



# **Pension Reform and the Development of Pension Systems: An Evaluation of World Bank Assistance**

***Background Paper***  
**Brazil Country Study**

**Salvador Valdés-Prieto**

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Director-General, Independent Evaluation Group: Vinod Thomas  
Director, Independent Evaluation Group, World Bank: Ajay Chhibber  
Senior Manager: Ali Khadr  
Task Manager: Emily Andrews

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Contact:  
Knowledge Programs and Evaluation  
Capacity Development Group (IEGKE)  
e-mail: [eline@worldbank.org](mailto:eline@worldbank.org)  
Telephone: 202-458-4497  
Facsimile: 202-522-3125  
<http://www.worldbank.org/ieg>

## Abbreviations and Acronyms

DATAPREV	Empresa de Processamento de Dados da Previdencia Social
ESW	Economic and sector work
FGTS	Fundo de Garantia por Tempo de Serviço (Severance Funds)
GDP	Gross domestic product
IEG	Independent Evaluation Group (formerly OED)
INSS	Instituto Nacional de Seguridade Social (National Social Security Institute)
MPAS	Ministerio de Previdencia e Assistencia Social (Ministry of Pensions and Social Assistance)
OECD	Organisation for Economic Co-operation and Development
OED	Operations Evaluation Department (changed its name to IEG in December 2005)
PARSEP	Programa de Apoio às Reformas do Sistemas Estaduais de Previdencia (State Pension Systems Reform Technical Assistance Project)
PAYG	Pay-as-you-go
PCA	Previdencia Complementar Aberta
PCF	Previdencia Complementar Fechada
PROAST	Programa de Assistência Técnica para Reforma da Previdência Social (Technical Assistance for Pension System Reform)
RG	Regime Geral
RJU	Regime Juridico Unico
SAL	Structural Adjustment Loan
SPC	Secretariat for Complementary Pension
SS SECAL	Social Security Special Sector Adjustment Loan
SUSEP	Superintendencia de Seguros Privados (Superintendent of Pension Insurance)

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## **Preface**

This paper belongs to series of 19 country and regional case studies commissioned as background research for the World Bank's Independent Evaluation Group (IEG) report "Pension Reform and the Development of Pension Systems." The findings are based on consultant missions to the country or region, interviews with government, Bank, donor, and private sector representatives involved in the pension reform, and analysis of relevant Bank and external documents.

This case study was authored by Salvador Valdés-Prieto in 2004. The author is a Professor of Economics at the Catholic University of Chile in Santiago, (e-mail: [svaldes@faceapuc.cl](mailto:svaldes@faceapuc.cl)).



# 1. Background

## PENSION SYSTEM PRIOR TO MAIN REFORMS

### Structure of the Pension System

1.1 The Brazilian social security system offers a full menu of pension services, including old age, disability, and survivors' insurance, as well as early pensions.<sup>1</sup> The institutions that offer pensions are not specialized as they also provide maternity benefits and worker's compensation, without requiring individuals to make separate contributions.<sup>2</sup>

1.2 The mandatory plan for private-sector workers, including those in the rural sector, is the Regime Geral (RG). This plan grants exemptions in contributions to some employers (such as universities and soccer clubs) and also collects some sales taxes. In 2002, the tax-expenditure cost was 0.78 percent of GDP, while sales and other taxes collected by the RG amounted to 0.72 percent of GDP. The RG does not attempt to be financially independent because it also receives fiscal transfers on a regular basis in response to deficits incurred.

1.3 The Regime Juridico Unico (RJU), also called *Regime Proprio de Previdencia Social*, is a specialized, mandatory pension plan for workers in the federal, state, and municipal governments. The RJU covers civil servants, the military, the judiciary, congressional staff, school teachers, and the police. The coverage of the RJU increased in 1990–1992, when a large number of federal workers who were members of the RG were allowed by law to transfer to the RJU. Thereby, their contribution rate fell from 31 percent to two percent, and the ceiling on their benefits disappeared.

1.4 There are two types of voluntary pension plans. The first consists of the Previdencia Complementar Fechadas (PCFs), which are employer-sponsored plans. There were 361 PCFs as of December 2002 managing funds equal to 14.2 percent of GDP. The 84 plans sponsored by public-sector institutions owned 61.7 percent of assets. Most are of the defined-benefit plans, but some are defined contribution. Participation in the second type of voluntary pension plan, the for-profit Previdencia Complementar Aberta (PCA), is done on an individual basis. In 2002, there were 33 defined contribution plans; another 41 defined benefit plans were offered by insurance companies; and 29 plans were not-for-profit. The last is more recent; its funds reached just 2.0 percent of GDP by 2002.

### Progressive Redistribution

1.5 The Brazilian pension system also has several ways in which it achieves its goal of progressive redistribution to the elderly poor. The main program is the RG, which

<sup>1</sup> Since 1967, other institutions with separate budgets have been in charge of health care.

<sup>2</sup> The premium for these branches of insurance should, therefore, be deducted from the contribution rate charged by INSS. In the case of government workers, their employer pays maternity and health benefits directly, so the implicit premiums are a hidden employer contribution.



requires rural members to make a negligible contribution to qualify for an old-age pension. The RG also has a (relatively) generous minimum level for other pensioners. The subsidy paid by this system is equal to the difference between the minimum pension and the “self-financed” amount obtained from the RG benefit formula by computing actual years of service and average earnings. Taking into account that the urban poor may migrate to the countryside, the rural pension program is a semi-universal redistribution subsidy. It is financed by an increase in the payroll tax on the urban members of the RG,<sup>3</sup> revenue from sales taxes, and federal transfers. Our estimate is that the minimum pension *subsidy* costs 1.88 percent of GDP,<sup>4</sup> while total minimum pension expenditures are about 2.2 percent of GDP.

1.6 Redistribution is enhanced by a reduced RG contribution rate for lower-wage employees and the absence of a ceiling on taxable earnings for employer contributions with a ceiling on benefits.

1.7 Brazil has two assistance programs for the urban elderly managed by the National Social Security Institute (INSS).<sup>5</sup> Another assistance program is managed by employer organizations (the so-called Sistema S) and financed with a separate three-percent payroll tax.

1.8 These programs are successful overall with the elderly having much lower poverty rates than the young.<sup>6</sup> Progressive redistribution can also be achieved by the appropriate taxation of benefits and contributions. The tax regimes for contributions and benefits to RG and RJU are reported below.

### **Savings-Insurance**

1.9 Delivering savings-insurance services to the middle classes is another major aim of both the RG and the RJU. Both promise constant replacement rates as a proportion of taxable salaries, paying higher pensions to higher-salaried members. In the RG, maximum taxable earnings have hovered at close to eight times the minimum salary,<sup>7</sup> and

<sup>3</sup> As *Averting the Old Age Crisis* (World Bank 1994) suggests, payroll taxes may be the most progressive option when most high-earners are covered by the RG and other tax bases are small or inefficient (such as Brazil's cascading value-added tax). Brazil chose this strategy as far back as 1979, when *Decree 83801* created a 2.4 percent contribution rate, levied on the urban payroll, to finance rural benefits.

<sup>4</sup> In 2002, the minimum pension was 180 *reais* per month until March, and 200 thereafter, yielding an average of 195 *reais* for the year. This pension was received by 13.9 million pensioners, of which 6.9 million were rural residents and 7 million were urban residents. The rate of 1.88 percent is obtained by assuming that the portion that is self-financed through contributions is zero in the rural sector and 50 percent in the urban sector, given that GDP was 1,292 billion *reais* in 2002.

<sup>5</sup> One program offers benefits to all urban residents above age 67, provided their monthly income is below 25 percent of the minimum salary. The other program (*renda mensal vitalicia*), which pays an annuity, is closed to new beneficiaries but still has about 700,000 beneficiaries.

<sup>6</sup> This assessment is supported by research done by Kaizo Beltrao. It may appear to contradict somewhat studies that found that RG's dependency rate is higher than the population dependency rate. This work concluded that the RG was too generous because it fails to separate the redistributive portion, where generosity is welcome.

<sup>7</sup> When the 1988 Constitution was inaugurated it was set at 10 minimum wages. The maximum taxable earnings apply to workers' contributions only. Employer contributions to RG do not have a ceiling.

this ceiling is high enough to include the total earnings reported by 90 percent of covered private employees in the urban sector. In the RJU there is no ceiling on taxable earnings, so the system provides saving-insurance services to high wage-earners as well. However, the RG and RJU do not have governance structures that enable them to meet savings-insurance goals at a minimal risk to workers; for example, they do not have an independent bureau conducting published, long-run actuarial projections. Savings-insurance among high earners is also promoted by the tax exemptions and the regulatory infrastructure provided to the PCF and PCA plans (third pillar).

### **Employer Human-Resource Management Aims and Portability**

1.10 Some employers use contingent pension promises based on tenure to recover the costs of firm-specific training and team-building investments, and also to attract better employees. Of course, such contingent promises also reduce the portability of pensions among employers, so a tradeoff exists. In Brazil, PCF plans can be used as a human resource management tool; and, if the employer provides matching funds, PCA plans as well. Chapter 3 discusses whether the RJU serves these aims for the government-as-employer.

1.11 Within the RG there is full portability between employers because it is a single plan. Even though the RJU comprises many plans, there is also full portability. Portability between the RG and RJU was allowed, but the transfer values were inappropriate, offering large opportunities for arbitrage. Specifically, if an RG member switched to the RJU a few months before retiring, he or she would receive a higher RJU pension because RG benefits were based on a capped taxable salary, while RJU salaries were not capped. The lack of appropriate transfer values subsidized higher-salary switchers, a highly regressive outcome. The main parameters of the RG and RJU plans are summarized in Annex table 2.

### **Regime Geral Plan**

1.12 The RG is a traditional single-pillar plan in the sense that both redistributive and savings-insurance goals are served through the same program. The RJU did not have redistributive aims until 2002; it was a non-wage benefit far larger than the savings-insurance needs of its active members. Both the PCF and the PCA plans pay benefits that are complementary to those paid by the RG, making the overall system<sup>8</sup> roughly similar to the one in the United States.<sup>9</sup>

1.13 Before the reforms, the RG plan's a benefit formula had two options for urban workers: a pension based on age and another on length-of-service. Most urban workers

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<sup>8</sup> As compared with a three-pillar system, the RG lacks budget separation between the first and second pillars, where the first pillar is defined as programs that seek to help the elderly poor and the second pillar is defined as programs that seek to serve the savings and insurance needs of the middle classes.

<sup>9</sup> Major differences are that the social security program in the United States has much higher coverage than the RG, and in the United States, an independent institution is mandated to make and publicize frequent actuarial projections with a 75-year horizon.

chose the length-of-service pension, and, within it, 80 percent chose the early (called proportional) pension option, which required only 25 years of service for women and 30 years for men and had a replacement rate (for men) equal to  $(1/35)$  percent times the number of years of service, subject to a ceiling of 100 percent. There was a special formula for school teachers because they needed just 20 years of service for an early pension (25 for men). Urban workers can obtain an old-age pension (at age 65 for men, 60 for women) with nine years of service, although this requirement will gradually rise to 15 years of service by 2011.

1.14 In all cases, the averaging period was only the final three years of earnings. Pensions in payment have been indexed to inflation based on the Consumer Price Index (CPI) but the lag has varied over the years. The RG plan uses a defined benefit formula, but this promise is always subject to the risk that future legislation may change the level of benefits or the inflation-indexation rule for pensions in payment. The financing method for the RG is an unbalanced pay-as-you-go (PAYG), with both workers and employers making contributions, plus some revenue from earmarked taxes on sales and profits with the federal government covering regular shortfalls. The RG is operated by the INSS, a single federal organization with more than 1,200 branch offices and by a state-owned enterprise, Empresa de Processamento de Dados da Previdência Social (DATAPREV), a parastatal agency which provides data support to the Ministry of Social Security and does the information processing.

### **Regime Juridico Unico Plan**

1.15 The RJU was dominated by a length-of-service benefit formula that promised 100 percent replacement of final gross salary for men who had completed 35 years of employment (30 years for women). The early (or proportional) pension option required five fewer years of service and paid a replacement rate for men equal to  $(1/35)$  percent times the number of years of service, subject to a ceiling of 100 percent. School teachers and university professors were eligible for a pension with 25 years of contributions for women and 30 years for men, with no reduction in the replacement rate. There was no old-age pension at the RJU. In all cases, the reference salary was the final month's gross salary (no averaging). Each pension in payment was adjusted by the salary increase granted at the last post occupied by the pensioner, however idiosyncratic.<sup>10</sup> Federal workers have paid contributions to RJU only since 1992; and the contribution rate was raised to a flat 11 percent only in 1997. State workers contribute at various rates, and their pensions are subject to state income tax. Federal pensions, however, were not subject to federal income taxes. Although no government unit pays contributions as an employer, they cover the financial shortfall as it arises. The RJU plan is a defined benefit plan, but this promise is subject to the risk that future legislation may change the level of the first pension and the way it is adjusted for inflation. RJU is managed by a myriad of public entities, coordinated by the Ministry of Pensions and Social Assistance (MPAS). The RJU for federal civilian employees is managed by the Ministry of Administration

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<sup>10</sup> This is a particularly inefficient method of pension indexation. From the point of view of pensioners, it fails to diversify the risk of no increases from the jobs at which he or she retired. From the point of view of the employer, it raises the cost of restructuring the compensation of active employees.

and State Reform. Twenty-six state governments manage plans for their own employees, and nearly 2,200 municipalities have set up an RJU plan.<sup>11</sup> Before the reforms, the MPAS did not exert a central regulatory function on these other public entities. The financing of RJU is fragmented because each government unit is responsible for financing the benefits of its own employees, usually on a PAYG basis. Before the reforms, the budget of each RJU plan was fully integrated into the budget of the government unit that sponsored it.

## PERFORMANCE OF THE PENSION SYSTEM

1.16 Pension expenditures in Brazil were 9.8 percent of GDP in 1996, considerably above the average of 4.7 percent of GDP for middle-income countries and higher than the average 9.5 percent of GDP for the Organisation for Economic Co-operation and Development (OECD), where coverage is double the Brazilian rate and population aging has proceeded much further. Contribution rates for INSS, at 31 percent in the private sector, are among the highest in the world. As the total contribution rate for formal employment is nearly 50 percent, it is not surprising that the level of informal activity is high, reducing contribution revenue. Annex table 1 includes data about performance in 1994–98, before the reforms.

1.17 High pension expenditures occur primarily because Brazilian pensions begin at much younger average ages, provide higher average replacement rates, and have more lenient eligibility requirements than systems in other countries.<sup>12</sup> The underlying reasons behind these policies and outcomes prior to reform appear to have been the following:

- *Maturation of PAYG finance.* Commerce, banking, and industry were first covered under fully funded sector schemes in 1933–36. They were unified in 1964 (creating the RG) and the contribution rate was raised to 16 percent. The first generation of urban workers with a full contribution record retired in the late 1980s, leading a massive increase in expenditures.
  - Financial balance of any PAYG-financed plan requires large parametric adjustments to respond to shocks and maturation. In Brazil, these adjustments followed an unsustainable path: increasing the contribution rate to 31 percent, rather than reducing the pension age for the middle classes, which remained at excessive levels by international standards. The legislation mandating a defined-benefit promise for both the RG and RJU created a common situation in which negative shocks led to increases in the contribution rate, while positive shocks led to increased benefits.

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<sup>11</sup> This is out of a total of 5,500 municipalities. The employees at the other 3,300 municipalities participate in the RG plan. Before the 1988 Constitution, most state-level employees participated in the RG as well, and some still do (the so-called "celetistas").

<sup>12</sup> For example, many could start receiving pensions in their 40s with no minimum pension age and concessionary length-of-service pensions. There were no restrictions on multiple pensions and the requirements for survivors' pensions were very generous. Journalists, university professors, pilots, veterans, and anyone working in a firm that included some hazardous occupation had valuable special regimes (within the RG) that allowed early pensions without an increase in contribution rates or a reduction in benefits.

- *Relatively strong demand for redistribution toward the rural elderly.* Rural poverty has been a national preoccupation in Brazil for decades, caused in part by the skewed income distribution. Essentially non-contributory pensions for the rural elderly were added in 1971, resulting in substantial coverage by 1974.
  - In the euphoria that reigned at the end of military rule in 1988, the Brazilian political establishment included parametric reforms in the Constitution that further raised pension expenditure. Legislation implementing the 1988 Constitution was enacted between 1990 and 1992. It eliminated eligibility requirements other than age for claiming pensions in the rural sector, *reduced* the pension age by five years in the rural sector (to 55 for women and 60 for men), and *doubled* the minimum pension to 100 percent of the minimum monthly salary. In this way, one of the developing world's most progressive and expensive pension systems was established. Until now, this was seen as one of the greatest progressive steps of the return of democracy. Segments of the middle class obtained privileges as well: in 1990, a law mandated that the 270,000 federal workers contributing to the RG (80 percent of the total) switch to the RJU, where they qualified for much higher benefits. In June 1995 pension benefits were adjusted by 43 percent, even though inflation since the last adjustment had been only 22 percent.<sup>13</sup>
  - A combination of unfavorable demographic and economic trends—aging and a substantial drop in the average GDP growth rate after 1980 — represented a longer-term determinant of increased pension expenditures due to the risk allocation under a defined-benefit plan. This promise protects pensioners and older workers from sharing in the financial costs of unfavorable trends. The combination of low growth and population aging shifted the tax burden to future generations, while necessitating higher contribution rates or lower replacement rates. As a result, contribution evasion and informal labor market activity increased, reducing economic growth and contribution revenue, and, consequently, feeding back into higher contribution rates.

1.18 Third-pillar plans manage large pension funds in Brazil, but coverage is modest and has not increased in decades. Many PCF plans were under-funded before the reforms, especially those sponsored by state-owned enterprises. The few defined benefit PCA plans seemed to suffer little under-funding. Most PCF plans served a single employer before the reforms, so there was poor portability of pension rights across PCF plans.

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<sup>13</sup> See Giambiagi 2002, pp. 18–19. This author also disputes the notion that the end of hyperinflation in June 1994 raised real government expenditures by stopping the erosion exacted by inflation on the grounds that budget data do not show big increases until 1996. However, empirical work based on monthly data for 1984–91, provides strong econometric evidence that this effect did exist up until 1994, and saved RG a huge sum in net terms: an average of 2.88 percent of GDP for 1983–90. One way to reconcile these two studies may be that in 1994, at the end of hyperinflation, the authorities adopted special measures to prevent a fiscal deficit from emerging in the RG by changing indexation rules one more time. If this was the case, then study was successful in alerting the authorities and preventing a fiscal crisis in 1995–96.

There were a few large providers of PCA plans, and commissions were high. The guarantee in defined-benefit plans induced private-sector employers and life insurance companies to allocate resources for efficient portfolio management, but the PCF plans set up by state-owned enterprises did not have these incentives. Investment in foreign assets was prohibited. The tax treatment of savings in PCF and PCA plans was unclear until 2001, when a court judgment allowed the federal government to levy huge taxes on PCF funds.

## **GOVERNMENT REFORMS IN 1998–2000**

1.19 Brazil's attempts to reduce inflation in the late 1990s were initially threatened by growing fiscal deficits during the first Fernando Henrique Cardoso administration (1995–98). These deficits contributed to an appreciation in the real exchange rate, an expansion of current account deficits, and a substantial increase in the public and external debt. Excessive benefit growth in the mandatory pension plans also helped destabilize the overall fiscal framework, jeopardizing economic development.

1.20 The string of fiscal crises that besieged Brazil, starting with the Asian Crisis of 1997 and followed by the Russian Crisis of 1998, changed public perceptions of the value of fiscal stability for pressure groups and politicians. During the second Cardoso administration (1999–2002) there was a substantial fiscal adjustment at all levels of government, as indicated by the shift in the primary balance (excluding interest) from a deficit to a surplus of more than 3.5 percent of GDP. The adoption of tight fiscal policies for four consecutive years was instrumental to maintaining control of inflation—despite a large currency devaluation following the move from a managed peg to a floating rate regime in 1999—and reducing the current account deficit.

1.21 However, accepting the implications of this policy shift for pensions has taken time. The main political alliances delayed or blocked several reform attempts. When President Luis Inácio Lula da Silva assumed office, he gave high priority to fiscal stability, as President Cardoso had done before him.

1.22 Amendment 20 to the Constitution, passed on December 15, 1998, opened the door for the introduction of legislation to change the design and parameters of the RG pension plan, but not the RJU. Before this reform, the 1988 Constitution specified the most critical aspects of the benefit formula.<sup>14</sup> Amendment 20 also included important parametric adjustments. At RG, most special pension regimes were eliminated, and a ceiling on the monthly benefit was established at approximately 2.5 times the average taxable wage adjusted by price inflation. Other RG parameters remained in the Constitution after Amendment 20, such as the size of the minimum pension, because it was felt that this was necessary to protect the elderly poor.<sup>15</sup>

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<sup>14</sup> Rigidity extended beyond the benefit formulas. For example, the 1988 Constitution required all pension plans for government employees to be defined benefit plans, barring future laws that might permit civil servants to divert part of their salary to defined-contribution pension plans on a voluntary basis.

<sup>15</sup> The Constitution continues to require the minimum pension to be equal to the minimum salary.

1.23 At RJU, Amendment 20 modified the benefit formula by changing the base salary from the last salary to the best salary from positions the member held for at least five years. It also established minimum pension ages, and, although they were set at just 53 for men and 48 for women, the amendment penalized current employees taking an early pension benefit by 40 percent. The early pension with just 30 years of service (for men) was reduced to 70 percent from the 85 percent that resulted from the 1/35-percent-per-year rule.<sup>16</sup> Minimum pension ages for *new* RJU members were set at 60 for men and 55 for women, although the transitional formula was slow. Another adjustment was the establishment of a RJU vesting period aimed at those who switched from the RG. The new vesting period was 10 years of work in the government. Multiple pensions were prohibited under the RJU.

1.24 A reform in late 1999 replaced the benefit formula at the RG: the length-of-service formula was replaced with a hybrid formula called *fator previdenciario*, which is discussed in Chapter 3. The new benefit formula reduced expected pension benefits, mainly by increasing the averaging period for the base salary.<sup>17</sup>

1.25 The RJU plans were also subject to a second round of reform. In 1998, the federal government created a ceiling on state pension expenditures, requiring a minimum degree of self-financing for the state-level RJU plans. The federal Congress also authorized MPAS to withdraw federal transfers to states whose pension plans failed to meet minimum standards. This allowed the MPAS to exert central control on the RJU plans created by states and municipalities. Some states tightened their benefit rules; for example, survivors' benefits for unmarried daughters of covered workers were cut in the state of Rio de Janeiro.<sup>18</sup>

1.26 Reforms to the third-pillar closed plans (PCF) also proceeded in two phases. First, Amendment 20 prohibited public-sector-related employers from contributing more than their employees did to PCF plans. It also prohibited all public entities from subsidizing any pension plan for public-sector employees, except as sponsors. Finally, it required plans sponsored by state-level institutions to reduce their pension liabilities within a two-year period by adjusting benefits so the actuarial value of pension liabilities would equal plan assets. The second phase established the most sophisticated regulation for the third pillar in Latin America, creating ceilings for transfer values and authorizing unions and professional associations to establish plans. However, its implementation remains to be seen.

1.27 Although the scope and number of reforms is impressive by international standards, the reduction in expected benefit expenditures was small over the first five years as compared with the size of the initial deficits. There was no reduction in the 31 percent contribution rate for pensions (old age, disability, survivors, and workers

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<sup>16</sup> Because the full pension was preserved, the accrual rate for each additional year of service was raised from (1/35) percent to six percent per year  $((100-70)/5)$  up to a maximum of 100 percent.

<sup>17</sup> The *fator previdenciario* formula is: initial pension = base x *fator*. The main source of benefit reductions is the change in the "base" term, not the "fator" term itself.

<sup>18</sup> However, some responses have been inefficient. For example, some states devoted the proceeds of recent privatizations to fund the pension plans for their employees, with the "side-effect" of lessening the pressure to reduce pension promises.

compensation), despite the fact that this rate was strangling economic growth and tax revenue and thus weakening the government's fiscal stance. The government continued to raise the minimum pension by substantial amounts during 1999–2003, contradicting assumptions in the government's 2000–2001 published actuarial projections and forcing the RG back into deficit. However, the announcement of additional pension reforms by President Lula da Silva in early 2003 raised some hopes of achieving of a sustainable fiscal path.



## 2. Evolution of Bank Assistance to Brazil

### GENESIS OF BANK INVOLVEMENT

2.1 The main loans evaluated here were motivated by the Asian Crisis of 1997 and the Russian Crisis of mid-1998. These events led international investors to reduce exposure to emerging markets in general. Subject to closer scrutiny, the Brazilian fiscal position appeared weak because for almost a decade public spending had expanded faster than increases in tax revenue, triggering the so-called Brazilian Crisis. For the Bank, it was important to prevent the repercussions that a Brazilian Crisis would have in other emerging economies. It turned out that the Brazilian social security budget was a major source of fiscal weakness. As of 1998, the public pension programs showed a consolidated cash deficit of 4.8 percent of GDP. Within a rescue package of US\$ 41.5 billion organized by the International Monetary Fund, the Bank provided loans of US\$4.5 billion. Of this amount, US\$2.5 billion was linked to pension policy. The first two tranches of this loan package included large Social Security Sectoral Adjustment Loans.<sup>19</sup> A third structural adjustment loan (SAL) was planned by the Bank for a third phase of reform but had not been appraised as of mid-2003. Reform of the pension system became a centerpiece of the Brazilian government's strategy to signal to the financial markets its willingness to tackle structural problems that could put its debt service in jeopardy.

2.2 The Bank has had a long relationship with Brazil on pension policy, producing high-quality analytical reports at several points in time. The officials at MPAS have been fully able to maintain a dialogue with the Bank and have usually been very sophisticated. They surprised the Bank in 1996 when they decided to evaluate seriously the possibility of adopting the 1995 Italian reform that established notional accounts. The Bank reacted constructively to this initiative, as discussed in Chapter 3.

2.3 The officials we interviewed appreciated the Bank's assistance. Most said that Bank staff from the local office and Washington-based pension policy specialists were open to the ideas that guided each Brazilian administration in the pension area.

### DESCRIPTION OF BANK ASSISTANCE

2.4 During this period, Bank lending to Brazil relied on the following instruments: two large structural adjustment loans, two technical assistance loans: the State Pension Systems Reform Technical Assistance Project (PARSEP) and the Technical Assistance for Pension System Reform (PROAST), analytical studies of Brazilian pensions, and background work for several country assistance strategies.

2.5 The amount of economic and sector work (ESW) in Brazil was exceptional. The contents of several of these documents are summarized in the volume, *Brazil: Critical Issues in Social Security*, Vol. I (World Bank 2000a) and Vol. II (World Bank 2001).

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<sup>19</sup> The loan documents use acronyms, such as SS SECAL and S/S CAL. The SS indicates higher interest.

2.6 Each of the two SALs supported a large array of pension reforms which covered the RG, the RJU at several levels, and the PCF. The overall evaluation of the SALs and ESW is left for Chapter 3. The two technical assistance loans are evaluated in this chapter. (These technical assistance loans have not been evaluated by IEG yet, so this assessment is preliminary.)

2.7 PARSEP was devoted to the pension plans for state employees, which are the second most important segment of RJU plans. The objective was to prepare the 26 Brazilian states for the reform of their pension plans and assist the federal government in encouraging states to implement best-practice reforms. This objective was justified because state pension plans were insolvent and had become a major cause of the fragile fiscal situation of many states. For example, in Minas Gerais, Rio de Janeiro, and Rio Grande do Sul, the ratio of current pension expenditures to the wage bill ranged from 50 percent and 120 percent. In turn, the threat of default by some states was forcing the federal government to guarantee substantial amounts of state debt. A solution to the states' pension problems was therefore essential to achieving overall fiscal stability in Brazil. The relevance of this general objective is rated as high.

2.8 The first phase of PARSEP had six specific objectives: (i) to develop a sample database of active and retired state employees in at least 15 states; (ii) to train at least two officials in each state in pension modeling with the World Bank's Pension Reform Simulation Toolkit (PROST) program; (iii) to produce an actuarial projection for each state; (iv) to disseminate and debate the results in open forums; (v) to ensure states would strengthen their pension units; and (vi) to create a specialized technical unit at the federal MPAS to assist states and the Ministry of Finance on a permanent basis.

2.9 The second phase had two objectives: (i) for states to develop proposals for reforming their plans backing them up with actuarial simulations; and (ii) for states to disseminate and debate their proposals in open forums. The relevance of these specific objectives is rated as high.

2.10 The efficacy with which the specific objectives were achieved can be summarized as follows: In phase one: (i) eight states upgraded their information registries; reports from seven states indicate annual savings of R\$167 million from the elimination of unnecessary and fraudulent payments alone; (ii) although state officials were trained in the use of the Pension Reform Simulation Toolkit, they used a new Brazilian actuarial program more often;<sup>20</sup> (iii) at least 18 states implemented that program and have made actuarial projections; (iv) PARSEP funded 16 state-run stakeholder workshops; 11 workshops, courses, and seminars at the federal level; and nine training seminars for state officials. In one seminar, the pension minister from the Netherlands was invited. Some state officials were sent to a joint World Bank–Harvard course on pension policy. PARSEP also funded nine publications related to state pensions and edits the series, "Social Insurance Collection." Interviews confirm that PARSEP played the

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<sup>20</sup> The actuarial projections unit within the federal MPAS developed a new program better adapted to the Brazilian RJU's state and municipal levels. Training started with workshops and led to the establishment of a university degree program.

role of catalyst in supporting the pension reform movement in Brazil; (v) states have clearly strengthened their pension units, as shown by the other activities.

2.11 In phase two: (i) 22 states contracted actuarial baseline analyses and actuarial projections to assess the impact of various reform alternatives to address imbalances; four states are finalizing these studies; and (ii) public debate of these proposals is in the planning stage. Considering the small size of the loan and its large impact, the efficacy of PARSEP is rated as high.

2.12 A major outcome was that the federal MPAS developed a role in state pension policy that was much stronger than envisioned by PARSEP. This was mostly due to the commitment of the authorities who approved new federal legislation to reform the state pensions.<sup>21</sup> They granted MPAS the authority to certify state pension plans and to supervise them, assuring that they met solvency ratios set by federal law (see Chapter 3). If a state plan does not comply, the state is excluded from some federal transfers.<sup>22</sup> MPAS monitors, validates, and provides states with systematic technical assistance in legal, actuarial, administrative, systems, and legislative areas. It is also reaching toward the municipal portion of the RJU. PARSEP administrators reoriented some of the funds to support the establishment of a specialized technical unit at MPAS but on a larger scale. This unit created a database covering state legislation, organizations, and administrators. It is used to perform a new supervisory role and for best-practice dissemination of pension administration. The new Brazilian actuarial program includes modules to validate data, make actuarial projections, manage benefits, and also manage payroll. It is available on a compact disk and has online technical support from the MPAS, thereby facilitating its use in municipalities.

2.13 The overall outcome of PARSEP, which combines relevance and efficacy, is rated as highly satisfactory.

2.14 PARSEP had a substantial institutional development impact -- better defining the responsibilities of state pension plans and better aligning the capacity of the MPAS and state governments with their mandate to set policy for state pension plans. At first, this was achieved by funding key staff at the federal MPAS and then by giving the states the incentives and the technical assistance described above.

Regarding the resilience to risk of the flow of benefits from this loan, the following facts should be considered: (i) a pension reform movement has emerged in Brazil, with the substantial involvement of many states; (ii) a powerful new policy unit has been created at MPAS; and (iii) an association of state and municipal officials working in the pension area has been formed. This overall situation justifies a rating for sustainability of "likely." These outcomes suggest substantial stakeholder ownership too.

2.15 PROAST was dedicated to supporting the INSS, which runs the RG, and the federal Secretariat of Complementary Pension Plans (SPC), which supervises 360 closed

<sup>21</sup> At least five laws and decrees are involved: *Law No. 9.717/98*, *Decree No. 4.992/99*, *Law No. 9.717*, *Complementary Law No. 101*, and *Law No. 9.796*, among others.

<sup>22</sup> However, state-level plans for the judiciary and legislative are free from MPAS's regulatory authority.

pension funds. The INSS has 50,000 staff members in 1,200 field offices.<sup>23</sup> Some of its problems were weak revenue-collection and benefit-control procedures; lack of reliable information about contributors and beneficiaries; inadequate communications with the data processing agent; a high cost per client served; and slow customer service. The SPC, within MPAS and located in Brasilia, provided weak and fragmented supervision and operated a regulatory framework that lacked financial transparency in areas such as accounting records, funding levels, prudential controls on investment, and vesting rules.

2.16 The main objectives of this loan were to prepare strategic plans to strengthen INSS and SPC. Separate technical assistance loans were expected to implement the strategic plans that would be obtained. The original plan was to merge SPC with the Superintendent of Pension Insurance (SUSEP), which depends on the Ministry of Finance and is located in Rio de Janeiro. Another objective was to produce technical studies to back up three proposed complementary laws that would modernize the closed-pension-fund industry (described in Chapter 3). The work related to INSS and SPC was allocated 93 percent of the funds. The remainder of the funds was for studies to reduce evasion and to reform the workers' compensation insurance system. The relevance of the objectives related to INSS is rated as high. The relevance of PROAST objectives is rated as substantial.

2.17 The efficacy of PROAST will not be rated because it was still open as of early 2003. Some comments are offered: The strategic plan for INSS was subsequently implemented, with apparently satisfactory results. Nevertheless, when the bidding to purchase information technology for INSS was under way, a Bank officer rejected the guarantees brought by most bidders, and the purchase was delayed for one year. The Brazilian government diverted its request for a US\$ 90 million loan to computerize the INSS operations from the Bank to the Inter-American Development Bank. Separately, the leadership at SPC turned out to be inadequate, and the government failed to respond quickly.<sup>24</sup> Later, at the request of the government, these funds were redirected to studies that checked the quality of the INSS's databases. The objective to merge the SPC with SUSEP was abandoned. Identification of the advantages of a merger with SPC required additional work because SUSEP also supervises the insurance industry, and several open pension funds are offered by life insurance companies. SUSEP was not provided additional resources by this loan, so a merger would not make up for the lack of auditors in SPC.

2.18 The INSS work had a substantial institutional development impact, while the impact at SPC was negligible. The project management unit established under MPAS proved to be effective and is preparing proposals for new loans. This suggests a preliminary rating of modest for institutional development impact. There is no

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<sup>23</sup> In comparison, the U.S. Social Security Administration had a staff of 65,000 in 2003, distributed among 1,300 field offices, but served at least double the number of members that INSS did. See [www.ssa.gov](http://www.ssa.gov).

<sup>24</sup> One interviewee explained this failure as the result of the unplanned administrative load derived from the unexpected approval of one of the laws that modernized the closed pension fund industry, which required a one-by-one review of the bylaws of the 360 pension funds. However, SPC could have hired more personnel, so this explanation is not convincing.

information yet regarding the resilience to risk of the flow of benefits from PROAST. Therefore, sustainability will not be rated.

### 3. Impact of Bank Assistance

3.1 This chapter evaluates Bank assistance as a whole. The three areas to be evaluated are outcome, institutional development impact, and sustainability. Outcome is the combined result of (i) relevance of objectives and (ii) efficacy in achieving the objectives.

#### OUTCOME

##### Relevance of Objectives

3.2 Relevance indicates the extent to which the overall assistance had objectives that furthered both Brazil's development needs in the short term and the general aims of income security for old age in a balanced way.

##### Brazilian Development Needs

3.3 Brazil suffered from a vicious cycle of uncontrolled expenditures for number of years. Unsustainable increases in entitlements were implemented from 1992–1994, as granted by the 1988 Constitution. Growth in the primary fiscal deficit took place during the first Cardoso administration (1995–98). State-level expenditures increased until 1997. These expenditure increases all together led to reduced public investment and increased taxes. Taxes rose from 25 percent of GDP in 1992 to 34 percent in 2001. The government also financed expenditure increases by the expansion of the consolidated public debt, from 26 percent of GDP in 1994 to 39 percent in 1998. This displaced bank credit to the private sector and forced a substantial increase in market interest rates. In response, private investment was reduced to dismally low levels.

3.4 The payroll tax distorted the labor market. On top of the 31 percent tax rate for the INSS, other contributions brought the top marginal payroll tax rate to 50 percent in 2002 from 37 percent in 1980.<sup>25</sup> An extremely high payroll rate combined with tax increases that were unlikely to lead to gains in expected marginal benefits for individual workers<sup>26</sup> is one explanation of the low social security coverage rate, which *fell* by 10 percentage points from 1990 to 1999.<sup>27</sup> In response to the tax hike, the private sector

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<sup>25</sup> Government workers pay much smaller explicit contribution rates. Private sector positions must contribute eight percent of earnings to a severance guarantee fund. Some of these can be recouped easily.

<sup>26</sup> Most people do not know how to calculate the increase in the expected present value of future pension benefits perceived by a member of the RG plan that contributes one additional *real*. Many people in Brazil do not realize that they need to save significant amounts for old age (improvidence). High real interest rates in financial markets, the absolute illiquidity of pension wealth, and the high risk of legislated reductions in pensions are likely to reduce the perceived marginal value of additional pension promises to almost zero.

<sup>27</sup> The level of the coverage rate varies across definitions. It has been reported that The Ministry of Social Security calculated the share of the labor force that pays social security taxes to have declined from 48 percent in 1990 to 39.6 percent in 1997. However, another document from the Ministry's web page (April, 2003) showed a decline in contributors from 57.5 percent of employment in 1990 to 45.0 percent in 1999. The figures provided in this report represent the average between these two sources. According to Kaizo

moved part of its production from the formal to the informal sector, despite reducing the ability of firms to offer collateral, causing some of them to lose access to bank loans and capital markets. The result was slow growth, which averaged just 2.8 percent per year during 1994–2002 and 2.5 percent per year during 2000–02, despite a population growth rate of 1.36 percent per year. Slow growth jeopardizes the ultimate objective of poverty alleviation.<sup>28</sup>

3.5 Because slow growth and rising informal sector activity reduced tax and contribution revenue, the government was forced to make further rounds of cuts in public investment and to increase the domestic public debt. In response to a vicious circle of reduced revenues, reduced expenditures and rising debt, the domestic and foreign holders of Brazilian public debt suddenly could require a large risk premium to continue lending. This happened in 1998 and again in 2002. Because the public debt was short term, the 1998 hike raised nominal interest payments from 5.1 percent in 1996 to 9.1 percent of GDP in 1999.<sup>29</sup> Within this setting, we need to consider whether pension reform can contribute to reverse the vicious circle.

### **Balancing the Objectives**

3.6 The Bank faced two apparently conflicting objectives in Brazil. One objective would be to reverse the vicious circle described above. This could be achieved if current pensions were cut. After a few years of lower spending, lower taxes, and lower risk premia, a bigger GDP “pie” would allow for a higher degree of income security for the elderly. However, the other objective is to attain the general goal of any pension system. Income security for the old is imperiled if pensions are used to balance the fiscal budget every time there is a deficit. Because the elderly have a relatively high degree of risk aversion, other government programs should be cut first or other taxes raised.

3.7 This dilemma disappears if the level of benefit entitlement for the middle-income elderly is much more than proportional compared to past contributions. Experience around the world shows that objective of income security for old age can be used as a cover for selfish exploitation by privileged generations or groups, through mandates and even through constitutionally guaranteed pension promises. In Brazil’s case, pension expenditures were 9.8 percent of GDP in 1996, about double the 4.7 percent of GDP average for middle-income countries. After subtracting an estimated cost of 2.2 percent of GDP for rural pensions, Brazilian earnings-related pensions were 70 percent higher than the OECD average on a “GDP-points-per-contributor” basis.<sup>30</sup>

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Beltrao, the smaller figure includes agricultural (rural) workers in the denominator, while the larger figure only considers urban workers.

<sup>28</sup> This growth rate is much lower than the “pessimistic” 4.0 percent growth and way below the 6.0 percent growth assumed in the “expected scenario.” According to other work, the 2.8 percent growth is based entirely on technological progress, because capital accumulation per formal worker has been zero and the number of formal workers has remained constant despite population growth.

<sup>29</sup> Giambiagi 2002, table 1.

<sup>30</sup> This simple calculation uses the fact that coverage of contributions was 47.2 percent of employment in Brazil in 1996 and almost 100 percent in OECD countries, except Mexico, and that pension expenditure amounted to 9.5 percent of GDP in the OECD. Therefore,  $[(9.8-2.2)/(0.472)]/(9.5/1.0) = 1.695$ .

Studies show that this excess in pension expenditure occurred primarily because Brazilian pensions started at a much younger average age, provided much higher average replacement rates, and had more lenient eligibility conditions than those of European countries, despite similar past contributions.

3.8 The Brazilian debate, opponents to reforms that would reduce benefits responded by noting that the RG was almost in cash equilibrium—the cash deficit was about one percent of GDP—and that this cash deficit was smaller than the cost of rural pensions.<sup>31</sup> The conclusion was that there was no need to reform the RG plan. This conclusion does not follow if benefits are too generous, in the sense that they exceed the internal rate of return of the plan, even if the cash equilibrium is permanent. When benefits are excessive, cash equilibrium is achieved only with enormous contribution rates, and such payroll tax rates choke economic growth at great social cost. Moreover, projections showed that in Brazil, the short-term cash balance was bound to turn into very large deficit within a couple of decades. This fact raised the risk premium required by holders of current Brazilian debt, thus bringing the consequences of this future imbalance to the present.

3.9 Timely fact-finding led the Bank to the following preliminary overall strategy: seek permanent and immediate cuts in earnings-related pension promises—and even of pensions in payment, if possible, for the segments of the middle- and upper-middle-income classes that are being subsidized, while protecting income security for the elderly poor. However, reaching consensus in Brazil is very difficult. As a result, attempts to pass strong reforms led to weak reforms in the past. The scope for decisive cuts in pension spending, therefore, was limited. Another constraint was the suddenness of the fiscal crisis in 1998, which forced the government to design a package in a hurry, leaving little time for achieving a consensus within the federal administration, and even less so with Congress and the state governments. The Bank had to recognize these constraints and the fact that these constraints limited the scope for optimal reforms. The Bank's basic strategy consequently shifted to one of compromise.

### **SAL I and the Constitutional Reform**

3.10 At the request of the Brazilian government, the Bank started to prepare a large US\$ 757 million SAL loan in mid-1998. The government offered a large and diverse set of reform proposals, many of which shared the objective of improving the fiscal account. This section reviews the relevance of each proposal from two objectives: fiscal balance and income security in old age.

3.11 The first reform was a change in the Constitution to eliminate specific benefit rules and instead make them ordinary laws. Such a reform was essential for confronting the fiscal pressures of the RJU in the short term and of the RG in the longer term. This

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<sup>31</sup> A major exponent was a former minister at MPAS. Because RJU had a much larger deficit, there was no dispute about the need to reform this plan. Although the RG plan collects non-payroll taxes close to 0.72 percent of GDP, it also makes tax expenditures of 0.78 percent of GDP, so these two items roughly balance out.



reform was also essential for furthering the universal aims of pension policy in the future. Therefore, the relevance of this objective of SAL I is rated as high.

3.12 A set of specific reform proposals for the RJU promoted general pension policy aims in addition to improving the fiscal position. These were the establishment of solvency rules for pension plans at the state and municipal levels and the prohibition of multiple pensions. The same can be said of the reform of the RG that eliminated the special pension rules for five occupational groups because they were inequitable, inefficient (they impeded labor mobility), and fiscally costly. ESW showed that in the RG, the internal rate of return for a female worker with 25 years of contributions would have been 16.7 percent per annum in real terms.<sup>32</sup> Even though this internal rate of return is enormous by the standards of mature PAYG-financed plans, the fact that market interest rates in Brazil were also very high for a long time suggests that the generosity of the RG is matched by an equally enormous risk that promises that benefits will not materialize, just as the interest rates promised in the financial markets were not always honored.

3.13 As frequently happens in financially troubled PAYG plans, hastily designed reforms may give more priority to short-term savings and inadequate consideration to longer-term improvements in income security for the elderly. For example, the new 10-year vesting requirement imposed on those switching from the RG to RJU just before requesting a pension is detrimental to labor mobility. Similarly, the introduction of minimum pension ages under the RJU, which will rise to 60 for men and 55 for women, does not recognize the gains afforded by a flexible retirement age when coupled with an actuarial benefit reduction. Another example is the new rule that defines the base salary as the best one among the positions held by the member for at least five years, because it creates unnecessary risks for those workers who are promoted less frequently. The establishment of a separate ceiling on the monthly benefit under the RG would be detrimental when the benefit formula is well designed, because it creates an area where there is zero linkage between individual contributions and benefits. Finally, the prohibition against simultaneously collecting salaries and pensions (from previous careers) creates a tax on the labor supply of the elderly by taxing part-time work, and it prevents the public sector from drawing on experienced workers.<sup>33</sup>

3.14 A controversial component of the agreed program for SAL I was the elimination of proportional length-of-service benefits under the RG, that is, early pensions. This led

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<sup>32</sup>The internal rate of return for men was 13.02 percent real, also very high under the RG. These internal rates of return assume that workers pay only their share of contributions (10 percentage points), while the employer's contribution rate (20 points under the RG) falls on the employer, not the worker. The internal rates of return for RG would have been seriously overestimated if most of the employer's contribution had fallen on the worker. This is unlikely because other information suggests a high elasticity of labor demand to labor costs, which implies that the tax incidence of a large share of contributions falls on the employer. That incidence is the only one compatible with the low level of employment covered by RG (low coverage) and with the drop in coverage observed in response to rising payroll taxes. In the extreme case of full incidence on employers, a worker lucky enough to hold a covered job for his entire working life would get a take-home salary that is unaffected by the contribution rate.

<sup>33</sup> A more efficient approach is to allow workers to postpone retirement from the first job in exchange for a higher pension later with a fair actuarial adjustment.

to a delay in the issuance of new pensions for five years (1998–2003), thus saving cash in the short term. However, since publication of the 1995 World Bank report, *Brazil: Social Insurance and Private Pensions*, the authorities have known that this measure *worsened* the fiscal balance in the medium and long term because beneficiaries could claim *full* pensions after only five years instead of partial pensions (the replacement rate would be 100 percent rather than 70 percent). Apparently, this work was successful in alerting the authorities to this problem, because they announced that the formula for the full benefit would *also* be scaled down through separate legislation, which was to be passed within a year (the *fator previdenciario* reform, later supported by SAL II). Because a transitory elimination of an early pension always has a positive short-run fiscal impact in a PAYG-financed plan, this combination was fiscally prudent overall. However, the transitory elimination of the early pension option for fiscal reasons also reduces the reliability of the plan as saving-insurance from the point of view of by plan participants, thus raising the perceived contribution tax.

3.15 SAL I also had as an objective the approval of a law that gave the MPAS jurisdiction to regulate RJU pension plans established by states, municipalities, and federal entities. This law, mentioned earlier in Chapter 2, when rating PARSEP, also imposed minimum size requirements for the creation of new plans, established a maximum for the employer portion of the total contribution rate, prevented the creation of benefits not provided by RG, required the establishment of registries for individual contributions, and introduced an automatic increase to employee contributions when the employer's contribution rate reached 20 percent and the pension plan ran a cash deficit. One objective of these rules was to improve the states' solvency, which was highly relevant to reducing the Brazilian fiscal deficit. From the point of view of the general aims of pension policy, the relevance of the objectives of most of these rules is high.<sup>34</sup>

3.16 The SAL I package also included reforms to Brazil's third-pillar plans. The objective was to regulate the rules of the complementary pension plans set up by state-owned enterprises and non-profit public institutions at the state, municipal, and federal levels (PCF only). Studies have shown that in many cases these rules were overly generous and many of these plans were insolvent. The new laws established a maximum for the employer portion of the total contribution rate (allowing two years for implementation); prohibited public entities at any level from subsidizing complementary pension plans except as sponsors; and mandated insolvent plans sponsored by public institutions to reduce their benefit parameters to achieve solvency within two years. The obvious objective of these reforms was to reduce the Brazilian fiscal deficit. The relevance of the objectives of most of these reforms is also high in terms of the aims of pension policy.<sup>35</sup>

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<sup>34</sup> The exception is the last rule, which creates a negative bias when responding to shocks such as an increase in the average age of plan members, by placing all of the costs of adjustment on the take-home wage of active members. In employer plans, such as those under the RJU, this distortion can prevent the employer from hiring new young employees. A more balanced rule would have shared the cost of adjustment with the older generation, by either increasing the pension age or reducing benefit indexation.

<sup>35</sup> There is an exception here too: cutting benefit parameters to achieve solvency within two years without considering a sharing of the burden with the active contributor generation may place excessive burdens and

3.17 The overall rating of the relevance of this package must consider the large number of objectives included in SAL I, the urgency of cutting the fiscal deficit, the difficulties of reaching policy consensus even within the federal administration, and the limited scope for optimal reform. The overall relevance of the objectives of SAL I loan is high.

### **The *Fator Previdenciario* Reform and SAL II**

3.18 Well-focused ESW made clear that the main source of the short-run primary fiscal deficit in Brazil was the RJU, not the RG. However, Congress rejected the government's request to reform the RJU through ordinary legislation, taking the benefit rule out of the Constitution. In addition, the Supreme Court's rejection of taxes on RJU benefits paralyzed the government plans to reform the RJU. A new attempt at RJU reform had to wait until a third phase of more general reforms in the following presidential term. SAL II, therefore, was forced to focus on the RG alone.

3.19 The government reformed the benefit formula of the RG, introducing the *fator previdenciario* formula.<sup>36</sup> This change was designed to have an impact on the long-run actuarial balance. Although this might appear less than urgent, long-term actuarial balance can be critical when investors in public debt use long-term solvency indicators to assess the likelihood of payment. Disappointment with the speed of advancement in long-term solvency can trigger an immediate increase in the risk premium on short-term government debt, worsening the current fiscal budget. Despite its apparent orientation toward the long term, SAL II sought to help the budget in the short term.

3.20 Studies argued that Brazil could improve incentives and equity by adopting a notional-accounts formula in the RG plan,<sup>37</sup> because it meant an effective averaging period for setting the base income that would be much longer than the three years under the old formula. Longer averaging periods eliminate the incentive to over-report salaries that enter a short averaging period and underreport salaries in those years that do not enter the period. Long averaging periods also avoid subsidizing workers with a steeper age-earnings profile, e.g. higher-income workers.

3.21 The Bank's ESW also pointed out some risks of notional accounts as compared with simply legislating a higher averaging period within the length-of-service formula traditionally used by the RG. This work warned that if the notional interest rate is any fixed number—the authorities were envisioning a three-percent real rate—the plan's budget would not exhibit any tendency toward automatic financial stability, so the government would still have to cover the risks of demographic and economic shocks. ESW also pointed out that the use of notional accounts would *not* encourage members to

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risks on pensioners. The two-year adjustment period is also modest, considering the size of the deficits and the volatility of Brazilian financial assets.

<sup>36</sup> The *fator previdenciario* reform was approved on November 26, 1999.

<sup>37</sup> The history of this reform starts in 1996, when influential Brazilian officials began to consider the Italian example of 1995 of adopting notional accounts, later followed by Latvia and Poland. Since 1997, the Bank began to support notional account reforms in Latvia and Poland. Therefore, the Bank reacted constructively to this Brazilian initiative.

delay taking a pension if the rate of return credited on the accounts was perceived to be a ‘bad deal’.<sup>38</sup> Although notional accounts appear to tie benefits tightly to contributions, this is not so if the notional interest rate is below financial interest rates because the difference cuts the link in terms of present value.

3.22 The Bank’s ESW failed to point out some additional drawbacks of notional accounts as a cost-cutting device:

- (i) If t the starting point, a PAYG system exhibits a large actuarial imbalance (as in Brazil’s case) the information about individual notional account balances reported to voters every year might create an implicit fiscal guarantee of existing benefit promises, precluding cuts in excessive benefits under future legislation;
- (ii) If the contribution rate credited to a notional account in the RG were the full 31 percent, then the portion of the payroll tax used to subsidize rural old-age pensions (about five percentage points) would *not* be subtracted from contributions, leading to excessive balances in the individual accounts as well as excessive pensions; and
- (iii) The same thing happens when contributions for disability and survivors’ insurance, and maternity and health benefits, are not subtracted from credited contributions.

3.23 Considering these aspects, the relevance of introducing the *fator previdenciario* formula in the RG is rated as modest.

3.24 SAL II also supported the following smaller reforms in the RG:

- (i) Four measures to increase coverage, which streamlined the regulations that governed the participation of the self-employed. The relevance of some of these is unclear, such as reducing the interest rate to six percent per year on late contributions, a figure that does not take into account the fact that market interest rates had been much higher.
- (ii) New rules that limited the issuance of disability benefits to cases in which a clear link existed between covered work and illness. The discussion of this objective in the loan documents was modest, so relevance cannot be assessed.
- (iii) A new bill that redefined crimes with regard to social security.
- (iv) A system in which the RG and RJU compensated each other financially when a member switched plans.

The relevance of the last two reforms for the aims of general pension policy is high.

3.25 Another objective of SAL II was to complete the consolidation of all information registries for members of the RG (unified information registries, which were to be free from duplications and mistakes. Such institutional infrastructure has a broad

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<sup>38</sup> The higher liquidity afforded by an early pension is another reason to prefer one, which also prevents notional accounts from encouraging delayed pensioning.

impact, which is not limited to reducing the administrative costs of public services. Consolidated registries also improve the ability to target subsidies to the poor at the federal, state, and municipal levels, and crosscheck the databases of different pension plans to identify inconsistent benefit entitlement. The relevance of this objective is rated as high.

3.26 SAL II also supported three new legislative bills that modernized the complementary pension system (both PCF and PCA). The first two bills were (i) *Bill 63/99*, which changed the 1977 framework for the supervision and operations of PCF plans; it also introduced new maximum vesting and minimum portability rules and allowed entities other than single employers to set up plans; and (ii) *Bill 01/00*, which regulated the role of public-sector entities and agencies as sponsors of complementary pension plans and proposed that the plans' boards include member representatives. These two bills were supported by detailed ESW that brought together international experience on pension funds for government workers. The relevance of the objectives of *Bills 63/99* and *01/00* is rated as high.

3.27 The third bill, *Bill 09/99* (also called PL9), did three things: (a) created ceilings on taxable earnings and on benefits in the RJU equal to the ceilings in the RG; (b) allowed the contributions on earnings that exceeded the ceilings to be invested in new funded plans that the state, municipal, and federal levels of government would be allowed to create and sponsor; and (c) prevented the political manipulation found in many state-managed pension funds in Brazilian state banks and in the Latin America and Caribbean Region generally; this bill added a regulatory regime that subjected the new funded plans to external supervision by the SPC, banned loans to plan members and prohibited the new plan from purchasing securities issued by its sponsor.

3.28 The ceiling on taxable earnings and benefits allowed immediate benefit cuts, but the Supreme Court could rule them unconstitutional, so their value was limited and their relevance was modest. The creation of new complementary funded plans would *worsen* the cash deficit in RJU because the revenue attracted to the new plans would be diverted from RJU—the 11 percent contribution rate times the excess in salary over the RG ceiling. This is the traditional transition deficit that appears when members of a PAYG-financed plan are allowed to divert contributions to a new funded plan. This obstacle was ignored by the loan documents, despite the ESW reference to it. One way to avoid a worsening of the cash deficit in RJU would have been to cut benefits even more than if this diversion were absent, for example, by cutting the replacement rate in the RJU below the current 100 percent, as recommended by ESW. The idea behind *Bill 09/99*, endorsed by the loan documents, was that civil servants would accept deeper cuts in the RJU replacement rate because they would trust the benefits promised by the new plans more than the benefits promised by RJU ("new deal"). This fails to address the distribution of the transition deficit across generations. Consider the transition generation, for example, those older than age 40: because they would accumulate only a small amount under the new plan, their new benefits would be small, so they would also demand a high RJU benefit and would accept, at most, a small cut in RJU benefits. Thus, the diversion of contributions would be much larger than the cut in benefits during the first decades. Considering the fiscal situation in Brazil, the relevance of this aspect of PL9 is rated as

negligible. The regulations that made up the third component of PL9 were highly relevant, both for the fiscal position and for pension policy. Considering all of the components of PL9, its relevance is modest.

3.29 To sum up, the relevance of the diverse set of objectives in SAL II is rated as substantial. The relevance of achieving long-term actuarial balance in RG was high for Brazil because interest expenses could be reduced by showing investors real advances in fiscal solvency.

### **Cutting RJU Benefits**

3.30 One objective espoused by the Bank's pension program was to cut pension benefits in the RJU.<sup>39</sup> This obviously would contribute to improving the short-term fiscal situation.<sup>40</sup> The question is whether other objectives of general pension policy put limits on benefit cuts in the RJU, and how far those limits were from the initial conditions. We argue now that such limits were not binding.

3.31 One approach is to ask how much RJU benefits can be cut if they are to serve as saving-insurance, a goal that requires that the system pay a return on contributions close to financial market interest rates. ESW amassed evidence about this: up until 2003, federal civilian RJU pensions started at an average age of 56 and offered a replacement rate of 100 percent, in exchange for zero contributions up until 1997, and for a contribution of only 11 percent thereafter.<sup>41</sup> This combination is much more generous than the international standard for middle- and upper-middle-income pensions, which provide replacement rates between 40 percent and 70 percent for 45 years of contributions, reflecting rates of return between 12 and 20 percent. In addition, federal pensions were exempt from federal income taxes until 1998. The internal rate of return must have been almost infinite in RJU, because of the zero contribution until 1997. A more realistic reading is that RJU benefits cannot be defended as the outcome of a savings-insurance system.

3.32 A separate aim of pension policy is to allow employers to use permanence-contingent pension promises for human-resources management by attracting better employees and reducing the degree to which firm-specific training and team-building investments are lost through employee turnover. When employers do this, a portion of future pension payments can be interpreted as *deferred wages* owed by the employer. In this setting, the concept of the "employee contribution" disappears.<sup>42</sup> For this

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<sup>39</sup> See World Bank 2001, pages 13–14.

<sup>40</sup> The government-as-employer does not pay contributions to the RJU, so the deficit figure for RJU is not informative. Other studies assumed that the budget transfer to RJU is made up of an imputed contribution plus a "pure" subsidy.

<sup>41</sup> The two percent contribution that applied from 1992 to 1997 was used to finance survivors' insurance, which is a different benefit and thus should not be counted. The figures are different for each state-level and municipal RJU, as well as for the military and the judiciary.

<sup>42</sup> The employer's contribution remains, but it and the pension fund have the role of guaranteeing the employer's commitment to pay the deferred portion of the wage, even if the employer closes down. This role is different from the one of pension funds in savings-insurance plans.

interpretation to apply, the total pension must be above the level that self-financed savings for old age would have achieved in a spot labor market because the incentive to not quit is the excess of the deferred wage over a self-financed pension. Therefore, a valid question is whether the current level of RJU pensions can be interpreted as a deferred wage owed by the government-as-employer. This debate may underlie the divergent conceptual frameworks that political actors have had in Brazil, delaying agreement about the reform of RJU.

3.33 The amount of the deferred wage must be set as a function of the years of service to this *specific* employer, excluding service with other employers, to be a real deferred wage. The exclusion is essential because the training that the employer seeks to protect is specific to it, not the training that is usable by many other employers. In the case of the civilian RJU plans, service under the RG and other RJU plans is fully counted as valid for the current employer's RJU plan, so this essential condition is not met. Moreover, the use of this human-resource management tool implies that the deferred wage will be denied to those workers who do not meet the permanence or vesting requirement because employees who leave such jobs negate the employer's investment in firm-specific training. In the civilian RJU plans, early leavers are penalized somewhat because the pension is reduced by a semi-actuarial amount. Finally, an equilibrium deferred wage cannot be too large. According to international experience among large employers, the employer's contribution needed to finance a deferred wage is between 15 percent and 25 percent of the current take-home pay for a steady age distribution of employees. In the RJU, this would imply benefit spending equal to (25/11) or (15/11) the current contribution revenue. In fact, RJU spends *four times* its contribution revenue in pensions. The excess cannot be explained as a deferred wage.

3.34 The conclusion is that excess RJU pensions are a subsidy legislated in the past, hidden in excessively generous early retirement and excessive replacement rates. Therefore, the relevance of the objective of taxing RJU benefits is rated as high. The remaining issue in the reform of RJU plans is about property rights in a transition phase.

### **Pension Inequality and Media Strategy**

3.35 One element of the government's media and political strategy to promote the reform was the slogan "reducing inequality between *average* pension benefits" – for example, between the RG (low) and the RJU (high), or between the average deficit per beneficiary for the RG and RJU. And within the RG, an objective was to reduce the inequality between *average* pension benefits from length-of-service pensions and old-age pensions.

3.36 Equalizing average pensions is incompatible with the objective of making the RG and the RJU serve the saving-insurance needs of the middle classes. If this objective is to be achieved, the size distribution of pensions should roughly replicate the size distribution of taxable earnings, and, therefore, should replicate earnings inequality up to the ceiling in taxable earnings. Provided all pension benefits are subject to a progressive personal income tax, the use of earnings-related plans also allows for an increase in the volume of tax revenue and degree of progressive redistribution compared to a situation in

which the middle classes save for old age in tax-exempt vehicles or investments such as real estate and gold where tax avoidance and/or evasion are easier to accomplish.

3.37 However, substantial Bank ESW was devoted to supporting the objective just stated,<sup>43</sup> without controlling for the factors that justify a certain amount of pension inequality. This work cites the fact that the average federal civil service pension<sup>44</sup> is three times the average length-of-service RG pension as evidence of inequity between the RJU and RG. Part of this difference, however, may be owing to legitimate factors. First, the ceiling on taxable wages in the RG, which implies a ceiling on benefits, and the absence of a ceiling in the RJU, explain part of the inequality. Second, in most countries, taxable earnings are higher in the public sector than in the private sector because of higher qualifications, more effective unions, or both.<sup>45</sup> This difference in earnings is expected to be replicated by differences in pensions.

3.38 Bank ESW also pointed out that when the earnings-related portion of a plan is actuarially unbalanced, as in Brazil, future generations (including the future poor) will have to be taxed in order to cover the future cash deficit in the plan, while the plan effectively subsidizes current generations, including the current rich. This is correct only if future net taxes take a flat-rate form. It is incorrect if future net taxes are expected to be modestly progressive, for example, by having a large exempt amount or by financing large social assistance programs.

3.39 Other ESW studies do better by defining pension inequality as the difference in the internal rate of return for different strata of middle-class members. This measure is adequate for identifying regressive earnings-related plans, and shows that the plans in Brazil were regressive. More detailed work might have uncovered large pockets of pension inequality in RJU that could not be justified as a consequence of legitimate factors. For example, in July 2003, it was discovered that state-level judges in some northeastern states managed to have salaries that were four times that of President Lula da Silva, and their pensions were 100 percent of their salaries.

3.40 It is not clear that the Bank should go along with a media strategy that fails to make appropriate distinctions. This strategy may provoke unwarranted confrontation with middle-class groups. A greater degree of subtlety might have improved the political economy of the Brazilian debate through recognition that some arguments of the opponents of reforms were valid, but only to a limited quantifiable extent. Avoiding unwarranted confrontation could have built more trust and may have speeded up agreement. However, given the fiscal vulnerabilities, the time for focused ESW was scarce under Brazilian conditions. Because the government's media strategy was a given, subsequent nuances might have backfired diminishing the prospects for approval of the reform. The relevance of this ESW is rated as modest.

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<sup>43</sup> See World Bank 2000a, pages 3, 13, 91–102, 194–196.

<sup>44</sup> For *Executivos Civis* (R\$2,272 as of 2002).

<sup>45</sup> Data such as the 140 percent ratio between the average monthly pension paid to retirees from the legislative branch and the average monthly salary paid to active workers in the same branch can be easily explained as the standard result of a final-salary benefit formula (like the one in many employer plans and in RJU) plus the fact that salaries rise with seniority in most large organizations.



### Omissions I: Improvements of the Rural Pension

3.41 In Brazil, the main pro-poor pension program grants a minimum pension to the rural elderly without eligibility requirements. Because of the fiscal situation, reforms to improve the fiscal efficiency of this program were relevant. Relevance was increased further since the young poor received worse treatment than the elderly poor. In 1998, among the rural population aged 67, the proportion with no income from work or pensions was six percent for men and 17 percent for women. The same indicator for those aged 30 was much higher: 16 percent for men and 66 percent for women. Moreover, there was good reason to worry about poverty among the *urban* elderly, as compared to the rural elderly. As shown in Beltrao et al. (2002), the analogous statistics for the urban population aged 67 and over are eight percent and 26 percent (for men and women, respectively).<sup>46</sup> In 1995 the level of the rural pension was *above* the poverty line proposed by a fiscal commission under the Fernando Collor de Mello government in 1992. A proposal to scale back the level of the rural pension was made but was not adopted. Among the poorest five percent of the population, 99 percent was aged 59 or younger in 2001.<sup>47</sup>

3.42 In 1991, Brazil adopted a policy of gradually increasing the RG vesting requirement from five years in 1991 to 15 years by 2011 for urban residents to become eligible for the minimum pension. This policy may exclude poor urban women because they may be unable to meet the 15-year vesting requirement when they reach age 60 if they have not worked in covered positions most of the time. The impact on poor urban men is likely to be smaller because they can request a minimum pension only at age 65 (not 60), and at age 67 the urban poor gain access to assistance pensions operated by the INSS. Other research has shown that these vesting requirements also distort labor choices. The Bank's 1995 ESW supported the policy of increasing the vesting requirement to 15 years and even proposed a further increase. Although a tighter vesting requirement would improve the fiscal position, it would also contradict the equity objective of pension policy.

3.43 Bank ESW in 2000 and 2001 explored these issues in a very different way; it engaged local researchers to produce detailed reports.<sup>48</sup> This work avoided discussing the proposal to raise vesting requirements for the minimum pension. It also explored a budgetary separation of the redistributive programs from the savings-insurance pensions earned by the middle classes. This would have meant splitting the budget for the minimum pension supplements from the RG (100 percent of rural pensions, plus 40 percent of urban pensions get some supplement), and possibly merging it with the other sources of social assistance, including the one managed by employers' associations. Budget separation is compatible with the continuation of payroll taxes, though a separate

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<sup>46</sup> See graphs 4 and 9 in Beltrao, Pinheiro, and Barrueto de Oliveira 2002. This paper uses data from a national household survey (PNAD) and thus does not rely on INSS records. The INSS alone covers 77 percent of the elderly, according to the MPAS. This percentage is raised considerably when including the elderly who support themselves through work or rental income; plus those who receive RJU, PCF, PCA, and Sistema-S pensions; plus widows and those with disability pensions.

<sup>47</sup> From an interview with Kaizo Beltrao.

<sup>48</sup> See World Bank 2001, pages 49–61, 169–171, and World Bank 2000a, pages 76–87 and 194–195.

rate would be levied.<sup>49</sup> This work acknowledged the standard objections to budget separation that it may reduce the political backing for rural pensions and, thus, the overall degree of redistribution because the middle classes would be free to press for improvements in their own pensions without considering the impact on the poor.<sup>50</sup> In 1998/99 with partial support from the Bank, Brazil created a legal designation of "protected program" for social protection programs that are critical for the poor. This legal reform meant that the government changed its procedures for budget cuts, removing the option of imposing across-the-board cuts that would hurt the poor.

3.44 ESW in 2000 and 2001 also argued that current financing of rural pensions through payroll taxes was inequitable because government workers in the RJU were exempt. These exemptions are also inefficient because they distort choices among jobs and sectors. Moreover, ESW pointed out that the *fator previdenciario* reform, which reduced benefits in RG, might induce some lower-income urban contributors to shift to the informal sector and claim the minimum pension. ESW also proposed introducing some modest targeting in the rural sector, possibly by withdrawing subsidies from the rural elderly who were definitely not poor.

3.45 Unfortunately, this valuable work was not included when the Bank's strategy for pension SALs was formulated. Objectives relating to the elderly poor were excluded from the five proposed priority goals. Because of the fiscal situation explained earlier, the relevance of reforms that improved the fiscal efficiency of a program that paid 2.2 percent of GDP during 2001 could have been high. For example, a split of the RG's contribution rate between a five-percent wage tax directed at financing the elderly poor's pensions and the 26 percent for earnings-related pensions, along the lines suggested by the ESW, would have allowed extending the five-percent wage tax to RJU members, which would have provided revenue equal to an additional 0.23 percent of GDP. The exclusion of improvements to the rural pension from the strategic pension objectives seems to reflect a judgment that bringing up fiscal issues risked cutting benefits for the elderly poor, and that savings of about 0.23 percent of GDP were not as large as those that could be obtained from other reforms. Since the safety net for the elderly poor was preserved by the reform, the relevance of this omission is rated as modest.

## Omissions II: Overall Compensation in Government Jobs

3.46 The idea of reducing RJU benefits to the level justified by, for example, a six-percent return on contributions, was not explored by the Bank's ESW. It would have raised concerns about comparative compensation for the current stock of employees.

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<sup>49</sup> Budget separation can also be beneficial for a reason not mentioned in ESW: the higher degree of transparency associated with budget separation is politically useful to make redistribution more efficient and more equitable across age groups, because it becomes easier to block transfers to those who are relatively better off and improve the financing side of the program.

<sup>50</sup> ESW did not mention that in the background looms the connection between budget separation and privatization of the provision of pension services. Because budget separation is a precondition for privatization, some oppose the former in order to prevent the latter. However, President Lula's secretary of pensions pointed out in an interview that budget separation can coexist with public provision of pension services, a compromise that negates this objection.

Workers that entered certain types of government jobs in the past may have been willing to accept relatively low take-home salaries in exchange for high expected pension benefits. If pension benefits were cut *ex post*, these workers would be right in regretting their past labor decisions. After benefits are cut, the rate at which workers quit and the early-pension rate could rise at a high cost for the government-as-employer.

3.47 In interviews it was asserted that *professionals* in the federal government currently earn unusually low take-home salaries, as they have over the past five to eight years.<sup>51</sup> It is also a fact that recent openings posted for federal civil service jobs received hundreds of applications per position. This is not contradictory because the labor market is a search market, and new vacancies in Brazil have been few overall since 1998. So this evidence merely demonstrates that wages for new jobs are well below wages for jobs in the past. There also exists anecdotal evidence that wages for *state employees* have been squeezed downward, possibly because rising pension expenditures crowded them out of state and federal budgets. The pension indexation system in the RJU—where any salary increase (or lack thereof) in certain positions is passed along to pensioners retired from comparable positions—has made all salary negotiation more costly.

3.48 However, the anecdotal evidence about low-level staff in the federal government is that they earn take-home salaries far above those in alternative jobs. One source of this asymmetry may have been the inflationary period, when wage indexation was subject to ceilings that were a function of salary level.

3.49 The question remains is whether career prospects for professionals joining the public sector may be too low as compared with career prospects in the private sector, and whether those prospects could worsen if RJU benefits are cut. It would be desirable to jointly determine take-home wages and RJU pensions. The Brazilian government has been developing a reform of its civil service since 1998, backed by a separate SAL from the Bank.

3.50 However, no study systematically assessed relative compensation for different types of public and private-sectors positions, and the Bank's pension strategy failed to link pensions to the government's human-resource management objectives. One possible explanation is that policy proposals to confront this problem can be easily criticized as regressive, making negotiations of pension reform even more difficult. Conversely, this omission may have exposed the Bank to valid criticism from professional government employees unions. Avoiding unwarranted confrontation could have built more trust and speeded up agreement about reforming the RJU. The relevance of this omission is rated as substantial.

3.51 From the point of view of third-pillar policy, SAL II also omitted the objective of tax-regime predictability. The tax risks faced by Brazilian pension-plan members and sponsors were great at the time, as evidenced by a major court case that later in 2001 resulting in an unexpected tax bill of R\$10 billion (US\$4.1 billion) paid by members of

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<sup>51</sup> In interviews we were told that in Rio de Janeiro state, doctors earn US\$400 a month when they are employed by the state, but they can earn US\$1,200 in the private sector.

the PCF plans. However, in the Brazilian context of fiscal urgency it would have been imprudent to preempt future taxes. Balancing these objectives, the relevance of the decision to do nothing regarding tax predictability for third-pillar plans seems modest.

### **Omissions III: A Radical Pension Reform**

3.52 In a number of countries, the Bank promoted the creation of a defined-contribution, fully funded, and privately managed plan for savings-insurance, as espoused in the Bank's 1994 flagship publication, *Averting the Old Age Crisis*. This pillar can contribute to overall income security in old age by reducing the dependence on PAYG-financed plans with defined-benefit rules, which are vulnerable to delays in legislated adjustments to budgetary shocks. Another contribution is to preempt the bias against future generations that leads many PAYG plans to adjust financing shortfalls by raising contribution rates rather than increasing the pension age. In countries where a chronic shortage of domestic savings is the main obstacle to growth, it could lock in public savings for several decades, making a decisive push toward development impossible.

3.53 Almost all Brazilian politicians rejected the creation of this pillar,<sup>52</sup> for both good and bad reasons. Some expressed sentiments against private financiers, others believed that privatization implies abandoning social aims, and others emphasized that second pillars were pioneered by a dictatorship (in Chile in 1973–90).<sup>53</sup> A substantial objection was that the diversion of part or all of RG or RJU member contributions to new fully funded pension plans would create a large "transition" cash-flow deficit.<sup>54</sup> Although such costs can create serious fiscal problems if mismanaged, several countries have managed them well by adjusting other pension program parameters. In 1994, Brazilian fiscal conditions were not yet in the dire straits that they were to be later in 1998, so this option may have been available. For example, the RG had a surplus of 0.467 percent of GDP in 1993, and the Bank projected that the deficit would be just 0.2 percent of GDP for 1995, rising smoothly to a deficit of 1.15 percent of GDP by 2000.

3.54 However, the RG's cash deficit was expected to rise to six percent of GDP by 2050, even with the *fator previdenciario* reform, and continue to grow thereafter. There existed a window of opportunity to prevent the further growth of hidden pension debt by moving toward funding when fiscal conditions permitted. Instead, the Bank repeatedly deferred to the Brazilian preference. For example, the January 1995 World Bank report, "Brazil: Social Insurance and Private Pensions," proposed introducing parametric reforms to the existing PAYG scheme, followed in a second phase by a reduction in contribution rates, while a partial move toward funding was left until a vague third phase. The mid-1990's country assistance strategy suggested parametric reforms that would tighten the benefit formula and the early pension rules, but it did not mention any transition to funding. Of course, once the fiscal expansion of 1994–97 was under way, and after the

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<sup>52</sup> This position has been remarkably persistent. More recently, just four members of the federal Congress supported the proposal by Paulo Rabelo de Castro to adopt a funded second pillar. Our interviews in February 2003 confirmed this fact.

<sup>53</sup> The presence of a third pillar in Brazil is not a convincing objection to a funded second pillar because its coverage is limited (five percent) and is likely to remain so.

<sup>54</sup> This objection was fully acknowledged by an ESW.

1998 crisis, a switch to funding became incompatible with short-term fiscal needs. By the 1998 crisis, a move to funding was not an option in the short run.

3.55 Still, ESW in 2000 showed that if Brazil chose to start a funded plan in 2005, it could finance the transition cost by increasing the pension age gradually to 65 for men and 60 for women by 2025.<sup>55</sup> The transition-cost objection also does not apply to a conversion of the eight percent of earnings currently contributed for severance payments at RG-covered jobs into contributions toward a new funded and mandatory plan, complementary to RG benefits.<sup>56</sup> The RG also held a fund of about R\$100 billion (US\$40 billion) to pay for its own transition. Still, in 2000, the Bank did not press Brazil to legislate the gradual introduction of a funded second pillar. The reason was not technical, but simply because of the opposition of the Brazilian government. The relevance of this selection of objectives, in which some general aims of pension policy were given less priority than local policy preferences, is rated as substantial.

3.56 It is useful to recall here that the relevance of the objectives of PARSEP was rated as high, and that the relevance of the objectives of PROAST was rated as substantial.

## **EFFICACY**

3.57 Efficacy indicates the extent to which the objectives of the Bank's assistance were achieved. The focus of this section is on the success of implementation. Although many of the effects expected from a pension reform only materialize in the long run, a preliminary evaluation of whether the main objectives of the reform are likely to be met is offered.

## **SAL I and Constitutional Reform**

3.58 Congress approved taking the RG's benefit formula out of the Constitution, and this must be rated as a success. However, Congress also rejected an analogous move for the RJU's benefit rules. This setback had not been reversed by 2003, so the efficacy of the Bank's efforts was modest.

3.59 At the RJU, other reforms in the SAL I package achieved immediate fiscal savings, specifically by (i) imposing much tighter vesting requirements on those that switched from the RG to RJU just before requesting a pension (pensions are higher in the RJU); (ii) introducing minimum pension ages of 53 for men and 48 for women in RJU, a measure that delayed 36 percent of the flow to new retirees (the minimum ages will rise very slowly to 60 for men and 55 for women); (iii) reducing the base salary in the RJU's

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<sup>55</sup> See World Bank 2000a, pages 69–71. Financing a transition with an increase in pension ages also implies an intergenerational redistribution, in this case, against the generation that is forced to delay pensions and in favor of future generations. However, if this reform allows the country to escape a low-growth trap, all generations could be better off.

<sup>56</sup> As pointed out by Marcelo Estevao, Brazil recently introduced an unemployment insurance scheme, thus reducing the justification for the severance payment scheme. The INSS database may serve to allocate the current fund of about R\$100 billion among RG members.

benefit formula from the last salary to the best one among the positions that the member held for at least five years; and (iv) prohibiting multiple pensions in RJU.

3.60 In RG, some immediate savings were achieved without affecting income security for the elderly: (i) elimination of the more favorable pension rules for five occupational groups—journalists, pilots, professors, veterans, and all the employees of firms that perform hazardous duties, even if they are not personally involved in such duties; (ii) establishment of a ceiling on the RG’s monthly benefits; and (iii) prohibition of the practice of crediting years of service in the absence of contributions. The efficacy of the implementation of these measures in the RJU and RG is rated as high.

3.61 The elimination of *proportional* length-of-service benefits in the RG (that is, early pensions) was eventually successful because the new benefit formula in the RG (the *fator previdenciario* formula) did allow for early pensions, also preventing a large increase in the number of (much larger) full pensions. The reintroduction of early pensions through the *fator previdenciario* formula also preserved a source of flexibility that is valuable for plan members. Efficacy in this area is rated as high.

3.62 The legal reforms that established a new regulatory regime for state and municipal RJU plans and gave the MPAS regulatory authority over them were all approved and put into practice without substantial obstacles. Efficacy here was high too.

3.63 However, the efficacy of the set of rules for pension plans at the state and municipal levels that established minimum solvency requirements should be closely reviewed. Some states privatized state-owned firms and other assets to fund existing PCF plans for civil servants.<sup>57</sup> The danger is that the funding may be excessive, in the sense that it may allow current state employees to obtain state assets in the form of excessive pensions. This route for adding funds to the state pension funds was not foreseen in the regulatory legislation endorsed by SAL I. The efficacy of this legislation is rated as modest.

3.64 Loan documents for SAL I accepted government projections of its immediate fiscal implications. Although the loan documents acknowledged the risk that the fiscal projections in for the reform might not be realistic, it still asserted that the estimated short-term fiscal impact of the first phase of the reform was probably accurate. Projected savings for the RJU at all levels (federal, state, and municipal) for the first 12 months after implementation were R\$11.3 billion (1.4 percent of GDP); projected savings for the RG were R\$3.8 billion of projected savings in RG (0.5 percent of GDP). However, a substantial portion of the savings in the federal RJU (R\$6.1 billion, 0.76 percent of GDP) were expected to come from further reforms, such as new taxes on pensions in payment and increases in contributions in the federal RJU, although this had already been rejected in a first vote in Congress.

3.65 The government's fiscal projections, therefore, were based on a resubmission to Congress and the presumption that it would be approved. It turns out that the government

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<sup>57</sup> From an interview with Flavio Martins, former president of Rio-Previdencia.

succeeded in January 1999. However, the new law was challenged in the courts and then struck down by the Supreme Court in September 1999. A new version of the rejected proposals had not been approved as of early 2003. According to later simulations, the actual fiscal savings for the federal RJU were about 0.15 percent of GDP up to 2005, which is a fifth of the promised reduction. If double this amount were assigned to savings by the state and municipal plans of the RJU and complementary pension plans sponsored by public entities, and all projected savings in RG were made good, then the fiscal impact of the first phase of the reform was just 50 percent of the overall promised amount.

3.66 Taking into account the importance of achieving fiscal savings, especially in the RJU, SAL I is found to have been less efficacious than expected. This reform did achieve some fiscal savings, and opened the way to further savings, but the goal of the reform was quite limited to begin with in comparison with the size of the deficit. Therefore, the efficacy of SAL I is rated as modest.

### **SAL II: Emphasizing the *Fator Previdenciario* Reform**

3.67 Immediate relief for the primary fiscal position was never an objective of SAL II. Its objective was to promote long-term actuarial balance, a general aim of pension policy. In Brazil, achieving this was expected to help the short-term budget by cutting interest paid on the debt.

3.68 The main tool used to improve long-term solvency was to replace the benefit formula in the RG with a new one, the *fator previdenciario*. The main change in formula was the use of a longer averaging period to calculate the base salary to which the *fator previdenciario* was to be applied.<sup>58</sup> This reduced the base salary and thus cut benefits, but only for those workers that have rising age-earnings profiles. Because these workers are either more educated or luckiest, the change achieves a general objective of pension policy, which is to stop hidden regressive redistribution resulting from short averaging periods. It also insures and subsidizes workers with highly variable covered earnings, such as women, by excluding the worst 20 percent of annual covered salaries from the average.

3.69 The *fator previdenciario* formula has one element in common with notional accounts—benefits are proportional to the contribution rate (31 percent). However, it is not a true-notional account formula because there is no individual account balance representing past contributions that is communicated to millions of voters every year. Consequently, the initial pension depends on a base salary, not on the account balance as of the pension date.

3.70 The goal of creating a transparent account balance was abandoned just three months before the law was passed in favor of the formula in which the interest rate is

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<sup>58</sup> The base salary was reduced from 100 percent of the average of CPI-revalued taxable salaries during the last three years to 100 percent of the average of the best 80 percent of all CPI-revalued taxable salaries received after July 1994. Given that average real earnings have fallen in Brazil, the impact was driven by the increase in the averaging period from three years to at least six years, with the latter growing indefinitely over time.

implicit.<sup>59</sup> The reason is illuminating—the government realized that notional accounts required setting an explicit notional interest rate, but no interest rate was politically acceptable. It would not have been politically acceptable in Brazil to use an interest rate below the six percent per annum (in real terms) mandated on bank savings passbooks<sup>60</sup> because market interest rates were much higher. However, with a notional rate of six percent or more, benefits would be too high and the fiscal impact of the reform would be negative in the long term and unacceptable to the Ministry of Finance. The notional rate that allows notional-account plans to approach aggregate financial stability is the annual growth rate of real contribution revenue. However, the recent Brazilian history of this growth rate shows several negative numbers, which politicians would not credit to notional account balances. The authorities were swift to design another benefit formula where the interest rate was not explicit, thus circumventing this political constraint.

3.71 The fact that the hybrid formula does not communicate individual account balances to millions of voters may have an upside—avoiding the risk (pointed out by Bank staff in ESW) that the adoption of notional accounts might freeze excessive pension rights in political terms. However, this advantage did not materialize because benefits are proportional to the contribution rate at the pension date, not when contributions are made. For example, if the future contribution rate were to be cut to reduce labor distortions, for example, to 25 percent, then newly issued pensions would be calculated with this new coefficient rather than with the customary 31 percent, even though the member contributed during most of his life at the 31 percent rate. Because this is inequitable and politically untenable, any future legislation will have to use transition formulas that are subject to political discretion.

3.72 This is contrary to what would happen with a notional account formula, where the account balance provides a natural rule for transition that prevents such political discretion. Even in a traditional years-of-service formula, benefits are less discretionary because the contribution rate does not enter into the benefits formula. In other words, the *fator previdenciario* formula is more vulnerable to political discretion than the traditional years-of-service formula but is possibly less vulnerable to further legislative changes than a notional-account formula. It was argued in the loan documents and in the interviews that the *fator previdenciario* reform introduced the principle of linking benefits to

<sup>59</sup> The new formula at RG is  $P = \text{Max} [Fator \times \text{Base} ; \text{Min. Pension} ; \text{Old Age Pension with old formula}]$ . The base is the average of the best 80 percent of CPI-indexed taxable earnings since July 1994. The *fator* "f" is:

$$f(N, A) = (\theta \cdot N) \cdot \left( \frac{1}{LE(A)} \right) \cdot \left[ 1 + \frac{A}{100} + \frac{\theta \cdot N}{100} \right] \quad \text{if } N \geq 30 \text{ for men; } N \geq 25 \text{ for women. Instead, } f = 0 \text{ if } N \text{ is smaller.}^W$$

here  $\theta = 0.31$  = contribution rate,  $N$  = years of contribution,  $A$  = age at start of each individual's pension, and  $LE(A)$  = life expectancy at age  $A$ , according to the general Brazilian life table, which is unisex and estimated by IBGE. The implicit interest rate paid to \$1 of additional contribution is related to the slope  $dP/dN$  for months included in the 80 percent of best earnings after July 1994.

<sup>60</sup> The "inflation" rate applicable to saving passbooks is not measured by a predetermined index but is defined by the central bank ex post. In practice, it has been kept close enough to actual inflation. The reason for this discretion is because in times of very high inflation, the discrepancy between indexes has been large, and the consumption baskets underlying each index applied to different income groups. Some indexes measured the time-average price level within each month, while others measured the price level at the end of each month.



contributions and, thus, set a valuable precedent in Brazil. This is incorrect, as just explained, because if the contribution rate is cut in the future, the outcome for benefits for the all-important transition will be determined with political discretion. The *fator previdenciario* formula does not include any rule for doing this.

3.73 Moreover, Brazil chose to credit the full 31 percent contribution rate in the new benefit formula without subtracting the premium for disability and survivors' insurance or the implicit earnings tax used to finance the rural pension, leading to excessive benefits for the middle classes. This drawback of the *fator previdenciario* reform was not reported in the loan documents.

3.74 One gain from the *fator previdenciario* reform is that it introduced into the RG's benefit formula an estimate of average life expectancy that can be adjusted without new legislation. Aggregate longevity risk ceased to be determined by legislation, thus reducing political risk for the RG's middle-income members. However, because pensions are calculated using average life expectancy tables based on the experience of the whole Brazilian population, rather than just RG pensioners who tend to live longer than average, and because individual life tables are used rather than the joint-and-survivors', calculated pensions are biased upward relative to longevity. The use of a single estimate for the whole population also fails to correct for the positive correlation between individual life expectancy and wealth, thereby preserving some regressive redistribution.

3.75 For efficacy, a critical aspect is whether long-term financial balance in the PAYG system was promoted by the reform. The government claimed since late 1999 that the introduction of the *fator previdenciario* had a large positive impact on long-term solvency because the cash deficit in the RG only would increase to 1.69 percent of GDP by 2021, slightly higher than the 2002 1.31 percent rate. However, those projections were biased upward for two reasons: (i) they assumed GDP growth would be much faster than 3.5 percent during a long transitional phase, despite the fact that growth was slower during the 1990s (2.8 percent) and the three years up until 2003 (2.5 percent) -- a period when the population grew at 1.36 percent per year. It is arguable that as long as total payroll taxes continue at the current rate (50 percent), the formal sector and economic growth will continue to be weak, so simulations should assume a modest growth rate for the first five years at least; (ii) they assume that the level of the minimum pension (equal to the minimum monthly salary) will remain unchanged in real terms forever, despite the fact that it rose by 6.3 percent per year between 1999 and 2002,<sup>61</sup> while the average real wage had been falling since 1996.

3.76 Moreover, during his campaign, Lula da Silva promised to raise the minimum salary by 100 percent in real terms during his four-year term. Two former ministers interviewed in February 2003 held the opinion that the minimum salary in Brazil was still too low. On April 1, 2003, Brazil raised the minimum pension to 240 *reais* per month, a 3.5 percent real increase above the CPI inflation in the previous 12 months, and an even larger increase for the time average because inflation is falling. The Brazilian debate

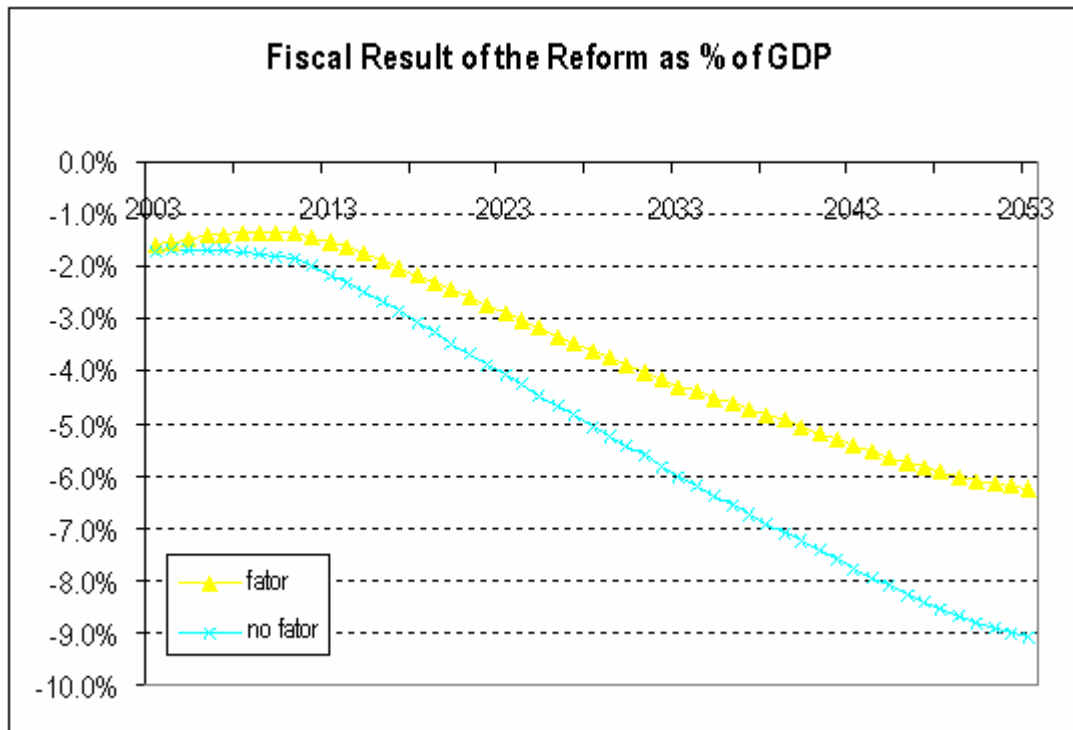
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<sup>61</sup> The average growth rate of the real minimum pension in the five years from July 1994 to May 1999 was 4.9 percent per year. The deflator used for these calculations was IPCA-IBGE.

about pension reform has ignored the fact that the minimum wage set the minimum pension and affected the RG's cash balance directly. This assumption biased the government's projections of the impact of the *fator previdenciario* reform.

3.77 Independent projections by the Bank show that the *fator previdenciario* reform achieves a positive financial impact in the long run. In the simulation shown in figure 3.1, the RG's projected deficit for 2023 will be cut from 4 percent to 3 percent of GDP thanks to the *fator previdenciario* reform.<sup>62</sup> Figure 3.1 is very similar to another simulation scenario in which there is no change in early pension patterns plus a switch by 20 percent of members from the length-of-service option to the old-age option.<sup>63</sup> It is surprising then that the only projection shown in the loan document for SAL II is the one described as most optimistic. This scenario projects a cut in the RG's deficit, owing to the *fator previdenciario* reform, from four percent of GDP to zero percent by 2023, that is, *four times* the impact in the other scenarios.

**Figure 3.1: Brazil Pension Deficit, with and without the *Fator***



Source: The authors thank Asta Zviniene of the World Bank for this projection.

3.78 The main reason for the difference between scenarios is the assumption that RG members will delay their pensions until ages 65/60 (men/women) from the ages they

<sup>62</sup> Assumptions underlying Figure 1: GDP growth is four percent real for 2003 and 2004; 4.5 percent for 2005; and back to 3.5 percent in 2006. The minimum pension is assumed to be indexed to the real average wage. In turn, the real average wage is assumed to be the difference between GDP growth and labor force growth. The latter is assumed to fall from the current 2.1 percent per year to 1.6 percent as of 2040 and to 0.3 percent as of 2075, according to a separate population module.

<sup>63</sup> See World Bank 2000a, pages 73–74.

would reach after 35/30 years-of-service.<sup>64</sup> This assumption is unwarranted for three reasons:

- (i) When interest rates for consumer credit are way above the internal rate of return of a PAYG-financed plan such as RG, as was the case in Brazil in the last 20 years, it is preferable for individuals to retire as early as possible.
- (ii) For certain ages, the *fator previdenciario* formula yields a higher internal rate of return than for other ages, but the decision to postpone pensions is unlikely to be affected because members value liquidity, and pension rights can be made more liquid by drawing the pension as soon as possible.
- (iii) Finally, the new *fator previdenciario* formula did not raise the RG's minimum pension age.<sup>65</sup>

3.79 In all independent projections, the size of the cash deficit in the RG rises inexorably after 2023 to at least six percent of GDP by 2050, *even after the fator previdenciario reform*. This is an improvement over the nine-percent projected cash deficit without reform for 2050, but it is still worrisome. The reform went only one-third of the way toward achieving the objective of long-term cash-flow balance.<sup>66</sup> SAL II was, therefore, unable to protect Brazil from future increases in the short-term interest cost of the public debt owing to recurring fears about long-term fiscal sustainability. Considering both fiscal aims and pension policy aims, the *fator previdenciario* reform only was efficacious in introducing an automatic adjustment for increases in life expectancy and in cutting the base salary and, thus, benefits over the long term. The efficacy of the *fator previdenciario* reform is rated as modest.

3.80 Another objective of SAL II was to complete the consolidation of all information registries for members of the RG (unified information registries). A number of measures were taken toward this goal: (i) the identity number in the RG was changed from the benefit to the beneficiary, allowing crosschecks of different benefits obtained by the same individual under different plans; (ii) identification for obtaining social assistance benefits was consolidated on a single card, which depended on the RG number; (iii) municipalities were instructed and helped to identify the poor residing in each of their jurisdictions on the basis of the RG number; (iv) a program to identify duplication was created and applied; and (v) the MPAS lobbied other entities that issued

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<sup>64</sup> Figure 3.1 assumes that individuals do not postpone their pension age voluntarily beyond what is required by the (evolving) eligibility requirements. These requirements are assumed to increase by four years for men (from 31 to 35 years of service) and by three years for women (from 27 to 30 years of service). The increase in the length-of-service requirement for old-age pensions (to 15 years as of 2011) is also taken into account in figure 3.1.

<sup>65</sup> For length-of-service pensions under the RG, the minimum pension age is the minimum legal age to start working (15 years) plus 30/35 (women/men) years of contributions, which adds up to 45/50 years of age. For reduced length-of-service pensions, not available to new entrants into the RG, the minimum pension ages are 48/53 (women/men).

<sup>66</sup> One reason for this outcome emerged in the interviews: President Cardoso's government was not willing to cut the promised pension for new entrants to half of the current promises. However, that particular obstacle could have been avoided by raising both the minimum and the normal retirement ages by 10 years over the next 20 years in this reform.

identification numbers to use the RG number, with some success (although the pension plan for Banco de Brasil employees failed to join). The efficacy of implementation of this objective is rated as high.

3.81 Regarding the complementary pension system, two of the three new laws that modernized it (and were supported by SAL II) succeeded in obtaining Congressional approval and were published on May 29, 2001. Efficacy in this area was high. However, the third bill, *Bill 09/99* (also called PL9), which created ceilings on taxable earnings and benefits in the RJU equal to the ceilings in the RG and allowed the contributions on earnings that exceeded the ceilings to be invested in new funded plans that the state, municipal, and federal levels of government would be allowed to create and sponsor, was blocked by the opposition in Congress and remained so through early 2003. Moreover, by itself, PL9 would have had a negative impact on the fiscal cash flow, as explained above when rating its objectives.

3.82 In April 2003, the government proposed financing the transition deficit created by PL9 by raising the ceiling for RJU taxable earnings by 50 percent to R\$2,400 and extending this increase to the RG. This implies reducing the demand for both the new funded plans for government workers and for the existing third-pillar plans for private sector workers because even high-earning individuals would have most of their savings needs covered by the mandatory plans, thanks to the higher ceilings. This undercutting of third-pillar plans contradicts general pension policy. This episode demonstrates how a failure to supply an adequate solution for a transition deficit can backfire. The efficacy of PL9 is rated as negligible.

3.83 The overall efficacy of the reforms promoted by the SAL II loan depended on their ability to prevent an increase in the short-term interest cost of the public debt owing to fears about long-term fiscal sustainability. The events of mid-2002, after investors had absorbed the impact of the reforms sponsored by SAL II, suggest a modest outcome.

### ***Overall Assessment of Outcome***

3.84 The Bank's overall pension program in Brazil had many diverse objectives. Although one objective was rated as modest (reducing inequality) and two omitted objectives were also rated modest (the rural pension and compensation for government workers), the relevance of SAL I was high and that of SAL II was substantial. The relevance of objectives (of PARSEP, PROAST, and many elements of ESW) was found to be high. Therefore, the relevance of the Bank's overall portfolio of objectives is rated as substantial. Regarding efficacy, SAL I was rated as modest, SAL II as modest, PARSEP was rated as high, and abundant ESW can be rated as highly efficacious (PROAST is not rated). In summing up, the overall efficacy of this assistance is rated as modest. Therefore, the overall outcome is rated as moderately satisfactory.

### **INSTITUTIONAL DEVELOPMENT IMPACT**

3.85 This section assesses the extent to which Bank assistance has helped Brazil build its institutional capacity in the pension policy area. The capacity of federal

ministries and states to formulate pension policy improved markedly during the period studied here. Not all of this progress can be attributed to the Bank's program because the Brazilian establishment dedicated a lot of effort to this issue since 1998. This is also true of Congress, the judiciary, the press, the academic community, and other actors in civil society. However, the Bank's program was paradigmatic and provided valuable resources, direction, and connections during this critical period.

3.86 The capacity of the agencies that perform the administrative functions of the RG and the RJU plans has also improved markedly. This is obviously true of the state-level RJU plans, where the new software developed by MPAS (with PARSEP's help) allows it to keep individual records in an integrated way with payroll functions. In the case of the federal RJU, there have been improvements too. In the case of the RG, the INSS is implementing its strategic plan and improving the quality of its databases.

3.87 In the voluntary plans, PCF and PCA, Bank ESW contributed to the elaboration of two new laws that could have modernized this sector with positive externalities for other parts of the capital market. However, substantial progress in the development of voluntary plans appears unlikely for two reasons: (a) a reliable and uncontroversial tax regime has not been provided; and (b) the 2003 decision to raise the maximum taxable earnings in the RG by 50 percent will cut the demand for complementary plans dramatically. In this new setting, failure to develop the capacity of the Secretariat for Complementary Pension Plans will not matter too much, because development will be modest anyway.

3.88 The intensive use of local academics increased capacity, generating an unexpected institutional development impact. The know-how generated by studies is likely to grow over time, as these researchers train more students and produce additional results.

3.89 A limitation of the Bank's portfolio is that policies proposed for RJU pensions were not designed jointly with the policies to deal with overall human resource management of the government-as-employer. Excessive taxes on RJU benefits, together with low take-home pay, may induce civil servants at the professional level to quit, possibly jeopardizing the supply of a public good, with a negative institutional development impact. However, it is reasonable to hope that the 2003 reforms will include some provisions to encourage experienced professionals to continue on the job and make it possible to offer adequate take-home wages to younger public servants who are "climbing the professional ladder."

3.90 All things considered, the overall institutional development impact of the program is rated as substantial.

## **SUSTAINABILITY**

3.91 This section assesses the extent to which the achievements of Bank assistance are likely to be sustained over time in the face of future shocks. A related issue is whether

these reforms increased the resilience of the pension system to demographic, economic and political risks.

3.92 Bank assistance helped Brazil improve its fiscal position significantly during 1998–2003, allowing it to survive two serious setbacks in investor confidence in 1998 and 2002. The cuts in pension expenditures achieved in these reforms were not enough to ensure fiscal balance forever, but they certainly were a positive step. The 1998 reform stopped early pensions in the RG temporarily, generating a short-run improvement in its financial balance. The subsequent reform that reestablished early pensions under a new formula locked in those savings. As reported in Chapter 3, the reform failed to decrease the short-term cash deficits in the RJU.

3.93 The *fator previdenciario* reform was unable to decrease the long-term cash imbalance in the RG to a level that would inspire confidence. The new formula also ensured that any future cut in contribution rates would reopen negotiations to determine discretionary compensation for transition generations. Therefore, in the absence of further reforms the primary fiscal surplus will have to rise permanently to balance the RG plan, at the expense of valuable programs that serve the poor and other segments of society. The option of raising taxes already has been exhausted in Brazil. Taxes were raised from 25 percent of GDP in 1992 to 34 percent in 2001, causing a major increase in informal-sector activities and low GDP growth. As a result, the current parameter configuration is fiscally unsustainable in the long term. This sustainability problem is ameliorated by the fact that RJU reform is likely to take place in Brazil in 2003–04. It remains to be seen if the new RJU parameters will be compatible with long-term fiscal sustainability.

3.94 The PAYG-financed plans (RG and RJU) remain vulnerable to demographic shocks because most parameter adjustments must receive approval from Congress. The only valuable exception is that life expectancy included in the *fator previdenciario* is now adjusted automatically without further legislation. This protects the RG's cash balance from future shocks from demographic longevity. However, there is no protection from the financial consequences of reduced participation in the covered labor force. Migration by the urban elderly from the informal sector to the rural sector, where they can obtain a minimum pension, will increase the fiscal cost of the rural pension.

3.95 The RJU appears vulnerable to inadequate human-resource management. If take-home wages offered to current employees in professional jobs are allowed to remain below market levels, the public sector may suffer acute scarcity of qualified personnel, which will hamper the gains obtained so far. This problem should be approached in tandem with the problem of excessive pensions for the current generation of RJU pensioners and workers. These issues require further analytical and dissemination efforts.

3.96 The advances in state-level RJUs are highly likely to be sustainable because a grassroots interest in pension matters and actuarial projections has been ignited. INSS is likely to sustain the advances with its strategic plan and the acquisition of information technology, although a more detailed evaluation is pending. The new solvency regulations for defined-benefit complementary pension plans are likely to have a positive long-term impact on sustainability, as the boards of the 360 plans struggle to adapt.

3.97 According to interviews and the media, the pension reforms covered by the Bank's assistance enjoy substantial support. This is not true, however, for the third phase of reform, for which further cuts in RJU pension benefits at the federal, state and municipal levels have been suggested. This debate became highly polarized and public employees turned very militant. This was true in 2001 during President Cardoso's administration and also in 2003 during President Lula da Silva's administration.

3.98 Many of the PCF plans are insolvent as well, and adjustments by raising the contributions rates of current workers—without raising their benefits—are likely to lead to quits and further financial problems. This has direct fiscal consequences because many PCF plans are sponsored by state-owned enterprises, states, and municipalities. When those sponsors absorb losses, the fiscal budget will be affected. To this must be added the implicit guarantee that may be drawn by members of the privately sponsored plans that become insolvent.

3.99 The members of most Brazilian pension funds are vulnerable to insufficient risk diversification because investment abroad is prohibited. In addition, until the supervisory capacity of the Secretariat of Complementary Pension Funds is upgraded, the members of closed funds are likely to remain unprotected from actuarial projection manipulations (i.e., assumptions about the interest rate, attrition rate, etc.) and sophisticated financial fraud.

3.100 On the upside, the government has the technical capacity to design alternatives that recover solvency for the RG and the RJU plans. What is not clear is whether it will have the political ability to create a coalition in Congress to approve further pension reforms. President Lula da Silva has been unexpectedly successful in designing a third phase of reforms which may “save the day.” The state governors and many congressional members have backed these proposals. The Bank and other international financial institutions can still provide substantial help.

3.101 All things considered, the sustainability of the achievements made so far by the assistance package is rated as likely. However, the achievements thus far are insufficient.

## 4. Results

### BANK PERFORMANCE

4.1 Bank performance is the extent to which services provided by the Bank ensured quality-at-entry and supported implementation through appropriate supervision. For quality-at-entry, it was found that pension assistance was consistent with the Bank strategy for Brazil and with government priorities. There was extensive grounding in ESW. Readiness for implementation was high because the Bank was able to arrange this large assistance program within months of the Brazilian government's decision to change its priorities regarding pension policy as a result of the 1998 Russian Crisis.

4.2 One aspect of quality-at-entry is setting adequate objectives for assistance. Despite the omissions identified in Chapter 3, the focus of the Bank's objectives on short-term fiscal impact was highly relevant, and the objectives were implemented adequately, supporting a favorable rating. However, the conditions were not the most realistic because the actuarial projections by the authorities regarding the fiscal savings to be obtained by the *fator previdenciario* reform were accepted at face value by the Bank. Subsequently, with further modeling efforts, the Bank made up for this initial deficiency. Quality-at-entry is given a satisfactory rating.

4.3 The Brazilian government was technically able to absorb the assistance and implement the reform. The reforms were intensively discussed in Congress and by a competitive media indicating that they were understood reasonably well and supported by legitimate representatives of the population. The choice of instruments and the public sector/private sector balance were adequate for the Brazilian situation.

4.4 The Bank also supported implementation through appropriate supervision. Bank staff identified problems in a timely fashion and accurately estimated their seriousness in most cases. The Bank exhibited flexibility in approving modifications to components that faced problems, such as PROAST, and also offered a continuous stream of new reform ideas backed by actuarial simulations. This methodological approach raised the quality of the Brazilian pension debate to levels that have seldom been reached in other Latin American and Caribbean Region countries engaged in pension reform. The supervision resources exhibited a high level of continuity and an effective skill mix. The reports were unusually complete and accurate, despite the caveats already made. The quality of supervision is therefore rated as highly satisfactory.

4.5 Overall, Bank performance is rated as satisfactory.

### BORROWER PERFORMANCE

4.6 Borrower performance is the extent to which the borrower assumed ownership and responsibility to ensure quality of preparation and implementation and complied with covenants and agreements.



4.7 The Brazilian government owned its reform fully. For most loans, the government (through MPAS) fully took into account economic, financial, technical, and policy considerations in preparing the technical assistance and SAL loans, so preparation was highly satisfactory. The only exception concerned PROAST, where the MPAS set excessively ambitious aims regarding the reform of the Secretariat of Complementary Pensions. The MPAS also assisted the Bank in conducting ESW. Implementation, which refers to the extent to which the government's policies at the sectoral level satisfactorily supported the project, is rated as satisfactory. The main exception is SAL II, where the actual reduction of long-term actuarial imbalances was less than expected. Other aspects of implementation were satisfactory. Compliance with loan covenants was satisfactory because the borrower generally met or exceeded all major covenants or commitments, with only minor shortcomings. Because most factors were rated at least as satisfactory, overall borrower performance is rated as satisfactory.

#### **OTHER CONTRIBUTORS AND A COUNTERFACTUAL**

4.8 The International Monetary Fund and the Inter-American Development Bank were involved in related work and made some contributions to the outcome of the Bank's assistance. The International Monetary Fund led in the macroeconomic and fiscal adjustment areas and helped identify the pension deficit as critical for the short-term fiscal deficit and macroeconomic stability. The Inter-American Development Bank arranged a large loan to the INSS to upgrade its information technology, building on the strategic plan financed by PROAST.

4.9 What would have happened if the Bank had not been involved in the Brazilian reforms? Although the short-term fiscal crisis of 1998 could have been managed by other lenders, it is likely that the presence of the Bank with a large reform package oriented to structural reforms contributed to the credibility of Brazilian policy as assessed by investors. The pension-related assistance honed in on the most critical aspect of the Brazilian fiscal situation, so this assistance was particularly helpful regarding credibility. Moreover, the detailed support for policy design was also helpful. For example, the Bank pointed out to the authorities that the elimination of early pensions in the RG would backfire within five years in the absence of other measures. This helped convince the government of the need to reform the benefit formula in the RG, cutting full-service pensions gradually.

4.10 However, in many cases the government did not agree with the Bank, and, in those cases, the Bank did not make any difference. One example was the decision to reform the RG's formula along the lines of a notional account plan (later abandoned in favor of the *fator previdenciario* formula), rather than to reform it by changing the parameters of the existing years-of-service formula.

## 5. Lessons Learned

5.1 Brazil's ability to protect its almost universal old-age pension for the poor during a period of very high fiscal stress, at a budgetary cost of nearly two percent of GDP, was a major pension policy success. The lesson for the Bank is that it is possible to protect poverty programs during periods of fiscal stress by targeting fiscal adjustment at the middle- and upper-middle-income members of pension plans.

5.2 The long-term actuarial balance also can be highly critical in the short term should investors in public debt use long-term solvency indicators to assess the likelihood of payment. A disappointment with the speed of progress towards long-term solvency can trigger an immediate increase in the risk premium for short-term government debt, worsening the short-run fiscal situation. This can force the government to raise its primary surplus. Therefore, the Bank should emphasize actuarial projections of cash flow for several decades into the future and abandon static measures of the cash deficit and mechanical projections that merely consider the next five years. The Bank should also be tougher about reaching substantial long-term gains because lukewarm measures put the poor, who depend on transfers, at risk and also put economic growth at risk, which finances transfers.

5.3 Another lesson is that large countries can reap economies of scale by coordinating technical advice at the federal level. In the case of Brazil, the financing of actuarial studies for state and municipal plans through the federal government was most efficient for smaller states and municipalities, which suffer from modest local institutional capacity. Such economies of scale may also justify efforts to reach several small countries from a single regional center.

5.4 However, large countries face greater hurdles in achieving policy consensus. Brazil faces special difficulties within a federal structure in which states have substantial autonomy, and their pension programs are significant at the aggregate level. Even after the proposed reforms of the RJU regime in early 2003 by a left-wing president such as Lula da Silva, the battle for reform was quite nasty, and the chances for moving rapidly to a sustainable fiscal path were slim.

5.5 Brazil advanced toward consolidating all its information registries, without mandating the use of a unique social security number. A top-down approach was tried by Brazil and failed because a large number of competing databases coexist, and the costs of switching to a single base are very large for current users. Brazil developed a more practical alternative: some high-ranking official (in the Brazilian case, the Secretario de Seguridade Social) acts as a leader of voluntary unification. The first step is to raise the credibility of this leader by improving the quality of the leader's own registry and to disseminate knowledge of its success. The leader can then lobby emerging new users (municipalities in Brazil) and managers of other social programs to use the leader's registry as well. The aim is to attain a critical mass and level of quality that will attract others in the private sector to use the same registry. This approach has met with considerable success, yielding valuable lessons for other countries.

5.6 Finally, the Bank should focus its ESW in ways to facilitate the political economy of reform. In countries such as Brazil, this involves acknowledging that some arguments of the opponents to reform were valid, but only to a limited extent. Avoiding unwarranted confrontations can speed up agreement. In countries subject to fiscal stress, a “watered-down” policy that is quickly agreed on to avoid a fiscal crisis may be much more valuable than reaching a good agreement after the crisis.

## Appendix A: Tables

**Table 1: Brazilian Pension Plans: Key Indicators**

1. Population age 60 and older, 2002	16,022,231
Old-age dependency ratio (60+/ 15–60) – 2001/2002	14.5 %
2. Employment, 2002	78,179,622
3. Active contributors to second-pillar plans (RG and RJU), 2002 (RJU had 5,148,872 contributors and 1,784,710 inactive members not pensioned)	35,317,700
<b>Coverage of contributors at RG + RJU (= 3/2)</b>	<b>45.2 %</b>
Active contributors to complementary closed pension funds (PCF, third pillar, 2002)	1,789,307
Active contributors to complementary open pension funds (PCA, third pillar, 2002)	3,229,963
4. Pensions for old age and years of service in second-pillar plans (RG and RJU) (Previdenciarios, excluding rural old-age pensions. RJU alone is 1,041,477)	5,051,467
5. Widow pensions in second-pillar plans (estimated as 60 percent of urban survivor pensions, Previdenciarios + Acidentarios)	2,250,247
6. System dependency ratio for second-pillar plans (= 4 + 5 /3)	20.7 %
Coverage of old age by second-pillar plans alone (= 4 + 5 /1)	45.6 %
<b>First-pillar plans (noncontributory):</b>	
7. Rural old-age pensions (Previdenciarios + Assistenciais de Renda Mensai Vitalicia)	4,783,175
8. Rural widow pensions ( estimated as 60 percent of rural survivor pensions, Previdenciarios + Acidentarios)	1,074,961
9. Urban assistance pensions (Assistenciais de Amparos + Renda Mensai Vitalicia)	903,809
Coverage of old age by first-pillar plans alone (= 6 + 7 + 8 + 9 /1)	42.2%
<b>Coverage of old age by first + second pillar plans (= 4 + 5 + 6 + 7 + 8 + 9 /1)</b>	<b>87.8 %</b>
Complementary pensions paid by the closed pension funds (PCF, third pillar, 2002)	456,152
Complementary pensions paid by the open pension funds (PCA, third pillar, 2002)	205,081

*Sources:* Brazilian Institute of Geography and Statistics, Pesquisa Nacional por Amostra de Domicílios 2002; MPAS, Anuário Estatístico da Previdência Social, 2002, table C.1, for PCF in Estatísticas Dez. 2002 at [www.mpas.gov.br](http://www.mpas.gov.br) (PCF contributors are participants; PCF benefits are the sum of aposentadorias, except invalidity, plus pensoes) and for PCA, [www.susep.gov.br](http://www.susep.gov.br).

*Note:* Population figures exclude the rural population of Rondônia, Acre, Amazonas, Roraima, Pará, and Amapá.

**Table 2: Brazilian Pension Plans: Parameters of Second-Pillar Plans**

1. Contribution rates to the Regime Geral (RG), 2002							
1a. Employer	22.5 % (basic rate), no ceiling; some discounts to 20.0 %						
1b. Worker	7.65–11.0% up to the contribution ceiling (7.8 times the minimum wage in 2002, raised 40% in 2003); the lowest contribution rates apply to the smaller declared earnings						
2. Contribution rates to the Regime Juridico Unico (RJU), 2002							
Worker only	11.0 %						
3. Benefit formulas at the RG plan	Class of beneficiary	Minimum age to claim benefit		Minimum years of service/contribution		Promised replacement ratio (percent)	
<i>Type of benefit</i>		Male	Female	Male	Female	Male	Female
Old age	Urban	65	60	15	15	85.0	85.0
	Rural	60	55	15	15	100.0	100.0
Length of service (before 1998 reform, applying in transition period)	Proportional	53	48	30	25	72.0	59.5
	Full	-	-	35	30	83.3	68.2
	Teachers at elementary schools	-	-	30	25	70.3	51.2

*Source:* MPAS, Anuário Estatístico da Previdência Social, 2002; Brazilian Institute of Geography and Statistics, Pesquisa Nacional por Amostra de Domicílios, 2002.

*Note:* Figures exclude contribution to Workmen's Compensation Insurance and to other social insurance programs.

For length of service it was assumed that workers enter the labor market at 20 years of age. The average wage was computed taking into account the contribution ceiling (7.8 times the minimum wage in 2002).

**Table 3: Brazilian Pension Plans: Financial Data<sup>a</sup>**

<b>1. Financial data for PAYG plans (RG and RJU combined), 2002</b>	<b>Percent of GDP<sup>b</sup></b>
Covered Wage Bill <sup>c</sup> (2001)	29.45
Contribution Revenues (for RG+RJU, levied over payroll)	5.76
Pension Expenditures (including Rural RG pensions, all Disability, all Survivors, Assistance, Auxilios, and Salario-familia)	6.97
Contribution revenues for PCF (closed funds third pillar) 2002	0.67
Contribution revenues for PCA (open funds in third pillar)	0.80

*Source:* Brazilian Institute of Geography and Statistics. The source for PCF is Estatísticas Dez, 2002, at [www.mpas.gov.br](http://www.mpas.gov.br).

a. Includes RJU, RG, PCF, PCA, first, second, and part of the third pillar. RG also collects other taxes and distributes other subsidies and exemptions.

b. 2002 GDP = R\$1,321,490,497,000. This is an estimate by IPEADATA; there is no official figure yet.

c. The covered wage bill is 79.6 percent of the wage bill (59.4 percent of employees with working documents + 20.2 percent of public servants).

<b>2. Financial data for third-pillar plans</b>			
Closed pension fund (Previdencia Complementar Fechada) Assets: 14.2 % of GDP			
Open pension funds (Previdencia Complementar Aberta): Assets: 2.0 % of GDP			
Administrative costs in closed pension funds : R\$ 1,029,449,193.00 (61.5 basis points per year)			
<i>Closed pension funds</i>	<i>Public sector plans</i>	<i>Private sector plans</i>	<i>Percent</i>
<i>Type of security</i>	<i>(reais)</i>	<i>(reais)</i>	<i>of total</i>
Fixed income	54,396,149,514.01	48,192,615,815.45	61.29
Federal government	19,458,435,422.34	5,487,297,403.46	(24.32)
State governments	18,582,742.78	11,547,931.39	(0.03)
Municipal debt		9,760,206.71	(0.01)
Financial institutions	32,521,636,955.18	41,404,118,580.42	(72.06)
Corporations	2,396,529,904.77	1,279,800,979.96	(3.58)
Variable income	36,445,578,774.54	9,917,752,223.26	27.70
Real estate investments	7,717,851,213.92	3,440,205,317.38	6.67
Operations with participants	5,806,544,895.91	787,085,967.32	3.94
Other	612,973,761.47	59,446,898.15	0.40
<b>TOTAL</b>	<b>104,979,098,159.85</b>	<b>62,397,106,221.56</b>	<b>100.00</b>

*Source:* MPAS/ Secretariat for Complementary Pension /CAC/Balancete.

**Table 4: Ratings of Individual Loans**

Loan	Previous ratings <sup>a</sup>				Comments from this evaluation	
	Outcome (relevance + efficacy)	Institutional development impact	Sustainability	Bank performance		
SS SECAL 1 Loan 4431-BR US\$ 757.57 million	S	SU	L	HS	Comments in Chapter 3	
SS SECAL 2 Loan TF-25825, SCL-45420 US\$ 505.06 million	S	H	HL	S	Comments in Chapter 3	
<b>This preliminary rating<sup>a</sup></b>						
Loan	Relevance of objectives	Efficacy	Institutional development impact	Sustainability	Bank performance	Borrower performance
PARSEP US\$ 5.00 million	H	H	SU	L	Chapter 4	Chapter 4
PROAST US\$ 5.05 million	SU	Open	M	Open	Chapter 4	Chapter 4

a. The rating code is: H= high, SU = substantial, M = modest, N = negligible, HL = highly likely, L = likely, UN = unlikely, HUN = highly unlikely, HS = highly satisfactory, S = satisfactory, MS = moderately satisfactory, MU = moderately unsatisfactory, U = unsatisfactory, HU = highly unsatisfactory, open = the loan is still open so it cannot be rated.

## **Appendix B: Interviews in Rio De Janeiro, Brasília, and Sao Paulo**

*(February 2003)*

Kaizo Beltrao	Top researcher at IPEA – Rio de Janeiro, and a university professor
Marcelo Caetano	MPAS
José Cechim	Minister of MPAS in the second Cardoso administration, former Secretary of Social Security
Delubio da Silva	MPAS CEO managing the regulatory system of state and municipal RJUs
Marcelo Estavao	Secretary of Social Security, 1994–99
Flavio Martins	Former President of Rio-Previdencia, the pension fund for Rio de Janeiro state’s civil servants
Waldeck Ornellas	Minister of MPAS in the second Cardoso administration, and Senator
Flavio Rabelo	University professor at Fundacao Getulio Vargas Sao Paulo, and a consultant
Adacir Reis	CEO of the third-pillar plans in PCF
Carlos Rocca	Former Secretary of Finance of Sao Paulo State, and a university professor
Arnaldo Rossi	Former President of INSS, 1990–91
Marilia Santos	Administrator of World Bank loans at MPAS
Helmut Schwartzer	Secretary of Social Security, Vice Minister at MPAS
Gilberto Velloso	Administrator of World Bank loans at MPAS





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