EU-CHINA
Social Protection Reform Project
中国-欧盟社会保障改革项目

Component 1

1.3.7 - SOME CONSIDERATIONS ON THE EUROPEAN EXPERIENCE WITH RETIREMENT AGE

With growing uncertainties about the mid to long term sustainability of the pension scheme, and a steady deterioration of the demographic ratio (which is the ratio between pensioners and active contributors) - the latter being due to both the slowdown in employment growth and the improvements in life expectancy - , the raise in legal retirement ae is considered as a necessity by practically all scholars and policy makers in China. Legal retirement age varies between 45 (some women in hazardous occupations or disabled) and 60 years (normal case, men and women) which is considered quite early in view of prevailing international practice. Many if not most of retired persons indeed take over a new job or simply continue working after retirement, which tends to indicate that raise in retirement age might be compatible with the working capacity of most elderly workers. Views diverge however on when these changes should take place, whom they should affect, and the pace at which reforms should be undertaken. Europe has accumulated a lot of experience over the past decade on increasing retirement age, and this Note aims at sharing information on how these programmes were designed, and what their results appear to be

1. When discussing pension matters in Europe, the theme of sustainability is unavoidable, owing notably to demographic ageing. The fact that Europe is confronted with a continued ageing of its population with progress in life expectancy[1] compounding the effect of lower generational replacement ratio, coupled with the high level in GDP reached by social protection expenditure[2] , is systematically put forward, as an empirical, unquestionable evidence that pensionable age should be increased to avoid the collapse of the system – and that allegedly scarce public resources should be better targeted and supplemented by a growing emphasis on supplementary private pension schemes mostly financed by the individuals themselves.

2. The focus on ageing is such that the European Union (under its Economic and Financial Affairs Directorate General, not its sector in charge of Social protection) regularly publishes important studies called Ageing Reports where very detailed analysis and reform proposals for the pension systems are to be found.

3. Interestingly, the 2015 Ageing Report shows that, whichever the scenario retained, labour productivity is by far the most important and almost the only sizeable factor for future GDP

[1] See Annex for some general, mostly demographic, data on European countries and territories.

[2] On average 29% in the EU – with important variations between Latvia, 15%, and France or Denmark, above 33%. By comparison, estimated level for China is 7% of GDP.

growth in the EU – demographic factors playing a really marginal role. It may therefore be seen as somewhat contradictory to promote decisions running against labour productivity through deferring retirement age, thus keeping on the workforce ageing workers whose working capacity may be diminished, who might require more training than other workers and whose remuneration and cost, through accrued rights and workplace adaptation, might be on the high side.

Table 1 – EU28 – Breakdown in GDP growth factors 2013-2060

Scenario	GDP growth in 2013-2060	Labour productivity (GDP per hour worked)	TFP	Capital deepening	Labour input	Total population	Employment rate	Share of working age population	Change in average hours worked	GDP per capita growth in 2013-2060
	1=2+5	2=3+4	3	4	5=6+7+8+9	6	7	8	9	10=1-6
Baseline	1.4	1.4	0.9	0.5	-0.1	0.1	0.1	-0.2	-0.01	1.3
Lower TFP (risk scenario)	1.2	1.2	0.8	0.4	-0.1	0.1	0.1	-0.2	-0.01	1.1
High life expectancy	1.4	1.4	0.9	0.5	0.0	0.1	0.1	-0.2	-0.01	1.3
Lower migration	1.3	1.4	0.9	0.5	-0.1	0.1	0.1	-0.3	-0.02	1.2
Higher employment rate	1.4	1.4	0.9	0.5	0.0	0.1	0.1	-0.2	0.03	1.4
Higher employment rate older workers	1.5	1.4	0.9	0.5	0.1	0.1	0.1	-0.2	0.08	1.4
Higher labour productivity	1.6	1.6	1.1	0.5	-0.1	0.1	0.1	-0.2	-0.01	1.5
Lower labour productivity	1.2	1.2	0.7	0.5	-0.1	0.1	0.1	-0.2	-0.01	1.1
Policy scenario - Linking retirement age to Life expectancy	1.4	1.4	0.9	0.5	0.0	0.1	0.2	-0.2	0.00	1.4

Source: Commission services, EPC

4. According to OECD data (https://stats.oecd.org/), the share of GDP earmarked for old-age pension benefits by European countries between 1980 and the beginning of the current decade has grown significantly, but at a very uneven path depending on the countries. Table 2 provides the detailed figures for a number of European countries. Here again, the diverging result among countries seems to stem more from overall growth and economic performance, than from the process of ageing or the evolution in retirement age itself.

Table 2 - % of GDP earmarked for old-age public pension programmes, 1980-2011

Year	1980	1985	1990	1995	2000	2005	2009	2010	2011
Austria	10,0	11,0	8,9	10,0	10,4	10,8	12,0	12,1	12,0
Belgium	5,9	6,3	6,5	7,0	6,9	7,1	8,1	8,1	8,3
Czech Republic	..	..	5,0	5,6	6,8	6,6	7,8	8,0	8,4
Denmark	7,0	6,9	7,3	8,4	7,1	7,3	8,3	8,2	8,4
Estonia	..	..	..	..	5,9	5,3	7,9	7,8	6,9
Finland	5,1	7,0	7,0	8,5	7,5	8,5	10,2	10,5	10,6
France	7,6	8,6	9,2	10,6	10,5	10,9	12,2	12,3	12,5
Germany	9,7	9,8	6,6	7,8	8,6	9,1	9,2	8,9	8,6
Greece	4,6	7,2	9,4	9,2	10,2	11,1	10,9	11,5	12,3
Hungary	..	..	..	..	7,0	7,8	9,9	9,1	9,3
Ireland	4,4	4,6	4,1	3,6	2,6	2,9	4,4	4,6	4,7
Italy	7,2	9,0	9,5	10,8	11,3	11,6	13,1	13,3	13,4
Luxembourg	5,9	5,5	7,6	8,2	6,9	5,2	6,1	5,8	5,9
Netherlands	6,1	5,9	6,3	5,5	5,3	5,5	6,0	6,2	6,2
Norway	5,1	5,5	7,1	7,1	6,5	6,3	7,0	7,0	7,1

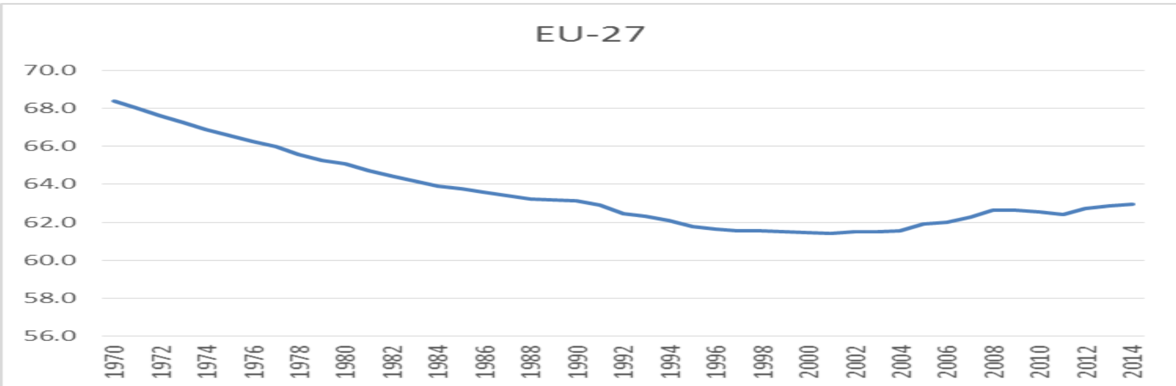
Poland	..	..	4,1	7,6	8,5	9,3	9,4	9,3	9,0
Portugal	3,1	3,3	4,0	6,0	6,6	8,9	10,6	10,8	11,3
Slovak Republic	..	..	..	5,5	5,7	5,7	6,4	6,4	6,4
Slovenia	..	..	..	..	10,1	9,5	9,2	9,6	9,8
Spain	4,6	5,8	7,2	8,3	6,8	6,5	8,1	8,6	8,9
Sweden	7,5	8,1	8,4	9,8	9,1	9,4	10,2	9,6	9,4
United Kingdom	4,2	4,4	4,8	5,4	5,4	5,8	6,4	6,1	6,1

5. There is anyway a substantial difference to be made between *legal retirement age* – usually the age at which insured persons may usually claim for a full retirement pension without reduction or penalty, whatever this means -, *pensionable age* which is the age at which a pension can be drawn with or without penalty, and *actual retirement age* which is a statistical fact corresponding to actual withdrawal from the labour market (or the active population) with or without receiving a retirement pension benefit under social security provisions (not receiving a pension benefit does not mean that the incumbent does not receive a long-term benefit, which could be e.g. an extended unemployment benefit, or a third pillar (employer's sponsored) partial or full pension, which may or may not be transitional).

6. Studies conducted since the mid-seventies have constantly shown that actual retirement age was often lower than legal or statutory retirement age in OECD-type economies[3], and that increases in legal retirement age was of little effect on actual age for withdrawal from the labour market – explanatory factors ranging from substitution company benefits, coverage through extended unemployment benefits, exceptions to the legal retirement age rule for health or family reasons, option for a reduced early retirement benefit or personal choice of the insured persons to withdraw from the labour market at an early age.

7. The graph below shows the trend in actual retirement age in EU-27 countries between 1970 and 2014 (men).

Graph 1 – EU 27, men – Actual retirement age 1970-2014

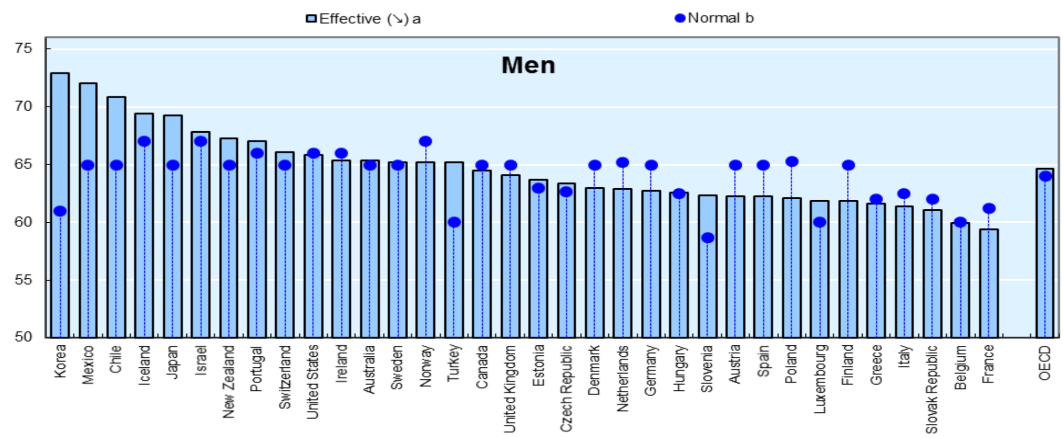


[3] Martin Tracy (ISSA Secretariat then University of Iowa) conducted one of the most convincing studies in that regard, using retirement data between 1960 and 1986. See Martin B. Tracy and Paul Adams, *Age at which pensions are awarded under social security: Patterns in ten industrialised countries, 1960-1986*.

4. The gain in pension years over the first three decades of the period under consideration is indeed important, since actual retirement age lowered by more than six years, while life expectancy at retirement age experienced a (probably correlated) additional increase. Since the beginning of the 21st century, there is however a trend upwards on average for actual retirement age, which probably corresponds to a widespread campaign in the concerned countries against expenditure on pension benefits considered as escalating in a non-sustainable manner.

5. This said, the situation is not homogenous among the countries. The below graph, also relating to the year 2014, shows that in a number of OECD countries, actual retirement age remains lower than the legal retirement age, whichever the latter is.

Graph 2 – OECD, men – Difference between legal and actual retirement age, 2014



6. Table 3 below (source: Elaketurvakeskus, Finnish Center for Pensions) provides data on current and prospective (reforms already passed or proposed by Governments) legal retirement age in European countries as well as in the United States, Canada and Japan.

7. It appears that those countries where actual retirement age is markedly higher than legal retirement age (in Europe only Portugal, Switzerland, Slovenia and Luxembourg fall into this category) are not necessarily those where retirement age or replacement income through pensions are particularly low. Other factors clearly intervene in individual decisions towards electing retirement age – and decisions are not always freely taken[4].

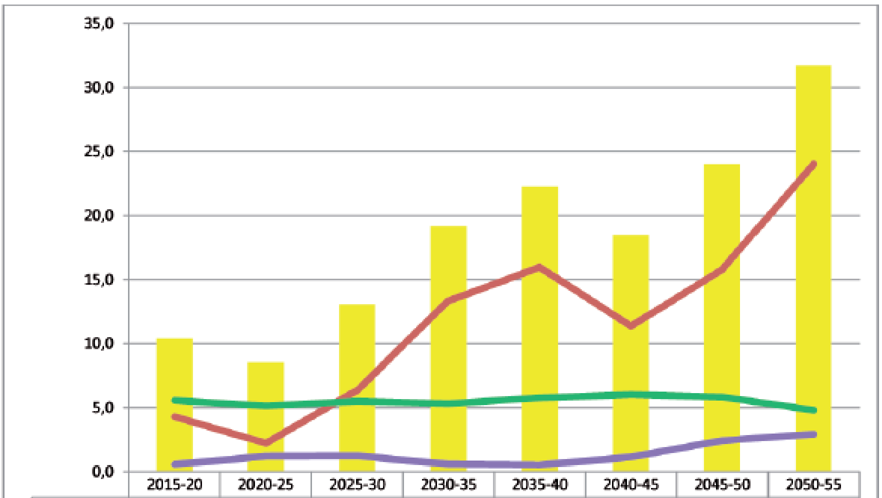
8. However, and in a somewhat surprisingly coherent manner, all but four of the countries listed in Table 1 (exceptions being 3 Scandinavian countries and Luxembourg, reform in Austria dealing only with the alignment of women's retirement age on that applicable to men) anticipate increase in legal retirement age within the next fifteen to twenty years with a typical prospective retirement age of 67 years, instead of the current 65 in the countries surveyed.

[4] Decisions to retire early may be forced upon individual workers through industrial restructuring plans, with or without partial compensation for losses incurred because of premature withdrawal from the labour market.

9. One may therefore wonder why after so many decades of historically decreasing actual retirement age and so many reforms in retirement age already passed over the last decade, Governments seem to still favor further legislating in this area, thus focusing the debate on an issue which, in the end, does not seem to affect too much the overall behavior of most salaried workers vis-à-vis their withdrawal from the active population.

10. It is true that maintaining the level of working age population in a context of demographic ageing – where both life expectancy increases, and total fertility rates decrease - appears as a global challenge of such magnitude, that it requires a manifold approach, including possibly raising retirement age further. There are however other possible responses, as shown in contemporary studies on migratory flows[5]. Graph 3 below shows the need for net migration required to keep working age population at its current level – a global approach which incidentally shows that Europe is not the continent most dramatically in need of workforce over the coming five decades.

Graph 3 – Required migratory surplus – 2015-2055



	2015-20	2020-25	2025-30	2030-35	2035-40	2040-45	2045-50	2050-55
Totale	10,4	8,5	13,1	19,2	22,3	18,5	24,1	31,7
Asia	4,3	2,2	6,4	13,3	16,0	11,4	15,8	24,0
Europa	5,6	5,1	5,5	5,3	5,8	6,0	5,8	4,8
Altri	0,6	1,2	1,2	0,6	0,5	1,1	2,4	2,9

Source: Michele Bruni, op.cit., p. 257

Table 3 - Retirement ages in Europe, the United States, Canada and Japan

Current general retirement age (2015)		Future retirement age	Current general retirement age (2015)		Future retir[t] age
EU	Men/		Lithuania (LT)	63y2m. /	65 (2026)

[5] See for example Michele Bruni, Lesdership economica, transizioni demografiche e migrazionin internazionali – Il caso della Cina, in Quaderni Fondazione G. Brodolini # 53, 2016

	Women			61y4m.	
Austria (AT)	65 / 60	65 (2033)	Luxembourg (LU)	65	–
Belgium (BE)	65	67 (GP 2030)	Malta (MT)	62	65 (2027)
Bulgaria (BG)	64y4m. / 61y4m.	65 (2017) / 63 (2020)	Netherlands (NL)	65y3m.	67+ (2024; GP 2021)
Croatia (HR)	65 / 61y3m.	67 (2038) / 65 (2030); 67 (2038)	Poland (PL)	65y7m. / 60y7m.	67 (2020) / 67 (2040)
Cyprus (CY)	65	65+ (2018)	Portugal (PT)	66	66+ (2016)
Czech (CZ)	62y10m. / 58y-62	67+ (2041)	Romania (RO)	65 / 60	65 (2030)
Denmark (DK)	65 ; 67	67+ (2022; 2030)	Slovakia (SK)	62 / 58y3m.-62	62+ (2017)
Estonia (EE)	63 / 62y6m.	65 (2026) / 63 (2016); 65 (2026)	Slovenia (SI)	64y4m.	65 (2016)
Finland (FI)	63-68 ; 65	65+ (RA 2027)	Spain (ES)	65y3m.	67 (2027)
France (FR)	65	67 (2023)	Sweden (SE)	61-67; 65	–
Germany (DE)	65y3m.	67 (2031)	**Other countries**	**Men / Women**	
United Kingdom (UK)	65 / 62y4m.	67+ (2028), 68 (2046)	Canada (CA)	65	67 (2029)
Greece (EL)	67	67+ (2021)	Iceland (IS)	67	–
Hungary (HU)	62y6m.	65 (2022)	Japan (JP)	61 / 60; 65 / 63	65 (2025) / 65 (2030); 65 (2018)
Ireland (IE)	66	68 (2028)	Norway (NO)	62-75; 67	–
Italy (IT)	66y3m /63y9m.	67+ (2022)	Switzerland (CH)	65 / 64	65 (GP 2020)
Latvia (LV)	62y6m.	65 (2025)	USA (US)	66	67 (2027)

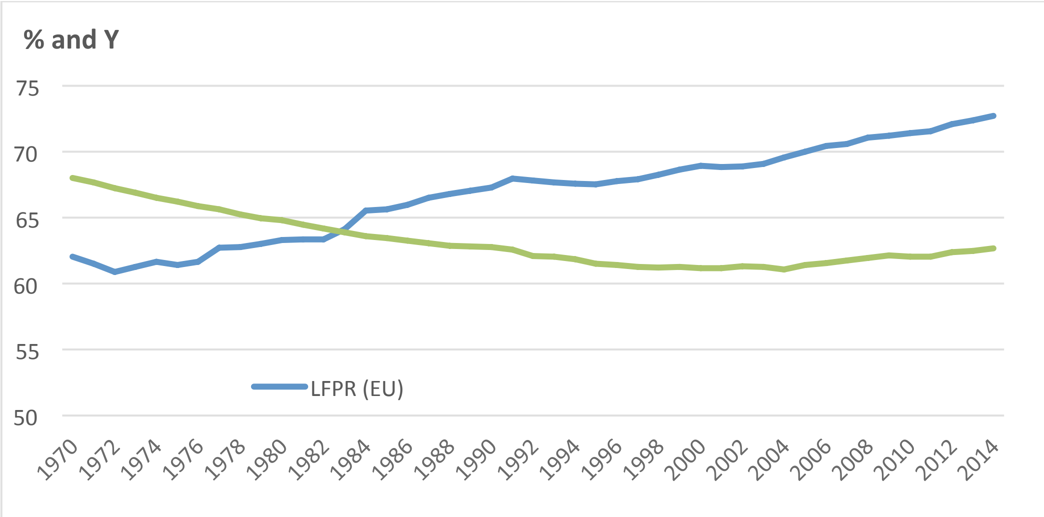
GP: Government proposal or plan of equivalent administrative level, +: Rising retirement age according to life expectancy. RA: Reform agreement by the central labour market organizations and the Government.

9. Elements often debated to question excessive focus on increasing retirement age to try and address difficulties confronting social security pension schemes are well known: increases in retirement age may produce effects only in the long run, since new provisions typically do not affect cohorts approaching retirement age – hence measures often presented as a response to a current crisis might provoke popular unrest without resulting in any improvement in the current financial situation of the fund; increasing retirement age at a time when elder workers have difficulties to be kept in employment while younger workers have even more difficulties to enter employment is seen as a labour market paradox; the fact that life expectancy grows is seen as a result of lower retirement age, while this improvement is uneven depending on the categories of the active population, with blue collar workers still experiencing a lot of premature deaths compared to higher level employees .

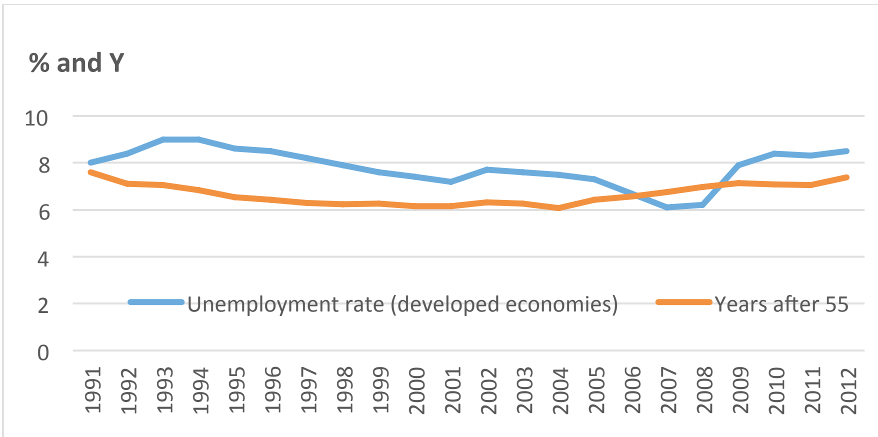
10. While statistical data concerning retirement age expand over a relatively long period of time in Europe it is not easy to find the same series concerning labour market functioning – probably because unemployment is considered as a short term contingency, for which

statistical definitions change relatively frequently. As a result, it is hard to evidence any relation between retirement age and unemployment. The following two graphs tend to show, however, that decreasing retirement age does not historically seem to affect labour force participation rates (Graph 4), and that unemployment rates do not seem to significantly be reduced – perhaps to the contrary – when the number of years spent by elder workers as members of the active population increases (Graph 5).

Graph 4 – Respective Evolution – Labour Force Participation Rate 15-64 and Effective age of retirement (EU member countries)



Graph 5 – Unemployment rate and years worked beyond 55 (effective retirement age)



11. Further, increases in retirement age typically would not be applied in a uniform manner to all categories of the active population. Initially, special provisions concerning retirement age for women were incorporated in a number of pension legislations. This difference, which generally speaking testified to the fact that women, which contributory records suffered from interruptions because of insufficiently covered maternity leave, breaks in career to raise children, lower than average remuneration, should benefit from a kind of compensation through earlier retirement opportunities. This partial compensation against discrimination was at one stage considered as constituting discrimination in itself. This approach, which could have led to a decrease in retirement age for men, resulted in fact in an increase in retirement age for women, preceding or accompanying an overall review of national

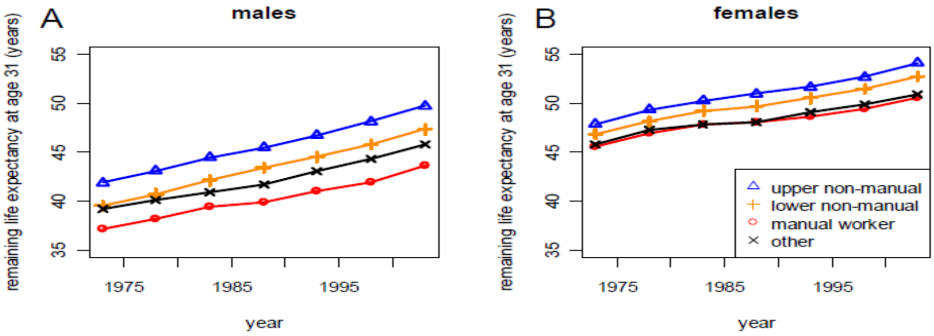
retirement age patterns. It is worth noting that the unfavorable situation of women in active life - for which compensation in terms of early retirement age was abolished - still persists, but that the struggle by women for better social recognition and occupational status has probably contributed to a decrease in fertility rates, now used to justify further increases in legal retirement age.

12. There have almost systematically been other early retirement provisions in social security pension systems, corresponding to the fact that certain occupations have such characteristics in view of which extended working life would cause a risk to the worker's health – or to the safety of the people served. Those issues are usually addressed through special schemes, or through special provisions for arduous or unhealthy occupations within a general scheme.

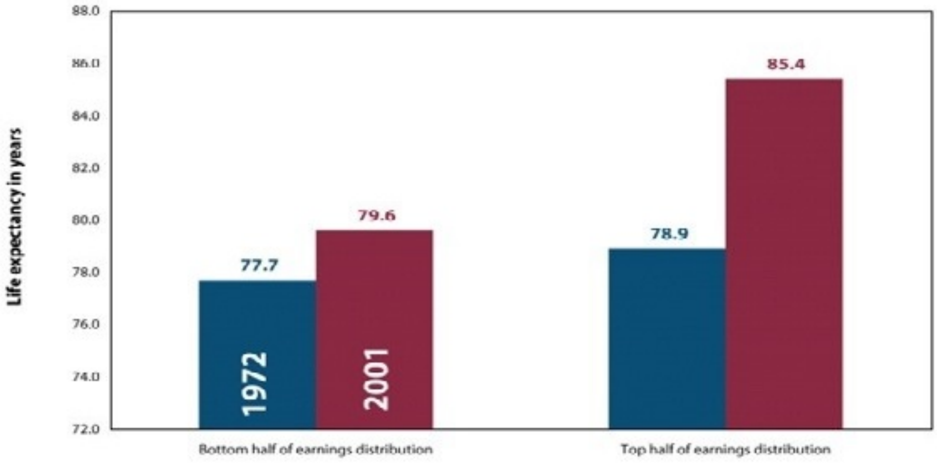
13. Some of these provisions have raised legitimate questions notably when early retirement provisions applied to a whole branch, and not only to workers in arduous occupations. Movement between occupations, and the non-continuity in exposure to working hazards also raised questions concerning the accumulation of entitlements to early retirement. The aspiration by employers successfully lobbying towards the development of simple, as economical as possible general pension schemes has led to a reduction in opportunities for early retirement, while workers most vulnerable and in need of such protection did not often benefit from provisions negotiated at the enterprise or branch levels to offset the decreasing protection available through general provisions to all those in need.

14. A study conducted in the UK has shown that, over a thirty years survey, progress in life expectancy benefitted in fact to those in the highest income bracket far more than to those in the lower bracket. Similarly, a Finnish study published by the Max Planck Institute shows that, between 1970 and 2005, the life expectancy deficit at age 31 for manual workers compared to non-manual workers has deepened by some three to four years. Increasing retirement age for manual workers, who already contribute towards their pension from an earlier age, to align them on the pattern of higher income groups who contribute over a shorter period but enjoy retirement for a longer period despite retiring later therefore appears to be socially questionable.

Graph 6 – Finland, gains in life expectancy at age 31



Graph 7 - UK, Gains in life expectancy according to income, 1972-2001



15. Other elements should intervene in the discussion, which are however not often debated since they sometimes conflict in raising issues seemingly not related to the sustainability of pension schemes. Those are notably the possible lack of empathy by experts promoting reforms while enjoying long careers in rewarding positions with the aspiration by most insured persons to enjoy retirement benefits financed by their contributions allowing for an early release from boring and arduous routine work[6]; the desire in certain circles to favor the expansion of private pension plans building upon the anticipated desire of a substantial part of the insured population to preserve their anticipated retirement age and replacement rate; the untold belief that retirement should remain a privilege and intervene mostly because working capacities have been exhausted.

16. It may also be that discussions around retirement age are used as a scapegoat to avoid addressing other, more fundamental issues related to social security protection, such as the steady decrease in the share of remuneration from work in GDP which directly affects schemes which financing is based on contributions assessed against salaries; the very slow if any progress in identifying for social security financing sources alternative to salary-based contributions[7] ; and, a spreading departure from the fundamental characteristic of deferred salary to be attached to the system, which should have implications both in terms of benefit computation and of overall democratic control.

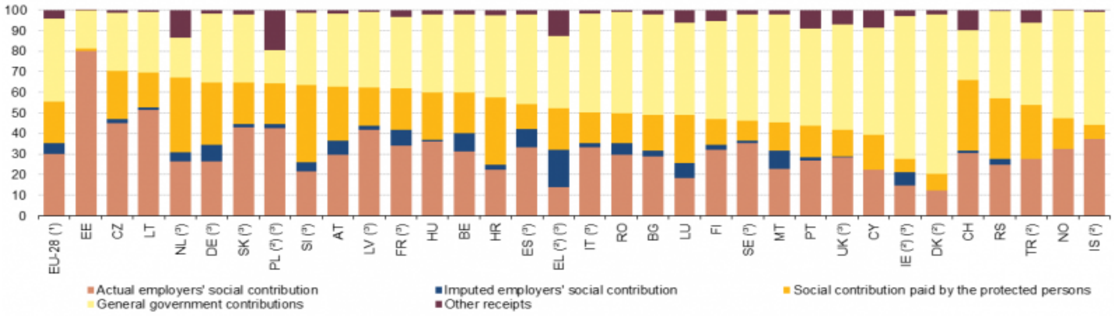
17. Graph 7 below (from EUROSTAT) shows that, across European countries, the share of social security resources that are NOT contributions assessed on salaries or income or general government subsidies remains particularly low – below 5% of the total with a few exceptions (the Netherlands, Poland, Greece, Portugal, the UK, Cyprus, Switzerland, Turkey). Such

[6] At the end of the day, contributions are a part of labour cost as salaries are. Workers do not "cash" immediately that part of the labour cost ("deferred salary") but should nonetheless be the main decision makers on the respective shares of immediate and deferred salaries, total labour cost being part of global social negotiation. See relevant provisions on Democratic management of social security schemes defining as compulsory the presence of workers' representatives on managerial bodies, while the presence of employers' representatives is considered as "desirable" only. When submitted to the International Labour Conference, these provisions were endorsed by workers and employers representatives alike.

[7] Those alternatives to contribution-based resources are necessary be it only to fully justify the extension of social security protection beyond the circle of those able to substantially contribute to the cost of their benefits (the equity – social efficiency – affordability/sustainability debate).

alternative sources of financing may include earmarked taxes, contributions assessed on all incomes, not only occupational ones, co-payment by beneficiaries, etc. The French General Social Tax CSG (coupled with another tax called Reimbursement of social debt RDS) is a typical example of such broadening of the basis for assessing contributions.

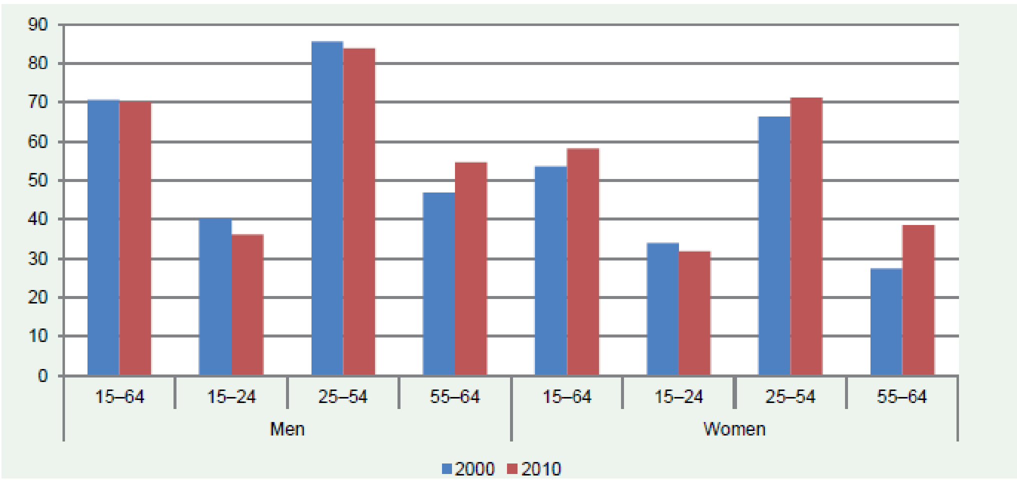
Graph 8 – % share of Social security receipts in Europe (2013)



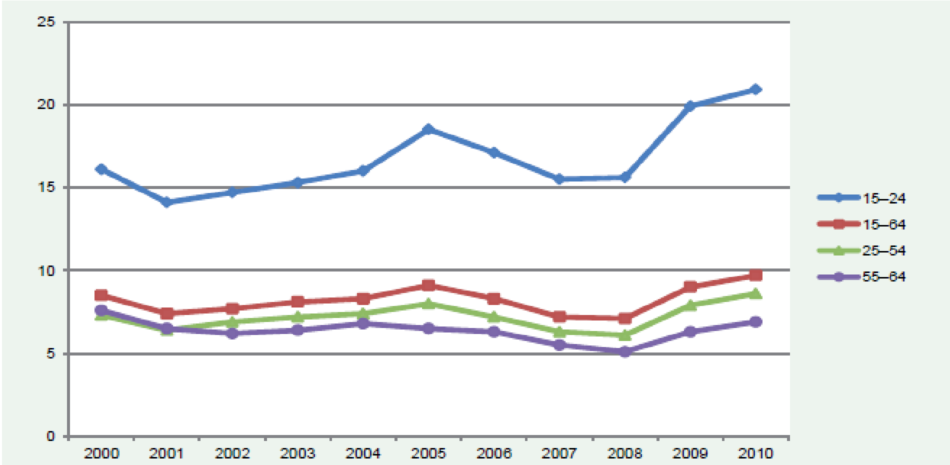
(¹) EU-28 figures are estimated.
(²) Data for DK, IE, EL, PL, IS and TR refer to 2012.
(³) Data for DE, IE, EL, ES, FR, IT, LV, LT, NL, PL, SI, SK, SE and UK are provisional.
Source: Eurostat (online data codes: spr_rec_sumt)

18. Whichever, elder workers do not necessarily need increase in legal retirement age to continue being part to the active population. There has been a marked trend in Europe over the last 15 years towards an increasing proportion of elder workers still being in employment – which does not imply that they do not receive a pension, since rules for accumulation between pensions and salaries are usually flexible, while some elderly occupations go with little or no remuneration. The graphs below illustrate the increase in elder workers' occupation rates, even in times when the overall labour market was shrinking.

Graph 9 – Evolution in employment rates by age and gender, 2000-2010, EU 27

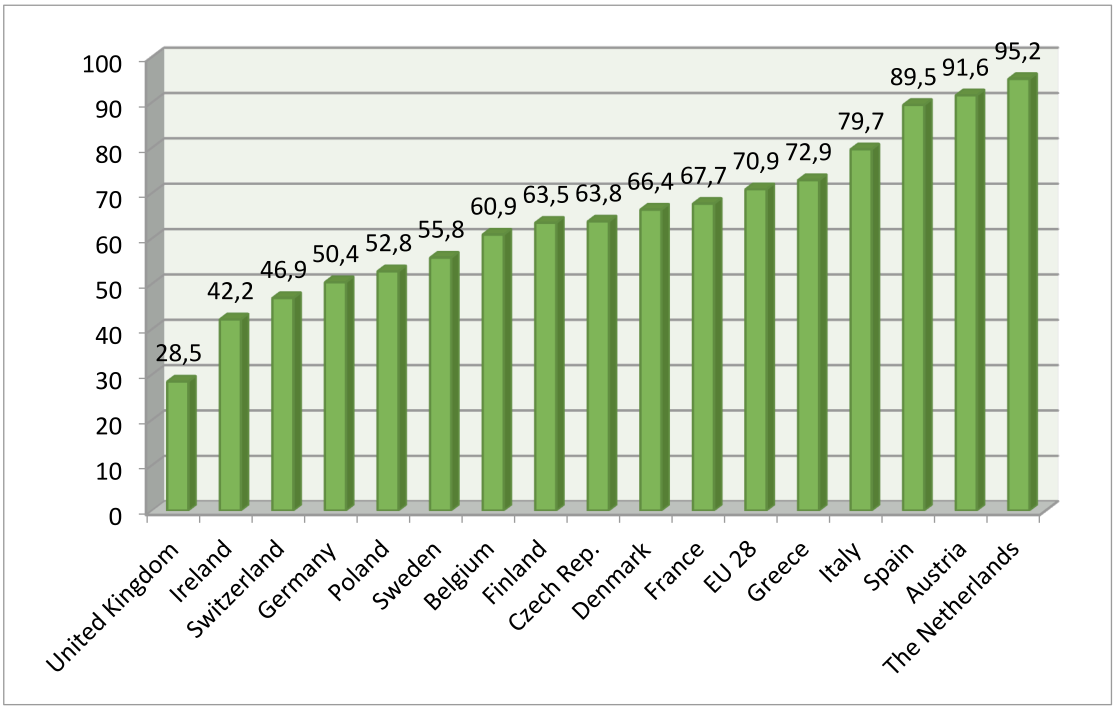


Graph 10 – Unemployment rates by age groups, 2000-2010, EU 27



19. One of the frequently used arguments in favour of increasing retirement age is that, through enhanced contributory periods, pension benefits levels would not too much be affected by other possible spending control measures. According to ECD, the average net[8] replacement rate compared to pre-retirement income in EU countries was slightly above 70% in 2014 with variation ranging from slightly less than 30 % (UK) to almost 100 % (the Netherlands).

Graph 11 – Net replacement rates in Europe, 2014 - % of last income



[8] Net replacement rate takes into account taxation effect, which is lower on retirees than on active persons, notably through mechanical effect of income levels. Gross replacement rate in 2014 for the same countries was estimated at 59%

20. In fact, already in 2006, the European Commission had predicted a significant decrease in replacement rates by the year 2050, because of reforms then being introduced or considered in national legislations. This deterioration sometimes affected lower income beneficiaries more, because of a stronger link between contributions and pension benefits. The EU 2005 predictions appear to have become reality – and new benefit formulae have resulted in the reappearance of a category which progress in pension benefits had almost eradicated from Europe, that of poor pensioners.

21. The 2015 Ageing report provides an even gloomier picture for the period 2013-2060, over which national pension reforms will produce their full effect with, as a result, a decrease by some 7 percentage points of gross replacement rates at retirement (from 42.5% of pre-retirement income to 35.9% for the 28 member countries on average, from 46.3% to 38.6% in the Eurozone).

22. Table 4 provides details for selected countries, showing a dramatic decrease by 30 (thirty) percentage points in Spain, 11 percentage points in France and 7 to 8 points in a number of countries, with relative stability being achieved in Finland and in Belgium only. It is clear that increases in legal retirement age do not yield sufficient additional accrual to offset negative impact on benefit levels resulting from other aspects on pension reforms.

Table 4 – Evolution in Replacement rates at retirement, 2013-2060

%	2013	2060	Δ	%	2013	2060	Δ
Belgium	**39.5**	**38.8**	**- 0.7**	**The Netherlands**	**29.8**	**28.3**	**- 1.6**
Denmark	**39.7**	**32.8**	**- 6.9**	**Finland**	**46.0**	**44.1**	**- 0.6**
Germany	**42.5**	**35.5**	**- 7.0**	**Sweden**	**35.6**	**29.0**	**- 6.7**
Spain	**79.0**	**48.6**	**-30.4**	**Norway**	**43.7**	**36.2**	**- 7.5**
France	**50.6**	**39.2**	**-11.4**	**EU 28**	**42.5**	**35.9**	**- 6.5**
Italy	**59.9**	**51.6**	**- 8.0**	**Eurozone 19**	**46.3**	**38.6**	**- 7.6**

23. It appears, to say the least, as striking that more than 60 years after the adoption of ILO Convention n.102, most countries in Europe appeared as unable to guarantee through public, compulsory schemes a replacement rate in pensions reaching the threshold of 40% of previous income, considered in 1952 as a minimum – not to mention the replacement rate of 65% for pensioners with dependents (50% for pensioners considered as alone) retained in the Council of Europe European Social security code (revised) in 1990.

24. It is true that benefit formulae are becoming less transparent and easy to read by individual insured persons, since the wages taken into consideration for computing so-called benefit defined pensions span over a longer and longer period, in many instances so close to the whole contributory records that one wonders why a distinction is being kept between contributions defined benefits and such "benefits defined" based on lifelong earnings. As a matter of fact, benefits defined pensions have practically disappeared from modern legislation, which makes one question the capacity of resulting formulae to achieve for pensioners "*living conditions non markedly different from those they enjoyed when in activity*".

25. Only through statistical comparisons such as those conducted under the Ageing Reports can one ascertain the actual replacement rate of the average pensioner in comparison with pre-retirement income, which is very different and significantly lower than the rate appearing in accumulation rate or benefit calculation formulae[9].

26. Increase in retirement age should be considered as part of the Adequacy measures for retirement benefits identified by the International Social Security Association (ISSA)[10] and reproduced in table 5 below – inasmuch as these indicators directly address the issue of age at retirement (point 2).

Table 5 – Adequacy measures for retirement benefits

1. Benefit levels
1.1. Prospective replacement rate
1.2. Current replacement rate
1.3. Home ownership rates
1.4. Historic replacement rate
2. Exiting the labour market at the correct age
2.1. Supporting late retirement: Can a pensioner receive a pension and continue to work?
2.2. Are early and normal retirement ages consistent with the labour market exit age?
2.3. Retirement system supports late retirement: Ability for a pensioner to defer pension and the terms on which this can be done
2.4. Retirement system supports retention of working population close to retirement age
3. Administrative adequacy
3.1. Benefits paid on a regular basis
3.2. Can additional contributions be paid to increase benefit levels?
3.3. Information provided to individual to allow old-age planning
3.4. Accessibility of benefit provision and contribution agencies
3.5. Number of documents required to claim the pension
4. Interaction with other retirement provision
4.1. Social security and supplementary pension provision
4.2. Spouse's benefits provided or independent entitlements exist
4.3. Existence of third pillar/individual pension savings vehicle
5. Intergenerational equity (sustainability of benefit adequacy)
5.1. Increase in dependency ratio 2010–2050
5.2. Increase in public pension spending 2010–2050
5.3. Normal retirement age correlated with life expectancy
5.4. Dependency ratio (absolute) at 2010 and 2050
6. Security of adequacy
6.1. Defined benefit provision for all or part of benefit
6.2. Historic variability of average pension
6.3. How benefit is affected if beneficiary misses ten years' service
6.4. Pension amount payable on low income
6.5. Pension or lump sum paid
6.6. Can benefit be reduced depending on external factors (including automatic adjustment mechanisms)?
6.7. Sharing of financing burden
7. Coverage
7.1. Legal coverage of active workers
7.2. Active contributors to a social security old-age benefit (effective coverage)
7.3. Effective coverage of pensioner population
7.4. Coverage of self-employed workers and migrant workers
7.5. Other conditions for eligibility

[9] Assuming a modest increase in real wages at a pace of 2% per year over a 35 years career, a theoretical accumulation rate of 1.5% per year would in fact yield only – after full indexation of past income – 38% of last income, instead of the face promise of 52.5%

[10] Retirement benefit provision – Measuring multivariable adequacy and the implications for social security institutions, ISSA Geneva 2015

27. The approach retained by the ISSA indeed clarifies that retirement age cannot be considered in isolation of other factors typical of a pension scheme, and that all elements have to be taken into account to finally appreciate whether proposed action is, or is not, adequate, with reference of the goal to be pursued by the scheme – individual efficiency, social equity and financial sustainability[11].

28. There is no question however that too early retirement ages are not to be recommended in any pension scheme – "too early" referring to benchmarks where the ageing process – which is the main drive for the existing of retirement pension schemes[12] - is not yet notable, and does in no way affect the worker's ability to continue performing his tasks[13].

29. With very early retirement ages – say, ages fixed before the worker could reasonably have achieved the 30 years contributory period considered as a threshold for full pension in international instruments - the pension based on contributions would be of very modest level, thus failing to meet its ambition of securing a decent income in substitution of the lost occupational income.

30. A system in which pension beneficiaries systematically continue in gainful occupation would indeed hardly qualify for the denomination of awarding "retirement pensions". Adjustments upwards in retirement age are then perfectly legitimate – within certain limits, which are specified in relevant international instruments (for example, the European Code specifies that a pension should be anyway guaranteed to a person reaching the age of 65).

31. Flexibility remains necessary to cope with individual or occupation-specific considerations[14]. Given the high sensitivity with the general public of the question of retirement age, it might be useful for decision makers considering an increase in general or specific thresholds, to couple those measures which others that might be viewed more positively by the insured population – some of which are briefly described in the following paragraphs.

32. Sufficient time should be provided as *transitional period*, so that workers approaching retirement age would not feel deprived at the last moment of a long awaited entitlement. Increases in retirement age often spread over a number of years, and take their full effect after one or even several decades.

33. As previously mentioned, clear indications should be provided on *access to early retirement* for individual – long career, health or unemployment - or occupational reasons – arduous

[11] Gruat, J.-V. 1997. An operational framework for pension reform: Adequacy and social security principles in pension reform - Geneva, International Labour Office.

[12] The contingency (or risk) to be covered by old-age retirement pensions is indeed – Council of Europe, European Code of Social security (revised), art. 23 -"survival beyond a prescribed age".

[13] This type of approach clearly allows for the determination of different levels at which the ageing process may be such that it impairs the insured person capacity to continue its occupation under conditions safe for him/herself or for the public.

[14] As an example of such flexibility, one may refer to the French legislation which, when the retirement age was still fixed at 65 years before the years 1980, established a "presumption of disability" for workers approaching the retirement age, who could therefore benefit from early retirement provisions without having to go through a complicated system for evaluating their residual working capacity.

occupations[15] - including the matching provisions to ensure decent pension levels notably when part of the benefit is assessed against personal accounts.

34. While penalties affecting retirement benefits drawn before attaining legal retirement age, or in case of contributory careers falling short of legal requirements for full pension are quite commonly applied, there are little or any example of *positive reward* (except taking into account at least some of the additional contributions) in case of deferred retirement beyond legal age. This could be envisaged as an accompanying measure when increase in legal retirement age is being considered, based on actuarial calculation (a bonus of 4% per year of deferred retirement might *prima facie* seem reasonable).

35. Instead of considering legal retirement age as an absolute threshold, it might be possible to consider as alternative to age (i.e. a condition allowing for a full pension to be paid irrespective of age conditions) the *accumulation of points* responding to circumstances in individual careers[16].

36. Consideration might be given to the introduction as criterion for eligibility to a full benefit of a *combination of age and length of contributory services*. For example, if normal legal retirement age is 65, and required contributory services for full pension is 35 years (total 65+35 = 100), conditions might be considered as being met as early as age 60, with 40 years of insurance. The inclusion of non-contributory credited years such as higher studies, military service or child rearing might even allow for retirement to still take place earlier, within a context of increased legal age.

37. Several countries have introduced through collective agreement or by law, the possibility for workers to *progressively enter into retirement* – through schemes which entail a scaled reduction in working time as retirement age approaches, with the corresponding decrease in direct remuneration being offset by the payment of a growing proportion of future pension benefits.

38. While this type of provision is often enterprise-based, it may involve the unemployment scheme with elder workers being exempted from the obligation to actively search for employment and being entitled to long-term unemployment benefits even in case of voluntary resignation. Over the recent past, the so-called "progressive retirement"[17] seems to have lost some ground in Europe, in particular because of the very strict attention being paid to limiting public financial commitments. However, these provisions that proved to be very successful with workers and their employers might still be worth considering in other countries, as a corollary to general increase in retirement age.

[15] The introduction in France of "arduousness individual accounts" with effect of July 2016 may represent an interesting example of early retirement provisions better reflecting individual needs than general, occupation or sector based rules previously in force.

[16] Some enterprise based or national systems encourage workers to "save" overtime payment to be used towards the end of working life for financing anticipated pensions. This approach – in France dating back from the years 1960 in major enterprises – of course raises issues concerning the sustainability of the scheme when enterprise-based.

[17] For a description of schemes in force in Europe at the beginning of the years 2000, see http://www.eurofound.europa.eu/print/observatories/eurwork/comparative-information/progressive-retirement-in-europe

39. Finally, consideration might be given to the definition of what could be called an "*integrated risk*" which, in parallel with the existence of usual retirement pensions based on age and contributions, would allow for the payment of a benefit not lower than retirement pensions (acquired rights) in case of inability to perform one's occupation for a justified reason over an extended period.

40. This would include urban or rural self-employed affected by adverse individual or economic factors, long-term unemployment, extended sick leave, absence from work to rear a child or take care of an aged dependent, etc. This temporary pension payment would of course be interrupted when the beneficiary regains an income capacity and is back into gainful employment.

41. Such an approach would, together with other provisions related to early retirement or rewarding deferred retirement, contribute to alleviate the public misperception about increase in retirement age, inasmuch as the latter might be viewed as too drastic, notably for women and more generally for blue-collar workers.

Jean-Victor Gruat, 2016.09.05 (v.2)