THE BRAZILIAN PENSION SYSTEM: ISSUES AND PROPOSALS FOR REFORM

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1.**Introduction**

Over the last few decades many countries have reached the conclusion that the methods for financing their pension system were inconsistent in the long run with the structure of benefits promised. The pension system currently in use in Brazil is no different. It is in need of an extensive reform to establish solid basis and so that it does not constitute a recurring problem, as occurred in the recent past, in which various expedients were used in order to postpone the collapse of the system.

The purpose of this paper is to present a selective survey of the enormous literature dealing with the principal problems of the Brazilian pension system and of the different reform proposals which were developed to permanently solve this problem. The paper is organized in the following manner: Section 2 contains a brief description of the historical evolution of the pension system; Section 3 shows the principal facts and problems of the Brazilian pension system; Section 4 analyzes the principal proposals for reforming the current system; and Section 5 presents the conclusions of the paper.

2. **Historical Perspective: Origins of the Current System**

The history of the pension system in Brazil can be divided into three phases. The first started in the beginning of the 1920s and is characterized by the system of Retirement and Pension Funds (CAP's), created within the confines of public and private companies. The second phase began at the end of the 1920s and took shape during the 1930s and 1940s with the creation of Retirement and Pension Institutes (IAPS's) which were linked to professional categories. The third phase of the pension system in Brazil began in 1966 and is characterized by the extinction of many IAP's and their unification in one public pension organization.

The system of CAP's which were restricted to the large private and public companies, had, in 1937, close to 200 entities functioning. Contributions were coming from three sources: the employees, the employers and the federal government. The administration included representatives of the employees and employers. The CAP's pension system was supposed to be fully-funded and the benefits based on the returns of the investments. The CAP's, in addition to retirement for length of services and for disability, provided the following services to their members: medical and hospital services, pharmaceutical assistance, home ownership loans, funeral assistance and pension for heirs. The precariousness of the financial plan of the CAP's, due to the reduced number of insured people and insufficient resources to meet its obligations, ended up causing the extinction of the system.

The first IAP was created in 1926 and covered federal public servants. In 1938 it became the Pension and Assistance for State Workers Institute (IPASE). In 1933 the

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Retirement and Pension for Maritime Workers Institute (IAPM) was created; in 1934 the Retirement and Pension for Commerce Workers Institute (IAPC) and the Retirement and Pension for Bank Workers Institute (IAPB) were created. In 1938 the Retirement and Pension for Cargo Transport Workers Institute (IAPETC) and the Retirement and Pension for Industrial Workers Institute (IAPI) were created.

The pension system of the IAP's presented various problems. In the first place the coverage was limited to the professional categories of the institutes, and thus left out the workers who did not fit into these categories. Furthermore, each institute had its specific legislation with different contribution rates which varied from 3% to 8% of the value of the worker's salary. The company's contribution was based on the worker's salary and the contribution of the federal government was the remainder. The benefit plans differed among the institutes. The system should have followed a fully-funded system, but as the years went by it was transformed into a pay-as-you go system . Additionally, resources from the IAP's were misappropriated to investments which from an actuarial point of view were not worthwhile.

After various failed attempts, the Brazilian pension system was unified in 1966 with the creation of the National Social Security Institute (INPS) and the extinction of the IAP's. The pension system came to cover all workers subject to the system of the "Consolidation of the Labor Laws", in other words, who are legally registered by their employer and who therefore belong to the formal sector of the economy. The pension system did not include workers in the informal economy, domestic servants and rural workers. The civil servants and military workers of the federal government , states and territories belong to a special system, which has still not been altered.

The pension system continued to be a pay-as-you-go system with the workers contributing a sum equal to 8% of their salary, not to exceed five times the value of the minimum wage and the companies contributing a sum equal to that of the worker. The federal government was responsible for expenses including payment of personnel, administration and eventual deficits of the system. The pension system still depends on the resources from the returns on previous investments.

The Brazilian pension system at the time it was unified, in addition to retirement for length of service, disability, old age and special retirement plans, offered the following benefits to those covered: health care services, birth, confinement and funeral; money savings reserve for dependents; medical and pharmaceutical assistance; food service through SAPS (Food Service of the Social Security System); housing benefits through the (Public Housing Foundation) and mortgage loans; social welfare services and professional rehabilitation.

The extension of the pension system to rural workers was implemented in 1971. In 1972 domestic servants were also included among the beneficiaries of the Pension System. Since 1973, the pension system has covered the entire Brazilian population. In 1974 the elderly (over the age of 70) who were not contributors to the pension system were given the right to a fixed retirement pension equal to one minimum wage.

The administrative organization of the pension system in Brazil has undergone several modifications since the unification of the system. In 1977, it was created the SINPAS (National Social Security and Assistance System), which divided the functions of the social security system according to organizations described in the Table below.

President Collor's administrative reform merged IAPAS and INPS into one organization which changed its name to National Social Security Institute (INSS), under the Labor and Social Security Ministry. During Itamar Franco's administration, the Social Security Ministry was recreated with the INSS playing part of its new chart. Through

President Collor's reform, INAMPS and CEME were transferred to the Health Ministry, separating the activities of the pension system and health care.

Table 1

Function	Government Agency
Social Security	INPS (National Institute of Social Security)
Health Care	INAMPS (National Health Care Institute)
Pharmaceutical Assistance	CEME (Pharmaceutical State Owned Industry)
Fiscal and Financial Administration	IAPAS (Financial Administration Institute of the Social Security System)
Data Processing	DATAPREV (Data Processing Company)
Social Assistance	
Needy People	LBA (Agency for Need People)
Young Need People	FUNABEM (Agency for Young Needy People)

Source: Oliveira e Azevedo (1985)

The concept of social security as provided for by the 1988 Constitution covers health, the pension system, and social assistance. The Constitution establishes that this program should provide universal coverage and service and that the values of the benefits should be irreducible. Financing for social security, according to the 1988 Constitution , must be provided through resources coming from the budgets of the federal, state and municipal governments and from the following contributions: i) from employers, taxes on the payroll, on the turnover and on the profit; ii) from workers and iii) from the revenue of games of chance and lotteries.

The congressmen and senators who approved the 1988 Brazilian Constitution decided to include in the Constitution itself the principles which should guide the pension system in Brazil. This Constitution, established that the pension plans, through contributions, will provide: i) coverage in the event of sickness, disability, death, including the results of workplace accidents, old age and confinement; ii) aid for support for the dependents of covered persons with low income; iii) maternity protection especially for the expecting mother; iv) protection for workers in situations of voluntary unemployment; v) pension for death of covered persons, men and women, and for the spouse, companion and dependents. It was established that any person may participate in the benefits of the pension system through contributions in the form of pension plans and no benefit which substitutes the contributing salary or the worker earnings of those covered will have a monthly value less than the minimum wage.

The 1988 Constitution assures retirement benefits under the terms of the law. These benefits are calculated over the average of the last thirty six contributing salaries, corrected monetarily month by month, and the regularity of the readjustments in the contributing salaries is proven so as to preserve their real values. The following conditions must be met: i) age sixty-five for a man and age sixty for a woman, and five years earlier for natural workers of both sexes and for those who perform their activities in subsistence or underground economy, this include the rural producer, the prospector and the fisherman; ii) after thirty-five years of work for men and after thirty for a woman or in less time if subject to special conditions which cause risk to health or physical integrity, defined by the law; iii) after thirty years for male teachers and twenty-five for female teachers. The 1988 Constitution grants proportional retirement benefits after thirty years of work for men and twenty-five for women. It establishes that, for the effect of retirement benefits, reciprocal counting of the time of contribution in the public administration and in private activities, both rural and urban is assured. This follows the hypothesis that the various systems of pensions will compensate each other financially according to the criteria established in the law.

The private system of pension funds did not develop much in Brazil until the end of the 1970s, due to the public's lack of confidence in traditional private entities, whether because the indexing mechanisms did not protect the benefits from inflation or because poor management ended up causing the bankruptcy of some funds as was the case of the CAPEMI and the Montepio da Família Militar. The recent change occurred in 1977 when it was established the legal framework of the private pensions funds which are entities which have as their objective to institute private plans of benefits which are complementary or comparable to the public pension system, through contributions of their participants, of the respective employers or of both. The pension funds can be of two types: closed or open. The closed funds are accessible only to the employees of one company or business group which are called sponsors and these funds in general complement the benefits paid by the public pension system.

The open pension funds are, as the name itself indicates, open to the participation of any person who would like to take part. The regulation of the closed funds is performed by the Secretary of Complementary Pensions (SPC) of the Social Security Ministry, while the Superintendent of Private Insurance (SUSEP), under the Minister of the Treasury, is responsible for the regulation of the open pension funds.

The pension funds operate under a fully-funded system and can have defined benefits or defined contributions or may even be a mixture of the two. In the plans with defined benefits it is necessary to periodically adjust the contributions so that actuarial equilibrium occurs in the fund. In the pension funds which opt for defined contributions, the value of the benefits depends on the return of the fund's investment, and in mixed funds in general the funds commit themselves to pay a minimum value as a benefit. Table 2 shows the evolution of the number of closed pension funds during the period 1978-1989. The closed funds sponsored by public companies all operate under a system of defined benefits. In the case of closed funds in private companies, in 1989 forty had a defined benefit system, five had defined contributions and six operated in a mixed system.. In the case of funds sponsored by multinational companies, in 1989 thirty-eight had a defined benefit system, eighteen defined contribution and thirteen were mixed.

Table 2

NUMBER OF CLOSED PENSION FUNDS

Year	CORPORATIONS						
	Public	Private			Multinational		
	Defined Benefit	Defined Benefit	Defined Contribution	Mixed	Defined Benefit	Defined Contribution	Mixed
1978	4	0	0	0	0	0	0
1979	47	12	0	0	0	0	0
1980	68	22	0	0	0	0	0
1981	78	27	0	0	0	0	0
1982	84	30	0	0	11	0	0
1983	87	32	0	0	14	0	0
1984	90	33	0	0	18	1	0
1985	96	35	0	0	23	4	0
1986	101	36	1	0	24	8	0
1987	106	38	1	0	29	9	1
1988	113	38	2	5	34	15	9
1989	115	40	5	6	38	18	13

Source: SPC [apud Faro (1993)]

Table 3 shows the evolution of the net worth, the revenue, costs and the net revenue of the closed pension funds during the period 1980-1993. In 1980 the total net worth of the funds was equal to 1,469 million dollars; in 1993 the net worth reached a value equal to 29,981 million dollars. Cost increased significantly in the period 1950-1993, although the revenue also grew and in the last five years the annual net revenue was between 2,500 and 2,100 million dollars.

Another type of mechanism of private complementary pensions is the PAIT, (Individual Worker Retirement Account), created in 1986. PAIT is a system of voluntary savings account for individuals corporations. It includes defined contribution plans which complement retirement benefits. The shares of the PAIT can be transferred from one fund to another if the participant so desires. Until 1988 this system offered tax breaks under which the contributions could be deducted from net income (up to the limit of 30%) for income tax purposes and the earnings from the PAIT were not taxed. After these incentives were removed, PAIT was no longer an attractive option and new funds were no longer created.

Public servants have a special pension system as the 1988 Constitution assures compulsory retirement at age seventy with a pension proportional to the length of service. It also assures voluntary retirement after thirty-five years of work for men and thirty years for women with full income.

Public workers also have the option of retiring after thirty years of service for men and twenty-five for women with income proportional to the length of service. They may even retire due to age at sixty-five for men and sixty for women with income proportional to the length of service.

Table 3

CLOSED PENSION FUNDS: NET WORTH AND CASH FLOW
(million of dollars)

Year	Net Worth	Revenue (1)	Expenditure (2)	Net Revenue (1) - (2)
1980	1469	916	277	639
1981	2157	1178	364	813
1982	3211	1513	469	1043
1983	3749	1059	378	681
1984	4008	972	374	597
1985	5728	1118	422	696
1986	6084	1458	598	859
1987	7670	1831	799	1031
1988	10484	2611	892	1718
1989	14836	4117	1604	2512
1990	12120	4427	2014	2413
1991	17987	4032	1773	2258
1992	21088	3750	1650	2100
1993	29981	3800	1700	2100

Source: BACEN/ABRAPP [apud Matijascic (1994)]

The Unique Statutory Law Regime (RJU), established in the 1988 Constitution for all federal government public workers (of direct public administration, governmental agencies and foundations) was adopted in 1990. In the RJU the pension benefits are financed by contributions of public servants and the federal government. This marked a change as until then the public worker had not contributed to this pension system. The rate of the contribution from the salary of the public servant was equal to 6% until 1993 when it was substituted by four rates (of 9, 10, 11 and 12%) according to the income bracket of the employee. There is no ceiling for contributions.

3. **The Pension System in Brazil: Facts and Problems**

Retirement and pension in the Brazilian pension system are based on a pay-as-you-go system, financed through contributions by employees and employers on the payroll, financial revenues from investments of the cash float of the pension system, other revenues coming from earnings from property rentals and federal government transfers to the pension system. These transfers are made with resources from the social contributions from the companies on the turnover and on the profit fiscal resources for the financing of part of the retirement benefits and pensions of the federal public servants and resources from games of chance and lotteries.

Table 3 shows the evolution of the total revenue of the pension system and of its principal components during the period 1986-1994. Revenue reached a peak in 1987 when the average monthly value reached 2,949.71 million reals, in 1993 the monthly average was equal to 2,593.30 million reals.

Table 4

SOCIAL SECURITY REVENUE

(monthly average, million of reals of August 1994)

Year	Total Revenue	Banking Collection	Financial Revenue	Other Revenue	Transfers from the Federal Government			
					Contributions		Federal Government Obligations	Other
					Turnover	Profits		
1986	2800.64	2586.14	77.03	16.78	0.00	0.00	64.38	56.31
1987	2949.71	2373.42	485.04	4.15	0.00	0.00	68.33	18.77
1988	2494.80	2096.46	328.10	3.70	0.00	0.00	52.40	14.14
1989	2419.66	2124.91	88.16	7.73	25.23	8.53	43.85	121.24
1990	2781.13	2250.81	209.95	1.43	170.38	99.72	45.56	12.29
1991	2538.76	2116.15	104.93	27.87	140.50	46.43	40.38	62.48
1992	2544.09	2066.74	374.42	17.58	49.59	0.00	25.12	10.64
1993	2593.30	2223.29	173.97	39.11	13.90	48.42	7.43	87.18
1994	2445.66	1930.04	327.47	20.97	42.70	55.89	66.41	2.19

Source: IESP

The principal component of the total revenue is the bank collection of the contributions on the payroll made by the employees and employers. In 1986, 92% of the total revenue came from this source in 1987 this proportion went down to 80% and in 1993 it reached 86%. The financial revenue had a very irregular evolution in the period 1986-1994 as this revenue depends on the gains with inflation of the investments of the cash float of the pension system. In 1989 this revenue represented 4% of the total revenue, in 1987 16% and in 1993 7%. If the Real Plan of stabilization succeeds, this source of revenue will disappear and the pension system will no longer have inflation as a source of financing.

The component Other Revenue in Table 4 has sums which are negligible and unimportant for the financing of the pension system. After the 1988 Constitution the pension system came to count on resources of contributions on the turnover and profit of companies which corresponded to 9% of the total revenue in 1990, but which shrank to 2% in 1993. The federal government transfers to the obligation of retirement benefits and pensions for the federal public servants also had a very irregular evolution during the period 1986-1994 and the same occurred with the transfers based on resources coming from games of chance and lotteries.

Table 5 shows the evolution of the expenses of the pension system during the period 1986-1994. In 1986 the monthly average for total expenses was equal to 2,597.6 million reals, and in 1994 in the period January-September the monthly average shrank to 2,126.6 million reals. Table 14 contains the number of contributors and beneficiaries of the pension system during the period 1981/1990. It is easy to verify that the average value per contributor as well as the average value per beneficiary shrank during the period 1986-1990

Table 5

SOCIAL SECURITY EXPENDITURES

(monthly average, million of reals of August 1994)

Year	Total	Benefits	Personnel Costs	Transfers to Health Institute	Other Expenditure s
1986	2597.6	1664.4	259.0	388.4	285.8
1987	2407.7	1237.6	254.4	450.9	464.8
1988	2284.0	1125.7	282.8	536.2	339.2
1989	2393.1	1249.8	326.2	511.3	305.7
1990	2550.1	1310.7	423.9	521.9	293.6
1991	2491.1	1431.4	148.3	700.0	211.5
1992	2170.9	1542.3	102.9	330.1	195.6
1993	2401.0	1949.6	108.4	113.3	229.8
1994*	2126.6	1796.1	123.4	0.0	207.2

Source: IESP

The principal component of these expenses are the benefits of the pension system which in 1986 represented 64% of the total expenses. In 1988 this dipped to 43% and in 1993 reached 81% and in 1994 has already reached 84% of the total expenses. Personnel expenses, which between 1986 and 1990 consumed more than 10% of the total, showed a sharp reduction in the period 1991-1994 and in 1994 corresponded to 6% of total expenses. The transfers of the pension system to the health system (INAMPS), increased significantly between 1986 and 1991 when the monthly average was equal to 700 million reals. In 1992 this shrank to 330.1 million reals per month and in 1993 the Social Security Ministry stopped transferring resources for health, passing this responsibility to the National Treasury, because otherwise the resources would be insufficient to finance the pension system benefits. The item Other Expenses is not negligible and represents spending with the company which processes the data of the pension system as well as other transfers and burdens of the pension system.

The employees in the formal economy, in which the workers are legally registered by the employer, contribute to the pension system with a percentage of their salary. As time passed the rate and the base for the calculation of this contribution were modified on various occasions. Table 6 shows the rates and the base for the calculation which were in force from 1982 until 1989 and from 1989 until present. In 1982 there existed five rates, the lowest was 8% and the highest was 10% and five salary ranges covering salaries which correspond to between 15 and 20 times the minimum wage, the ceiling for contribution. In 1989, a new law established the ceiling for contribution (which is equal to ceiling for benefits) at ten times the minimum wage, extinguished two of the salary ranges and set rates of 8,9% and 10%.

Table 6

WORKERS CONTRIBUTION RATE TO SOCIAL SECURITY
(% of wage)

Wage Class (minimum wage)	Contribution 1982	Rate 1989
Up to 3	8.50	8.00
3 - 5	8.75	9.00
5 - 10	9.00	10.00
10 - 15	9.50	-
15 - 20	10.00	-

The contribution of the employee on the payroll also suffered various changes over time and today it is equal to 20% on the payroll with an additional 2.5% for the financial companies. In addition to the contribution to the pension system there are other contributions which the employer must pay on the payroll which are described in Table 7. The Guarantee for Length of Service Fund (FGTS) was created in 1966. The employer contributed with a sum equal to 8% of the salary of the worker in an individualized account, currently administrated by the Federal Savings Bank, which earns monetary correction plus a rate of interest of 3% per year. When the employee is fired the employer must compensate the worker with an additional sum of 40% of the balance of the account of the FGTS. The worker can withdraw the FGTS when he retires or in the following circumstances: when fired from the job, to buy his own house and for some other specific circumstances such as in the case of serious illness.

Table 7

PAYROLL TAX

Contribution to	% of wage
Social Security	20.0
Schooling-wage	2.5
Senai/Senac or Sesi/Sesc	1.0
Disability Insurance	2.0
Incra	0.2
FGTS	8.0
Total	33.7

The total contribution of the employer reaches 33.7% of the payroll making labor more expensive. This type of distortion helps to send labor underground in the Brazilian economy. Table 8 shows that during the period 1981-1987 close to 20% of the labor employed in the industrial sector did not contribute to the pension system. The situation is more serious in the economy as a whole as in this same period less than 50% of the economically active population contributed to the pension system, that is, for every two workers only one contributed to the pension system.

Table 8

PERCENTAGE OF THE WORKING POPULATION THAT CONTRIBUTED TO THE SOCIAL SECURITY SYSTEM

Year	Transformation Industry	Total
1981	82.2	49.9
1982	80.1	48.0
1983	78.6	47.7
1984	78.5	46.8
1985	78.5	47.2
1986	78.8	49.9
1987	79.8	49.9

Source: Faro (1983, p.35)

Table 9 shows the high cost of personnel in the Brazilian pension system. In one study that sought to quantify the costs of the pension system in Brazil, Zockun (1993) reached the conclusion that the operational cost of pension system was equal to 10.75% of the value of the benefits, with personnel expenses accounting for 6.95%, data processing representing 1.05%, bank fees 0.75% and other expenses 2%.

Table 9

ADMINISTRATIVE COSTS OF BRAZILIAN SOCIAL SECURITY SYSTEM IN 1992

Item	% of Benefit
Operational Cost	10.7
Personnel	6.95
Data Processing	1.05
Banking Fee	0.75
Others	2.00

Source: Zockun (1993)

One other problem is the rate of evasions in the contributions to the pension system on the payroll, that is tax evasion existent in the collection of the pension system. Based on information from RAIS (Annual Report on Social Information) some analysts have tried to estimate this tax evasion. Table 10 contains the conclusions of one of these studies for the period 1979-1990. In 1979, for example, for every 100 reals owned to the pension system, 14.2 reals were not collected. In 1990 the rate of tax evasion was equal to 23.2%, showing the potential return for investment in improving the fiscal administration of the pension system.

Table 10

PAYROLL TAX EVASION

Year	Evasion Rate
1979	14.2
1980	20.1
1981	19.8
1982	22.0
1983	19.2
1984	23.5
1985	26.9
1986	22.0
1987	24.8
1988	n/d
1989	31.0
1990	23.2

Source: Beltrão et alli [(1993), p. 177]

The average yearly growth rate of the Brazilian population has lessened since 1960s. In the 1950s the rate was equal to 2.99%, while in the next decade it went down to 2.89%. In the 1970s the average annual growth rate was 2.48% and between 1980 and 1991 the population grew at an average rate of 1.93% per year. This reduction in the rate of population growth was a consequence of the reduction in the fertility rate which fell from 5.7 in 1965 to 2.7 in 1990. Another important demographic fact is that the average life span of Brazilian increased in the last few decades in virtue of medical progress.

Table 11 shows the average retirement age for men and women according to the various types of retirement benefits which exist in the Brazilian pension system. Under retirement for length of service men retire at the average age of 54.9 and women at the average of 53.3. Continued life span for men is 17.6 years and for women 22.4 years. The numbers for special retirement and disability are similar to the case of the retirement for length of service. In the retirement for age, the average retirement age for men is 65.7 years and for women 61.2 years with continued life span of 10.8 and 16.5 years respectively.

Table 11

AVERAGE RETIREMENT AGE AND REMAINING LIFE EXPECTANCY

Retirement	Average Age of Retirement		Remaining Life Expectancy	
	Male	Female	Male	Female
Time of Contribution	54.9	53.3	17.6	22.4
Special	52.1	50.2	19.2	24.9
Disability	51.2	51.6	16.0	22.6
Age	65.7	61.2	10.8	16.5

Source: Dataprev and Camarano at allia (1991)

Retirement for length of service has led an ever larger contingent of men and women to retire relatively young, contributing to aggravate the unsustainable situation of the Brazilian pension system. Some poorly-informed analysts have argued that the average life span of Brazilians is very low and therefore the elimination of retirement for length of service would cause an elevated proportion of workers not to retire as they would die before reaching the age limit for retirement. Table 12 shows that the life expectancy at birth was equal to 57 years for men and 63 for women in 1975. Still, upon reaching one year, the conditional life expectancy was equal to 63 years for men and 69 for women. Supposing that an individual enters the job market at age 15, the conditional life expectancy for men was equal to 65 years and 71 years for women. An individual who reaches 60 years old has a conditional expectancy equal to 74 years for men and 77 for women.

The conclusion which is reached is that the average life expectancy at birth is irrelevant for analyzing the question of the elimination of retirement for length of service. Another point that must be emphasized is that there is no information which justifies discrimination in favor of women in the determination of the age limit for retirement as in general they live longer than men.

Table 12

CONDITIONAL LIFE EXPECTANCY IN BRAZIL IN 1975
(years)

Age	Conditional Life Expectancy, Given Age and Sex	
	Male	Female
0	57	63
1	63	69
10	65	71
15	65	71
20	66	72
30	67	72
40	68	73
50	71	75
60	74	77
65	76	79

Source:Camarano et allia (1991)

Table 13 shows the evolution during the period 1950-1990 of the relation between contributors/beneficiaries of the Brazilian pension system. This relationship was equal to 8.00 in 1950, shrank to 3.80 in 1960; 4.20 in 1970, 3.18 in 1980 and in 1990 there were ten contributors for every four beneficiaries.

Table 13

CONTRIBUTORS TO BENEFICIARIES RATIO

Year	Ratio
1950	8.00
1960	3.80
1970	4.20
1980	3.18
1990	2.50

Source: PNAD/IBGE; INPS/INSS

Table 14 complements this information showing also the number of contributors and beneficiaries in the period 1981-1990. In 1981 there were close to 22.7 million contributors and in 1990 this number reached 31.1 million. The number of beneficiaries of the pension system rose proportionally more between 1981 and 1990 going from close to 8.5 million to 12.4 million people in this period.

Table 14

NUMBER OF CONTRIBUTORS AND BENEFICIARIES OF THE SOCIAL SECURITY SYSTEM
(1,000 people)

Year	Contributors	Beneficiaries	Contributors/Beneficiaries Ratio
1981	22696.6	8541.9	2.66
1982	22981.4	9019.3	2.55
1983	23113.8	9804.6	2.36
1984	23486.5	10148.0	2.31
1985	25378.4	10626.5	2.39
1986	27672.9	10943.7	2.53
1987	28373.4	11385.8	2.49
1988	29787.4	11519.4	2.59
1989	30649.4	12130.5	2.53
1990	31101.2	12444.4	2.50

Source: PNAD/IBGE; INPS/INSS (Brasil, MPS,Vol II, p.363)

The 1988 Constitution established that no benefit of the pension system could have a monthly value less than that of the minimum wage. This new rule created a financial problem for the pension system as when the minimum wage rises the additional revenue coming into the pension system is not sufficient to make up for the additional costs of the increase in benefits. Table 15 shows the composition of the number of benefits with maintenance paid by the pension system according to the level of the minimum wage in

Table 15

SOCIAL SECURITY MAINTENANCE BENEFIT BY INCOME CLASS IN 1990

Income Class	Number of Benefits	
(In Minimum Wages)	Total	Percentage
0 - 1	7 972 770	72.53
1 - 2	1 098 828	10.00
2 - 3	586 672	5.34
3 - 5	645 316	5.87
5 - 7	327 728	2.98
7 - 10	296 969	2.70
10 - 15	55 904	0.51
15 - 20	4 853	0.04
20 -	2 759	0.03
Total	10,991.793	100.00

Source: MPS (1993)

the 1990s. Nearly 8 million maintenance benefits, that is 72.53% of the total number of these benefits, did not have values greater than that of the minimum wage in 1990. The practical consequence of the 1988 constitutional rule was to tie the government's minimum wage policy to the financial situation of the pension system and not to job market conditions.

4. **Proposals for Reform**

The financial equilibrium of the Brazilian pension system in the last few years occurred through different expedients which while taking care of the situation in the short-run contributed to aggravate the structural disequilibrium of the system. The 1988 Constitution mandated that the benefits be corrected, but did not to worry about creating the necessary resources to finance the additional expenditures. The reform of the pension system cannot be postponed and truly constitutes a fundamental ingredient for the consolidation of the Real Plan for stabilization.

The concept of social security according to the 1988 Constitution encompasses health, pensions and social assistance. In practice, the pension system in the last few years stopped transferring resources for the financing of health care which came to be responsibility of the National Treasury. Therefore, it does not make sense to maintain the constitutional precept of an integrated budget for these three components of social security. One proposal for reform, defended by various studies on this theme in Brazil, detaches the budget of these three areas from social security with health care and social welfare assistance being financed by the resources of the budget of the Union and the pension system having its own financing mechanisms.

The previous section described the principal problems of the Brazilian pension system which can be summarized in the following points:

i) pay-as-you-go system with the main source of financing based on contributions from the payroll with a high proportion of workers in the informal sector of the economy, high rates of evasion of contributions, high administrative costs and a small relation contributors/beneficiaries;

ii) different pension system for private sector workers and for public servants;
iii) creation by the 1988 Constitution of social contributions based on the turnover and the profit of the companies to finance social security, which are not advisable taxes from the point of view of efficient use of economic resources;
iv) existence of retirement benefits for length of service with no minimum age for retirement and most different types of special retirement with privileges which are not justified from the point of view of the society;
v) constitutional linkage of pension benefits to the minimum wage due to the fact that no benefit can have a monthly value less than the minimum wage.

The analysis of the proposals for reform will concentrate on the first two points, as in relation to the other themes the recommendations are the following: a) extinction of the social contributions on the turnover and the profit of the companies and its substitution by other more efficient forms of taxation; b) extinction of retirement for length of service without minimum age of retirement; c) extinction of special retirement in general and its permission only in those cases in which it is proven that the work capacity of the individual is affected; d) detachment of pension benefits from the minimum wage.

The various reform proposals can be classified in three groups in terms of their system financing: i) pay-as-you-go ii) fully-funded and iii) mixed, in which the two systems are combined in different proportions. Next we will examine each one of these options.

<u>Pay-as-you-go System or (Nearly) Maintaining the Status Quo</u> - The preservation of the current pension system finds defenders in the Brazilian society who for ideological reasons prefer a pension system which is run by the government. One of the principal problems of the current system is its financing which is based on contributions on the payroll. This type of tax discourages the absorption of labor and encourages the segmentation of the labor market in a country which should promote job creating policies which help to revert the terrible situation of income distribution. To maintain the current pay-as-you-go system mechanisms of its financing should be reexamined and the contribution on the payroll must be replaced by another type of tax.

The corrections mentioned before in terms of length of service and special retirement are not supported by all those who defend the status quo, certainly for a question of ignorance rather than for an objective analysis of the data. These changes bring up some problems which must be solved within a reform proposal. As an effect in a reform there is a transition between two systems and this transition has a cost. The transition cost can be divided in two large components: i) the cost of maintaining the acquired rights and ii) the cost of maintaining the expected rights. In general, all the proposals for pension reform seek to maintain the two types of rights with the objective of breaking the natural resistance of the society to the proposed changes.

The proposal to maintain the current pay-as-you-go system would have only the transition cost associated with the expected rights of the different generations which are contributors to the system. This is due the fact that there would be no modification which would imply a cost as far as the acquired rights.

<u>Fully-Funded System</u> - The success of the pension system adopted in Chile in the beginning of the 1980s, a fully-funded system with mandatory participation of the workers, has inspired proposals for reform of the pension system in various countries. This proposal is diametrically opposed to the pay-as-you-go system as each worker has a defined contribution for the pension fund and the value of his retirement benefits depends of the return on investment of the fund.

The contribution from the payroll made by the employer ceases to exist and safeguards are introduced to assure a minimum value for the pension of each person covered. The principal problem of this proposal resides in the transition costs of changing from a pay-as-you-go system to a fully-funded system in virtue of the maintenance of the rights acquired and the rights expected. Table 16 contains the total transition costs in thousands of dollars and as a percentage of GDP estimated by the authors of this proposal for reform of the Brazilian pension system. The high initial cost which reaches 5.28% of GDP in the first year and is still 3.00% of GDP in the eight year after the new system goes into effect leads the authors of this proposal to suggest that during the first five years of implementation of the reform sources of financing from the current system be used to finance the transition. The only exception is in relation to the contribution of the worker which will be directed to the compulsory investment in the pension fund which he selects.

Table 16

TOTAL TRANSITION COSTS FROM PAY-AS-YOU-GO TO FULLY-FUNDED SYSTEM

Year	Total Cost	
	US $ 1,000	% GDP
1	23,743,522	5.28
2	22,722,765	4.90
3	21,700,577	4.55
4	20,681,202	4.21
5	19,661,605	3.88
6	18,642,828	3.57
7	17,631,028	3.28
8	16,626,881	3.00
9	15,621,486	2.74
10	14,614,839	2.49
11	13,605,076	2.25
12	12,595,244	2.02
13	18,219,562	2.84
14	17,331,474	2.62
15	15,224,857	2.24
20	11,455,590	1.45
25	13,247,846	1.45
30	10,886,589	1.03
35	8,293,185	0.67
40	5,888,881	0.41
47	382,114	0.02

Fonte: Carvalho e Faro (1994, p.246)

The preservation of the payroll taxes during the first five years of the fully- funded system although contributing to the partial financing of the transition between two systems, would not be advisable as it would maintain for a period, although temporary, the deterrent to the absorption of labor. The alternative would be to finance the transition through issuing public debt and (or) the privatization of state companies. The analysis of this question must take into consideration the financial crisis which provoked the process of Brazilian hyperinflation of the last few years and which must be resolved permanently so that there can be a lasting intertemporal equilibrium in the public accounts consistent with single-digit annual inflation.

The Brazilian public debt represents only a small proportion of the GDP (approximately 10% in 1994). Nevertheless the real interest rate that the government is paying is extremely high (more than 20% per year in the last two years) and the average term for the maturity of the public debt is quite short. However, the stock of short-term public debt must not be increased, but rather the debt must be redeemed through the process of privatization so that the real interest rate will fall and cause the return of investment by the private sector of the economy.

The adoption of a purely fully-funded system must not be permanently discarded because of the high transition costs. The reform of the pension system must be performed in two steps. In the first a mixed system is introduced, of the type which will be described below. In a second step, a new reform will eliminate the residual pay-as-you-go system merging it into the fully-funded system when the cost of this transition can be absorbed without too many problems for the society.

Mixed System - The mixed pension system is divided into four systems: i) universal, ii) basic, iii) complementary compulsory and iv) complementary voluntary.

The universal system is actually a social welfare program which has as its objective to guarantee a minimum income for every individual who reaches a determined age (65, for example). The resources to finance this system must come from the budget and must not have any link to taxes. This type of social welfare must be part of a program which guarantees a minimum income (for those individuals of working age and for the elderly), a negative income tax which seeks to eliminate poverty in Brazil.

The adoption of a negative income tax must be accompanied by the extinction of the minimum wage. There exists a reasonable consensus among economists of different schools that the minimum wage is not an adequate instrument to provide a minimal standard of living for the worker. Furthermore, the minimum wage has contributed to increase the size of the informal sector of the labor market, actually harming a large number of the workers who it supposedly should protect.

The basic system is a pay-as-you-go system with compulsory participation by all workers. It requires contributions only from the employees and has a ceiling fixed at the value of three times the minimum wage at the time of the reform. The main reason for maintaining a part of the pension system based on the pay-as-you-go system in the reform of the Brazilian pension system is the high transition cost which would occur in establishing a purely fully-funded system, at a time in which it is inopportune to increase the public debt and not realistic to contemplate a substantial increase in the tax burden. This basic system should not be introduced as definitive and a time period could be established for its revision at which time the transition cost for the transformation to a fully-funded system would be evaluated as well as the financial mechanisms for the transition.

The complementary compulsory system is a fully-funded system with defined contributions for all workers with salaries equivalent to three to ten times the value of the minimum wage at the time of the reform. The pension funds would be private and could be open or closed. The experience of the Guarantee for Length of Service Fund (FGTS) does not provide support for a system of funds in which the resources of the workers would be administered by public organizations. In the past, the shares of the FGTS were not duly corrected for inflation and the resources of this fund were invested in loans to local governments and states for the construction of infrastructure and these loans were not paid back. This default produced a liability that must be resolved in the near future. It does not make sense to repeat past errors.

The complementary voluntary system is a fully-funded system with defined contribution, defined benefits or even a mixed type with pension funds which follow the structure of funds currently in existence. The regulation and supervision of the pension funds would be centralized in one institution which must have autonomy and be independent of the executive power. This autonomy is justified because in recent experience the pension funds were obliged to buy bonds to satisfy the necessity of financing public deficits, impairing the interests of those covered by them. Those covered should have priority in the administration of the pension funds.

Unification of the Pension System - In principle there is no argument of a social nature that justifies the existence of different pensions systems for private sector workers and public servants. The argument from the economic nature for this duality is based on the working regime of the public servant which assures job stability and retirement with full salary. The consequence of this system is that the public servant must have a lower salary than a worker from private sector who performs the same duties although the current value of the two cash flows throughout the lifetime (active and inactive) must be equal if individuals are neutral to risk. As in general people are risk averse, the current value of the earnings of the public servant must be less than the current value of the earnings of the workers in the private sector with the public sector attracting individuals of the same qualification as the private sector. In these circumstances the personnel costs in the public sector would be less than those in the private sector.

Today there exists great doubt as to whether or not this system produces an equivalent efficiency between the two sectors. Even if the stability of the public servant were maintained, the pension system could be unified obeying identical rules and under the same procedures.

5. **Conclusion**

The Brazilian economy currently faces two challenges. The first is to eliminate the roots of the process of hyperinflation, that is the fiscal crisis of the Brazilian state. The second challenge is to construct solid institutions which will allow the sustainable return of economic growth. The modern theory of economic growth and the experience of several countries in the process of economic growth with equity, point to two key variables in this process: i) the investment in human capital and ii) the increase in the rate of domestic savings.

The reform of the pension system, in addition to contributing to a definitive solution to the Brazilian fiscal crisis must also serve as an instrument to raise the domestic savings rate using a fully-funded system instead of pay-as-you-go. This will have fundamental importance for the development of the Brazilian capital market as it creates a new source of resources for long-term investment.

The main advice for the reform of the Brazilian pension system are thus the following:

i) separation of the budgets for health care, social welfare and the pension system;

ii) creation of the negative income tax as the only instrument of the program of social welfare and the extinction of the minimum wage;

iii) maintaining the current pay-as-you-go system for a defined period only for salaries below a value equivalent to three times the minimum wage;

iv) creation of a complementary compulsory fully-funded system for salaries which fall between three and ten times the minimum wage with contributions only from workers;

v) stimulate the voluntary complementary fully-funded system, for salaries greater than ten times the minimum wage.

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