments. Child opportunity costs in childhood health investments are less known, despite these investments are more productive in producing some capabilities.**
- **The self reinforcement of actual and future capabilities is a sort of self-productivity. Cross fertilization creates dynamic complementarities. Need of latter investments in order for early investment to be productive.**

The Heckman model on investment in human capabilities

...A model of capability formation with an unifier ground: Agents are assumed to possess a vector of capabilities at each age including pure cognitive abilities (e.g. IQ), non cognitive (patience, self control, temperament, risk aversion, time preference) and health stocks. Health stocks include propensities for morbid-mortality.

The Heckman model on investment in human capabilities

...All capabilities are produced by investment, environment and genes. These capabilities are used with different weights in different tasks in the labour market and in social life more generally. The capability formation is governed by a multistage technology. Each stage corresponds to a period in the life cycle since a child. Inputs investment at each stage produces outputs at the next stage. Different technologies are needed at different stages of child development.

The Heckman model on investment in human capabilities

...The technology for the production of cognitive skills depends on maternal cognitive and non cognitive skills and health of the mother. For non cognitive, add to the former factors the individual's cognitive skills. And health, coming out from both combined set of factors.

- These technologies recognize intergenerational transmission and dynamic multipliers, with cross effects on cognitive fostering non cognitive and viceversa.**

- **Dynamic complementarities and self-productivity produce multiplier effects which are the mechanisms through which capabilities beget capabilities. They imply an equity-efficiency trade-off for late child investments but not for early investments. Differences in this dynamic processes can account for the emergence of socioeconomic differentials in health (Smith, 2007), Case, Lubotsky and Paxson (2002). Need of overlapping generation models for the intergenerational linkages in health, personality and skill formation.**
- **Programs target at the earliest days, preschool programs, schooling and job training decrease with age the rates of return on human investment capital. Need for a better integrated approach to understanding health and human development: integrated across the life cycle and across diverse outcomes.**

SOME BASICS

- **Income and health cannot be analysed as two separate entities under a single causality link.**
- **Income redistribution is affected by aging**
- **The income elasticity of income related health inequalities is decisive:**
 - If this elasticity is increasing with income, then proportional income growth may lead to higher income related health inequality. If on the other hand, growth goes hand in hand with a reduction in health inequality by income, then greater social inclusion derives as a windfall profit.
- **Self access health, life expectancy and premature death may offer different prognosis**

Some basics

Three ways of transmission across generation (Trannoy et al HE, 2009)

- (i) the **latency model**: during childhood a specific risk takes place and it needs to be triggered in adulthood to be reactivated (Wadsworth, 1999);
- (ii) the **pathway model**: it relies on the parents' socioeconomic status having an indirect influence on the health status in adulthood subsequent life trajectories and particularly through a transmission of socioeconomic status over different generations (Case et al, 2005) and investment in children's human capital (Currie, 2009); and
- (iii) the **intergenerational transmission of health** (Ahlburg, 1998), which assumes parental health status to be correlated with the descendant's health status.

The 'majors' under the present circumstances

- **Unemployment** is linked to poor health and has been associated with increased mortality rates, especially from heart disease and suicide (*The Lancet* nov 17, 2008, Carol Jagger et al. Inequalities in healthy life years in the 25 Countries of the EU in 2005).
- **A policy that favours subsidies for the firms hold its workers seems the best option. Workfare strategies here (people working fewer hours but working!) are superior to residual welfare once the employment is lost. Otherwise, the impact of the crisis on employment will be harder for workers on temporary contracts and people with lower levels of education. Workfare with complementary retraining and capital formation (for instance for those who did not complete upper secondary education) being a positive externality from the crisis.**

The 'majors' under the present circumstances

- Problem of the contemporaneous nature of the outcome and explanatory variables with the **potential ecological fallacy**. This may be overcome when trend data are available –panel and microeconomics data (The role of welfare state principles and generosity in social programmes for Public Health *The Lancet* vol. 372, nov 8, 2008)
- **For the moment, non selective average policies in the dark side of the public policy responses : Not enough resources to allow out of target interventions despite politically, universal access is easier.**

The 'majors' under the present circumstances

- **New focus on taxation practices, zoning laws, corporate practices (production and design, marketing and retail distribution and pricing) and in general, contents of the economics and welfare policies (dual earner-models; general family policies and market oriented policy models and on migration in particular) (Epidemiology and the Macrosocial Determinants of Health S Putnam and S. Galea *Journal of Public Health Policy*, 29, 2008)**
- **To identify equitable finance in the present circumstances with higher taxes is misleading : larger contributions to be expected from expenditure reorientation. Fiscal duality to close budget deficits to be discussed against the burden of higher intergenerational debts**

Some potential changes

- **Reforming the labour market: German learnings for Spain on keeping jobs at the firms' place: subsidies to employers versus cash benefits to the unemployees.**
- **The effects of the mix between in cash versus money transfer policies. Idem on public versus fiscal expenditures (tax deductions)... trying to better address population targets.**
- **Optimal degree of redistribution for (contributive) public pensions: should they be related to life expectancy?**

Some other potential measures: Spain

- **To reduce tax wedges for working families, to orientate social protection towards workfare, and to raise public revenues other than taxes (ie. Suppressing the exemption of copayments for drugs to the pensioners)**
- **New *Libertarian paternalism* (The Food Act, The smoking Law) ‘no salt’ ‘not alcohol’ in the Spanish public restaurant tables**
- **To face the impact of Aging on Public finance and the need of the Agency for the Sustainability of Intergenerational Welfare. -See addenda for the arguments and empirical evidence-**

The relevance of the effects of the change in demographics on Social Policy

- **In favour of an Agency for the fair and sustainable intergenerational welfare. Given:**
- **The impact on economic growth from increases in the tax burden with old and new programs financed without public deficit**
- **The higher dependence of new groups of population from public benefits**
- **For an equitable intergenerational balance of income in the ratio of workers/non workers over time...**

for the fair and sustainable intergenerational welfare

- **One dynamic model of inter-generational fairness is Musgrave's Fixed Proportions Rule recently re-discovered by Esping-Andersen and Myles (2004).**
- **This model proposes to define a desirable lifetime distribution of income or welfare consumption and stick to it over time.**
 - **Whether retirement is to be relatively short and frugal or extended and relatively costly in proportion to earlier stages of life, the adopted proportion ought to be kept over time and generations.**

The arguments on income and health

- **Income improves by improving health, and this improvement in health may come out from multiple strategies other than just income improvement**
- **In addition, improving health by improving income does not imply to do this by income redistribution**
- **If this is done by redistributing a pre-existing income level we need a welfare function (second theorem of welfare). Second round effects of this may imply that in near future the absolute level of income to distribute may be lower.**

- **On an individual basis, the correlation between income and health may be signed even differently: someone may sacrifice health to earn more income and vice versa: despite ex post and at the aggregate level, more income means usually better health.**
- **The exact position of the individual for this correlation is important: If is an upper income class, less income inequality has no effect on the health of the lower income class. If the upper class improves health in this way, the income related health inequality increases!!.**

- **Our commonly used health indicators (the self reported gradient) are not cardinal, as it is income. In addition we have upper bounds for the first but no for the second.**
- **In these cases, the heterogeneity of the composition of the perceived health states is very relevant: when two distributions are compared, in order to show 'dominance' (say between countries or among two periods, in addition to the central points we need to check the intervals of confidence: More overlapping meaning more ambiguity: different aggregations may have different dominances.**

- **For the decomposition effect, we (economists) analyse the joint income-health distribution –not just single causal links)**
- **We need to identify (i) how does change the well being impact of an income decreases with health (greater income increases well being, but the more so for the less healthy); (ii) whether the well being is concave in incomes (transferring income from a better off to a poorer raises social welfare); (iii) whether the income concavity of social welfare decreases with health levels (to improve social welfare, a transfer involving people that are both poor and sick will have a greater impact than one aimed at poor but health people).**

- In this sense Contoyounis and Forster (1999) show that a public policy that reduces income inequality may, under certain circumstances, given the sign of the former effects, leave health inequality unchanged or even raise it!! (JHE, 18 (5), 605-622).
- Income related health inequality is related to mean income through the income elasticity (how mean health responds to a proportional income growth; and how this income elasticity varies with income levels); the income inequality, the effect of mean income on the elasticity of the adjusting factors other than income, and the income rank (income related inequalities of the determinants: age for instance and how they do concentrate for social groups).

A *zoom* on the intragenerational sequences and on the intergenerational transmission mechanisms

- The study of the correlation between social and health characteristics is important from both a political stance and a policy view point. From a generational perspective, a social background and parents' health both represent factors beyond the individual responsibility (Roemer, 1998) being socially or morally unacceptable sources of inequality (Dworkin, 1981). Consequently, they are first candidates for a policy aiming at reducing inequality, despite they are the most persistent sources being more difficult to cope with.

- **Three ways of transmission across generation are (Trannoy et al HE, 2009)**
 - (i) the **latency model**: during childhood a specific risk takes place and it needs to be triggered in adulthood to be reactivated (Wadsworth, 1999);
 - (ii) the **pathway model**: it relies on the parents' socioeconomic status having an indirect influence on the health status in adulthood subsequent life trajectories and particularly through a transmission of socioeconomic status over different generations (Case et al, 2005) and investment in children's human capital (Currie, 2009); and
 - (iii) the **intergenerational transmission of health** (Ahlburg, 1998), which assumes parental health status to be correlated with the descendant's health status.

In this sense, genetic inheritance (for diseases such as cancers and Alzheimer as well as human longevity) has to be distinguished from hereditary dependence which comes from the same exposure to a risky living context such as accommodation or neighbourhood conditions. The former example testifies a causal link while the latter only illustrates a positive correlation.

Some data Analysis from research in Health Economics

- Van Ourti et al in JHE 2009; 28; 525-539 search for the evidence for Europe of the effect of income growth and inequality on health inequality.
- Indeed, they analyse the effect of changes in the income distribution on the evolution of IRHI disentangling the effect of proportional income growth from the impact of changes in income inequality, by estimating two hypothetical health levels (i) the health level that would prevail in case of a non-changing income distribution, and (ii) the health level that would prevail in case of a proportional income growth. This enables them (a) to isolate the effect of changes in the income distribution from changes in the other health determinants, and (b) to isolate the effect of changes in income inequality from proportional income growth. In both instances there is a direct effect of the income redistribution on IRHI (it depends on the slope of the income elasticity), but also an indirect effect through the other health determinants (its sign depends on the concentration index of the other health determinants). They find that pro-poor changes in income inequality do not always lead to reductions in IRHI if income inequality and the elasticity do not move together 'on average'.

- For **Sweden**, Islam et al (HE, 2009) analyse how aging may impact on income related health inequality. If health inequality increases as the population ages, then a complementary interest is to consider whether the effect of aging represents unavoidable inequality not amenable to public policy interventions. These authors conclude for Sweden that good health is generally pro-rich and increases as the cohorts become older. The age-gender standardisation does not avert this trend. The increasing trend in health inequality is partly explained by the decreases in the population mean of health, which is attributable to aging population. The variation of health for different cohorts increases over time. Elderly people in lower health states select into the poor group, which then drives the inequality upwards; and the student effect or young effect biases the index downwards since young people are on average poor and healthy. No evidence is found that health profiles across individual-mean income groups diverge over time. However the observed increase in income related health inequality may be an artefact related to the structure of the pension system (retirement effect) or changed saving behaviour at the older ages. By using the lifetime income the authors find that the concentration index are quite stable over time. Indeed the ranking of the individuals at a given moment in time is influenced strongly by the pension system (its degrees of redistributiveness). For Sweden, when one controls for age related income mobility over the life cycle, there is little evidence that income related health inequality increases as the population ages.

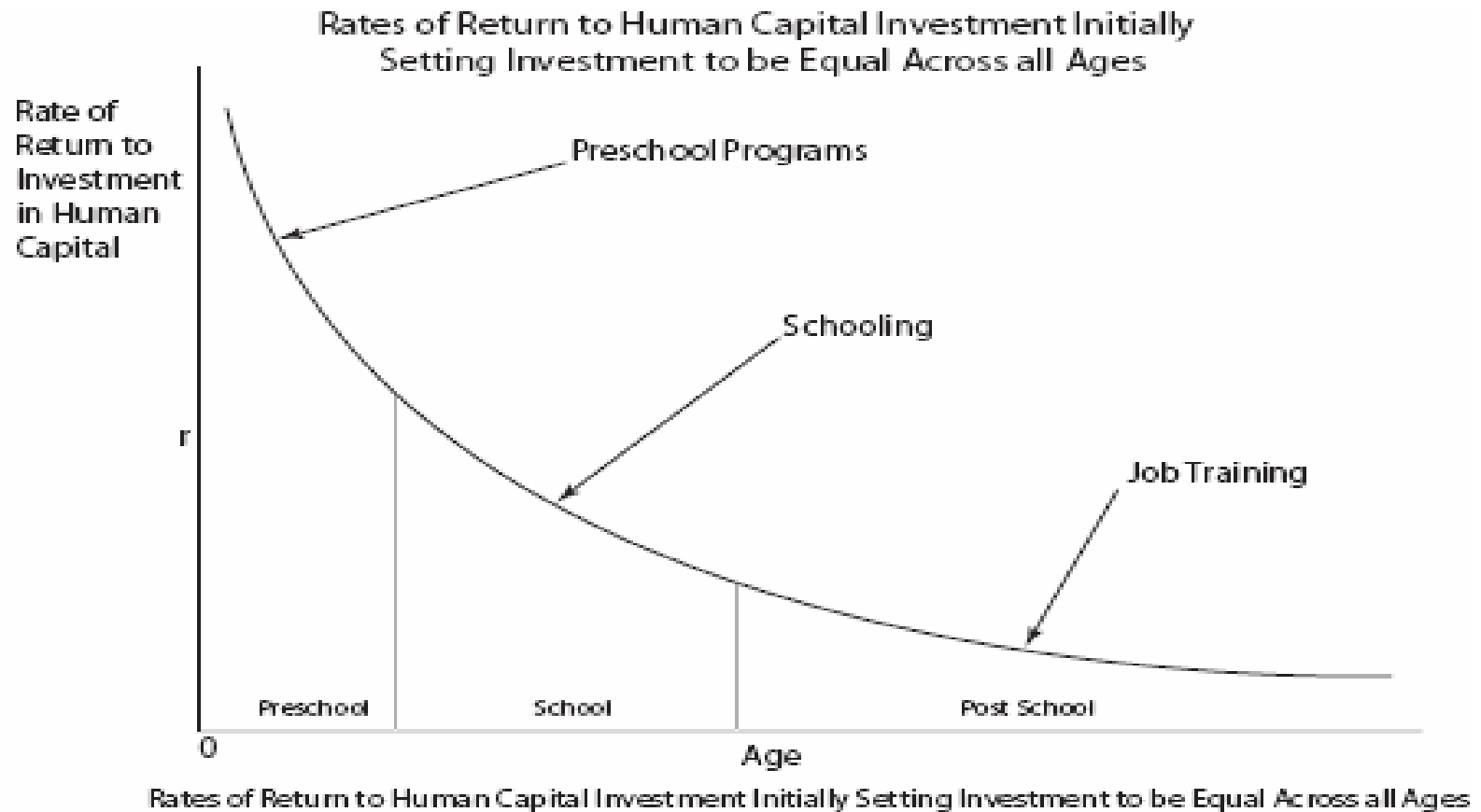
- Van Kippersluis et al (JHE 28 (2009) 818-830) analyse the relationship between health and income across the life cycle and generations in **Europe**. They try to find out how does the distribution of health evolve over the life cycle and is it changing across generations and how do socioeconomic disparities in health change as individuals age, and finally, how are they narrowing or widening across generations. They apply an age-cohort decomposition applied to panel data to identify how the mean, overall inequality and income related inequality of self assessed health evolve over the life cycle and differ across generations. They observe a moderate and steady decline in mean health until the age of 70 and a steep acceleration in the rate of deterioration thereafter. In southern Europe and Ireland, where development has been most rapid, the average health of generations born in more recent decades is significantly better than that of older generations. This is not observed in the northern countries. Moreover, in almost all countries of EU-11, health is more dispersed among older generations indicating that Europe has experienced a reduction in overall health inequality over time. In general, there is no evidence that health inequality increases as a given cohort ages. There is finally no evidence that IRHI is greater among younger than older generations. In some countries, however, the income gradient in health peaks around retirement age (as in USA).

- For the **French** case (SHARE under an stochastic dominance methodology), Trannoy et al (2009) show that (i) mothers' SES is found to have a direct effect on health status of descendants in older ages (in coherence with the latency's hypothesis) Fathers' SES only has an indirect effect through the descendant's education level and SES in accordance with the pathway hypothesis (ii) the hypothesis of transmission of health from one generation to the next holds as there is a direct effect of fathers' vital status and of mothers' relative longevity on descendants' health in adulthood. As a consequence (iii) all the channels through which family background can influence health in adulthood are involved in the explanation of inequalities of opportunity in health in France. In summary, allocating the best circumstances in both parents' SES and parents' health would halved the inequality in health in France, being the more relevant factor the mother's social status on the health of her offspring.

- For **USA**, Deaton and Paxson (1998 JPE 102 ; 437-467) argue that if shocks to health are permanent their cumulative effect will result in health being more widely dispersed at older ages. If health dispersion increases with age, an implication will be that ageing of the population would lead to greater total inequality in health, providing there were no offsetting differences across generations. Income losses in USA from illness indicated interruptions to work, cease after retiring. It may be easily the case too that health problems that inevitably arise in the course of time act as leveller and so narrow socioeconomic disparities in the old age (Kunst and Mackenbach, 1994 (American Journal of Public Health 84 ; 932-937)).
- Deaton and Paxson find that age deteriorates health in a persistent constant rate ; and the variance in health is increasing up to the age of 60 after which it remains constant (if we would assume that shocks are accumulative and not random, the prediction of increasing variance with age would not longer hold). These authors find finally that the income gradient in health is greater among young cohorts, such that socioeconomic inequality in health has been rising while total health inequality, measured by the variance, has been falling.

- For the **European Union** Van Kippers Luis et al find that health changes little as individual's age between 20 and 40. Beyond 65-70 health begins to deteriorate rapidly. Older generations have markedly worse health than their younger counterparts at a given age (but not in all the countries) In Spain, the variance decreases with age significantly once we take the cohort effect (more aged people in the oldest cohorts). In general in most of the southern European countries they find an important fall in health inequality over time (with some northern countries and France being an exception) : they have indeed more to win given les higher level they departure...

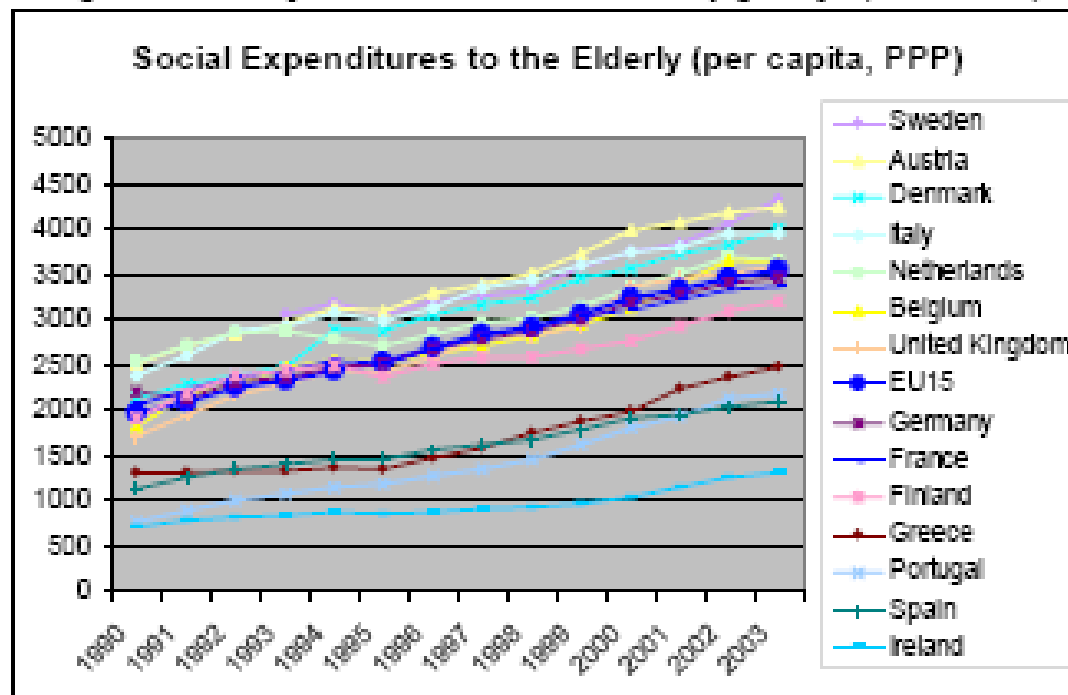
ADDENDA: Data and figures



Source: Carneiro and Heckman (2003).

**(EXTRACTED FROM BORSCH-SUPAN, THE LEVY ECONOMICS
INSTITUTE WP-479, 2006)**

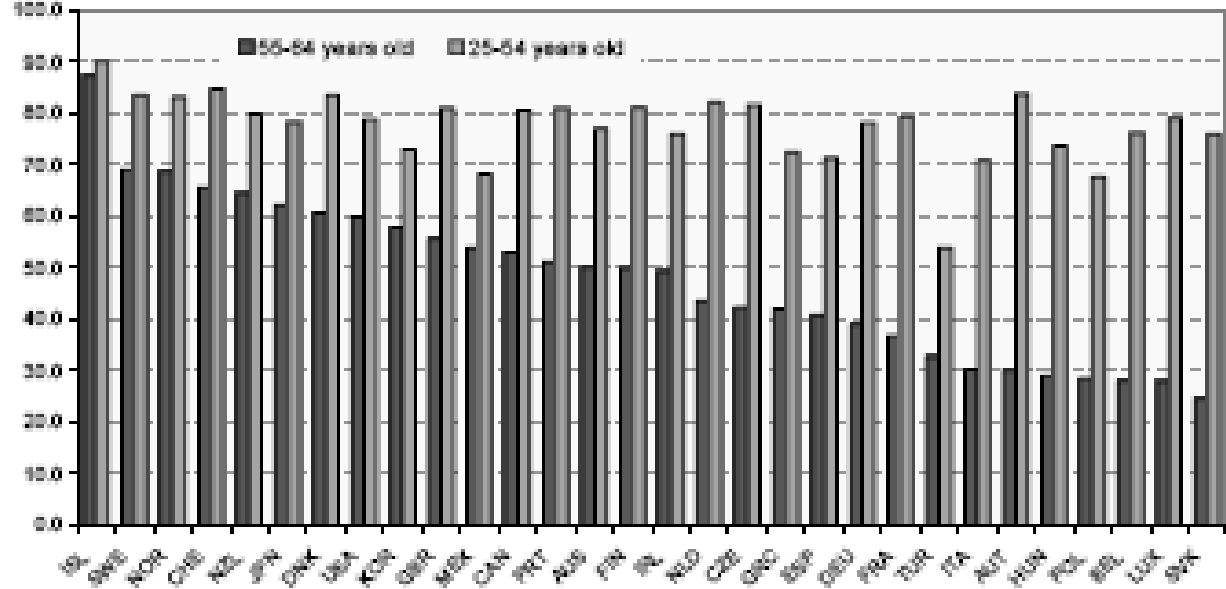
Figure 6: Social Expenditures Dedicated to the Elderly (per capita, in Euro PPP)



Source: Eurostat Data Archive 2005

Figure :

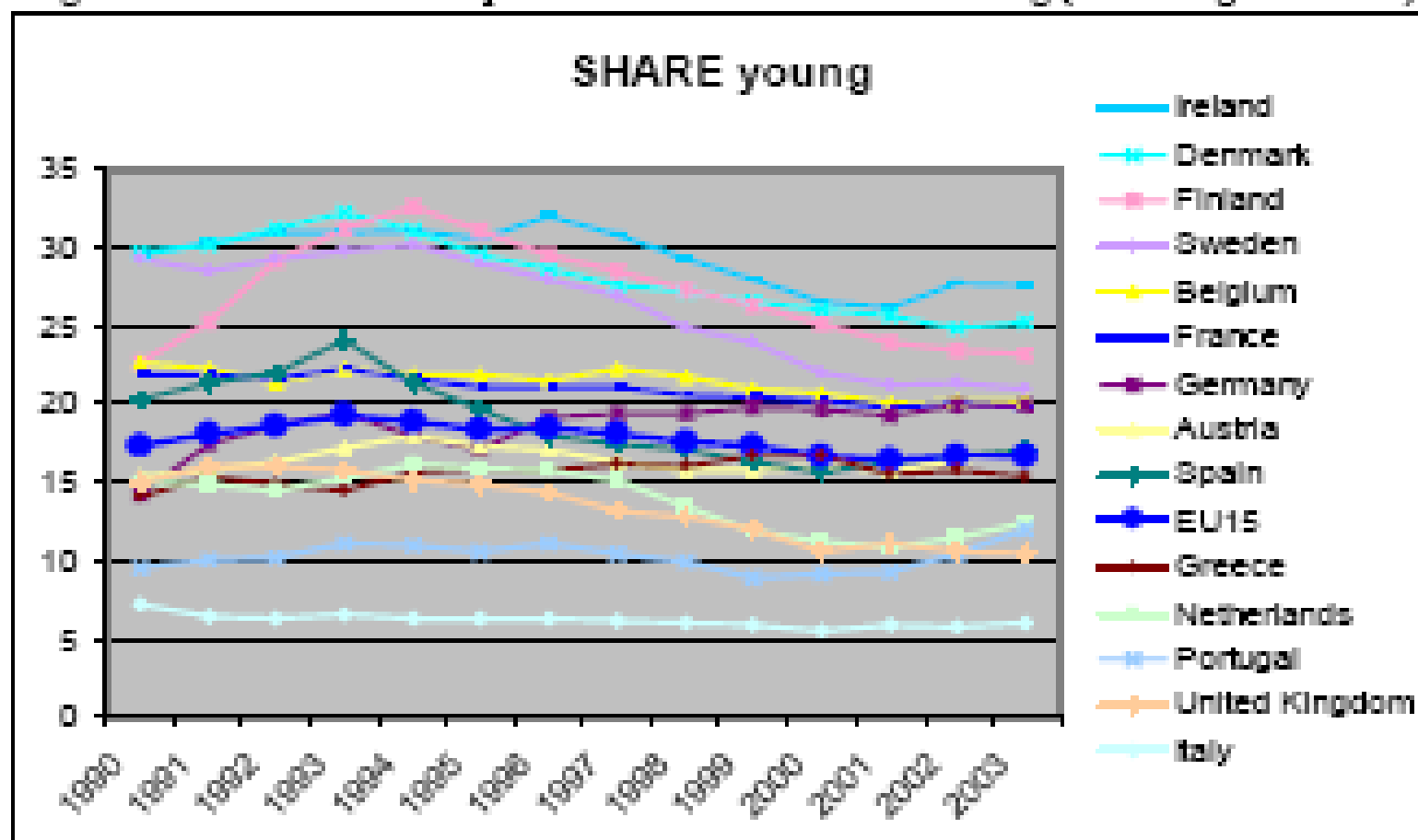
Figure 5.7. Employment ratios by age groups across OECD countries
Latest available year (2003 or 2002)



Source: OECD Labour Force Statistics.

(EXTRACTED FROM BORSCH-SUPAN, THE LEVY ECONOMICS INSTITUTE WP-479, 2006)

Figure 8: Share of Social Expenditures Dedicated to the Young (Percentages of Total)

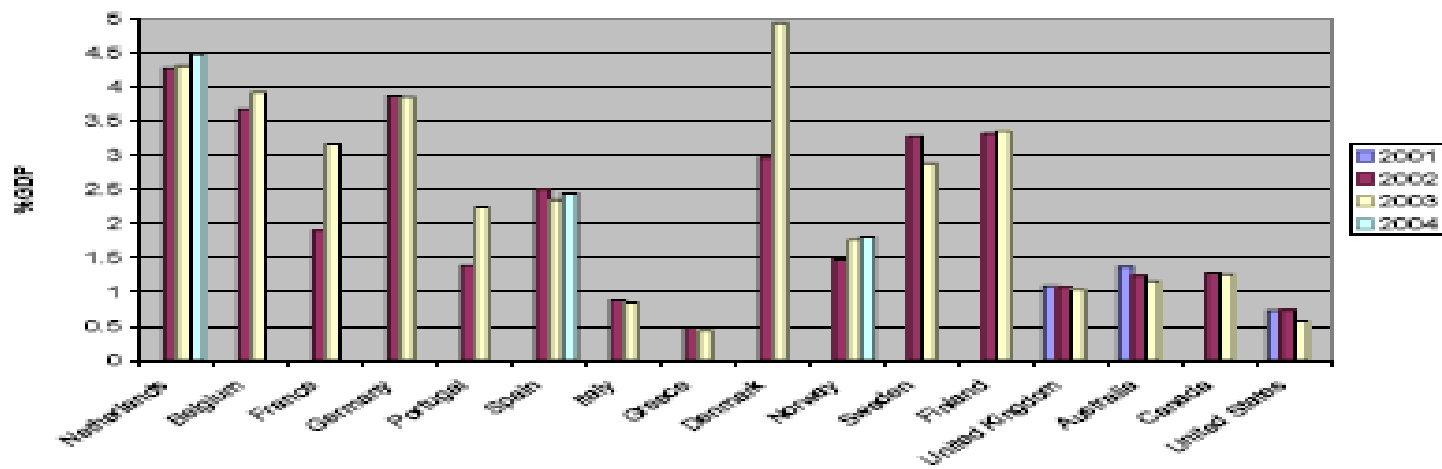


Source: Eurostat Data Archive 2005

Figure 8: Spending on labor market programs across countries

Total expenditure on training and passive/active labor market programmes (% GDP)

Source: OECD (2006a) Labor Force Statistics



Marginal tax and average tax wedges and Income progression
 Source: OECD (2005e) Tax Data Base

