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Recent Social Security Reforms in the World. A Proposal for Brazil

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1) Introduction

Actually a lot of countries around the world are facing problems related to their social security system due mainly to the aging of their populations. This obviously brings great economic challenges to many countries around the world, since they are going to have less workers to support a growing number of retirees, which in intertemporal terms is an account that doesn’t match for many countries in thirty or forty years from now.

That challenge is a serious constrain to the economic growth of these economies, since its limit the capacity of saving of these economies, which may slow down their economic growth.

Such a challenge is even greater for developing economies, since they didn’t reach all the well-being and progress required to eliminate their poverty and at the same time they have to reach economic development in a faster pace than their developed counterparts, which had more time to come up with this situation.

For Brazil, my case of study, this challenge must be dealt with urgency since the country is in a process of complete change of its demographic structure, with the transition from a situation with a young population to a condition of an aged population, like the one faced by the OCDE countries. In spite of Brazil actually has the demographic structure of a young population country, it’s expends with social security 12% percent of its GDP, an amount much larger than, for example, the United Kingdom, France and Spain, which at the moment have a much more mature population than Brazil.

Using the proper terminology, Brazil right now is facing a golden rule for its population, since the decrease of the population rate in the last two decades resulted in the decrease of size of the Brazilian population, which leads to fewer pressures in the labor market as well as expenditures in health and education to attend a very young population. In a situation where the families have less children, they can also increase their saving as well expend more resources in the education of their children.

2) Main Problems of the Brazilian Social Security System,

According to Giambiagi and Tafner (2010), the main problems of the Brazilian social security system are that that the pensions granted by the INSS (Instituto Nacional de Seguridade Social), an autarquy that grants pensions to the workers of the private sector in Brazil are conceded in terms of the time of contribution, not in terms of age of retirement, a factor that makes the span of life receiving the social security benefit longer that the time the worker spent paying for its retirement. In addition to this, this problem is even more complicated for the women workers, who have the right to retire five years prior to the men and still have a longer life expectative. This is shown by the following data, where the average retirement age for the men in this regime is 54.4 years old and 51.3 years old for the women, ages which are almost 10 years younger than the average for the OECD countries.

Besides that, retirement lengths in the OECD countries are 16 years (men) and 21 years (women), meanwhile in Brazil these ages are 23 years for men and 29 years for the women, which is almost the same time that they have contributed to the system or worked.

That problem is going to be fuelled even more in the next decades, since the participation of the women in the Brazilian workforce is increasing very fast and in less than two decades they are going to represent fifty percent of the workforce in Brazil. Another especial rule is for the teachers who retire 5 years prior to their counterparts.

Another problem pointed by the two authors is that most of the social security benefits (pensions and the ones granted to the INSS) are correlated with the minimum wage, that had in the last fifteen years an increase much bigger that of the accumulated inflation during that same period. In spite of argument that the retreaded increases of the minimum wage are benefiting the poor people, that argument is not true since the poorest are not covered by this policy because they work in the informal economy and doesn't contribute to their retirement . What happens is that policy is increasing the expenditures of the INSS benefits in a way that is fiscal dangerous for the next decades.

Besides that, what the numbers of the Instituto Brasileiro de Geografia e Estatística (IBGE), the branch of the Brazilian government that collects data regarding the Brazilian population tell to us is that the associated effect of the aging of the Brazilian population is going to be more expressive in the forthcoming decades, in other words, that there is going to be more old people to provide benefits and at the same time the numbers of workers to provide these benefits is going to decrease. Allied with this factor is the question that the percentage of the women in the Brazilian workforce is increasing and the women in Brazil retire five years prior to men and also have a longer life expectancy.

It's important to note that in Brazil there are mainly two systems of Social Security, the Public Servants Pension System (called Estatutio in Portuguese) and the System for Private Sector Employees (INSS – Instituto Nacional de Seguridade Social). The Brazilian press, without proper knowledge of the subject, say's that the great problem with the Brazilian Social Security System is with the Estatutario System, but that affirmation is not true, since, the change in the rules for the retirement rules for the public servants were made in 1998 and 2003. In spite of having a great number of public servants that get retired with the old rules, in other words, that didn't pay the amount necessary for their retirement years, we believe that this problem is going to disappear in the following decades, since these workers will not press the system forever and someday is going to be regulated the already approved law that creates the pension fund for civil works who are going to enter the civil service.

However, the great problem for the following decades is with the Social Security System for the private sector employees, whose participation in terms of the GDP increased from 4.7% of the GDP in 1988 to 7.2% of the GDP in 2009. Otherwise, the participation of the expenditures of pensions for the Public Servants Pension System remains the same during the same period, and they have a minimum age for retirement for men and women, which doens~t happen in the System for Private Sector Employees

3) The Demographic Change in Brazil

The Brazilian Data Institute (IBGE) each ten years makes general research about Brazil, including its social, economic and demographic aspects. In its research for the year of 2008 it changed drastically its population projection for the over 65 years old population , from a total of 29.72% of the Brazilian population in 2050, to 35.51% of it for the same year, an increase of almost 6%.

Besides that, the Brazilian population is going to decline between 2040 and 2050, the population between 15 and 59 years old is going to decline between 2010 and 2040 and the population over 60 years old is going to be more than 4,5 times bigger than it was in the year 2000.

In addition to this, in the following years the proportion of over 65 years old inhabitants in Brazil in going to increase form 10.10% in 2010, to 35.51% in 2050. At the same time the

Brazilian population is going to start to decrease between 2040 and 2050 and the population between 15 and 59 years old is going to start to decrease in the decade of 2030. As well as, the population with ages till 14 years old is going to suffer an accumulated reduction of 43% between 2010 and 2050.

4) The Brazilian System for the Private Sector Employees.

The Brazilian System for the Private Sector Employees is quite complex, since it's three regimes depend on the retirement age and vesting period

(i)Retirement based on a minimum age of 53 years old for men and 48 years old for women and a minimum number of years of contributions of 30 years for men and 25 years for women that pays the so called Proportional Length of Contribution Pensions

(ii)Retirement based on a number of years of contribution, of 35 years for men and 30 years for women and no minimum age that pays a full length contribution pension.

(iii) Retirement based on age, of 65 years old for men and 60 years old for women and a minimum number of years of contributions of 15 years for men and women that pays an aging pension. In all the three cases the minimum pension is equal to the minimum age.

5) The Brazilian Public Service Retirement Regime (Regime Jurídico Único)

The Brazilian Public Service Retirement System contemplates the federal public servants in Brazil. In this system men retire with the minimum age of 60 years old and with the minimum time of contribution of 35 years and women with the minimum age of 55 years old and the minimum time of contribution of 30 years. In the last social security reform done in 2003, it was created a complementary law, which is still not regulated, where public servants will have thei contributions and pensions equal to the private sector, so that if they wanted to maintain their age when retired, they will have to contribute to complementary pension fund.

7) Three detailed Social Security Systems

7.1) The Case of Spain

The public pension system in Spain comprises both contributory and non-contributory components. The latter consists of a minimum pension financed from general revenues and paid to persons not eligible for a contribution-based pension. The contributory scheme provides old-age, disability and survivor's pension s based on a participant's earnings and the number of years of contributions. The contributory scheme is financed mostly from social insurance contributions paid by workers and employers, plus a subsidy from general revenues to cover supplementary payments to bring the lowest earned pension up to the minimum pension.

There is a minimum required contribution period of 15 years after which the pension benefit is equal to 50% of the earnings base. Pension benefits then accrue at the rate of 3% per years for the subsequent ten years, followed by 2% per years for the final ten years, yielding a maximum statutory accrual of 100% after 35 years. The earning s base is the average of the final 15 years prior to retirement, indexed by changes in consumer's prices during all but the final two years. Moreover, the earned pension is capped by an indexed maximum and is supplemented if it falls below the indexed minimum. The supplements are increasingly being financed from general revenues.

The full pension is payable at age 65. An early pension is available to an involuntarily unemployed worker from age 61 with at least 30 years of contributions (the unemployed has to have contributed at least two years in the last 15 years before retirement). The law also requires that the unemployed be registered as a jobseeker at the public employment services for a period of at least six months immediately preceding the date of application of retirement (this requirement can be avoided if the company paid to the worker certain compensation during the two years preceding the date of the application for retirement). As a result, the pension is reduced by 6.0 to 7.5% per age below 65, with the reduction depending upon the number of contributory years. A voluntary early pension is available at age 60 if the worker entered the system before 1967 (or 1970 in some cases), with a penalty of 8% per years, if retirement is involuntary, the penalty rates are the same as for persons whose contributions began after 1967. A 2-3% per years additional accrual is provided to compensate for retirement after age 65, together with a waiver of both employer and employee social insurance contributions, which is gradually introduced from age 60 onwards. Early retirement at age 64 is allowed if the position of the retiring worker is filled by an unemployed person. Partial pensions can be combined with part-time work, subject to certain conditions: hours worked must be sufficiently reduced and the partial retirement must be offset with the hiring of a younger person. The minimum age is 61 years with a contribution of 30 years. The reduced hours will be between a minimum of 25% and a maximum of 75%.

Disability pensions are payable at replacement rates, that vary with the degree of disability, the cause of disability, age and duration of the contributory period. Early retirement is also available for disabled workers. Survivor’s pensions are payable to a widow(er) and/or dependent children at replacement rates that depend on whether or not the deceased was a pensioner or still working. All survivors and orphans benefits must not exceed 100% of the deceased person’s earnings base.

Finally, there are five special schemes within the social security system, one for each of: farmers; farm workers, self-employed, seamen, miners and domestic employees. Each has its own contribution scheme and benefit determination. Civil servants from the central administration, the military and the judiciary are covered under special regimes outside the social security system.

Ongoing reforms were introduced in 2007. The principal measures included:

- Prolonging working life. Restrictions on access to bonus accrual for remaining employed beyond age 65 were eased.
- Partial pensions. Partial retirement pensions were rationalized and qualifying conditions tightened.
- Lengthening of contribution period. The effective period of contributions was raised by terminating the granting of extra days in exchange for extra contributions payments.
- Disability pensions. Incentives for early exit via disability were reduced.
- Widow(er) pensions. Eligibility criteria for married couples were tightened under certain conditions but eligibility was extended to other types of union.

In January of 2010, and in line with the Pacto de Toledo, the government proposed to gradually raise the retirement age from 65 to 67, and to identify parametric and administrative measures to improve the relationship between contributions and pensions, further tighten eligibility for disability widow(er) and orphan pensions and restrict access to pensions via unemployment routes.

In Spain is custom to workers to leave the work market one year prior to their retirement. This happen in the following manner: The worker leaves his jobs and starts to receive an unemployment benefit till he reaches the age of 61 years old. In spite of the modest amount of the benefit (480 euros), it's possible to the worker to receive this benefit for 9 years till he reaches the statutory age to retire. In other words, if the person loses his job and cannot find another one till he is 61 years old, in a certain ways he can retire at the infant age of 52.

Another subsidy that exists in the Spanish social security system in the possibility that, when the worker is 61 years old and had worked for 30 years, to work part time till he is 65 years, when he will be entitled to receive the complete social security pension.

Another problem with the Spaniard social security system is that its pension benefits are calculated as a proportion of the average earnings over the final 15 years before retirement. However, beyond these 15 years, the proportion of the benefits that the worker is going to receive depends on the amount of years of service, but not the earning base to which it is applied. Besides that, for these workers the amount of the earnings assessed for social security contributors is irrelevant for their future pension. In this way, the worker doesn't have incentives to contribute to his retirement, since he sees it's as a mere tax.

In addition to this, another great problem with the Spaniard social security system is that 25% of its expenditures are for its pensions. Actually widow's pension outlays an amount of 20% of total public pensions at present. The Spaniard government is considering introducing measures to tighten eligibility requirements for widows benefits, such a reduction the eligibility terms for its recipients, as well as tightening requirements for combining survivor benefits with other pensions.

A problematic issue with the Spaniard social security system, related to incentives to anticipate the retirement is that workers can retire with 50% of their pension after only 15 years of work. Should be incentives in pecuniary terms to the works who postpone his retirement when he is 60 years old.

Another problem with the Spaniard system is that there are certain categories of self-employed workers like in the fishing, farming, mining and domestic sectors, who contributed in low terms to of the benefices they are going to receive, and are bundled at the minimum pension. In spite of these workers earn low pensions, they in fact tend to contribute over relatively short periods.

According to the latest OECD report (2010) reforms should be made to phase out these special salaries and integrate the participants in a general contributory self-employed scheme. In the case of special work, like the mines, they could be compensated with an early age retirement.

7.2) The Case of Greece

The long-term outlook for spending on pensions is worrisome, as confirmed by projections carried out recently by the International Labor Organization. If legislation does not change, spending by the country`s four largest pension funds, which together account for over three-quarters of the system's aggregate outlays, could rise by 10 percentage points of GDP by 2055. These projections, based on detailed actuarial evaluations, fund by fund, take a different approach from the one used by the European Commission in earlier studies. Nevertheless, extended to all pension funds, these results, which are used as the basis of the recent update of the European Commission long-term pension projections for Greece, are similar to those of the previous European Commission analyses: Total public pension payments are expected to increase from 11,5% of GDP in 2005 to 24% of GDP in 2050. This stems not only from the projected rise in the proportion of the elderly in the population, but also because workers will be retiring relatively early in relation to increased life expectancy. Reforms are therefore imperative to avert a destabilization of public finances.

When compared with the other European countries, whose pension expenditures are expected to rise by an average of 3% of GDP by 2050, these long-term projections highlight how far Greece is lagging behind in reforming its pension system. Many issues highlighted by extensive research over at least a decade must be tackled to strengthen the pension system with defined benefits.

The system is extremely complex and fragmented because of the existence of many pension funds and overlapping rules, which diminish transparency, complicate management and swell administrative costs. There is little control and fraud is difficult to detect, with contribution evasion estimated at between 20% and 30% of the revenue collected. As is the case with tax evasion, contribution evasion is larger among the self-employed than wage earners.

There are numerous and powerful financial incentives to stop working before the statutory retirement age of 65, which is one explanation for the low employment rate of seniors, in particular of women.

Pensions thought subject to taxation, are based on parameters that are generous from an actuarial standpoint. The rate at which workers accumulate pension entitlements per year of contributions is very high. The replacement rate of 70% to 80% of wages (plus any benefits from supplementary schemes) is high, and entitlement to a full pension requires only 35 years of contributions, compared to 40 in many other countries. The replacement rate is computed with respect to average pay over the last five years of work, rather than aggregate career income, which is the reference for many other systems. These tend to be high-earning years and, in any case, this system discourages old workers from staying in the labor force if they get a lower salary.

In March 2008, the Greek authorities adopted a reform with four main components. The first involved organizational and administrative measures, with a consolidation of pension funds, the number of which was scaled back from 133 to 13, and the introduction of an individual social security number for each citizen as from 1 June 2009. Thanks to these mergers, the contributions rates and pension entitlements of the funds` future beneficiaries will be harmonized. For those recently joining a new fund, there are plans to align parameters gradually to those of the new fund.

The 2008 pension reform also included four main components. The first component of the reform concerned the merger of the multiple pension funds (133). Five basic funds were set up, and the plethora of other schemes, many of which had been based on agreements with particular companies and covered small groups of workers, were consolidated under six supplementary schemes and two welfare schemes.

The second component of the reform looks for the enhancement of the pension system`s financial viability thanks to a series of changes that will be gradually introduced from 2013 until 2015. These changes include:

(a)Increases to the minimum age at which certain beneficiaries can retire on a full pension. A person who started working after 1993 and accumulate over 37 years of contributions, and who had been able to retire with no age restriction, will now have to wait until they are at least 58. For those who had started working prior to 1993, and contributed for at least 35 years, the minimum age has been raised by two years – to 57. For those exercising a physically strenuous occupation and for the rest of the workers, the age was increased to 60 years old. The conditions for entitlement to a full pension for women with three dependent children after 20 years of contributions were also tightened, and retirement options following layoffs and corporate.

(b)The age threshold for early retirement with an actuarial reduction was raised. Persons having started to work after 1993 with at least 35 years contributions will have to wait until their 60th. birthday rather than 55th birthday to take early retirement. Likewise women with dependent children and workers in physically strenuous occupations will have to wait until age 55 to claim early retirement benefits. In addition, actuarial reductions for early retirement were raised from 4,5% to 6%. In addition, the accumulation rate for persons extending their professional activity by three years, to age 68, was increased marginally from 3,0% to 3,3% per additional years of work after the 35th until age 68, instead of the 2% for each of the previous 35 years.

The replacement rates of supplementary pension schemes in excess of 20% will be reduced gradually to that ceiling. This provision does not apply, however, if a retirement fund can demonstrate its long-term financial viability.

(c)The third reform component created an intergenerational solidarity fund that will start accumulating resources in 2009 to help disburse payments after 2019. The fund, to be endowed with 10% of the early intake of the special social security fund, will be administered by a committee made up of representatives from the Ministries of Finance and Employment. The amount of resources this fund could build up by 2019 is difficult to estimate precisely. Under the assumptions that VAT revenues and proceeds from privatizations and the special social security fund remain at their average level between 2004 and 2008, the fund's endowment could reach roughly 7% of GDP by 2019, or the equivalent to seven months of pension payments.

(d)The fourth component of the reform called for improving the rules governing maternity leave to encourage more women to enter the job market. These measures, which took effect in March 2008, include:

- A 50% reduction in social security contributions, during a one-year period, for mothers who return to work after giving birth to a child.

- An additional six months of maternity leave, paid at the minimum wage, in addition to the normal entitlement (of 119 days), for persons insured at IKA (main Greek pension fund). This leave, funded by the Greek Public Employment Service (OAED), is included in creditable years of contribution.

- For each child born after 2000, mothers will also be credited with fictious years of contributions to augment their pension entitlements. These fictious years (one year for a child and two years for each subsequent child, up to a maximum of five years) will not, however, count towards the minimum period (15 years), nor towards early retirement.

Finally, the Greek Social Security system is extremely fragmented, because of the difficulty of intervening in multiple schemes and particular situations. The creation of a national social security register, in which each insured person has a unique identification number, will also make for a more accurate count of the number of workers and pensioners and better management of social security services. The new system will also facilitate data collection and information exchange, which should lead to smother co-ordination between pension fund administrators and tax authorities, which is crucial for effective action against the evasion of taxes and social security contributions.

Brazilian Main Social Programs (Excluding Education and Health Care Programs)

Programs	**Description**	**Cost in 2009**	**Beneficiaries**
General Social Security Regime (RGPSS)	Includes retirement benefits, survivors pensions, etc	7.1% GDP	23.2 millions
Public Service Regime (RPPS)	It includes public servants retirement benefits and survivor pensions from Federal, State and Municipal government.	4.3% GDP	3.1 millions
Social Assistance programs (LOAS and RMV)	It gives one minimum wage benefit to + 65 years old elders whose income is less than 1;2 minimum wage or to families with a physically disabled member whose income is less than 1;2 MW.	0.60% GDP	1.6 millions
Unemployment Security	Benefit given to unemployed formal sector workers for a period of 3 to 5	0.62% GDP	7.3 milions

	months.		
Abono Salarial	Annual benefit (one monthly minimum wage) given to all formal workers whose income is less than 2 MWs.	0.25% GDP	15.5 milions
Bolsa Familia	Monthly conditional cash transferences given to poverty-stricken familes found in a situation of poverty in a condition of school attendance and vaccination.	0.42% GDP	11.1 milions

Source: Maciel (2010)

Retirement Age: International Comparison

	Minimum Age: Retirement		**Time expected of retirement**	
	Men	Women	Men	Wpmen
OCDE (29)	63.9	62.6	16.0	20.8
Latin America (7)	62.1	60.4	16.7	20.9
Outros (66)	62.3	59.9	15.8	21.1
RGPS				
Retirement per age of contribution	54.4	51.3	23.0	29.2

Urban retirement per age	65.0	60.0	15.9	22.1

Source: Maciel (2010)

7.3) The Case of Denmark

The first state and mandatory pillar of the Danish reform consist of two tiers and it is universal in coverage. The first one is a residence-base national pension, which is composed of three different pillars i)the basic amount, which is flat-rate and tied to length of residence, the ii) the income-tested pension supplement and iii) various possible individual pension schemes .

The residence-base national pension system is a pay as you go system and is tax-financed from general budget revenues, where the central government reimburses municipalities for their pension expenditures. The normal retirement age is currently 65 for men/women but will increase to 67 during the period 2024/2027 by half year each year. The minimum qualifying period for Danish citizens is 3 years of residence between the age of 15 and 65/67 and 10 for non-Danish citizens (including the last 5 before retirement). The full basic amount is earned after 40 years of residence and is reduced pro-rata by the number of years of residence missing to 40.

The first pillar of the Danish Social Security System is the Labor Market Supplementary Pension (ATP), that is statutory and whose contribution is a fixed amount in Danish kroner, which is regularly adjusted when the social partners so agree. The amount of the contribution depends on the scope of employment. For a full-time employee, it is approx. 1% of average pay.

The ATP pension is thus independent of a person's income during his or her working years and the maximum ATP pension presently amounts to about 35% of the basic amount of old-age pension pension presently amounts to about 35% of the basic amount of old-age pension.

Almost the entire working population pays mandatory contributions to ATP. For self-employed persons, however, payment is voluntary. Persons temporarily or permanently outside the labor market (claimants of 48 unemployment benefits, social assistance, sickness benefits, anticipatory pension, etc.) are also covered by the scheme.

The second pillar mainly consists of the privately organized labor market pension schemes that secure most pay earners a supplement to old-age pension and a reasonable replacement rate when they enter retirement. Following the increases most recently agreed in the collective agreements, the contribution is typically around 12-17% of earned income.

The bulk of labor market pensions are contribution-defined, savings-based group schemes that are either based on general collective agreements or agreed in individual enterprises. Labor market pensions are typically mandatory for the individual person, but recipients are getting an increasing say in the combination of benefits.

The third pillar includes various possible individual pension schemes that allow for individual preferences. This task is realized through a variety of offers from insurance companies, banks, etc, within the framework of relatively favorable tax rules.

Early retirement is possible through various arrangements. The anticipatory pension, which may be awarded to persons, aged 18 to 65. Eligibility depends on the applicant's working capacity, in case it is permanently reduced or to such an extent that the applicant is unable provide for himself by means of a remunerated job. At 65 the recipients of an anticipatory pension are transferred to residence-base national pension system. The maximum monthly benefit granted by the anticipatory pension for 2009 (before tax) was 15.704 DKK for singles and 13.348 DKK for married or cohabiting couples.

Finally, there is a voluntary early retirement program linked with unemployment insurance, which pays benefits between ages 60 (increasing to 62 during 2019/2022) until the normal pension age. To qualify, individuals must have been members to the unemployment insurance fund for 25 years within the last 30 years and have paid voluntary early-retirement contributions. The benefit amount corresponds to the rate of unemployment benefits, subject to a limit of 91% of the maximum rate of unemployment benefit (differentiated for a full or a part-time workers). Combining voluntary early-retirement benefits with the residence-base national pension system is disallowed. Hence, beneficiaries revert to the standard old-age pension once they reach the normal retirement age of 65 years old.

8) Summary of European Social Security Reforms

This section is based on the European Commission work of 2010.

Belgium

The standard retirement age for women has been increased gradually from 63 in 2003 to 64 in 2006 and 65 in 2009. Retirement age remains flexible from the age of 60 for men and women, provided that a 35-year career condition is satisfied. The "older unemployment scheme", reformed in 2002, will keep having an impact on participation rates between 50 and 58.

The law concerning the "Solidarity Pact between Generations" has come into force in 2006. It provided a series of measures to increase participation in the labour market. The statutory age for the early retirement("*prépension*") scheme embedded in the unemployment insurance has been raised from 58 to 60 and the eligibility conditions (career length) have been made more restrictive. Conditions for entering this scheme before the statutory age ("*prépensions*" for labour market reasons) have also become tighter. Staying at work after the age of 62 is now rewarded by a specific supplement in the pension formula ("pension bonus").

Finally, a structural mechanism for linking benefits to prosperity has been introduced.

Czech Republic

Before the pension reform in 2003, men retired at the age of 60 and women at 53-57, depending on the number of children (one year less per child). Since January 2004 with modification of the retirement age from August2008, the age of retirement is increased constantly over time (2 months per year for men and 4 months per year for women) to reach 65 years for men and 62-65 for women (still depending on the number of children) born in1968 and later. Bonus for later retirement is 1.5% of person's calculation base for every additional completed 90 calendar days. Early retirements are subject to penalization, which is 0.9% of person's calculation base for every period of 90 calendar days before the statutory retirement age up to 720 days and 1.5% from the 721st day. However, resulting earnings related component must not be lower than 770 CZK (approx. 28 Euro).

Denmark

Denmark introduced in 2006 a major reform package known as the "Welfare Agreement". This reform package affects mainly younger than age 48 at the end of 2006. It reverses the 2004 decision to lower retirement age from 67 to 65. It also increases early retirement (VERB) from age 60 to age 62 between 2019 and 2022 with a minimum contribution period of 30 years instead of 25 for taking a VERB. The normal retirement age is increased from age 65 to 67 between 2024 and 2027. Finally it indexes the retirement ages to the average life expectancy of 60-years old from 2025..

Germany

Since the early nineties a series of major reforms have been passed, aiming at the financial and social sustainability of the public pension scheme. Highlighting the most important reform steps, the reform process began in the mid of the nineties with the increase of the statutory retirement age to the age of 65 years and the introduction of deductions on early retirement (3,6 % per year) accompanied with a bonus for deferred retirement (6,0 % per year). Secondly, at the beginning of this decade, a comprehensive promotion of second and third pillar pension schemes (Riester pension) by subsidising voluntary contributions was introduced. The aim of those reforms was to compensate the envisaged reduction of benefits in the statutory pension scheme by second and third pillar pensions. Thirdly, in 2005 the pension adjustment formula was augmented by a sustainability factor, which adjusts statutory pension payments to population dynamics, whereby the extent of the adjustment is determined by the change in the relation of the workforce to the number of retirees.

The most recent major reform took place in 2007. Though the transition process of increasing the retirement age to 65 years is not yet fully completed, a further increase of the statutory retirement age to the age of 67 was legislated (the age of retirement will be increased one month each year from 2012 on to 2024, then 2 months each year until the age of 67 years will be reached by 2029). The first aim of this reform was postponing the retirement age and thus decreasing the future financial burden. Secondly, the reform will partially compensate the expected decline of the workforce due to population ageing. Therefore, the increase of the retirement age is accompanied by the so-called "Initiative 50 plus" which aims to increase participation rates of older workers by a large range of different measures such as the extension of vocational training and the reduction of employment barriers for older workers.

Estonia

Changes in the PAYG system include raising the retirement age for females to 63 by 2016 and revising the benefit formula. Legislation passed in mid-September 2001 set up mandatory individual accounts in the second tier (starting operations in mid-2002), while voluntary accounts became the new third tier.

Spain

The latest reform of the pension system in 2002 (Law 35/2002) abolished mandatory retirement age (65) in the private sector. Workers remaining active after 65 will increase their pension benefit by 2% per year, and both employers and employees' are exempted from paying most social security contributions. For workers age at least60, social contributions are reduced by 50%, and this amount is increased by 10% to reach 100% for those aged65. Early retirement is possible from 61 year old, with at least 30 years of paid contributions and registered as unemployed for at least 6 months, but with a high penalty, from 6% to 8% per year (8% for those with only 30 years of contribution, 6% for those with at least 40 years of contribution). Pensions became compatible with part-time work (but the pension benefit was reduced according to the length of the working day).

A new law on Social Security measures was enacted in 2007. This package of reforms contains as main measures: increase in the effective contribution period to be eligible for a retirement pension; partial retirement from age 61 instead of 60 for people entering the system after 1967 (and a minimum of 30 years of contribution instead of 15); incentives for people working after age 65; more restrictive rules to get an invalidity pension.

France

The standard retirement age remains 60. Since 2004, gradual alignment of public sector with private sector by increasing the number of contribution years for entitlement to a full pension (from 37.5 to 40 years between 2004 and 2008). Since 2009, the numbers of contribution years will increase following the increase in life expectancy through a rule keeping constant the ratio of the number of contribution years and the number of years in pension to the level of 1.79 as in 2003. The number of contribution years will be increased to 41 in 2012 and 41.50 in2020 due to the expected gains in life expectancy (by 1.5 years each 10 years). Introduction of a bonus (3% per year) in case of postponement of retirement. The penalty for early-retirement (before 40 years of contributions) will be changed. Since 2006, the amount of the penalty (la décote) will decrease gradually from 10% to 5% of pension per year of anticipation in 2015 for the private sector and will increase from 0.5% to 5% for civil servants).,]

Italy

Since 2006, the major changes to pension legislation concern the implementation of the 23rd July Agreement on welfare state between government and social partners (Law 127/2007 and Law 247/2007) and Law 133/2008) improving the possibility of accumulating pension and labor income.

A. Law 127/2007: increase of lower amount pensions through an additional lump sum of 420 euro per year from 2008 (327 euro in 2007) acknowledged to pensioners of 64 and over with an income lower than 1.5 times the minimum pension (8.504,73 euro per year in 2007). Such an increase is reduced or augmented by 20% for contribution careers inferior to 15 years or superior to 25, respectively (18 and 28, for the self-employed).
Additional increases are also foreseen for social assistance pensions, starting from 2008, by way of the so-called ‘social assistance additional lump sums’ (‘*maggiorazioni sociali*’).

B. Law 247/2007 foresees the following:
• a slowdown of the process of elevating the minimum requirements for early retirement, keeping unchanged the phased-in values foreseen by Law 243/2004. In particular, in 2008 the age requirement, with 35 years of contribution, is 58 for the employees and 59 for the self-employed instead of 60 and 61. Starting from 2013 (it was 2014, according to Law 243/2004) the age requirement, with 35 years of contribution, is 62 for the employees and 63 for the self-employed. In addition, starting from July 2009, workers may access early retirement at an age lower by 1 year, provided that they possess at least 36 years of contributions. The age requirement may be

reduced by at most 3 years (but never below the age of 57) for specific categories of workers involved in hard and stressful jobs (‘*lavori usuranti*’), within a given amount of resources assigned to a specific fund;

• the application in 2010 of the transformation coefficients, revised on the basis of the procedure foreseen by Law 335/95. The subsequent revisions will be made every three years, instead of every ten years, through a simplified procedure falling entirely under the administrative sphere of competence;

• an increase of the contribution rate of the atypical workers by 3 percentage points (up to 26% in 2010) in order to improve pension adequacy for this category of workers.

C. Law 133/2008 states that old age and seniority pensions may be fully cumulated with labour income. The new legislation improves upon the previous one which foresaw some restrictions in the possibility of cumulating, especially in the case of employees.

Latvia

Under the new three-pillar system with a defined contribution PAYG based on notional accounts, set up in 1996, the standard age requirement for women will increase by 6 months each year to reach 62 by 2008. Those for men reached 62 in 2003.

Lithuania

The standard minimum retirement age for women (55 years and 4 months in 1995, 58.5 years in 2003) will increase by 6 months each year to reach 60 years in 2006. The retirement age for men was gradually increased (2 months per year) from 60 years and 2 months (in 1995) up to 62.5 in 2003.

Hungary

The 1997 pension reform:

(1) aimed to raise gradually (by one year in every two years) the statutory pension age for men from 60 to 62 and for women from 55 to 62 by 2009;

(2) started to build up a new framework of mandatory pension system by splitting on two part, dominantly PAYG pension pillar and partly the funded pension pillar;

(3) the new mixed system (appr. 3/4 payg-1/4 funded pillar) is obliged to step in for the new entrants, for the others the choice was optional.

In 2006-2007, the Hungarian Parliament adopted (by two regulations) a package of reforms which specifies that the early retirement is allowed only 2 years before normal retirement instead of 3 before. Thus from 2013 the early retirement is possible from age 60 both for women and men. From 2013 all early pensions will be subject to a reduction. The rate of reduction, depending on the time remaining until retirement age, would be 0.3% per month for the 61-62 age-group and 0.4% per month below the age of 61. It introduces also changes in the calculation of the benefits, a minimum contribution from 40-41 for early retirement and some favourable retirement conditions for those working in potentially health-damaging occupations.

Malta

In December 2006, the Maltese Government completed the legislative process associated with the enactment of the pensions reform bill. Among the most important elements of the reform there is a staggered rise in pension age from 60 years for females and 61 years for males to 65 years for both by 2026 and the gradual lengthening of the contribution period for full entitlement to the two-thirds pension from 30 years to 40 years.

Meanwhile, the calculation of pensionable income will reflect the yearly average income during the best 10 calendar years within the last forty years, as opposed to the previous regime which consisted of the best 3 years of the last ten years for employed persons and the average of the best ten years for self-employed persons. In addition, prior to the reform, the maximum pensionable income was fixed by the law though in recent years it was revised in line with the cost of living adjustment. Following the reform, maximum pensionable income will evolve in a more dynamic fashion and will be increased annually by 70 per cent of the national average wage and 30 per cent of the inflation rate as from 1 January 2014 for persons born after 1 January 1962.

Austria

The minimum retirement age for men will increase from 61.5 years to 65 years; for women the age will rise from 56.5 to 60 years. The increase will be phased in gradually beginning in July 2004 and by 2017 early retirement will be eliminated. Meanwhile, larger penalties are imposed on early retirement (4.2% of reduction per year instead of the former 3.75%, up to a maximum of 15%), within the age of 62-65.

The statutory retirement age for women will be increased gradually between 2019 and 2034 to reach the retirement age for men at 65. A bonus for later retirement up to the age of 68 years (4.2% per year, up to a maximum of 10 %) is introduced. From January 2005, harmonized guaranteed pension accounts is established (Act on the harmonisation of pension system, approved in November 2004). In the new system of individual, transparent pension accounts (with a clear reporting of benefits accrued from contributions paid in and other credits acquired, such as from active child and elderly care) the key rule will be : 45-65-80 (45 contribution years, retirement age of 65 and a gross replacement rate of 80% of average life earnings). Pension benefits will be adjusted to consumer price index, starting in 2006.

Poland

The general system: All insured persons born after 1948 are covered by the new defined contribution PAYG with notional accounts and three-pillar pension system. The standard retirement age remains 65 for male and 60 for female. There will be no early pension for those born after 1948 and retiring after 2008, with the exception of miners. Since 2007, disability pension insurance contributions were reduced.

Portugal

Portugal introduced in 2007 a "Sustainability factor" linking initial benefits to average life expectancy when the worker retires (at 65, which is the legal retirement age). Individuals have the option of postponing retirement beyond legal retirement age to compensate (at least partially) the financial penalty given by the sustainability factor. They introduced also a "national strategy for the promotion of active ageing" which is a package of measures that encourages older workers to remain in the labor force (trainings, improvement of older workers employment, higher penalty in case of early retirement and benefits granted in case of long contributive careers)..

Slovenia

Under the new Pension and Disability Insurance Act entered into force on 1 January 2000 (a three-pillar modernized defined benefit PAYG system plus compulsory and voluntary supplementary funded schemes), the standard retirement age has been increased. It is now possible to retire between 58 and 63 for men and 61 for women (the minimum retirement age was 53 for women and 58 for men before the reform). Women that worked before the age of 18 can retire earlier (but not before the age of 55). Special regulations reduce the age of retirement to 55 in certain cases (before the reform it was possible even below 50).

The minimum retirement age is raised from 53 to 58 for women (the same level for men). The accrual rate was reduced by 2% to 1.5% since 2000. Later retirement has been encouraged: a person who fulfils the requirement for pension but continues to work beyond the age 63/61 will receive an additional pension increase (3.6% the first additional year, 2.4% the second year and 1.2% in the third, plus the normal rate of accrual, 1.5% per year).

Slovakia

Under the reformed (from 2004) three–pillar pension system, the standard retirement age has increased from 60 to 62 for men (9 month per year) by 2006 and from the former 57 (gradually reduced down to age of 53 for women who brought 5 children or more) to 62 for women by 2014. A worker can still retire earlier if the combined benefit from the first and the newly introduced second pillar equal at least 60% of the minimum living standard determined by the government.

In this case, the pension is reduced by 6% per year, while a bonus of 6% is introduced for those postponing their retirement. It is also possible to get pension benefit while working. Since 2005, flexible old-age retirement (63 to 68 years) with an increase of the accrual rate to 4.5% for those continuing to work beyond the age of 63. The ceiling on the maximum pension is abolished. A new early retirement scheme is introduced with a minimum age of 62 and an actuarial reduction of 0.6% per month prior to63. Those borne after 1949 are not eligible for the unemployment pension scheme, which is replaced by an extended period of unemployment benefit (the so-called “unemployment pipeline to retirement (currently 57-65)..

Sweden

The pension reform was approved by Parliament in 1999. Under the new notional defined contribution system is possible to retire from age 61 onwards, with an actuarially fair compensation for those who stay on in the labour force. Every year of contributions is important for the pension benefit. A person with an average wage will increase his yearly pension benefit by nearly 60 per cent if he postpones his retirement decision till age 67 compared to leaving at age 61. Yearly “statement of account” informs the individual of costs and benefits of retirement. The new system is phased in gradually for generations born between 1938 and 1953, and will affect generations born after 1953 fully.

The United Kingdom

Between 2010 and 2020, women’s pensionable age will gradually rise from 60 to 65, as for men. The Pension Act 2007 adds also several measures in which we have the gradual increase of the state pension age between2024 and 2046 to 68 for men and women (instead of 65 before)..

Bulgaria

Since October 1, 2008 all old-age pensions, assigned before December 31, 2007, were recalculated, using a different base which is now the 2007 average insurance income (EUR 203.6). The recalculation was made to unify pension-determining parameters (individual coefficient and length of service), and to overcome their different size..

As of 1 January 2009 the insurance contribution rate to the State Social Insurance Pensions Fund was reduced from 22% to 18%. The contribution rate of the employers was set at 10% and that of the employees at 8%. In addition to the employers and employees, the state entered as a third party providing 12% of the overall amount of the annual contributions to the State Social Insurance Pensions Fund.

Following the change in the insurance contribution rate the total social security burden was reduced by2.4 pps for employers, while for employees it remained at the same level. Not taking into account the health insurance contribution, the social security burden dropped by 3.6pps for employers and by 0.8pps for employees..

As of January 1, 2009 the minimum pensions were increased by 10.0%.

The old-age pensions were raised as of April 1, 2009 by increasing the weight of each insurance year in the pension formula from 1 to 1.1. In addition starting from 1 April, the maximum pension amount (excluding bonuses thereto) was increased to EUR 357.9, from EUR 250.5. As of July 1, 2009 pensions were updated by 9.0% following the so called Swiss rule.

Ireland

In March 2010 the Irish government published the National Pensions Framework which sets out the Government's intentions for reform of the pension system in Ireland. The main provisions are:

− Mandatory social welfare pension provision will continue and the government will seek to maintain the level of the state pension at 35% of average weekly earnings, to increase the age when the state pension can be received to 66 in 2014, 67 in 2021, and 68 in 2028, and to allow for the postponement of the receipt of the state pension beyond these years,

− To adopt a more progressive pension tax relief of 33% with lower earners receiving more tax credits than they have to date with higher earners receiving less, although many will have more choice in how they draw down their pension,

− To introduce mandatory pension provision for employees (auto-enrolment with a possibility to optout) not already in an occupational pension together with mandatory employer contributions from those employers not already providing an employee pension scheme.

− A new single public service pension scheme will be introduced for new entrants into public service in 2010. The main provisions of this scheme will include a new minimum retirement age of 66 years which will be linked henceforth to the State pension age, a maximum retirement age of 70 and a pension based on career average' earnings.

Latvia

Since July 2008, the Latvian authorities have introduced the following policy changes:

The amount of early retirement pension is 50% from calculated pension (till 30 June, 2009 it was 80%).

From 2011 - CPI based indexation (before: indexation was depending on individual pension amount October 1, considering an actual consumer price index and 50 per cent of real growth of contribution wage sum; medium-amount pensions were indexed annually on October 1, considering

– low-amount pensions were indexed on April 1, considering an actual consumer price index and on an actual consumer price index; high-amount pensions were not indexed) and indexation is frozen in 2009 and 2010.

Reduction of contribution rates to 2nd tier: 2009- from 8% to 2%; 2010 -2%; 2011 -4%; 2012 and for all next years -6% (before: 2009 -8%; 2010 -9%; 2011 and for all next years -10%).

Differentiation of the employers' contribution rate (23.75%) according to the labour contract type :

i)Temporary contracts;

Incentives to postpone retirement by reducing further the contributory rate for those who are eligible to a full pension (the reduction applies to employer and employee).

ii) Concerning self-employees:

Entities that contract self-employees' services have to contribute to Social Security, with the contribution base being 70% of the service paid. The contribution rate is 2.5% in 2011 and 5% from 2012 on;

Employees contributive base is now determined by the Social Security services taken into account tax declared earnings and it is foreseen a progressive (yearly) adjustment of the contributive base;

Employees contributive rate is now harmonized (29.6% over 20% of the sales amount or 24.6% over 70% of the value of services provided).

iii) For all workers:

Harmonization of the contribution rates according to the risks covered, reducing the number of special regimes.

Finally, thought the welfare reform adopted in 2006, the retirement age will gradually increased to 67 years and is also going to be dependent on life expectancy trends. The old age pension age will gradually be increased by two years in the period 2024-2027, and from 2030 old age pension age will be adjusted on the basis of trends in remaining life expectancy for 60-year-olds.

However, the adjustment mechanism is designed in order that the Danish Parliament is going to make its first decision on adjustment in 2015 and then at five-year intervals on the basis of mortality-rate experience in the preceding two years.

According to the Ministry of Welfare of Denmark:

"Old-age pension age will be adjusted if – on the basis of mortality-rate experience (calculated average life expectancy (60 years + remaining life expectancy) for 60-year-olds) – it exceeds a life expectancy of 81.4 years in 2004-2005. The old-age pension age will be adjusted at a notice of 15 years, i.e. the first adjustment can be effected in 2030".

9) Reform of the Brazilian Pension System

First it's necessary to take in account that the International Monetary Fund (IMF) recommends the following three policies to curb deficits in the Social Security System: To raise the statutory retirement age, to reduce the benefits or to increaswswzssaqzaae contributions. In this same paper the IMF say`s that a two-year increase in the statutory retirement age would be sufficient to stabilize pension spending as a share of GDP at its 2010 level over the next two decades. Besides that, according to the same study of the IMF, this two-year increase in statutory retirement ages is roughly equivalent to a cut in benefits of 15 percent and causes the same fiscal effect as a 2 percentage increase in payroll taxes.

According to the IMF:

"Raising retirement ages would have a powerful effect: a one-year increase in the statutory age in the advanced countries would offset about half of the increase in spending projected between 2010 and 2030.[18] Increases in statutory retirement ages are largely justified by the projected increase in longevity over the next 20 years: between 2010 and 2030, the number of years individuals are expected to live beyond the statutory retirement age is projected to increase by an average of 2 years in emerging and advanced countries (Table 5). Increases in the statutory retirement age should be accompanied by steps to limit the generosity of early retirement programs, which allow individuals to claim pensions, on average, by about 4 years earlier than the statutory age. It will also be important to tighten eligibility for disability pensions ".

10) Economic Incentives for Retirement

It's important to note that the question of economic incentives is crucial for any Social Security reform, since individuals when they are closer to their minimum age of retirement must decide if they are going to remain longer in the job market or if they are going to retire, and doing so they look at the income they are going to have if retired right now vis a vis the the income they are going to have if their retirement is postponed. This question also have very important implication in the labor markets, since for example, if the individual can retire relatively early he can have another job and this could, for example, decrease the job opportunities for the youngers works, as happens actually in France.

Another situation that may happen is the creation of incentives to not contribute to the Private Sector Employees, that may occur with the LOAS (Lei Orgânica de Assistência Social**),** that grants to poor people older than 65 years old and who doesn`t have any income, the payment of a minimum income equal to the Brazilian minimum age. This may lead to bad incentives, since the worker that regularly contributed to the Private Social Security System and retires at 65 years old is going to receive the same value than the person who receives the LOAS and haven`t contributed to the system. Individuals may think that is better not to contribute to the system in order to have a greater income during his labor life (since he doesn`t contribute to his retirement0 and then receive the LOAS, which may lead many worker to the informal labor market.

In addition to this, for a couple, the LOAS doesn't count as an income, but the retirement grant is considered an income. In other words a couple can receive a LOAS for both, but if another couples has a member that receives a regular retirement grant equal to the minimum age, the other member of the couple cannot receive the LOAS.

This question seem a lot like special unemployment insurance program that essentially provide early retirement benefits before the official social security early retirement age, since the individual gets unemployed when he are in his early fifties and gets unemployment insurance till the age of retirement, when he is going to receive his regular retirement grant .

Concerning the pensions, the Brazilian system also fosters bad incentives since the survivor receives full pension independently of its age, or if he (or she works) and if the couple had children or not. For instance, if a woman of 21 years old marries a man of 80 years old and he dies a few months after, the woman will receive the pension for the rest of her life. This system curbs incentives for the pensioner to work and be productive, since in our example, a woman of 21 years could work for many decades. It`s important to notice that survivor pensions represent 3.5% of the Brazilian GDP, which is a great amount comparatively to other economies.

Government Social Spending

Total Public Social Expenditures as a Percentage of GDP

	2000	2001	2002	2003	2004	2005	2006	2007
Australia	17.3	16.8	17.0	17.2	17.1	16.5	16.1	16.0
Austria	26.7	27.0	27.3	27.9	27.7	27.4	27.0	26.4
Belgium	25.4	25.8	26.2	26.3	26.5	26.5	26.4	26.3
Canada	16.5	17.0	17.1	17.2	17.1	17.0	16.9	16.9
Chile	13.2	13.4	13.4	12.8	11.7	11.2	10.5	10.6
Czech Republic	19.8	19.8	20.6	20.7	19.7	19.5	19.1	18.8

Denmark	25.7	26.1	26.6	27.9	27.7	27.2	26.6	26.1
Estonia	14.1	13.2	13.0	13.1	13.5	13.2	12.8	13.0
Finland	24.3	24.3	25.0	25.9	26.0	26.1	25.9	24.9
France	27.7	27.7	28.4	28.9	29.0	29.0	28.6	28.4
Germany	26.6	26.7	27.4	27.7	27.1	27.2	26.1	25.2
Greece	19.2	20.6	20.1	19.8	19.9	21.0	21.3	21.3
Hungary	20.4	20.3	21.5	22.5	21.8	22.8	23.1	23.1
Iceland	15.2	15.3	16.8	17.7	17.4	16.3	15.9	14.6
Ireland	13.3	14.3	15.2	15.6	16.0	15.8	15.8	16.3
Israel	17.1	18.5	18.8	18.3	17.1	16.5	15.9	15.5
Italy	23.3	23.5	24.0	24.4	24.7	25.0	25.1	24.9
Japan	16.5	17.4	17.8	18.1	18.2	18.6	18.4	18.7
Korea	4.8	5.2	5.1	5.4	6.0	6.4	7.3	7.5
Luxemburg	19.8	20.7	22.0	23.3	23.9	23.0	21.8	20.6
Mexico	5.3	6.0	6.3	6.7	6.6	6.8	7.0	7.2
Netherlands	19.8	19.7	20.5	21.2	21.1	20.7	20.3	20.1
New Zealand	19.1	18.4	18.5	18.0	17.7	18.1	19.0	18.4
Norway	21.3	22.2	23.7	24.6	23.3	21.7	20.4	20.8
Poland	20.7	22.2	22.5	22.5	21.7	21.3	21.0	20.0
Portugal	18.9	19.2	20.5	22.2	22.4	22.9	22.9	22.5
Slovak	17.9	17.6	17.7	17.0	16.5	16.3	16.0	15.7

Republic								
Slovenia	22.9	23.0	23.1	22.6	22.2	21.9	21.5	20.3
Spain	20.4	20.1	20.4	21.0	21.2	21.4	21.4	21.6
Sweden	28.4	28.7	29.4	30.1	29.5	29.1	28.4	27.3
Switzerland	17.8	18.3	19.1	20.2	20.2	20.2	19.2	18.5
Turkey	……..	……..	……..	…….	……..	9.9	10.0	10.5
United Kingdom	18.6	19.3	19.4	19.8	20.5	20.6	20.4	20.5
United States	14.5	15.3	15.9	16.0	15.9	15.8	16.0	16.2
OECD Total	18.9	19.2	19.7	20.1	19.9	19.8	19.5	19.3

Source: OECD (2010)

Gruber & Wise (2005) in their work about economic incentives to retirement and it`s fiscal macroeconomic implications for 12 OCDE countries, reached the following conclusions:

“Confirmed the strong causal effect of social security program retirement incentives on labor force participation and showed the large magnitude of these effects. The results left no doubt that social security incentives have a strong effect on retirement decisions. Across 12 countries the results consistently showed that program incentives accord strongly with retirement decisions. The magnitude of the estimated effects varies from country to country, but in all countries the effects were found to be large. And the estimates show that the effect is similar in countries with very different cultural histories, labor market institutions, and other social characteristics. While countries may different in many respects, the employees in all countries react similarly to social security retirement incentives. The simulated effects of illustrative reforms reported in the country papers made clear that changes in the provisions of social security programs would have very large effects on the labor force participation of older employees".

"On average across the 12 countries, we judge that a three-year increase in program eligibility ages would reduce government benefits payments minus tax revenues by 27 percent of current program cost. The average reduction is approximately 0.72 percent of country GDP. While the estimates vary by method of estimation—as reported in each of the country papers—we believe that these averages reflect the most likely long-run effect of the illustrative reforms".

Concluding, the question of economic incentives to retire or receive pensions is of crucial importance, since if people retire or receive very young, they are going to exit the labor market very early, which is bad in macroeconomic terms, since if these people worked more years, this would generate a greater economic growth of the country in terms of product and savings..

11) Reform Proposition for Brazil

It's important to notice that the systems for the Private Sector Employees and for the Public Service Employees are Pay As You Go (PAYG) systems. In Brazil, taking aside the case of the pension funds, that are not very well widespread in terms of its coverage, we don't have a system of Individual Accounts.

Then, the goal of our proposition is the improvement of the actual PAYG System for the Private Sector Employees. The cost of the transition from a PAYG program to individual accounts depends on whether the individual accounts redirect revenue from the existing PAYG program, the amount of revenue redirected, and how liabilities under the existing PAYG program are treated. Besides that, the transition costs are very high and new financing is needed to both fund the new program and to support the existing programs.

A social security reform for Brazil must be gradualist and take measures in cohorts, as following:

(i) In the first group are the actual retired people, for which the rules are not going to move.

(ii) In the second group are those who are already in the job market, but which are going to retire in the next five years. For those the rules of retirement should not change.

(iii) In the third group are those which are already in the job market, but cannot fulfill the retirement conditions for the next three years. For them must be a gradualist rule which is going to be more strict in according to more distant is the time span that the person is going to retire.

(iv) Finally, in the fourth and last group, are those which had not entered the labor market and who are going to be inserted in the more rough rules for retirement.

Another measure that should be taken is to index the age of retirement to the life expectancy of Brazil, which is moving toward the years. But this must in a very gradual way, so that its effects should be felt for people that are going to retire 30 years from now. A good and easier rule to implement this would to increase the age of retirement in one year for each decade, which would be a very good proxy to the increase of the life expectancy. Increasing the age of retirement in one year for each decade is better than the fator previdenciário (a table that equals the time of contribution to the age of the future pensioner), since is more transparent and affects the incentives to work for all labors, instead of the fator previdenciário that affects only the richer workers.

An important measure that also should be implemented is to eliminate the indexation of pensions according to the increase of the minimum age, in order to eliminate the pressure over the social security account that happens every time that the minimum wage increases, which is happening in real terms in the last fifteen years. A proposition that should be implemented is the correction of the pension to an index price instead to the minimum wage. Besides that, pensions should be not equal to the minimum age, but be a percentage of this value. Only when the retiree is really old, like seventy years old, the pension should be equal to the minimum age.

The more strict rules should be implemented to the new entrants in the job market after the sanction of the new law. This new system would entangle all the workers with the exception of the public system that would keep the same rules with the exception of the contribution to the pension fund for civil servants that would be mandatory for the new public servants after the implementation of that law, in case for them to receive beyond the minimum pension.
Summarizing, the rules would be:

The increase of the age of retirement for those who retire by age, that would be 67 years (instead of the actual 65 years old), together with the exigency of the minimum of 35 years of contribution for men and women, in case they get retired in this category.

Reduction of the difference in the ages for retirement for men and women, from the actual five years, so that in 2040 the two sexes would retire at the same age. In the case of the approval of the law in 2012, for each year of work, the women would have to work three months more in order to get retired and also in order to the retirement age of men and women to be the same in 2040, as well as 67 years old. This is not such a gradual rule, but it's necessary since the actual rule of early retirement of women, accompanied by the increase of their participation in the job market and their longer life expectancy, are factors that may jeopardize the finances of the Brazilian social security system in the next decades.

Increase of the contributory exigency for those who retire due to their time of contribution, that would be 35 years for the men and for the women, but for the women this would be reached only in 2042. For them, in case of the approval of the law in 2012, the women would have to work four months more for each year till the point that men and women would retire with the same age of contribution in 2042. For most of the women, the two rules cited above should be implemented together.

Finally, in addition to this, for all the workers, with the exception for those who are going to retire in the next years, the ages of retirement are going to increase by one year for each decade, starting in 2022, if the reform is approved in 2012. It's in line with what was done in Denmark and by actuarial terms, for each decade the population life expectative increases by one year.

Retirement Ages – Selected Countries

Country	**Men**	**Women**	**Equality between genres**
Germany	65	65	yes
Argentina	65	60	
Australia	65	60	
Austria	65	65	yes

Brazil	**65**	**60**	
Chile	65	60	
South Korea	65	65	yes
Costa Rica	62	60	
Denmark	67	67	yes
El Salvador	60	55	
Spain	65	65	yes
United States	67	67	yes
Finland	65	65	yes
Greece	65	60	
Netherlands	65	65	Yes
Hungary	62	62	yes
Iceland	67	67	yes
Italy	65	60	
Mexico	65	65	yes
Norway	67	67	yes
Peru	65	65	yes
Poland	65	60	
Portugal	65	65	yes
United Kingdom	65	65	Yes
Switzeland	65	65	yes

Source: Giambiagi &Tafner (2010)

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