

PENSION SUSTAINABILITY AND SOCIAL EXPENDITURE IN COLOMBIA:
from Chancellor Bismarck to General Uribe

(Abstract)

This essay analyses social, actuarial, and financial determinants of a defined-benefits system (PAYG). We argue in favor of a second generation of pension reforms aimed at reducing implicit subsidies, with particular references made to the post-1993 Colombian pension reform. Since the adoption of high payroll taxes has aggravated unemployment and informality, the system requires an increase in retiring ages and further reductions in replacement rates. Maintaining an implicit subsidy of about 118% in the typical pension will further erode the budget capacity for expanding social expenditure in other vital areas, where income distribution could be better improved.

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I. Introduction

During the 1990s, pension reforms developed at a rapid pace in Latin America, including Argentina, Bolivia, Colombia, Mexico, and Peru, among others, following the Chilean pioneering reform of the early 1980s. The 1993-pension reform in Colombia was in some regards unique in the sense that it established *competition* between the existing pay-as-you-go system (PAYG), which dates from the early 1960s, and the new Fully Funded System (FFS) that very much resemble the privately run Chilean system, based on the “Administradoras de Fondos de Pensiones” (AFPs), see Ayala (1995).

The fiscal cost of the transition is still high, in spite of the success of the reform in increasing the contribution rate from 6.5 % (on earnings) to 14.5 %, and effectively reducing the benefits by postponing the retirement age by two years. However, these changes on retirement ages (to 57 for females and 62 for males) will only be effective from 2014 onwards. It has been estimated that such cost will be increasing (on cash basis) from the current 3% of GDP annually up to 6% of GDP by year 2020 (Echeverry, et.al., 2001). These figures already take into account the positive effect of building pension reserves for the territorial entities, in light of the creation of the so-called FONPET, according to Law 546 of 1999.

To make viable the 1993 pension reform, economic policy makers face a twofold task in Colombia. First, fiscal provisions should be made to allow for a rapid increase of public savings at the general government level in order to avoid significant future imbalances. It has been estimated that the primary savings of the consolidated government need to be maintained at 3.5% of GDP in order to stabilize the ratio of Public Debt/GDP at the current 55%. Although part of the current public savings gap of about 2 percent of GDP could be closed by strengthening revenue administration (reducing VAT and income tax evasion from the current levels of 33-35 percent), there is a need for correcting from the source the fiscal imbalance left by the previous pension reform (see Clavijo, 2002).

Second, a new generation of pension reform needs to be adopted in order to address the fiscal burden that is in prospect as a result of (Comisión de Gasto, 1997; Clavijo, 1998a,b; Alarcon, 2002; Ayala, 2002):

- i) Concessions granted to special groups of public servants, including the public security forces, oil workers, and teachers; here the solution is to include these sectors in the general framework adopted under Law 100 of 1993, keeping exemptions to a minimum;
- ii) The delay in making effective the new retirement conditions, which should be phased-in immediately, instead of waiting another 20 year period;
- iii) The level and conditions under which public guarantees are provided, including the effect of switching frequently between the PAYG and the FFS; an effective way to proceed here is to lower the percentage of real wage being guaranteed, say from the current 100 percent to 75 percent, and to set a minimum of years of contribution under the PAYG system to have access to its replacement ratios, which currently operate as a floor in terms of pension benefits;
- iv) Retirement age conditions, which should be further increased by three years (up to 60/65, female/male), in line with the observed progress in life expectancy; and
- v) The high payroll taxes, which may hamper goals in terms of pension coverage and affect indirectly the fiscal burden; hence, earmarked taxes (different from pensions and health) need to be substituted for regular taxes, in the case of child-care (ICBF), and reduced, in the cases of labor training (SENA) and labor assistance (COFAMILIARES), in order to avoid damaging effects on employment and international competitiveness (Clavijo and Lozano, 2001).

One other option, which has been suggested, would be to accumulate pension reserves exogenously, for instance, by allocating some of the new oil windfall gains to the ISS. It is worth noting that the expected amount of unfunded pension liabilities stemming from the ISS alone (10% of GDP) represents about half of the net present value of the known oil exploitation and

that the accelerated exhaustion of oil reserves actually pose a threat for maintaining net exports of oil in 2010. Hence, the option of depending on ‘windfall oil gains’ to close the expected pension gap in the next three decades does not appear to be a prudent and solid fiscal solution to the pension problem.

By addressing these issues at the source, the financial balance of the consolidated government could be kept under relative control and the scope of the FFS could be enhanced with positive effects on growth, savings, and investment for the economy as a whole. The net asset position of the AFPs in Colombia by the end of 2001 was about 8% of GDP (US\$6.5 billion). Although the initial stage of the AFPs has been successful, there are great challenges ahead considering that in Chile the reserves of the AFPs have reached 40 percent of GDP after 15 years.

The Pastrana Administration submitted to Congress Proposal 206 in December 2001, in which many of these reforms are tackled, but unfortunately they aim more at increasing contributions than on reducing benefits. Furthermore, attempting to change the long-term rules of the game for the AFPs, as stated in such proposal, is in open contradiction with rules established back in the 1993-reform. This action would hurt foreign investment and hamper prospects for capital markets in Colombia. The mistake of postponing the reduction in benefits up to years 2014 and 2020 is reinstated and there is not yet an attempt dealing with the exempted regimes or the perverse effects of arrangements with labor unions (*convenciones colectivas*), which have been over-ruling pension laws. Apparently, a Constitutional amendment is required in order to break the current preeminence of *convenciones colectivas* over pension laws.

The Uribe Administration, elected for the period August 2002-2006, has the opportunity of improving such proposal and include changes that deal directly with the unbalances by means of reducing the excesses in benefits. This approach will not only avoid increasing unemployment and informality, but would also set-up a system that better matches benefits with contributions, reducing the high inequality that prevails in the Colombian PAYG system.

This essay analyses social, actuarial, and financial determinants of the defined-benefits system, with particular references made to the post-1993 Colombian pension reform. We argue in favor of a second generation of pension reforms aimed at reducing implicit subsidies. Since the adoption of high payroll taxes has aggravated unemployment and informality, the system requires an increase in retiring ages and further reductions in replacement rates. Maintaining an implicit subsidy of about 118% in the typical pension will further erode the budget capacity for expanding social expenditure in other vital areas, where income distribution could be better improved.

We will not address in detail the Law-Proposal made to Congress in December 2001, since Alarcón (2002) and Ayala (2002) have debated pros/cons of such proposal. We will concentrate instead on illustrating the magnitude of pensions subsidies, as expectancy of life at birth has increased in Colombia from 50 years in the early 1960s to 70 years in the early 2000s. Furthermore, expectancy of life measured at the age of 60 has increased up to 78 years, so the expected time for paying a pension is now as high as 18 years, while the beneficiary is alive, and 25 years, when including the effect of a survivor who inherits the pension for another 7 years. Given the low “fidelity in contributions”, which hovers around 20 years, the implicit subsidy is as high as 118% in a typical pension with a replacement rate of 65%, if the expected long-term return on pension funds is around 4.5% in real terms.

We conclude that maintaining such pension subsidies in the PAYG system is highly inequitable from a social point of view, as those resources could be used instead to improve nutrition, healthcare, education, and housing. In Colombia, less than 5% of the economically active population will be eligible for pension benefits in the future and yet pension expenditures will soon represent about 4% of GDP or about one third of all tax revenues. Additionally, pension benefits are concentrated in favor of the “elite of public unions” (Merchan, 2002). In contrast, with the same public expenditure, Colombia covers about 75% of basic educational needs and about 80% of health requirements, all of which require additional resources in order to attain universal coverage.

II. Pension Regimes and “Social Expenditure”

The German “Contagion”

It was the German Chancellor Otto Von Bismarck (1815-1898) who suggested in 1881 the idea of creating a public fund for helping those who, for permanent disability or longevity, could require permanent financial support. By 1884, Chancellor Bismarck had turned such idea into the creation of a complex insurance system by which contributions from employees, employer and the State would support a pensional system, based on pre-determined benefits. Sure enough, Germany was the first country in establishing a social security system that by 1889 already included a module of healthcare and severance payments. The unemployment insurance was established in 1927, completing the most ambitious State-benefit system of the Western society, up to that point. The German contagion did not take long and during the Great Contraction of the 1930s in the United States the idea of the Welfare State spread rapidly. President Roosevelt followed the “blue-print” set-up by Bismarck.

In Colombia, the social security system, managed by the ISS, was only launched in 1967, which also adopted the pay-as-you-go (PAYG) scheme. This defined-benefit system has suffered the same “demographic surprises” of the Western world, but experiencing a faster “demographic transition” (see Barr, 2000). Hence, life expectancy at birth has increased more rapidly than in the developed world. For instance, it has been estimated that in Colombia life expectancy at birth has increased from 50 years in the early 1960s to 70 years in the early 2000s. Although pension coverage has remained below world average, reaching only about 40% of the economically active population, the “leverage” (=Contributors/Pensioners) of the PAYG has been declining rapidly from 9 to 5 in the last two decades. At the same time, structural unemployment has increased from 10% to 14% bringing contribution to a historically low point of only 20% of the economically active population.

General Rafael Uribe

It has been said that the figure of the Colombian General Rafael Uribe inspired Garcia-Marquez in the creation of his character General Aureliano Buendia, in *One Hundred Years of Solitude*. It should be said as well that had he not been defeated during the battle of Nerlandia, in 1902, against the Conservative Party, General Uribe probably would have attempted to increase “social expenditure” faster than Chancellor Bismarck.

However, two differences would have prevailed: on the one hand, General Uribe was a liberal, while Bismarck was a right-wing imperialist; on the other, probably General Uribe would have been smarter in making sure that “social expenditure” reached a more ample spectrum of the needy. Interestingly, historical records show Bismarck as a dictator who ended-up accused of adopting socialist policies, although “social expenditure” was concentrated in those who could access a pension (probably less than 20% of the eligible by age). Similar accusations would hunt later President Roosevelt in United States.

If the aim were to spread well being, beginning by covering the most basic needs, probably General Uribe would have not concentrated public subsidies in a pension system that today has only the potential of benefiting 20% of the economically active population. Let us imagine that General Uribe wanted to combat poverty on a wide basis. Probably he would have set-up the following list of priorities for the needy:

1. Nutrition, in order to assure a minimum so that children could grow-up healthy;
2. Healthcare, in order to maintain mental and physical conditions during the labor period;
3. Housing, for obvious reasons to have a resting place;
4. Education, to be able to progress local and internationally; and
5. Pension, in order to assure a minimum of resources while aging.

In practical terms, it seems that the dreams and priorities of General Uribe are being systematically betrayed by Congresses of the developing world, as expenditure in pension subsidies will soon be at the top of the budget. For instance, in Colombia public education expenditure now represents 3,5% of GDP and benefits more than 6 million children (in a population of 42 million), while healthcare expenditure represents 4,5% of GDP and benefits almost 12 million. However, pension expenditures now represent 3% of GDP and benefit only one million people, usually from medium and high strata. Similar figures can be obtained for the rest of Latin America.

Where are the principles of equity and progressivity of the “social expenditure”? Furthermore, a recent study of the World Bank (2002) shows that the needy are really in bad condition: there are 10 million Colombians living in misery (about 23% of the population) and about 27 million live below the poverty line (about 64% of the population). What is then the rationale for allocating 40% of the so-called “social expenditure” in pensions, knowing that most of that money is devoted to the “elite of the public unions”? It would suffice just to reallocate about 20% of the current social expenditure to have a significant and positive impact on the well being of the poor, by means of reducing the mounting pressure of the pension expenditures.

Alternative Schemes and Social Priorities

The economic literature on pensions has identified more efficient schemes than the PAYG system in order to assure a minimum income during retirement. Let us mentioned briefly some of those (World Bank, 1994):

1. In the developing world the so called “extended family” plays a key role in assuring well-being while aging;
2. The possibility of selling assets to assure liquidity, including the house, property land or cattle; young generations will be content just knowing that they will not be inheriting regular debts, although they presume that higher taxes will be required to cover the unfunded pension liabilities;

3. There is always the possibility of organizing a fund for expending while retired, but it does not have to come as a result of public subsidies. This system is well organized world-wide, based on the Chilean experience, under different variations, and rests on the principle of “individual pension accounts”, where the beneficiary will received all the contributions, incremented in the market yield of a diversified portfolio.

III. Pension Sustainability

In this section we will concentrate on illustrating the magnitude of the pension subsidies and its sensitivity to changes in key demographic and actuarial parameters. In theory, any PAYG system can be calibrated ex-ante so as to avoid huge subsidies. In practice, Congresses are slow in recognizing imbalances brought about by changes in demographic parameters (e.g. increases in the live expectancy) or macro variables (e.g. slowdown in long-term growth that negatively affects the equilibrium of the PAYG). Furthermore, the Executive branch is even slower in confronting its constituencies to let them know that pension benefits need to be reduced in order to reestablish the viability of fiscal accounts. Time and the political economy of pension reforms clearly work against economic soundness in any PAYG system (see Galasso and Profeta, 2002 p.25).

We have develop an attractive simplification of pension dynamics that can be used to illustrate Congress people about how pension inequalities and financial disorders are generated within a PAGY system. We shall first make key comments on how the main variables should be constructed and then we will proceed to illustrate our basic equation for attaining equilibrium between the contributions and the payments under a defined-benefits arrangement.

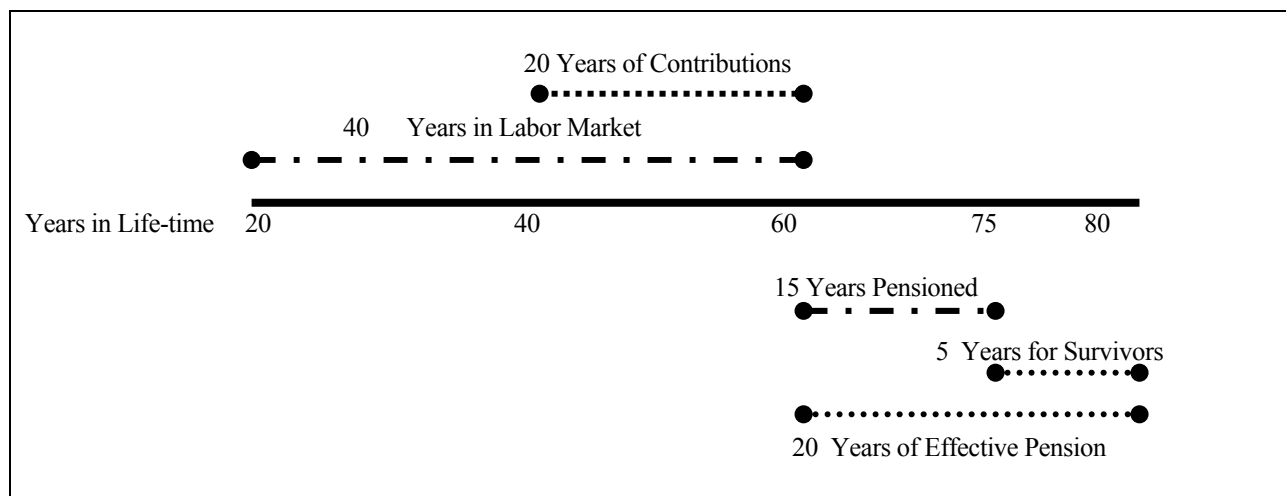
Actuarial Horizon and Life Expectancy

Let us imagine that the typical worker enters the labor market at the age of 20 and remains there for 40 years, until turning 60 years old. Under most legislations, at that age the worker would be eligible for a pension, as long as a minimum of, say, 20 years of contributions have taken place.

In most developing countries, however, the typical worker is not always hired and, most likely, while hired, he/she is not contributing to social security for the very fact that informal markets abound. Several studies show that the typical Colombian worker only contributes to social security about 50% of the time during his/hers labor life (Comisión de Gasto, 1997). It is then evident that under such circumstances PAYG systems will suffer from severe problems of low fidelity to the contribution scheme, making it unstable from a financial point of view.

In Colombia, total pension contributions amount to 13.5% of wages, where the employer pays 75% and the employee the other 25%. However, only 10% of the wage goes to the pension fund, while the remaining 3.5% are used to cover insurance, operational, and promotional expenses. Diagram 1 summarizes the situation of the typical worker, where we shall assume that contributions occur between the ages of 40 and 60, in order to simplify actuarial computations and to stress test the system. In reality, contributions take place between ages 20 and 60, in a disordered manner. The earlier the contributions, the higher the financial returns and the possibility of turning viable the PAYG system. We shall later allow for a higher number of years of contributions.

Diagram 1: Actuarial Horizon of the Typical Colombian Worker



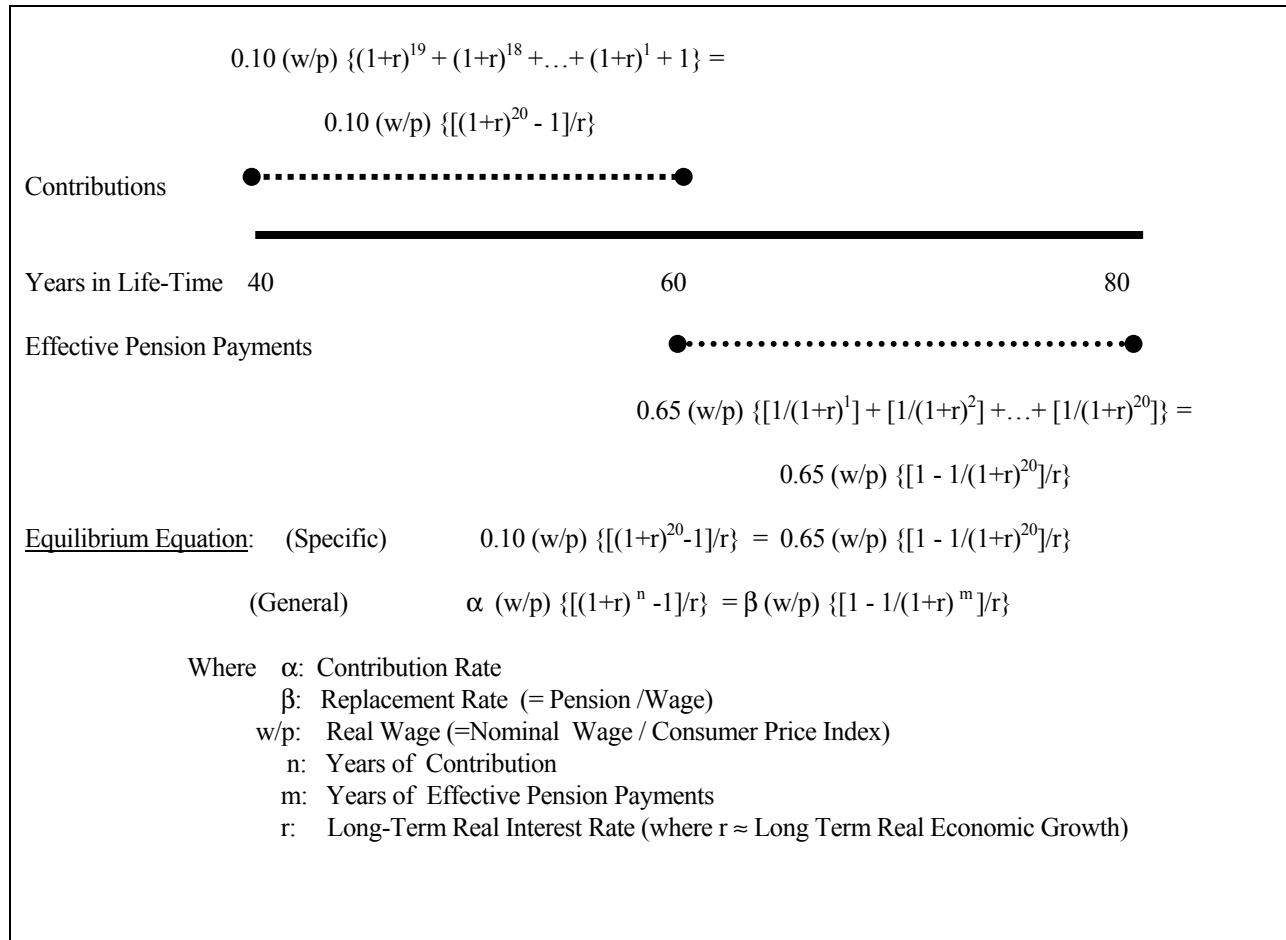
The lower part of diagram 1 depicts the benefits side of the equation. It has been estimated that life expectancy at the age of 60 in Colombia is 78 years for a male and 80 years for a female, over the period 2001-2005. This is the relevant information for building the flow of funds of a PAYG and not the life expectancy at birth, which is now close to 69 years for a male and 71 years for a female. This means that a pension is to be paid for about 25 years, 18 to the main beneficiary while alive and 7 to the survivor, who inherits the pension. Based on this demographic trend, there are proposals aiming at increasing the retirement age from 60 to 65 years in order to diminish the financial burden that represents the extension of pensions beyond 20 years. We shall assume, for the moment, that pensions are paid for the same number of years as contributions (20 years).

It is interesting to note that, for example, in the United States life expectancy at the age of 60 has been increasing significantly, from an additional 15 years in 1970 to 20 years in 2000. Early retirement without proper adjustments in replacement rates is also deteriorating the viability of the system (The Economist, 2002a,b). It is for these reasons that different commissions have recommended the increase of the retirement age from 63-65 up to 67-69 and/or the increase in contributions from 12.4% up to 20% in different stages. In fact, the PAYG system of the United States is already experiencing problems of elusion due to the increasing trend in contributions. Even some advocates of the current PAYG system are recommending direct budget funding, instead of higher contributions through payrolls due to its negative effect on employment generation (Palley, 2002).

Flow of Pension Funds

Diagram 2 shows the flow of pension funds for the typical worker in Colombia who contributes for 20 years, during the ages 40 to 60, an amount equivalent to 10% of the real wage; meaning, $0.10 \cdot (W/P)$, where W stands for Nominal Wage and P for the CPI deflator. We shall assume that the real wage is constant. We will leave aside the remaining 3.5% of contributions devoted to pay for insurance and operational costs.

Diagram 2: Flow of Pension Funds for the Typical Colombian Worker



We shall bring all contributions as a worker and all payments to the beneficiaries to the same point, say, at the age of 60, in order to make them comparable. If these flows are computed/discounted at the long-term market interest rate (“r”), we shall conclude that there exists public subsidies in the PAYG system as long as cumulative payments > cumulative contributions. Knowing that public pension assets usually receive the same return as public bonds, we will assume that the long-term interest rate (“r”) relevant for this exercise is determined by the long-term rate of growth of the economy (g). In fact, it can be proven that the viability of the public debt requires that $r \approx g$ (see Meijdam, et.al. 1996; Posada and Arango, 2001; Clavijo, 2002).

Note, first, that when the worker turns 60, his first contribution is worth $0.10*(w/p)*(1+r)^{19}$ and his last is $0.10*(w/p)$. Secondly, observe that pension payments are determined by the replacement rate, which we will assume to be 65% of the real wage; meaning, $0.65*(W/P)$. We shall assume initially that the pension is paid for 20 years, where the original beneficiary lives for 15 years and the survivor for another 5 years. This exercise could be altered to resemble the case of a unique payment in the form of an annuity by simply applying a “hair cut” to the replacement rate equivalent to the returns obtained during the years 61-80. Note also that, at age 60, the first pension payment is worth $0.65*(W/P)*[1/(1+r)^1]$, while the last payment to the survivor is equivalent to $0.65*(W/P)*[1/(1+r)^{20}]$.

By analyzing the particular flow of funds of a beneficiary it becomes clear how subsidies come about. For years, PAYG systems have managed to obscure their accounts by blending flows among generations. However, it is obvious that if there is a pre-defined benefit arrangement that runs into deficits, equilibrium can only be reinstated by means of increasing contributions or reducing benefits, but unfortunately only affecting incoming generations. Only altruism, political power of the old generations, or myopic time horizon analysis would give support to maintain such imbalances (Galasso and Profeta, 2002).

Pension Viability and Fiscal Deficits

The crucial question is: How is it possible to finance payments of 65% of the real wage over 20 years, based on contributions during 20 years of just 10% of the real wage? The equation to be analyzed is as simple as: $0.10*(W/P)*A = 0.65*(W/P)*B$, where the solution requires that $A > B$. In diagram 2 we show that $A = \{[(1+r)^{20}-1]/r\}$, while $B = \{[1 - 1/(1+r)^{20}]/r\}$, so the solution requires finding simultaneously an "r" that sets $A > B$.

In this particular case we found that $r = 9.8\%$ would equal cumulative contributions with cumulative

payments, avoiding fiscal subsidies. However, the problem is that in Colombia long-term real growth could hardly surpass 4,5%, so the central government is unable to guarantee the required return for maintaining the equilibrium of the system under such parameters of contributions and replacement rates. If these parameters are not altered, the fiscal deficit will increase substantially as subsidies represent an equivalent of 118% ($= 0.098/0.045 - 1$) for the typical pension granted under such conditions.

In the lower part of diagram 2 we illustrate the general case, where long-term pension equilibrium hinges on four key parameters: on the income side, depends on the rate of contribution (α) and the years of contributions (n); and, on the payment side, depends on the replacement rate ($\beta = \text{Pension/Wage}$) and the years of payments (m).

IV. Sensibility of the PAYG System to Key Parameters

Table 1 illustrates the sensibility of the pension equilibrium to the replacement rate, under different levels of contributions. The idea is to find the real interest rate that would level-off cumulative contributions with cumulative payments, fixing the time horizon in 20 years for both (that is $n = m = 20$). Note that for contributions of 10% ($\alpha = 0.10$) and replacement rates of 65% ($\beta = 0.65$), equilibrium requires that $r = 9.8\%$.

Table 2 presents the same results but in terms of subsidies, computed against a long-term interest rate of 4,5%, as explained before. Note that the higher replacement rates are, the higher the subsidies: for $\beta = 0.75$, the subsidy equals 136%. At the current level of contribution ($\alpha = 0.10$), a 10-percentage point reduction will induce a correction in the subsidy of about 20 percentage points.

Note that maintaining the term of contributions and payments fixed at 20 years makes it hard to find an equilibrium rate: even replacement rates as low as 45% and contributions as high as 16% show a required real yield of 5.3% (see table 1), still representing a subsidy of 17.9% (see table 2).

Table 1

Real Interest Rate Required to Obtain Equilibrium in the PAYG System

(In Percentage)

Contribution Rates %	Assuming: Contributions and Payments during 20 Years with Pensions set at ...			
	Replacement Rates (%) (= Pension / Wages)			
	45	55	65	75
10	7.8	8.9	9.8	10.6
12	6.8	7.9	8.8	9.6
14	6.0	7.1	8.0	8.7
16	5.3	6.4	7.3	8.0
Contribution Rates %	Assuming: Replacement Rate of 65% during 20 years; Contributions during ...			
	Years of Contribution (%)			
	20	25	30	35
10	9.8	7.4	5.8	4.6
12	8.8	6.6	5.1	4.0
14	8.0	5.9	4.5	3.5
16	7.3	5.3	3.9	3.0
Contribution Rates %	Assuming: Contributions during 20 Years with Replacement Rates of 65% during ...			
	Years of Pension Payments (%)			
	10	15	20	25
10	7.7	9.1	9.8	10.2
12	6.5	8.1	8.8	9.2
14	5.5	7.2	8.0	8.4
16	4.7	6.4	7.3	7.7

Source: Our computations based on diagram 2.

Table 2

Implicit Subsidy in the PAYG System

(In Percentage)

Contribution Rates %	Assuming: Contributions and Payments during 20 Years with Pensions set at ...			
	Replacement Rates (%) (= Pension / Wages)			
	45	55	65	75
10	73.7	97.6	117.9	135.9
12	51.7	75.9	95.6	113.2
14	33.6	57.1	77.5	94.3
16	17.8	41.5	61.4	78.6
Contribution Rates %	Assuming: Replacement Rate of 65% during 20 years; Contributions during ...			
	Years of Contribution (%)			
	20	25	30	35
10	117.9	64.0	28.2	2.7
12	95.6	45.6	12.3	-11.3
14	77.5	30.5	-0.7	-22.9
16	61.4	17.1	-12.4	-33.3
Contribution Rates %	Assuming: Contributions during 20 Years with Replacement Rates of 65% during ...			
	Years of Pension Payments (%)			
	10	15	20	25
10	70.8	103.0	117.9	125.6
12	44.6	79.2	95.6	104.3
14	23.0	59.8	77.5	87.0
16	3.6	42.4	61.4	71.8

Source: Our computations based on diagram 2.

In the second panel of Table 1 we also show the sensitivity of the PAYG system to changes in the years of contributions. Note that just by increasing contributions from 20 to 30 years the equilibrium real interest rate would be reduced from 9.8% to 5.8%. This change would imply reducing the implicit subsidy from 118% to 28% (see second panel in Table 2). With contributions at 10%, but for 35 years, the real interest rate would match the long-term rate of economic growth and the subsidy would be nil. The problem is that current high payroll taxes on the firm, close to 40%, work against promoting higher fidelity to the pension system. Unless such taxes are drastically reduced, it will be hard for the PAYG system to regain equilibrium and, definitely, the solution is not to increase contributions on behalf of the firm and, probably, neither on behalf of the worker, but instead reduce benefits.

Finally, we show the sensitivity to the number of years in which the pension is paid (see third panels in tables 1 and 2). If demographic factors continue to pressure the number of years of effective payments up to 25, the typical subsidy in a pension would increase from 118% to 125%. There is clearly an urgent need to increase the retirement age from the current 60 years up to 65 years. The best way to proceed here is to replicate the good experience of Spain, where the so-called “Pacto de Toledo” instituted a gradual increase immediately that would put in place the desired target in, say, five years. Unfortunately, the worst practice is the one being pursued today in Colombia, since the proposal is to postpone the adjustment in benefits.

It is worth to highlight the fact that all these exercises underestimate the amount of real life subsidies since replacement rates hardly compute on the real wage earned through active life-time. For instance, the 1993-reform made great efforts on improving pension viability by adopting the real wage average of the last decade, instead of that of the last two years, as the benchmark for computing the replacement rate. However, most exempted regimes (including Congress, military, oil workers, and teachers) are allowed to use the real wage of the last two years. Under this circumstances the implicit subsidy easily surpasses 200%.

There are funny arrangements as well, aimed at defeating the financial viability of the PAYG system, especially in developing countries. In Colombia, for instance, the so-called “carrousel of pensions” has been established, where the postulated Congressperson includes in second and third places of his electoral-ticket people who intent to increase significantly his/her pension. The idea is that in the last year of the government the “substitute” takes the place of the elected congressperson. This substitute usually has served, say, 18 years in different public places. Hence, by adding just two years as Congressperson, out of the four that last the congress term, they will complete the required 20 years of contributions. Now this substitute will be entitle to all the special pension benefits granted to Congress-people: the replacement rate will not only be higher (75%) but will be referred to the real wage of the last two years, which happens to triple the average wage of a life-time civil servant. As a return for a juicy lifetime pension, which easily represents a subsidy of 300-400%, the substitute promoted and financed part of the electoral ticket of the Congressperson. This dirty electoral scheme not only promotes mediocre people to congress but also induces severe “moral hazard problems” in legislation dealing with pension benefits.

It is also crucial to gain the cooperation of the judicial system to combat elusion to the rules and to battle corruption regarding allocation of pensions. The recent experiences in Foncolpuertos and public financial entities (Lozano, 2001; Rodriguez, 2001; Lopez, 2001) should help to find ways to effectively avoid extra-costs to a PAYG system that is already running big deficits for legal arrangements that produce financial imbalances.

V. Conclusions and Policy Recommendations

Policy lessons can be summarized as follows:

1. It is required to abolish selective periods of contributions as the base for computing the replacement rate, making mandatory that the reference be made to all the real wage history in which contributions were based.
2. Replacement rates need to be reduced immediately to levels that turn viable the PAYG

system, probably in the range 45-55%, instead of the current 65-85%. Note however, that this correction would not be sufficient as long as the State guarantees that the minimum pension replacement rate is maintained at 100% of the minimum wage. In Colombia, the minimum wage has been stable around US\$100-120 per-month, while in the region the average hovers around US\$50-60. In consequence, the State guarantee for a minimum pension should be set at, say, 75% of the minimum wage, as adopted in Chile. However, this would require a Constitutional Reform.

3. Further increases on payroll taxes should be avoided, particularly on behalf of the firm, since they work against increasing the number of years of contribution. Controlling informality in labor arrangements would also work in favor of increasing the number of years of contribution up to 30 years, under which the system would be more viable.
4. Taking into account the increase in life expectancy, which now runs as high as an additional 18 years after the age of 60, the retirement age should be increased to 65 years, gradually. The best practice here is to replicate the experience of Spain, where the so-called “Pacto de Toledo” instituted an immediate gradual increase on the retirement age that would put in place the desired target in, say, five years.

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