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 ${f 0}$ ou ${f 0,0}$ figure smaller than half the value of the last digit to the right.

* preliminary data.

An hyphen (-) between years (1970-1975) indicates the total of years, including the first and the last. A slash (/) between years indicates the yearly average of such years, including the first and the last, or harvest-year or agreement-year, according to the text.

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Foreword

The institutionalization of the Banco Central do Brasil Technical Notes, conducted by the Department of Economics, promotes the dissemination of works featuring economic content, attracting both theoretical and methodological interest, giving a view of the short-term developments of the economy and reflecting the work of the Bank's employees in all areas of action. Besides, other works, though external to the Banco Central, may be included in this series provided the Bank has afforded institutional support to their preparation.

Comments on Social Security Reform

JOEL BOGDANSKI

Abstract: In general, the subject of social security can be divided into two parts, one referring to private sector employees and the other to civil service workers. Both groups are facing serious financing difficulties, which have given rise to a good deal of discussion on the need for additional reforms. Constitutional Amendment no. 20, dated December 15, 1998, corrected a series of distortions imbedded in the two systems. However, the progress achieved at the time was significantly less than originally sought by the government and, consequently, far from what could be termed a definitive solution.

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Comments on Social Security Reform

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1. Introduction

In general, the subject of social security can be divided into two parts, one referring to private sector employees and the other to civil service workers. Both groups are facing serious financing difficulties, which have given rise to a good deal of discussion on the need for additional reforms. Constitutional Amendment no. 20, dated December 15, 1998, corrected a series of distortions imbedded in the two systems. However, the progress achieved at the time was significantly less than originally sought by the government and, consequently, far from what could be termed a definitive solution¹.

We will begin this study with a glance at the private sector social security system, known as the General Social Security System (RGPS). This system is compulsory and broad in scope and is managed by the Federal Government. It is important to note that the system has not always followed this model. Between 1923, when the first retirement and pension funds were created; and 1960, when the Basic Social Security, Law (Lops) was promulgated, social security coverage was a private matter, voluntary in nature and restricted to just a few professional categories. The LOPS standardized the contributions and benefit plans of the various institutes that existed at the time, while also extending coverage to employers and the self-employed. From that time forward, both of these groups were obligated to participate in the system. Between 1960 and 1976, social security coverage was further broadened to include all persons exercising gainful activity. In all of these initial stages of development, the system was supported by employer and employee contributions, though with practically no regard whatsoever for actuarial equilibrium.

The 1988 Constitution further aggravated the imbalances of the social security system, by defining a series of basic principles that could be summarized as follows: universalization of the rights of the citizenry; equivalence between urban and rural social security benefits; prohibition of any possibility of reducing the benefits provided; equal distribution of costs; and diversification of the financing base (to include profits and revenues). In short, the Constitution multiplied the obligations of the system without ensuring adequate sources of financing. In other words, it confused social security with social assistance, defining the former as "a collective social contract

^{1/} The content of this Technical Note reflects the opinion of the author, based on his reading of a series of texts and analyses of a restricted statistical series.

inherent to the rights of citizenship, in which benefits would be granted according to needs and costs would be distributed according to the payment capacity of each participant". (Oliveira et alii (1997)²)

In the following years, the necessary enabling legislation was approved and the innovations adopted by the new Constitution were progressively implemented. As a result, expenditures on benefits paid doubled from 2.5% to 5% of GDP between 1988 and 1993. The financial imbalance in the system became so evident that, in 1991, the federal government attempted – unsuccessfully – to provoke a discussion of a proposal aimed at reorganizing the system. The downward trajectory of the social security balance (defined as the difference between net inflow and outlays on benefit payments) continued and, in 1995, slipped into the deficit position in which it is still mired today.

Since inflation has been moderate since 1995, the fiscal problems caused by the social security deficit became considerably more patent and discussions of a possible social security reform finally got underway. Though the government's proposal was radically altered by the Congress, Constitutional Amendment no. 20, promulgated in December 1998, represents an important step forward in relation to the previous situation. The highlights of this Amendment are as follows.

2. Retirement based on time of contribution

Prior to the Amendment, private sector workers were permitted to retire after 35 years of labor (30 for women) with full retirement benefits³ or 5 years earlier with proportional retirement benefits, with no reference whatsoever to age limits. With this system, the number of retirees of less than 55 years of age spiraled (in 1998, 65% of the men and 72% of the women were in this situation). In general, these retirees receive higher retirement pay and their life expectancy is greater than the grouping of other participants. Consequently, the forecast duration of the benefit – including pensions paid to the surviving spouse or dependent children – is approximately 30 years and tends to increase over time.

The Amendment eliminated proportional retirement and altered full retirement benefits, making it possible to retire only after 35/30 years of effective contributions. Attempts to approve a minimum retirement age were defeated.

^{2/} Oliveira, F., Beltrão, K. and Ferreira (1997), Reforma da Previdência (Social Security Reform), Discussion Text no. 508, IPEA.

^{3/} In the RGPS framework, full retirement benefits does not mean full pay quivalent to that received by the workers prior to retirement, but rather that, upon retirement, the value of the benefit would be 100% of the median contribution wage, further limited to a ceiling of approximately 10 times the value of the minimum monthly wage. See item 3 below.

3. Special retirement

The previous system permitted special retirement for certain professional categories, including teachers, pilots and several others: full retirement after 30/25 years of labor for men/women and proportional retirement at 25/20 years.

The Constitutional Amendment abolished special proportional retirements and maintained the right to full special retirement exclusively for teachers at the preschool, primary and secondary levels though, even in this case, retirees must have reached the minimum ages of 60/55 for men/women. This is a permanent rule valid for all those who enter the labor market subsequent to promulgation of the Amendment. A transition rule was adopted for those already active in the labor market: minimum age of 53/48 is required, plus 20% (40%) of the time lacking in December 1998 to complete the period required for full (proportional) retirement.

4. Rule governing calculation of the value of benefits

Prior to the Amendment, the value of retirement benefits was calculated on the basis of the last 36 months of contribution, a system that opened the doors to a series of distortions. For example, the self-employed could contribute the minimum amount during practically their entire professional lives, before shifting to the maximum amount in the final three years and, in this way, become entitled to the maximum benefit. On the other hand, in the case of workers with low or median levels of schooling whose earnings tend to decline toward the end of their working lives, the value of the benefit tended to be less than the median value of their contributions.

The Amendment removed the system used in calculating the value of retirement payments from the nation's Constitution, making it possible to define the system in ordinary legislation. Law no. 9,876, dated November 26, 1999, defined the new rule as follows: $S = M \cdot F$, in which S is the value of retirement pay, M is the simple arithmetic average of 80% of the largest contribution wages encountered as of July 1994 and F is the social security factor which, in turn, is calculated as follows:

$$F = \frac{T \cdot a}{E} \cdot \left(1 + \frac{I + T \cdot a}{100}\right),$$

in which T is the period of contribution, a is the contribution rate, E is forecast life expectancy at the time of retirement and I is the age of the insured party on the date of retirement. This rule is to go fully into effect in December 2004, five years after publication. In the period prior to that date, there will be a transition factor for each month which will converge from 1.0 to the social security factor F at the monthly rate of 1/60.

The new calculation rule plus introduction of the social security factor should aid in balancing the RGPS financially over the long-term as the system is called upon to effect payments to new retirees. The formula is fairer since it is based on a more

representative sampling of median contributions, automatically takes account of demographic changes (the factor considers the average time during which the retiree will receive benefits by inputting life expectancy) and encourages postponement of retirement (the factor increases as age and time of effective contribution increase). However, today's deficit still remains for the simple reason that the vested rights of those who retired prior to approval of the Amendment have not been altered.

Consequently, several problems that tend to worsen the imbalances existent in the RGPS must still be dealt with. The ratio between contributors and beneficiaries has been declining rapidly since the very generous rights granted by the 1988 Constitution went into effect, with a reduction from 2.4 in 1991 to 1.7 in 1997. This proportion is identical to that found in countries with much larger population groups in the more elderly age brackets. The deficit that this generates in the system of simple sharing tends to result in solutions based solely on increased contribution rates. However, at the same time rate increases encourage growth of the informal labor market. By way of example, it should be noted that the participation of duly registered workers in the overall labor force has declined drastically from 59% in 1989 to 45% in 1999. Aside from this, new production technologies tend to reduce labor needs and, consequently, further limit the possibilities of achieving growth in contributions. The gravity of the question of minimum age was somewhat attenuated by the social security factor, but must still be definitively resolved.

Oliveira et alii (1997)⁴ point to four important managerial factors. In the first place, the level of contribution evasion. Even in the formal labor market, the lack of an effective control system results in immense losses of revenues. The effective volume of payroll-based revenues channeled to the system corresponded to only 75% of the potential inflow, calculated on the basis of the total number of payment documents (Rais) in the 1990s. It should be emphasized that nonpayment is actually encouraged by frequent debt amnesties and renegotiations and by the possibility of reaching negotiated debt settlements involving payroll taxes and social security contributions through the labor court system.

Secondly, according to preliminary estimates, retirement fraud could be as high as 30% of total benefits. In 1997, almost half of urban retirements were based on the incapacitation of the retiree, while there are signs that more than half of total rural retirements may be irregular. Using only rudimentary detection techniques, an audit of the period from October 1992 to May 1994 resulted in cancellation or suspension of 1.1 million benefits.

In the third place, administrative costs are inordinately high. Personnel and current expenditures absorb between 6% and 10% of total benefit payments. Oliveira et alii (1997)⁵ note that "this is a surprising figure for an "insurer" that does not even

^{4/} See footnote no. 2.

^{5/} See footnote no. 2.

have a reference file of its clientele". The fourth factor is the loss of funds through what can be described as chaotic management of social security assets, corruption and funds that are siphoned off from the system, all of which are very difficult to assess in terms of value.

Going on now to the civil service social security system, we come up against a much more worrisome fiscal imbalance. Since reliable data at the state and municipal levels are lacking, we will limit our discussion to the federal civil service. Prior to the 1988 Constitution, the public administration was composed of two types of civil servants: those governed by specific civil service legislation and those covered by general labor legislation. The first group was entitled to receive retirement pay that could conceivably be greater than the wages paid prior to retirement, though they were obligated to contribute only 6% of their earnings to cover the pension to be paid upon the death of the civil servant. The other group was governed by Consolidated Labor Legislation (CLT) and contributed and retired according to the RGPS system.

The 1988 Constitution instituted what is known as the Single Juridical System, incorporating the vast majority of government workers covered by ordinary labor legislation into the group entitled to the rights set aside in specific civil service legislation. At the federal level, civil servants only began contributing more meaningfully to their retirement funds as of November 1993, at rates that varied between 9% and 12% of wages. In July 1997, the rate was set at a uniform level of 11%. The rapid spiral in the number of retirees compared to the overall government labor force was reflected in a dismaying increase in federal civil service financing requirements.

A description of the main alterations introduced by Amendment no. 20 helps one to understand the gravity of the difficulties faced by the civil service social security system.

a) Financial and actuarial equilibrium

The 1988 Constitution was moot on the question of civil service contributions to the social security system. Amendment no. 20 specified that the cost of the system should be covered by contributions by all civil servants, including those still working, retirees and pensioners, and that the system used in calculating these benefits should preserve the financial and actuarial equilibrium of the system.

Law no. 9,783, dated January 1999, increased the contribution of still active civil servants by creating three rate categories: for wages of up to R\$1,200, the rate would remain at 11%; for those between R\$1,200 and R\$2,500, the rate would increase to 20%; and wages of more than R\$2,500 would be subject to a rate of 25%. The same law extended the contribution to retirees, at the same rates applied to active employees. Exemptions were granted to all those receiving benefits of less than R\$600 and to incapacitated beneficiaries and those of more than 70 years of age receiving less than R\$3,000. However, in October 2000, the Federal Supreme Court issued a decision stating

that both the contribution to be paid by retirees and the new contribution rates levied on still active civil servants were unconstitutional. At the moment, active employees continue contributing at a rate of 11% and retirees at a zero rate and Constitutional Amendment Proposal no. 135/00 which reformulates the system of contributions to be made by retirees has come up against enormous resistance in the Congress.

b) Restrictions on participation

The previous system encompassed all public sector employees. The Amendment restricted participation to those persons occupying civil service positions who entered the public sector through competitive civil service examinations. The RGPS is applied to those who exclusively occupy positions to which persons can be designated without the need for civil service examinations or other temporary positions or public jobs.

c) Age limit

In the previous situation, retirement with full pay was granted at 35/30 years of labor for men/women, with no age limit, while retirement five years earlier was permitted with proportional retirement benefits. The Amendment abolished the system of proportional retirement, switched from the time of service concept to the demand for a minimum period of contribution and set a minimum age limit of 53/48 for men/women, with addition of 20%/40% for the time of contribution needed to complete the period for full/proportional retirement.

d) Special retirement for teachers

Before passage of the Amendment, teachers had the advantage of being able to retire with five years less working time than other civil servants, with no age limit. The Amendment abolished the system of proportional retirement and shifted university professors to the same rules covering civil servants. In the case of teachers at the preschool, primary and secondary levels, the five year advantage was preserved, but a minimum age requirement was adopted. In other words, members of this professional category are now permitted to retire at 55/50 years of age and 30/25 years of contribution for men/women. This is the permanent rule. The transition rule is the same as that applied to other civil servants, but with the addition of 17%/20% for men/women in the calculation of the effective teaching career period up to December 1998.

e) Minimum period of labor

Before passage of the Amendment, there was no requirement regarding the minimum period in which a person had to be employed. Thus, a worker who had contributed to the RGPS during his/her working life could receive retirement pay in an amount greater than that specified by the general system. It was enough for that person to be approved in the civil service exams. The Amendment specified a minimum period of 10 years in the civil service and 5 years in the position in which that person retires.

Aside from this, the Amendment prohibited the practice of counting the so-called periods of fictitious contributions or, in other words, it was no longer possible to approve inclusion of unused vacation time and leaves awarded to civil servants at specific intervals at double their value for purposes of reaching the required period of employment.

f) Prohibition of retirement benefits in amounts greater than wages

In the period prior to the Amendment, there was a built-in incentive to retirement, since civil servants were able to incorporate an additional amount equivalent to as much as 20% of wages into the calculation of retirement benefits. The Amendment limited the benefit to the value of the final month's wages. On the other hand, the constitutional text preserved the rule that granted retirees and pensioners the same wage increases granted to still active employees on the same dates, at the same time in which any additional advantages granted to active duty civil servants were automatically incorporated into retirement benefits.

g) Accumulation of retirement pay and wages

The previously permitted possibility of accumulating more than one retirement benefit or simultaneously receiving retirement benefits and wages was partially eliminated. The Amendment restricted preexistent accumulations of retirement benefits and wages to a ceiling equivalent to the salaries of Federal Supreme Court judges. At the same time, effective as of the date of promulgation, the Amendment prohibited new accumulations of more than one retirement benefit, as well as accumulation of retirement benefits and wages earned in the exercise of a civil service position.

h) Private retirement funds

For those newly admitted to the civil service and all other workers, the Amendment made it possible to define a benefit ceiling equivalent to that specified by the RGPS. To to do this, the government must first institute a system of complementary social security based on predefined contributions. This is the measure most closely aligned with the original spirit of the initially proposed social security reform⁶. Though this mechanism has not yet been adopted – Bill no. 9/1999 has been moving through Congress at a snail's pace – these funds could satisfactorily resolve the problem of actuarial equilibrium for new civil service employees. However, it will be very difficult to convince civil servants already included in the former system to accept the changes, since the current model of defined benefits at the rate of 11% is much more advantageous for them.

^{6/} The idea was to define a unified three component system for all workers. The first component would be obligatory and would ensure basic protection upon retirement in amounts of up to three times the minimum monthly wage. This component would be based on a system of simple sharing and would be managed by the government. The second would also be obligatory and would provide retirement benefits of up to nine times the minimum monthly wage. This component would be based on individual accounts with predefined contributions and would be managed by the private sector. The third would operate in the same way as the second component but would be a voluntary system designed to provide additional coverage to higher income workers.

i) Asset funds

There was no previous legislation dealing with this question. The Constitutional Amendment allowed the government to create funds composed of contributions, properties, rights and assets of any type whatsoever in order to financing the civil service social security system. The funds in question were regulated by Law no. 9,717, dated 1998, which subjected their investments and financial statements to the same guidelines determined in CMN Resolution no. 2,652/1999 – essentially the same as applied to private closed pension funds. The resources of these funds are held in accounts separate from those of the respective Treasury (Federal, State or Municipal). Several states created this type of fund in an attempt to resolve the question of their social security liabilities. For the most part, the resources channeled into these funds originated in privatizations and concessions of public utility services.

As far as members of the military are concerned, their retirement and pension benefits are regulated by Law no. 3,765/1960, and later alterations. Since issue of Provisional Measure no. 2,131/2000, members of the military have been contributing 7.5% of their overall wages both on active duty and after moving to the reserve forces. The contribution is halted only as a result of death and is transformed into a pension for the remaining beneficiaries.

Until issue of the aforementioned Provisional Measure, the universe of potential beneficiaries was enormous and, for example, included unmarried daughters of more than 21 years of age, with the possibility of even receiving as many as two pension payments. Among other alterations, the Provisional Measure in question eliminated these privileges for those joining the Armed Forces, but permitted the then current members of the military to maintain the original list of beneficiaries provided that they agree to increase their contribution rate to 9%. Not only do military retirees and pensioners on the federal payroll represent a volume of resources larger than the payroll of those on active duty, the volume of resources channeled to them is increasing more rapidly.

As is evident at this point, significant recent progress has been made in the direction of social security reform, but there is still a great deal to be done. The following table shows the imbalances of the social security system in 2000 and 2001, at current prices. In 2000, the RGPS registered a primary social security deficit of 1% of GDP. This figure would have been considerably higher had it not been for the contribution made by employers, who are obligated to pay 20% of payroll and are not entitled to the ceiling to which the contributions of employees and the self-employed are subject. At the same time, the civil service system closed with a deficit of approximately 4% of GDP, with the federal government accounting for approximately half. By way of illustration, the two columns in the middle recalculate the results for 2000 based on the hypothesis of the public sector employer contributing twice the rate levied on civil servants to the social security system. In this case, the primary deficit would be close to 3% of GDP, which is sufficient to provide an idea of the tremendous pressure that the problem of stock exerts on public sector accounts.

According to data not yet published by the Ministry of Social Security and Assistance (MPAS), the primary RGPS deficit in 2001 will be even larger than in the preceding year. The result for the civil service system remained practically stable, with a slight rise under the federal deficit.

The lack of distributive equality is evident in the table below. In 2000, the RGPS encompassed a universe of beneficiaries that was proportionately larger, paying median monthly benefits equivalent to R\$258.55. At the same time, the civil service system paid a median benefit of R\$1,499.46 (R\$2,018.85 at the federal level).

REVENUE, EXPENDITURE AND DEFICIT - GENERAL SOCIAL SECURITY SYSTEM AND PUBLIC EMPLOYEES SOCIAL SECURITY IN R\$ BILLION AND AS A PROPORTION OF GDP - 2000 AND 2001

-	2000		2000		2001**	
-	% GDP WITH NO STATE CONTRIBUTIONS		% GDP WITH STATE CONTRIBUTIONS 2:1		% GDP	
=						
GENERAL SYSTEM	(10,10)	(0,90)	(10,10)	(0,90)	(12,80)	(1,10)
Contributions Net Inflow	55,70	5,10	55,70	5,10	62,50	5,30
Social Security Benefits	65,80	6,00	65,80	6,00	75,30	6,30
PUBLIC EMPLOYEES SOCIAL SECURITY	(45,20)	(4,10)	(31,40)	(2,90)	(48,60)	(4,10)
Contributions	6,90	0,60	20,60	1,90	7,80	0,70
Expenditures with Retired Workers and Pensioners	52,00	4,80	52,00	4,80	56,40	4,70
FEDERAL GOVERNMENT	(22,20)	(2,00)	(16,80)	(1,50)	(24,40)	(2,10)
Contributions	2,70	0,30	8,20	0,80	3,70	0,30
Expenditures with Retired Workers and Pensioners	25,00	2,30	25,00	2,30	28,10	2,40
STATES	(20,10)	(1,80)	(12,80)	(1,20)	(21,00)	(1,80)
Contributions	3,70	0,30	11,00	1,00	3,70	0,30
Expenditures with Retired Workers and Pensioners	23,80	2,20	23,80	2,20	0,50	2,10
MUNICIPALITIES *	(2,80)	(0,30)	(1,90)	(0,20)	(3,20)	0,30
Contributions	0,50	-	1,40	0,10	0,50	-
Expenditures with Retired Workers and Pensioners	3,30	0,30	3,30	0,30	3,70	0,30
TOTAL	(55,20)	(5,10)	(41,50)	(3,80)	(61,50)	(5,20)
Contributions	62,60	5,70	76,30	7,00	70,30	5,90
Benefits	117,80	10,80	117,80	10,80	131,70	11,10

Source: MPAS, MF/STN e INSS.

Obs: 2001 data for the states are still preliminary.

^{*} Estimates

^{** 2001} data not yet released

NUMBER OF BENEFICIARIES AND SPENDING

	NUMBER OF BENEFICIARIES (THOUSANDS)	%	SPENDING R\$ MILLIONS	%
RGPS	19.573	88,7%	65.787	57,4%
PUBLIC SECTOR	2.501	11,3%	48.752	42,6%
FEDERAL GOVERNMENT	951	4,3%	24.959	21,8%
STATES	1.550	7,0%	23.793	20,8%
TOTAL	22.074	100,0%	114.539	100,0%

Elaboration:SPS/MPAS

Most of the available actuarial studies⁷ point to the following, if no further reforms are implemented:

- 1. the tendency of the RGPS social security deficit is to remain relatively stable in the next five years at approximately 1% of GDP, as a consequence of the recently introduced reforms and, particularly, elimination of proportional retirements; the deficit will increase moderately between 2006 and 2020 and, from that point forward, will spiral at much greater speed as a result of the demographic effect (much more rapid growth in the number of beneficiaries compared to the number of contributors) and of the large number of retirees in relatively low age brackets who retired on the basis of the length of the period of contribution;
- 2. in the case of the civil service system, the deficit at the federal level is expected to stabilize over the next 20 years and then decline gradually; this projection is based on the fact that the current problem is one of the stock of vested rights and rights being acquired since, in actuarial terms, the new flows are balanced. No equivalent studies at the state and municipal levels are available.

^{7/} Some of the available actuarial studies: Ministry of Social Security and ssistance (2001), Actuarial Projections for the General Social Security System; Ministry of Social Security and Assistance, Produs (2001), Evaluation of Federal Government Social Security Commitments, Related to Benefits Granted and to be Granted to Current and Future Civil Servants.