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PENSIONS REFORM BETWEEN ECONOMIC AND POLITICAL PROBLEMS[1]

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Introduction

Life expectancy and fertility rates are the key factors of ageing populations in the world. The likely evolutions of these factors suggest an inescapable rise in the share of elderly people in the overall population; this sharp increase in dependency ratios will have important impacts on public finances, potential output, etc., and overall, on the financial equilibrium of retirement pension schemes.
These forecasted difficulties have induced a lot of political reactions. Policymakers have realised for some time that deficits of the pay-as-you-go[2] (PAYG) pensions schemes would quickly reach unsustainable levels, if no changes were introduced, whether in benefits or in contributions, so that reforms are often planned [OECD, 2000].

These reforms are of two types: parametric reforms within the PAYG system or reforms that are based on a partial or full shift towards funded schemes.

- Parametric reforms of PAYG include rather marginal adjustments; with an increase of the number of potential beneficiaries the solutions appear to be rather simple: to pay more, or to pay longer or to receive less. Increased contribution or decreased benefits, raise of the pensionable age with strong incentives to postpone retirement decisions have been the main figures of these adjustments. There were, also, more structural changes such as transformation to notional, defined-contribution accounts (Sweden, Italy, Poland, etc.) organised in order to strengthen the link between contributions and benefits;
- Moving towards funded schemes include a mix of public and private components but also funded reserve elements within PAYG systems (France, Ireland, Spain, etc.), two reforms schemes that would induce transition costs in terms of over-contributions for current or future taxpayers.

Inevitable resistance emerged as soon as pension reforms were considered. First, segments of public opinion remain doubtful about the gravity of the pension problem itself, whether they do not believe in the demographic problem, whether they think the economic growth will solve the problem; in addition, for those that are aware of the problem, there are some conflicts over who bears the burden of the reforms, current taxpayers, current pensioners, futures generations etc.

In most countries, policymakers are in the middle of the debate, standing between public opinion and expert advice that would lead to "the good reform". The equation is all the more complicated due to economic environment. It has been shown that pension reform is not economically neutral and that its success depends upon the economic conditions: until now, the elderly workers had difficulties to find their place in the labour market, workers have strong aspirations for an early retirement, funding within the PAYG scheme is often based on additional public deficits, private funded schemes are considered as risky etc.

This paper is organised as follows: in the first section, a short summary of well known data presenting the forthcoming situations of pension schemes in OECDs' countries is given; in a

[2] In a Pay as you go pension scheme, current wage earners pay for current retirees. In a funded scheme, contributions from the wage earners are saved, capitalised and kept until pensions are payed.

second section, more elements about considered pension reforms is provided, more precisely some indications are given about the efficiency of such reforms; in a third part, the political economy of pension reform is considered using the French example of a pension scheme to point out some stumbling blocks.

I – Overview of the pension scheme situations

Some elements of the pension debate are well known. First, ageing is a worldwide phenomenon (Table 1 shows that the problem will lies perhaps more heavy on the developing countries where the lack of capital is to be a sharp problem); in addition this phenomenon is rather irreversible: the view is now widely shared that below replacement fertility is only one factor of ageing, and not the most important one, most of the process being due to the greying of baby-boom cohorts and the general rise in life expectancy (Table 2).

Table 1
Share of population ages 60 and older
(%)

(%)	1995	2005	2015	2025	2035
United States	16,5	17,2	21,5	26,4	28,2
Japan	20,0	25,3	30,7	32,0	34,7
Germany	20,6	24,8	27,8	33,7	36,8
France	19,5	20,5	24,8	28,4	30,7
Italy	22,0	25,1	28,7	33,5	38,5
United kingdom	20,6	21,4	24,5	28,3	30,6
Latin America	7,4	8,4	10,6	13,9	17,6
China	9,6	8,4	14,0	18,2	24,0
South Asia	6,8	10,6	8,6	10,8	13,7

Source: World Bank

Table 2
Female fertility rates and life expectancy at birth

	Fertility rates		Life expectancy at birth (men and women)		
	1960	2000	1960-65	1995-2000	2045-50
United States	3.7	2.0	70.0	76.7	81.8
Japan	2.1	1.4	69.0	80.0	83.8
Germany	2.3	1.3	70.3	77.2	81.9
France	2.7	1.7	71.0	78.1	82.6
Italy	2.4	1.2	69.9	78.2	82.6
United kingdom	2.5	1.7	70.8	77.2	82.0
Canada	3.9	1.6	71.4	79.0	83.2

Source: OECD

These transformations of population structure will induce a dramatic rise in the dependency ratios in most countries (Table 3), and the old age expenditure is expected to increase at least as fast as it has increased during the past years as shown by pension contribution rates (Table 4), given the old age dependency ratios and if no reforms are undertaken i.e. if there is no change in the dependency ratios nor in the replacement rates (Box 1). This means that, with the same macroeconomic replacement rate, if no reforms are introduced the contribution rates have to be doubled between now and 2050 to match the drift of the dependency ratios.

Table 3
Structure of populations (%)

	1960			2000			2050		
	- 15	**15-64**	**65 +**	**- 15**	**15-64**	**65 +**	**- 15**	**15-64**	**65 +**
United States	30.8	60.0	9.0	21.5	66.0	12.5	17.1	61.2	21.7
Japan	30.2	64.0	5.7	14.8	68.1	17.1	13.8	54.4	31.8
Germany	21.3	67.2	11.5	15.5	68.1	16.4	13.4	58.3	28.4
France	26.4	62.0	11.6	18.7	65.4	15.9	17.0	58.0	25.5
Italy	24.8	65.9	9.3	14.3	67.6	18.2	12.0	53.1	34.9
United kingdom	23.3	65.1	11.7	18.8	65.2	16.3	16.3	58.8	24.9
Canada	33.5	59.0	7.5	12.8	68.3	18.9	17.0	59.3	23.8

Source: OECD

Table 4
Pension contribution rates
% of average earnings

	1967	1995
United States	7.1	12.4
Japan	5.5	16.5
Germany	14.0	18.6
France	8.5	19.8
Italy	15.8	29.6
United kingdom	6.5	13.9
Canada	5.9	5.4

II – Reforming pension schemes

A typology of pension reforms can be roughly provided:

- Parametric reforms are reforms within the PAYG pension scheme and retain a strong unfunded component;
- Others types of reforms involve a funded component; Disney [2000] denotes them as privatisation but this term is quite reductive because reforms that planned to fund part of the PAYG schemes also belong to this category.

Table 7 provides some directions of recent pension reforms in selected OECD countries.

Raising pensionable age, or linking it to expected longevity is generally a key policy in parametric reforms and is supposed to have an important impact as shown in a quick calculation: assuming a replacement rate of 70% and a full indexation of pensions upon wages, increasing the contribution period by one year from 40 years to 41 years and decreasing the retirement period from 25 to 24 years lowers the pension payments/wage bill ratio from 0.44 to 0.41 and offsets 1.5 years of supplementary life expectancy.

Box 1
PAYG pension schemes, equilibrium and definitions

Pay-as-you-go schemes pay pensions out of current contributions or taxes. Let:
τ , be the current PAYG contribution rate;
$\overline{w}$, the average wage of the contributing workers;
N_t , the number of contributing workers at time t;
$\overline{p}$, the average old age pension;
N_{t-1} , the number of retirees (those that were active in period t-1).
For each period, the equilibrium of the PAYG scheme can be written as follows (for a PAYG scheme without a trust fund or reserve fund) since contributions (revenues) have to equalise pensions (payments):

$$\tau.\overline{w}.N_t = \overline{p}.N_{t-1} \qquad /1/$$

or:

$$\tau = \frac{\overline{p}}{\overline{w}}.\frac{N_{t-1}}{N_t} \qquad /1'/$$

where $\frac{N_{t-1}}{N_t}$ is the **dependency rate**, ratio retirees to contributors;

and $\frac{\overline{p}}{\overline{w}}$ is the macroeconomic **replacement rate**, ratio of average pension to the average wage. Note that this replacement rate is a good index of the relative standard of living of retirees. This ratio differs from the usual replacement rate, which is the ratio of the first pension to the last wage and which is given by the scheme's characteristics. As shall be seen, it is not the only good index of a scheme's generosity.

As equation /1'/ states, the only way to get back to the equilibrium when the dependency ratio is rising is:

- Paying more: increasing τ ;
- Decreasing the scheme generosity: decreasing $\frac{\overline{p}}{\overline{w}}$;
- Paying longer by setting the dependency ratio at a lower level: decreasing $\frac{N_{t-1}}{N_t}$. This is possible by increasing the pensionable age and has a important effect by rising the numerator while lowering the denominator.

These three types of reforms have been attempted to improve the resistance to demographic shocks of PAYG pension schemes (see below).

The return of PAYG schemes is given as follows:
From equation /1/ and taking into account the demographic change whose rate is n and the rate of productivity change, g:

$$N_t / N_{t-1} = 1+n$$
$$\overline{w}_t / \overline{w}_{t-1} = 1+g$$
$$/1/ \quad \Leftrightarrow p_t = (1+n)(1+g)\tau_t.\overline{w}_{t-1}$$
$$\Leftrightarrow p_t \approx (1+n+g).\tau_t.\overline{w}_{t-1}$$

Productivity changes and demographic changes play the same role in the PAYG rate of return.
This yield has to be compared with funded schemes rate of return. This yield is generally given by the interest rate, normally supposed to be equal to the marginal rate of return on physical capital. Usually, in papers that deal with a comparison between funded schemes and unfunded schemes, the former are preferred to the latter if the interest rate exceeds the sum n+g (see Feldstein, 1973 for a seminal analysis).

The problem is that employment rates in the years prior to reaching state pensionable age are well below 100 % in most OECD countries (Table 5); people being in fact beneficiaries of unemployment or disability benefits or other forms of welfare support which have been developed in recent past years of high unemployment rates in order to replace old workers by youngest ones.

Table 5
Employment rate of workers aged 55-64 in OECD countries
% of the population aged 55-64

	1980	1985	1990*	1995	1998
United States	53.8	51.8	54.0	55.1	57.7
Japan	61.3	60.5	62.9	63.7	63.8
Germany	..	37.1	39.2	37.8	38.8
France	..	37.2	35.6	33.5	33.0
Italy	..	33.3	32.0	27.0	26.9
United kingdom	..	47.0	49.2	47.6	48.3
Canada	51.5	47.2	47.0	43.6	45.4

*refers to 1991; source: OECD.

Table 6 shows that in most countries (except in Italy) there are rather high incentives to continue working when old if we consider only implicit taxes embedded in old age pension benefits; more precisely there is no empirical evidence of a negative correlation between this implicit tax on continued work and the share of the population aged 55-64 that is still employed. It is necessary to consider the other welfare support programmes in order to understand the low participation rates of the elderly.

Table 6
Implicit tax rates on continued work embedded in benefits for the elderly; 1995

	Old age pensions	Old age pensions plus:		
		Unemployment benefits*	Disability benefits*	Special pre-retirement benefits*
United States	12	..	..	..
Japan	28	..	..	..
Germany	14	37	46	..
France	14	49	..	57
Italy	79	..	..	..
United kingdom	5	15	..	..
Canada	6	..	..	..

*".." denote that the couple (old age pension, xx) is not an option
Source: Blöndal and Scarpetta [1999]

Most of the parametric reforms do not take into account the fact that what is treated as parameter is behaviour; in this sense, such parametric reform that only lengthens the working period necessary to obtain a pension will have lower benefits than estimated.

Table 7:
Directions of recent pension reforms for selected countries in OECD

	Pensionable age	Promoting longer employment	Changed benefit rate	Required contribution period	Contribution rate	Convergence of schemes	Greater reliance on funded schemes	Promoting private schemes	Others
United States		Increase (M, W)				Legislative requirement for non – discriminatory within a working place	DC scheme is tax-favoured for corporate pension	Tax concessions	Pension trust fund.
Japan	Increase (W and M) Partial pension introduced		1994: net income indexation		1994: contribution on bonuses	Private pension is promoted, including discussion for introduction of DC schemes, etc.			
Germany	Increase (W)		1992: Net income indexation 1997: decrease of the target replacement rate				• Corporate schemes are promoted with legislation dating back to 1974 and recent reforms; • Wanted to further expand private schemes		Attempted to share the burden of ageing equally between pensioners and contributors
France			1993: base period for benefit calculation: 10>25 years	1993: 37.5 > 40 years					
Italy	Increase (W and M with 5 years difference) 1995: flexible (57-65) with no pre-retirement	Yes	Reduction of benefits	Increase for seniority pension and old age pension	Increase	1995: greater equity for workers in different industries	1995: complementary funded scheme, DC scheme.	Yes	Survivors pension now means tested.
United Kingdom	Yes (W)	1986: flexible retirement age to 70	1986: Reduction of value of pension (SERPS)				Contracting out permissed	Tax concessions; Intro. of personal pensions; 1995: regulation of private schemes	
Canada		1987: flexible retirement age to 70	1997: Reduction of some benefits related to disability		1997: to 9.9% in 2003 and held steady	1996: New basic pension with means test, by 2001	1997: increase of the funded portion	Tax concessions	1997: more aggressive investment policy with pension reserves

Source: OECD

Another strategy to postpone retirement age and/or to avoid adverse behaviour is the explicit linkage of benefits and contributions. In such a strategy, the board of pension schemes calculates a sustainable implicit rate of return on the contributions of each cohort and then sets the accrual rate of the pension. This kind of reform lies behind the "actuarially fair" basis. These reforms have to include substantial computational modifications of pensions, taking into account the full lifetime basis for calculating pension entitlements rather than a final salary. The logical extreme of this strategy is the creation of "notional accounts" in which each individual pension is supposed to be explicitly based on a history of contributions. Once at retirement age, the pensioner transforms his accumulation of points towards pension liabilities according to a transformation rate linked to changes in demography; post-retirement indexation arrangements are also linked to these changes.
Recent Latvian and Swedish reforms have introduced notional accounts; the French system introduced such mechanisms for its complementary schemes, which have been compulsory since 1972.

Two difficulties have to be pointed out:

- First, actuarial fairness means that the actual balance of any modification in the retirement age, chosen by the wage-earner, does not impact on the pension scheme equilibrium. As a result, as soon as the implicit yield is positive, the liabilities continue to grow;
- Second, if the wage-earners have larger freedom to anticipate their retirement, they effectively quit earlier as soon as their preference for leisure is higher than the implicit yield of the retirement pension scheme (Artus, 2000a, Blanchet and Mahieu, 2001). This will not damage the financial equilibrium of the pension scheme but will induce great difficulties in increasing the pensionable age.

This means that the political will to adjust the working (and accumulation) period has to be accompanied by a visible counterpart that will encourage people to contribute more to such programmes.

One of the main difficulties of these schemes (national accounts or others) is that their returns can automatically be compared by participants with the returns to be obtained in marketed private saving accounts. This reform is one of the alternative to replace all or part of an unfunded pension programme.

Funding the pension schemes is another means of reform (that is implicitly encouraged by the decrease of pension schemes generosity). Two forms have been explored. The first one is to shift from PAYG to private saving accounts; the second one is to create a reserve fund (or a trust fund) within the PAYG pension scheme.

Since Aaron and Shoven [1999] showed that the shift from PAYG to a funded scheme is neutral[3], the only good argument lies in the superiority of yields of the saving accounts to increase the households' welfare. But does this argument of higher yields really hold?

[3] Such a shift will have no impact on disposable income and wealth of individuals who move from the old system to the new. The government will run an increased deficit, but this will be exactly offset by the increase of private savings from the surplus of the new pension plans. The national saving rate will not increase. The reform only converts an implicit government obligation to future retirees into explicit debt. Pestieau and Possen (1997) show that this conclusion holds under 3 assumptions:

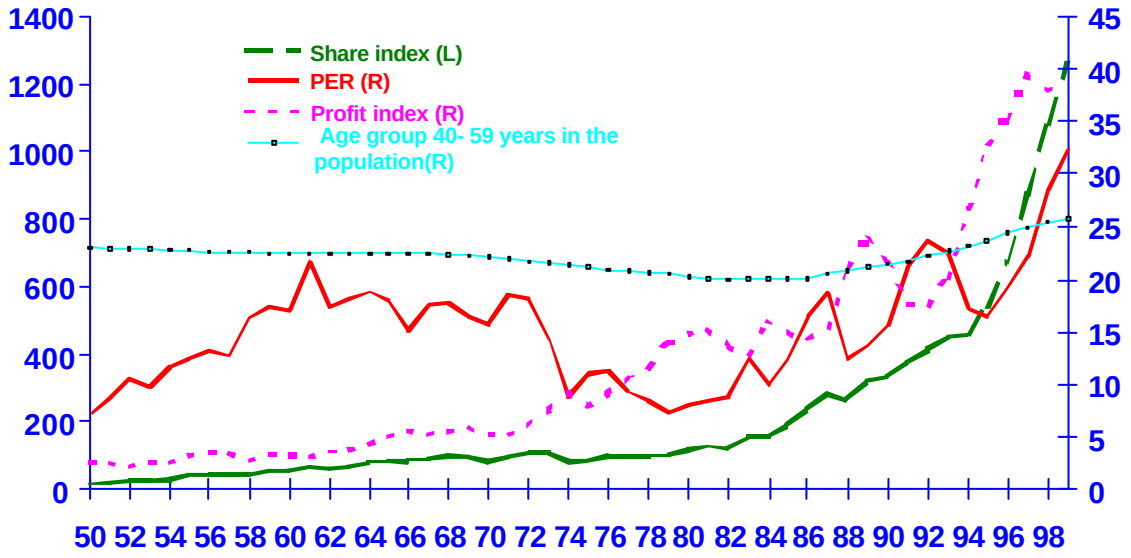
i. the transition generation is compensated by public borrowing,
ii. the benefit rule is unchanged,
iii. individuals' portfolio choices are not constrained.

One of the main arguments is that funded schemes are intrinsically better insulated from demographic risks than PAYG schemes. Artus [1999], on the contrary, argues that the demographic cycle that will begin in 2005-2010 will paradoxically favour the PAYG schemes, especially if these funded schemes are invested in fixed income assets. The analysis is that the active population has been large in past years, which have also involved high rates of unemployement, low levels of wages, low levels of consumption and weakness of the economic growth in Europe and Asia where the saving rates – pushed up by the increasing life expectancy and the uncertainty facing PAYG schemes – are great, relative to investment rates. When active population will slow down or decrease after 2005-2010, wages will rise, consumption will be more dynamic and inflation higher. In addition current cohorts who bought expensive assets will have difficulties to sell them back to the following, less numerous generation. High wages, low yields and higher inflation rates will create a gap between PAYG and funded schemes. This gap cannot be reduced in the long run by exporting saving flow surpluses, because the emerging countries are ageing as well [Holzmann, 2000 and Table 1].
Empirical evidence of this phenomenon is given by the following chart (Chart 1) where the correlation between the prime savers ratio and the share index can be observed.

The switch towards a funded scheme is not sufficient to limit the problem of financing retirement pension schemes: the problem of the transition is not solvable and funded schemes do not provide any immunisation against demographic changes.

In order to smooth intergenerational consumption, some policy makers have created trust funds (United States), provident funds (Singapore) or reserve funds (France). Whatever the name of these funds, they are generally run by governments, mobilise various forms of resources such as public assets, additional contributions, pension schemes surpluses, etc.

Chart 1
Primary savers ratio (age group 40-49), 1950-2000, and share indexes – US



The main criticism of these funds is the evidence that they do not avoid intergenerational incidence [Kotlikoff, 1992] for Ricardian equivalence reasons. On the other hand, if there are households kept away from the equity market (because of heavy entry fees, for instance), investing part of their contribution in the equity market through the trust fund can be Pareto improving. In the same time, households that find that their social security benefits suddenly became too risky will reallocate their portfolio so as to keep risk and yields patterns constant (according to Modigliani and Miller).

To sum up, these trust funds can provide a good tool to smooth the contribution rates and the consumption across generations but as in the others systems, if both taxes and the retirement age are kept constant there is no room for such a fund, as there is no room for other measures than adjustments of the replacement ratio to meet demographic changes. It is obvious that such adjustments will induce a dramatic impoverishment of the elderly.

That said, it is also obvious that the choices are political choices because it is unlikely that social security reforms will be Pareto-improving measures.

III - Political economy considerations

This point of view has been produced by some economists (notably by Cremer and Pestieau, 2000, or Barr, 2000). For the latter, the difference between PAYG and funding is second order, which does not mean that reforming pension is not usefull. Particularly, pension schemes have to be designed with labour incentives (which are not avoided by funded schemes that often do not allow for labour mobility), in order to postpone the retirement age with relation to demographic prospects, or their generosity has to be reduced in order to limit payroll taxes if economic growth demands it.

If many reforms have yet to be introduced to affect pensions, it is likely that they may not be sufficient to face the future demographic challenge. The problem is, then, the future of our pension schemes. With no more reforms, the rate of return of the PAYG based pensions will decrease (Table 7 for the French case), but a lot of persons remain opposed to such reforms.

Browning's seminal paper [1975] about the political economy of social insurance, some models have dealt with the problem of resistance against reforms in the field of social security (for a survey of these models, see Casamatta [1999]). The standard result is that if models focus on majority voting, it implies a level of social security in excess of that which maximises lifetime welfare, since the median voter belongs to the oldest members of the working population. Casamatta *et al.* [1999, 2000] have found the same result with different classes of voters differing in productivity and wages.

In this case, the level of PAYG pensions is higher than optimal and, in case of an unexpected demographic shock, the transition relies totally on one generation. This is because the median voter himself finds saving schemes more attractive if the equilibrium rate of contributions become too high. In this exercise, the authors adopt the hypothesis that the economy is characterised by a return on physical capital i which is higher than the rate of return of PAYG, i.e. the sum of the population growth rate and real wage growth ($n+g$, see Box 1).

The authors show that with the same hypothesis, but with entrenched interests (the grey pressure is able to impose its entitlement to a replacement ratio based on its contributions[4]), the transition between generations is softer: the transition generation will not bear the whole burden.
On the one hand, entrenched interests block reform towards a more efficient scheme, on the other hand they mitigates the impact of efficiency resulting from the nature of political process itself.

Artus and Legros [1997] have obtained the same, usual results: if the return on savings (i.e. on physical capital) is higher than the return on PAYG pension schemes (i.e. $n+g$), which (see above) is a hypothesis that can be denied except considering the very long run, a transition towards a funded scheme is desirable. But, in this case, while the social optimum would be a move to a funded scheme, the lack of altruism – entrenched interest – in the older generation (retirees or near retirees) imposes a generous PAYG which has a disastrous influence on the economic growth.

In fact, one can show very clearly the importance in considering the (very) long run in the "pension schemes file". The most famous example of this importance is the impact of immigration on pension schemes equilibrium: during the working (and contributing) period of the immigrants, there is a transition period characterised by a surplus which disappears as soon as the migrants retire.

Others examples show the importance of taking into account the long run.

With regard to France, the Charpin report (named after the Director of the French planning agency, and published in spring 1999) put much emphasis on the very long run (forecasts were given up to 2040). Roughly speaking the main recommendation was:

- To develop a reserve fund within the PAYG scheme;
- To increase further the required duration for reaching the full pension rate in the general regime before age 65, thus extending the Balladur reform – named after a former prime Minister - (see Table 7), i.e. 42.5 years of contributions instead of 40. Given the current distribution of ages at entry into the labour force, this should *de facto* raise the normal age at retirement to 65.

Despite the very cautious approach of its authors, the report has been perceived as extremely pessimistic as attested by reactions of the social partners, the *media* and public opinion. Initial reactions was that increasing the pensionable age was not realistic in a period of high unemployment among the elderly, but favourable recent trends suggest that unemployment should progressively disappear and could progressively become less of an obstacle to policies aimed at increasing the age of retirement. Despite this new context, the opinions remain strongly divided and the early retirement is seen as vested interest.

A simulation exercise on French pension scheme by Hamayon *et al.* helps to understand why. It shows that increasing the retirement age and creating a reserve fund with the scheme surplus that results from the decreasing equilibrium contribution rate, the effective rate can remain constant till 2045[5]. This has strong implication on PAYG return, because during the

[4] Losing the godwill of an other part of the electorate if they do not represent the majority. This is limited of course, because after a certain limit, the other part of the electorate refuse higher contributions.
[5] In addition this mechanism avoids the use of budget source to feed the reserve fund and limits the intergenerational problem revealed by Kotlikoff [1992] or Disney [2000].

phase of retirement increase the yield is much lower than without reform (Table 8) but this yield gets higher at the end of the simulation problem (Table 8: columns 3 and 7), notably because contributions are lower and economic growth higher.

Table 8
French model under reform
Model of French pension system with unique scheme of average wage-earners

Years	No reform		Reform: increase of pension age (42.5 years of contributions) and Reserve fund			
	Contribution rate (% of gross wages)	Actuarial yields for selected cohorts*	Equ. contribution rate	Effective contribution rate	Reserve fund surplus (% of GNP)	Actuarial yield for selected cohorts*
2000	27.5	3.6	27.5	26.8	0.0	3.6
2010	28.0	2.8	24.2	26.8	3.0	2.5
2020	31.0	2.6	25.5	26.8	7.5	2.3
2030	33.5	2.5	28.2	26.8	8.0	2.45
2040	34.0	2.3	29.8	26.8	2.5	2.55

*years indicates dates of retirement
Source: Hamayon, Legros and Sylvain (2000)

One can consider that taking into account the very long run would be a characteristic of immortal people (the equivalence between infinite life and altruism is well known) which is the case for a country. Barr [2000] uses that argument in order to show that there is no matter to pre fund pension schemes unless it has a positive effect on output: what matters is the sustainability of the whole debt and not only age-related liabilities.

Following this argument, taking into account that increasing the pensionable age will have only temporary effects if this increase is not a continuous function of the life expectancy (in the French above example with trust fund, the pension scheme has a new deficit in 2042 if there is no new reform), one can imagine a kind of mechanism which stabilise the whole public debt: associating age related and non age related debt.
In a environment where the public debts are to collapse, and will be important surpluses (which is the actual trend), Artus [2000b] shows that it would be efficient to use these surpluses in order to feed trust pensions funds and argues that investing these surpluses for half part in bonds and for half part in equities would permit to receive the excess returns associated to equities.
These reserve funds associated with increase of the pensionable age would solve the pensions problem in most countries in the very long run. In addition, even with low financial returns, this is a mean to gain the difference between improved returns, when diversifying portfolios, and interests on reduced public debt.
This mechanism implies, of course, an important increase of the age related debt in the global public debts.

To sum up, recent experiences in Europe indicated that pension reforms are a curious mix of political and economic problems, which need to take the very long run into account. As pension reforms are often a field for ideological debates, with a lack of attention for the long run, the reforms are often partial and/or sub-optimal and/or of very short run effect. In fact, it seems very difficult to find a consensual Pareto-improving path; and pathes are of course non unique but the main difficulty could be being able to differentiate between what is useful and

what is not. Life expectancy is growing implying an important increase of age related burden. As there is no miracle to decrease this burden, the problem is reduced to a simple set of questions : do I accept to pay more – now, tomorrow, longer -? If the answer is negative, an dramatic impoverishment of the eldest.

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