Box 1

Main Lessons

* **Though difficult and complex, pension reform is politically feasible under a democratic process.**

* **Retention of an explicit public pillar provides a higher level of protection (redistribution) and increases social acceptability of the reform.**

* **Dilution of the program is highly likely but the reform may be strengthened in future amendments.**

* **Restructuring of the old public pension system is essential to contain transition costs and correct for past abuses.**

* **Debt financing, especially in countries with low public debt, is a realistic option to spread the transition cost over more than one generation.**

* **The response of the private sector to the reform program is likely to be positive and enthusiastic.**

* **Financial and regulatory preconditions are important, although they should not be exaggerated.**

* **Creating private pension funds is likely to have positive externalities for the economy, but their realization depends on a commitment to modernize capital markets, develop new financial instruments, and strengthen regulations as the system evolves and private pension funds grow in size.**

* **The most important precondition is a strong and sustained political commitment to the reform program. This should be based on a "holistic" approach covering much more than pension reform.**

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The World Bank

THE ARGENTINE PENSION REFORM

AND

ITS RELEVANCE FOR EASTERN EUROPE

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The Argentine experience has many lessons for Eastern Europe. It has shown the political feasibility of a balanced reform program, while the collapse of its old pension system provides a warning against prolonged delays in implementing pension reform.

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I. INTRODUCTION AND SUMMARY OF MAIN FINDINGS

INTRODUCTION

After an intensive debate and preparatory work that lasted for well over three years, Argentina enacted a new pension law (Law 24241) in October 1993. The new law created an integrated pension system and became operational in July 1994. It reformed the old social pension system into a mixed public/private system with some transitory provisions and some important options left to individual workers. The new structure is summarized in Annex 1.

Argentina, alongside Colombia, are the first developing countries that have enacted **and** implemented a systemic reform of the pension system through the democratic process[1]. Chile in the early 1980s and Peru in the early 1990s have also implemented systemic pension reforms but they both enacted their new laws under autocratic regimes.

Reflecting the difficulties confronted in passing such fundamental and controversial legislation through a democratically elected body, the new Argentine law contains a number of compromises. These have created weaknesses that may undermine the effectiveness of the new system. Several of these weaknesses have been removed in the period that has elapsed since passage of the new law, especially with the enactment of the pension solidarity law (Law 24463) in March 1995, although some important weaknesses remain. (The main provisions of the pension solidarity law are summarized in Annex 2.) Nevertheless, the new system, and especially the new capitalization component of the second pillar, has operated with considerable success since July 1994.

This paper has the following structure and objectives.[2] Following the introduction and summary of main findings, the second section reviews very briefly the financial crisis that beset the Argentine pension system in the 1980s. The third section examines the finances of the new public pillar, focusing on the evolution of affiliation and evasion in the early years of the new system. This is followed in the fourth section by an examination of the performance of the funded component of the second pillar (the AFJP system). The fifth section offers a brief comparison of the Argentine pension system with the systems of

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[1] Uruguay has implemented a less ambitious reform in 1995, while Bolivia, El Salvador and Mexico have recently passed reforming legislation but are now in the process of implementing their reform programs. Several Eastern and Central European countries (including Hungary, Poland, Kazakstan, Slovenia, Croatia and Russia) are contemplating similar reforms but have yet to finalize and enact their reforming laws. At the time of finalizing this paper, Poland, Hungary and Kazakstan have submitted draft pension reform bills to their respective parliaments. In addition, Latvia has converted its public pension system to an unfunded defined contribution basis, while the other two Baltic countries are also considering pension reform plans.

[2] A companion paper (Vittas 1997a) reviews in some detail the performance of the funded component of the second pillar. Both papers have drawn extensively on the excellent work of the economic staff of the supervisory agency (Schulthess and Demarco 1996, Cottani and Demarco 1996, Rofman 1996, Rofman and Bertin 1996, Rofman and Stirparo 1996, Bertin and Perrotto 1996, and Grushka and De Biase 1996).

Chile and Switzerland. The sixth and final section assesses the lessons, both positive and negative, of the Argentine experience for other developing countries and evaluates the relevance of the Argentine pension reform for the countries of Eastern Europe. The remainder of this introductory section sets out the main findings of the paper.

MAIN FINDINGS

The New Structure. The new system comprises two compulsory pillars. The first pillar is run by the state, is unfunded, and offers a universal basic pension, known as PBU, to all workers with 30 years of contributions. The PBU is around 30% of the average covered wage. The public pillar also pays a compensatory pension (PC) to all new retirees with past contributions to the old system, an advanced age pension (PEA) to people over 70 with 10 years of contributions as well as the pensions of the old system. The first pillar also pays disability and survivorship pensions in conjunction with the second pillar and various noncontributory pensions.

The second pillar has two components. A funded component based on defined contribution plans with individual accounts and managed by specially authorized management companies (AFJPs); and an unfunded component (PAP) for workers who prefer to stay with a state-run defined benefit plan.

The new structure has several weaknesses, which reflect the dilution of the reform program both before and after its submission to congress. A major dilution of the reform program is the retention of the defined-benefit unfunded component of the second pillar and especially its availability to new entrants to the labor force. Other aspects of the dilution effect include the (higher than originally proposed) accrual rate offered in the PAP (0.85% instead of 0.50%), the lower retirement age for women (60 against 65 for men), and the retention of wage indexation of old system pensions.

Following enactment of Law 24241 that created the new integrated pension system, Law 24463 on pension solidarity was passed in March 1995 at the time of the Mexican crisis. This sought to contain the cost of the public components of the new system by eliminating the wage indexation of pensions and imposing upper limits on high pensions.

Currently, the structure of the Argentine pension system is changing as a result of the gradual integration of provincial pension schemes into the national system. Taking all these developments into account, it can be argued that Argentina implemented 3 major reforms of its pension system since 1993.

Regarding the future evolution and finances of the new system, the biggest problem in the short run is the legacy of old system pensions and the continuing high rate of evasion. In the medium run, a major concern is likely to be the unfunded component of the second pillar. However, the government believes that the PAP will suffer a natural death as most young workers select the AFJP component. In the long run, the financing of the PBU at its current level may present difficulties in the light of expected demographic trends.

Other remaining weaknesses of the new structure include the failure to use the concept of "coordinated earnings" and thus lighten the burden on low income workers and the failure to use a proportionality rule in the determination of the PBU (on both of these, see below). For its part, the AFJP system follows closely the Chilean prototype and shares its strengths and weaknesses.

The Financial Crisis of the 1980s. The old Argentine pension system suffered a financial crisis in the 1980s as a result of growing evasion and declining employment. Combined with low retirement ages and lax early retirement and disability provisions, these resulted in a system dependency ratio that was more than double the demographic old age dependency ratio. Evasion was estimated to have reached 46% of eligible workers. High targeted pension levels and replacement rates as well as wage indexation of pensions produced both high contribution rates and a financial deficit that fluctuated between 1% and 1.5% of GDP. Yet despite the modest level of this deficit, hyperinflation and the shallowness of the domestic financial markets prevented the authorities from financing it through debt finance and forced them to cut pensions by arbitrarily changing the benefit formula.

Faced with successful court challenges by aggrieved pensioners, the authorities decided to prepare a radical systemic reform, involving a multi-pillar mixed public/private structure. Although the reform was diluted in Congress, it succeeded in restructuring and downsizing the public pillar and in establishing a vigorous, robust and fully capitalized private pillar. However, one important problem of the new system concerns the continuing weak finances of the many components of the public pillar.

The Finances of the New Public Pillar. The public pillar is responsible for several types of pension benefits: old system pensions (OSP) to existing beneficiaries; the new universal basic pension (PBU) to all new retirees; the compensatory pensions (PC) to new retirees with past contributions to the old system; the pensions to retirees who select the public component of the second pillar (PAP); the disability and survivorship pensions of PAP participants; a fraction of the disability and survivorship pensions of workers of the transition generation who join the AFJP system; the advanced age pension (PEA); and finally, the state guarantees supporting the minimum level of relative profitability for the AFJP system and the protection from insolvency of insurance companies.

The evolution of evasion will be the main factor determining the future finances of the public pillar. Despite a substantial growth in affiliation, the rate of evasion, measured by the proportion of workers who are active contributors, does not appear to have decreased. If anything, it may have slightly increased. Although the adverse financial impact of continuing high evasion may be mitigated by the increased minimum eligibility period and the de-indexation of pensions introduced by the pension solidarity law, this result will only occur in the longer run.

Given the host of required data and assumptions, estimating the total cost of the public pillar is a complicated exercise. Based on some optimistic assumptions (including a projected improvement in the ratio of active contributors to affiliates from 65% to 95%--even though it stands at 50% at present), a study by two government economists estimates that the public pillar will continue to accumulate deficits until the year 2013, but will start earning a growing surplus after that year. The annual deficit after taking account of earmarked tax revenues amounts to 1.5% of GDP at first, but declines over time in both absolute terms and relative to GDP. The cumulative deficit reaches 42.3 billion pesos, equivalent to 15% of GDP in 2015. Other studies show an earlier improvement, followed by a new deterioration after 2025 as a result of the future financing problems of the PAP. However, the projected deficit of the public pillar appears financible in the new environment of macrostability and growing financial markets.

The AFJP System. The record of the private pillar[3] has been characterized by a vigorous response and a robust performance in an uncertain environment. Despite a slow start, the private pillar has succeeded in attracting 67% of all workers who participate in the new integrated system (June 1996). It also represents 60% of those who are active contributors. It has attracted many younger workers and has started to mobilize a large and fast growing pool of long-term financial resources.

The assets of the pension funds reached 3.8 billion pesos or 1.4% of GDP in June 1996 and 6.2 billion or 2.2% of GDP in March 1997. They are expected to exceed 20 billion pesos by the year 2000 (or 4% of projected GDP). Their asset allocation in March 1997 was 23% in corporate equities and mutual fund shares, 51% in government bonds, 7% in corporate bonds and 17% in bank deposits. The AFJPs have earned high real investment returns, although they have also suffered from very high start-up costs and continuing high marketing costs.

Notwithstanding the high investment returns, individual affiliates have so far earned negative real returns because of the high and front-loaded commission charges. However, net returns are likely to be positive over the lifetime of each worker as assets accumulate, operating costs come under better control and commission charges fall relative to investment returns. The Argentine private pension pillar shares many of the strengths and weaknesses that have characterized the Chilean pension reform, including a very high level of marketing costs and extensive account switching.

Comparison with Chile. There are many similarities between the Chilean and Argentine pension systems as well as some important differences. In the first place pension privatization is less extensive in Argentina. Not only does the Argentine state provide a basic pension to most workers, but in addition all workers, including new entrants to the labor force, have the right to stay with the unfunded public component of the second pillar. Moreover, even in the capitalized component a state-owned institution plays an important part.

A visible difference, which is probably more formal than substantive, is the retention by Argentina of an explicit unfunded public pillar. Chile has a less visible, but no less real, public pillar in the form of the minimum pension guarantee offered by the state.

A far more important difference relates to the targeted level of pensions and the extent of redistribution. In Argentina the PBU is additive to the second pillar pension, while in Chile the minimum pension is subsumed and blended in it: a Chilean worker with a pension above the minimum level does not receive any pension from the state.

The higher level of pensions implies a higher financial cost. The total cost in Argentina will amount to 27% of covered wages once the transition is completed (16% for the PBU and 11% for the second pillar). In Chile the total cost will depend on the number of pensioners who will rely on the minimum pension guarantee. It is very difficult to obtain good estimates of this cost, but most studies put the cost at less than 1% of GDP. Assuming a share of covered wages to GDP of 40%, this would imply a

[3] Although some AFJPs are operated by state-owned institutions, the funded component of the second pillar is mostly managed by private sector institutions and will be referred to in the rest of this paper as the private pillar.

cost rate for the minimum pension guarantee of 2.5%. Adding this to the 13% cost rate of the AFP system would give a total of 15.5%. The total cost rate would be higher in Chile if the minimum pension guarantee turns out to be more expensive, but it is unlikely to reach the Argentine level. But pension levels will likely be higher in Argentina for most workers, and especially for low income workers. Thus, the higher cost level in Argentina is paying for a higher level of redistribution.

Another important difference concerns the treatment of past service. In Chile, workers switching to the private system were entitled to a recognition bond; in Argentina, a compensatory pension is paid to new retirees on the basis of their past service and contributions to the old system. The compensatory pension of the Argentine approach has a clear cashflow advantage for the public system since the payment of pensions takes place gradually over the retirement life of a worker while in Chile a capital sum representing the present value of benefits is paid on retirement. The net impact on costs is less clear and depends on actuarial factors.

An important administrative difference is that the collection of contributions is centralized in Argentina in the tax authority, which then distributes the contributions to ANSeS, the administrators of the public components of the system, and individual AFJPs. The main objective of this innovation is to combat evasion and improve collections. In contrast, in Chile responsibility for collecting contributions rests with individual AFPs. So far, the centralization of the collection function in Argentina does not appear to have succeeded in combating evasion.

There are some other notable differences between the two countries. For instance, the Chilean system is mandatory only for employees, in Argentina for both employees and self-employed people. Argentina has a much longer minimum eligibility period of 30 years against 20 years in Chile. In Argentina, two of the components --the PC and the PAP-- are based on 10-year average earnings rather than lifetime earnings and thus provide additional scope for strategic manipulation.

In addition, new workers have no choice in Chile but to join the new private system and to rely on the minimum pension guarantee of the implicit public pillar. In Argentina, all new workers have to join the public pillar and thus are entitled to the PBU, but they also have a choice to join either the funded AFJP system or the unfunded public PAP component.

But there are also some similarities regarding some aspects of the overall structure. Neither country has adopted a proportionality rule in the determination of its respective minimum pension. This leaves room for moral hazard and strategic manipulation of the system and may also cause hardship for people who fail to contribute for the minimum eligibility period.

A better alternative would perhaps be to define the PBU in Argentina and the minimum pension guarantee (MPG) in Chile as a two-part rule: a flat pension payable to all old people and equal to, say, 15% of the average coverage wage plus 0.5% of the average covered wage for every year of contribution, but to require people with less than 5 years of contributions to be subject to an income and asset test.

Such an approach would integrate any social assistance pension with the ordinary retirement pension system. It would avoid poverty traps and would discourage strategic manipulations. A worker with 20 years would benefit from a 25% minimum pension; this would rise to 35% for a worker with 40 years of contributions. Variations to this approach could allow for a higher, say 20%, flat benefit or for a longer period, say a minimum of 10 years of contributions, for exemption from the means test.

Both countries suffer from a large discrepancy between affiliates and active contributors. Although some discrepancy is to be expected, the size of the discrepancy gives rise to concerns about increased poverty among the elderly. It should, however, be noted that the importance of this discrepancy tends to be exaggerated by critics of the Latin American pension reforms. What matters most for avoiding poverty among the old is failure of household heads, especially in single-earner families, to contribute.

As regards the private pillar, the Argentine variant has many features in common with the Chilean system. Only specialized companies are authorized to manage pension accounts, workers can only have one account, each company can only operate one pension fund, it is required to charge the same prices and commissions to all its affiliates (although in Argentina discounts are allowed for loyalty but not for groups of workers or for high balance workers), and it is required to arrange one group term life and disability insurance policy for all its affiliates. The system is heavily regulated and supervised to ensure both its soundness and fair treatment of affiliates. Both countries earned high real rates of return but they also both suffer from high marketing costs and extensive account transfers. Disability and term life insurance as well as the decumulation phase (life annuities and scheduled withdrawals) follow similar lines of organization.

But there are also some significant differences. In Chile 10% is used for long-term capital accumulation, in Argentina only about 7.5%. Thus, the relative role of the private pension funds in the capital market will be significantly greater in Chile. In Chile, the total size of mobilized assets increased from 0.9% of GDP in 1981 to 3.4% in 1982, 11% in 1985 and 27% in 1990. In Argentina, total funds rose from 0.5% of GDP in fiscal 1995 to 1.4% in 1996. They are expected to reach 4% of GDP in 2000 and 7% in 2005.

In Argentina, the minimum relative profitability returns are expressed in nominal terms, in Chile in real terms. Perhaps for this reason, in Argentina the margin is set at 30% higher or lower than the average return, whereas in Chile it is set at 50%. However, using nominal returns provides weaker protection to workers in times of high inflation. On the other hand, when inflation is low, the profitability requirements are more onerous in Argentina.

Investment rules are more liberal in Argentina, where from the start higher limits for investments in equities have been allowed as well as some investments in foreign securities. Although AFJPs have followed very conservative investment policies and have stayed well within the permitted limits, their holdings of equities (including shares of mutual funds) reached 15% of assets in fiscal 1996 and 23% in March 1997. In Chile, this level of equity holdings was not reached until 7 or 8 years after the reform.

Argentina does not offer indexed debt instruments (other than bonds denominated in dollars). In Chile, indexation of financial instruments is widely spread and this allows the offer of real annuities. Clearly, the Argentine pension system is exposed to the risk of high inflation some time in the future. The authorities may have to reconsider the ban on indexation once the mentality of hyperinflation is eradicated from the economic system.

Operating and marketing costs are very high in both countries, but their adverse impact on net returns is greater in Argentina because of the smaller amount that is retained for long-term capital accumulation. For this same reason, the cost of insurance will also be higher in Argentina since disability and survivorship pensions are defined benefits and insurance companies must make up the difference between (lower) accumulated balances and the technical capital required to purchase a given annuity.

To recapitulate, the main difference between Argentina and Chile lies in the level of targeted pensions and the implied financial cost. Argentina promises higher pensions for all workers (except perhaps those with very high incomes) but its system involves higher payroll contributions, higher insurance and operating costs, and lower long-term capital accumulation. The targeted level of redistribution is clearly a sociopolitical issue. The higher level of targeted pensions, especially for low income workers, may have been influenced in Argentina by the fact that the pension reform program had to be approved and enacted by a democratically elected body. Whether the higher targets will be achieved will depend on the performance of the economy and on the impact that the modernized and revived capital markets will have on savings mobilization, investment efficiency and economic growth.

Comparison with Switzerland. The Swiss pension system is a compulsory multi-pillar one and has a formal resemblance to the Argentine system. But, unlike Argentina, the public pillar offers a two-part pension: the first, equal to about 20% of average covered wages, is paid on the basis of years of contributions, while the second is earnings-related and is based on average lifetime indexed earnings. The public pension from the two parts combined cannot exceed (roughly) 40% of average wages.

Contributions to the first pillar are shared equally between employers and employees, but the federal and cantonal governments cover through a budgetary allocation about 20% of the cost of public pensions. This amounts to about 1% of GDP.

First pillar contributions are not subject to an earnings ceiling and thus the public pillar is highly redistributive, especially for people with similar marital status. The first pillar is compulsory on both depended employees and self-employed workers, although the latter pay a lower contribution rate. Unlike Argentina, public pillar pensions are indexed in Switzerland. The index used is the arithmetic mean of price and wage inflation.

The compulsory second pillar involves an employer mandate (unlike Chile and Argentina where the mandate is imposed on workers). It is operated by trusts and foundations established by employers and managed by trustees appointed jointly by employers and employees. Insurance companies and other financial institutions operate pension plans for groups of small employers.

The Swiss second pillar is less transparent than that of Chile or Argentina. Its historical investment returns have been rather low, mainly because of conservative investment policies pursued by the trustees. Detailed data on operating costs are not available and some costs may be hidden. However, operating costs are likely to be much lower, mainly because of the absence of the marketing intensity that characterizes the pension systems of Chile and Argentina.

An important difference with Argentina is that contributions to the second pillar are not based on a worker's total earnings but only on so-called "coordinated earnings". These are set every year but lie between 40% and 120% of average wages. This provision avoids forcing low income workers to accumulate excessive amounts of capital for their retirement. Without a coordination of the benefits from the two pillars, low income workers may end up with replacement rates that exceed 100% of their active life earnings. In contrast to this approach, the Argentine law stipulates that the minimum income on which contributions are levied cannot be less than 3 times AMPO, which is equivalent to 33% of the average covered wage. This provision is inserted in order to put a minimum declared income for the self-employed.

In Switzerland, the contribution rate for the second pillar is very high and increases with age. But as they are calculated on "coordinated earnings" rather than total earnings, the effective contribution rates are much smaller than what they appear at first sight. Adoption of the concept of "coordinated earnings" in Argentina would require increasing the nominal contribution rate for the second pillar in order to avoid lowering significantly the contribution amounts for long-term capital accumulation.

Another difference concerns the decumulation phase of the pension system. As in Chile, annuities are not heavily regulated in Argentina, except for normal prudential requirements. Insurance companies are free to set their annuity prices, which reflect free choice in the use of discount rates, mortality tables and commercial costs. In Switzerland, the annuity conversion factor is fixed by the regulators. Whether this is beneficial for retiring workers depends on the effects of competition and innovation on annuity prices. But answering this question is difficult because market conditions vary considerably between Argentina and Switzerland.

Lessons and Relevance for Eastern Europe. The Argentine pension reform has both positive and negative lessons for other countries. Among the positive lessons, perhaps the most important is the feasibility of radical pension reform through the democratic process. Another positive lesson is the ability to revise and improve the pension reform program with subsequent legislation. This shows that it is not necessary to get the reform program completely right in one go.

In more practical terms, the new Argentine law has succeeded in passing two gradual but hotly disputed changes: raising the normal retirement age by five years; and increasing the minimum eligibility (or vesting) period to 30 years. Evasion, or at least the scope for strategic manipulation and system abuse, is likely to be reduced as a result of the change in eligibility requirements, the introduction of a new uniform code, and the transfer of the collection function to the tax authorities.

The performance of the private component of the new system has also been very promising. The private sector has responded vigorously to the challenge of the new system and has performed robustly in a highly uncertain economic environment. A regulatory agency has been created with the remit to supervise the private tier. It has been able to collect and publish extensive data on the performance of different companies. Despite the financial crisis of 1995, the sector has not experienced any financial difficulties.

Among negative lessons, perhaps the most important is that the democratic process and congressional debate may dilute the proposed reform program. A further negative implication is that radical pension reform may not be feasible until the economy hits "rock bottom" and the pension system becomes almost insolvent.

The dilution of the reform program is reflected in the creation of the PAP component of the second pillar, the retention of a lower retirement age for women (60 instead of 65 as proposed by the government) and the use of a higher accrual rate (than originally intended) for the PAP component.

As regards the private, fully funded component of the second pillar, the most negative feature concerns its strong marketing intensity and the high level of account switching. A less well documented weakness is an alleged failure to undertake an extensive educational campaign to explain the benefits of the reform to the public at large and encourage active participation in the private component of the system.

The relevance for Eastern Europe derives from the fact that the pension systems of Eastern European countries have many features in common with the Argentine system of the early 1990s. These include the large discrepancy between the system and demographic old-age dependency ratios. The causes behind the discrepancy are also quite similar: low retirement ages; lax early retirement and disability provisions; and widespread and growing evasion.

A concomitant common feature is the growing pressure on the finances of public pension systems. Increasing contribution rates would be counter-productive because contribution rates are already quite high and further increases would stimulate even more evasion. Many, though not all, Eastern European pension systems also suffer from the adverse effects of pension indexation, while as in Argentina, the capital markets are not well developed or well regulated.

Given these common weaknesses, a most important lesson of the Argentine experience is that systemic and radical pension reform is feasible through a democratic political process. The collapse of the old Argentine pension system is also a warning against delaying the reform program.

The retention of a first public "pay-as-you-go" pillar offering a universal basic pension of about 30% of the average covered wage is likely to provide better protection through redistribution and thus enhance the social acceptability of radical pension reform, especially in countries where the concepts of solidarity and redistribution in favor of low income workers attract considerable political support.

The use of compensatory pensions rather than recognition bonds is also likely to mitigate the cashflow implications of the reform for government budgets. This could be particularly important for those countries of Eastern Europe where pension spending exceeds 10% of GDP.

Launching a capitalization pillar as a major part of the reform is crucial for the success of the program. It is important to downsize the public pillar and create room for the creation of private pension funds. The latter have many positive externalities. They stimulate the development and modernization of capital markets, leading to a more efficient allocation of resources and promoting economic growth. Private pension funds can become a strong countervailing force to the dominant position of commercial banks in most developing countries.

Although development of a sound financial system and effective regulation and supervision are essential, the importance of their pre-existence is often exaggerated by critics and opponents of pension reform. Neither Argentina nor Chile had sound financial systems or effective regulation at the time of pension reform. If anything, it can be argued that creation of the private pension funds had a positive demonstration effect on the rest of the financial system.

Some of the main lessons are summarized in Box 1. These echo the analysis contained in de Fougerolles (1995:26), a report that summarized the views expressed at a conference on lessons of Latin American pension privatization for Central and Eastern Europe.

Outstanding Policy Issues. There are some outstanding policy issues and challenges that confront the Argentine pension system. These include the need to contain the future cost of public pensions, the retention of the PAP component, the failure to use the concept of "coordinated earnings" for contributions to the private pillar, the failure to use a proportionality rule in determining the PBU, the continuing large discrepancy between affiliates and active contributors and especially the low level of effective coverage as measured by the ratio of active contributors to the eligible labor force, the clear need to improve compliance and strengthen supervision and policing of the collection process, and last but not least, the continuing marketing intensity and high costs of the private pillar. In the longer run, there will be a need to reconsider the indexation policy and to authorize the issue of properly indexed bonds in order to facilitate the offer of real annuities. There will also be an ongoing need to streamline the regulatory framework, relax some regulations while tightening others, but with an ultimate view to integrating the private pension funds with the rest of the financial system. But, despite the existence of these outstanding issues, there can little doubt that the Argentine pension reform has met with considerable success and has many, mostly positive, lessons for Eastern European countries.

II. FINANCIAL CRISIS OF THE 1980s

The Argentine pension system suffered from serious problems and was arguably technically insolvent prior to its radical reform. The system suffered from very extensive evasion, low retirement ages, very high targeted replacement rates, multiple pensions for some workers, and liberal disability pensions as well as pensions for unmarried or widowed daughters and sisters. These defects resulted in a very high system dependency ratio and a large deficit that was covered by earmarked taxes and other transfers from the government budget. Even so, the system was unable to maintain the real value of pensions and resorted to arbitrary changes in the benefit formulas that resulted in lower initial pensions that were later challenged in the courts.

One of the main problems of the old system was the very high system dependency ratio which was in turn caused by widespread evasion. The system dependency ratio was estimated at 66% in 1990 against a demographic dependency ratio of 32%. Low retirement ages and falling employment in the formal labor market also contributed to the high system dependency ratio. The extent of evasion in 1990 is shown in Table 1. Out of an economically active population of nearly 11.8 million people, only 4.9 million were contributing to the social security system in 1990. Of the 11.8 million, 1.9 million belonged to other systems (such as the systems established for provincial government employees and those of the security forces) and were not obliged to participate in the national social security system. An additional 0.9 million were officially unemployed and also not obliged to contribute. This left about 9.1 million who were obliged to participate; of these 4.2 million or 46% failed to contribute and evaded the system. Evasion was much more widespread among self-employed people where it amounted to nearly 70%. It was almost 40% among workers in dependent employment.

Table 1

EVASION AND DEPENDENCY RATIOS, 1990
(000s)

	Dependent	Self-Employed	Total Soc Sec	Other Systems	Total
EAP (A)	7,255	2,718	9,965	1,889	11,774
Unemployed (B)	688	179	867		
Total Employed (C)	6,567	2,539	9,098		
Evasion (D)	2,449	1,759	4,208		
Contributors (E)	4,118	772	4,890		
(D)/(C) %	37.3	69.3	46.3		
Beneficiaries (F)	2,125	1,085	3,210		
(F)/(E) %	51.6	140.5	65.6		
(F)/(A) %	29.3	39.9	32.2		

Source: Based on data reported in Schulthess and Demarco (1993:131-3)

The other main problem was the promise of a very high replacement rate of between 70% (for men retiring at 60 and women retiring at 55) and 82% (for men retiring at 65 and women retiring at 60). The replacement rate was calculated on average indexed earnings of the highest 3 of the last 10 years of employment, while pensions in payment were indexed to average wages. Pensions to dependent widows fell to 75% of the level of pensions to retired workers. Allowing for the pensions to widows and other dependents, the average targeted replacement rate for all pensioners probably amounted to 70% of average earnings. On the other hand, because of widespread strategic manipulation, involving understatement of incomes of young and middle aged workers and overstatement over the last three years prior to retirement, the average earnings of retiring workers were higher by about 15% over average earnings (Queisser et al 1993). Thus, the targeted replacement rate would be closer to 80%.

Given the high dependency ratio of 66%, an average replacement rate of 80% would have required a contribution rate of over 52% for financial equilibrium. Obviously, any attempt to collect such a high rate would be self-defeating. Instead, Argentina fixed the contribution rate at 21%. To avoid complete financial insolvency, the government arbitrarily reduced pension benefits to levels that were substantially below the legally prescribed targets. The average replacement rate declined from 65% in 1980 to 50% in 1985 and 40% in 1990. In addition, the remaining deficit was financed through earmarked levies on the consumption of necessities, such as oil, gas and telephone services as well as through transfers from the Central Bank or the Treasury.

The deficit of the social pension system fluctuated between 1% and 1.5% of GDP, except in the early 1980s when employer contributions were suspended and the deficit averaged 2.5% of GDP. The cost of pensions fluctuated between 5% and 5.5% of GDP (Schulthess and Demarco 1993:31-2). Data on average replacement rates, the total financial cost of the pension system and its financial deficit over the 1980s are not very reliable. Widely varying estimates are reported in different papers. However, it should be stressed that the deficit is unlikely to have exceeded 1% to 1.5% of GDP or about 20% of the cost of pensions. It is ironic that because of hyperinflation and the practical collapse of its financial markets, Argentina was unable to finance this rather small deficit during the 1980s. When domestic money supply corresponds to less than 10% of GDP, a 1% deficit would absorb over 10% of available domestic financial resources. In Switzerland the social security law provides that the state (federal and cantonal authorities) will make an annual contribution covering about 20% of the cost of pensions. This also amounts to about 1% of GDP, but Switzerland has had no difficulty in financing this contribution, either from other tax revenues or from borrowing.

The structural problems of the old system were also manifested in a high proportion of young pensioners (5% were below the age of 50 and another 10% below the age of 60) as well as a high proportion of disability pensioners (14% of the total). Moreover, a large number of pensioners received the minimum pension (58% of all pensioners).

The reduction in the average replacement rate was first effected through partial indexation. When this caused a significant erosion in the real value of pensions, many pensioners challenged the government decisions in the courts. As the courts started to take decisions that were favorable to pensioners, the government declared the social security system in financial emergency in November 1986 and changed the benefit formula by administrative decree from a proportional to a two-step formula. The new formula set pensions equal to the minimum pension plus 27% of average indexed earnings (based on the best 3 years out of the last 10 years of employment). In 1987 the formula was revised and pensions were equal to the minimum pension plus 32.3% of average indexed earnings. Pensioners who accepted the new formula were given automatic recognition of lost pension benefits provided they were to suspend all legal action.

However, pensioners continued to challenge the social security administration in the courts and in 1991 the government adopted a new approach. It recognized the past debt to pensioners and provided four options to them: payment in cash up to a limit of 1,580 pesos; payment in a mixture of cash and bonds; payment in peso bonds; and payment in dollar bonds. The bonds are known as BOCON (bonos de consolidacion) with a maturity of ten years and represent an attempt to consolidate and finance the past debt of the social security system. The total recognized debt amounted to 7.5 billion pesos or 3.5 % of GDP.[4] Of this, 3.3 billion was settled in dollar-denominated bonds and about 1.5 billion pesos in peso-denominated bonds, while the remainder was settled in cash (Demarco 1993).

At the end of the 1980s, it became clear that the old social security system faced very serious troubles. A reform program was needed to set the system on a sounder footing. To combat evasion, the system needed both to remove negative incentives for strategic manipulation and to provide positive incentives for participation. In addition, the progressive aging of the population required an increase in the retirement age, while the need to generate long-term financial resources to finance long-term investment supported the creation of a fully funded capitalization pillar. Argentina adopted a multi-pillar mixed public/private system that is guided by the principles of universality, solidarity, and equity on the one hand and individual choice, efficiency, transparency and credibility on the other (Schulthess and Demarco 1993). Although the design of the new system has broadly succeeded in meeting these objectives, it suffers from a number of weaknesses. Perhaps the most important concerns the finances of the new public system. This is an issue of paramount importance for the long-term credibility of the reform. It is discussed in the next section before addressing the structure and performance of the new private tier.

[4] This amount represented the value of the underpayment of pensions in the 1980s and not the total implicit public debt from the unfunded pension liabilities of the old system.

III. THE FINANCES OF THE NEW PUBLIC SYSTEM

The public sector is responsible for several types of pension benefits: the old system pensions (OSP) to existing beneficiaries; the basic pension (PBU) to all new eligible retirees; the compensatory pension (PC) to new retirees with past contributions to the old system; and the PAP to retirees who select the public component of the second pillar. The public sector is also responsible for the disability and survivorship pensions of PAP participants and for a fraction of the disability and survivorship pensions of workers of the transition generation who join the AFJP system. Finally, the state guarantees a minimum level of relative profitability for the AFJP system and provides protection from insolvency of insurance companies.

The state also pays an advanced age pension (prestacion por edad avanzada or PEA). This is like a social assistance pension and is paid to those over 70 years who are not entitled to the PBU but have at least 10 years of contributions to the pension system. The public sector will also assume the accumulated pension liabilities of workers who are currently covered by provincial pension systems (when the latter become integrated into the national system).

Over the next few years the main problem area will be the payment of OSP (expanded to include those currently covered by provincial systems). But later on, the PAP component of the second pillar may give greater ground for concern, especially if it is operated on a "pay-as-you-go" basis.

Old System Pensions (OSP)

The problems of old system pensions have been inherited from the past. They mainly stem from the very high system dependency ratio (itself the result of widespread evasion, low retirement ages, and lax disability rules) and the very high targeted (but not attained) replacement rate. The problems are aggravated by the fact that attempts to reduce evasion have so far met with limited success, while measures to lower replacement rates have been challenged in the courts by aggrieved parties. The financial viability of the pension reform program requires more effective measures to combat evasion as well as greater public support for the need to lower the unaffordably high replacement rates promised in the past.

The financial position of the old pension system changed considerably between 1991 and 1994 (Table 2). Following the crisis of the 1980s, the level of pensions was substantially increased in the early 1990s. This led to a rapid growth in total pension spending, both in absolute terms and as a proportion of national income. The increased expenditure was covered from higher contribution revenues (reflecting the rise in employment and income levels of the early 1990s) and from larger budgetary transfers. Although the basic deficit was relatively small at less than 1.5% of GDP, it amounted to nearly 30% of pension outlays and 40% of contribution revenues.

The authorities have taken several measures that will help improve the system dependency ratio and lower the targeted replacement rate. First, the normal retirement age will be increased by a total of five years between 1990 and 2001. This will not affect the number of current beneficiaries but will lower the number of new retirees and increase the number of contributors. Second, the minimum eligibility period for a pension from the public pillar will be lengthened from 15 to 30 years of contributions.

These two provisions will be implemented gradually, but they are likely to cause a substantial improvement in the system dependency ratio in the longer run. Even if evasion is not substantially reduced, the requirement of a longer contribution period will result in a reduction in the number of beneficiaries and thus an improvement in the system dependency ratio. However, this automatic improvement from the longer contribution period will only occur in the long run and only if the new stricter rule is applied in practice. In the short run, when the number of old system beneficiaries is given, an improvement in the system dependency ratio will result only from increased employment in the formal sector and from an immediate reduction in evasion.

Table 2

FINANCIAL SITUATION OF OLD PENSION SYSTEM

	1991	1992	1993	1994
		(billion pesos)		
Pension payments*	6.83	10.08	12.25	13.92
Contribution revenues	5.54	7.96	9.52	9.93
Basic deficit	1.29	2.12	2.73	3.99
		(percent of GDP)		
Pension payments*	3.78	4.45	4.80	4.92
Contribution revenues	3.06	3.51	3.73	3.45
Basic deficit	0.72	0.94	1.07	1.47

* excluding pensions for the military and some provinces that were transferred to ANSeS in 1994.

Source: ANSeS

At the time of the discussion of the reform program, the system dependency ratio was expected to improve from 64% to 50% within the first few years after the reform and to then continue improving to reach 33% by the year 2020. Initial indications based on the rate of affiliation to the new system suggested a substantial reduction of evasion that would have implied a significant improvement in the system dependency ratio. However, these early indications were misleading because of the large discrepancy between affiliates and active contributors. Data on active contributors suggest that the implied early reduction in evasion was illusory. Thus, while the number of affiliates reached 5.7 million in August 1994, 7.1 million in June 1995 and nearly 8 million in June 1996, the number of active contributors to both the AFJP and PAP components was much smaller. They amounted to 4.4 million workers in August 1994, then dropped to 4.2 million in June 1995 and reached 4.6 million in June 1996 (Table 3).

While on the basis of affiliates the rate of evasion would appear to have dropped to 28% (from 46% in 1990), it would appear to have risen to 58% if only active contributors are taken into account (Table 4). This could reflect the difficult economic conditions following the Mexican Tequila crisis as well as the continuing disincentives for active participation. As a result, instead of improving, the system dependency ratio may have deteriorated from 64% to 79%. It is worth noting that according to these estimates, nearly 5.7 million Argentine workers appear to evade the system, up from 4.2 million in 1990.

Table 3

AFFILIATION AND ACTIVE CONTRIBUTORS TO AFJP AND PAP SYSTEMS

	Affiliates (000s)			Active Contributors (000s)		
	AFJP	PAP	Total*	AFJP	PAP	Total*
August 94	2242	2674	5708	1412	2150	4377
December 94	3502	2913	6602	2120	2173	4542
June 95	4021	2824	7093	2016	1916	4180
December 95	4881	2690	7738	2842	2002	5010
June 96	5363	2590	7987	2728	1642	4589

* Totals include undecided and some other minor groups of workers.

Source: Schulthess and Demarco (1996)

Table 4

ARGENTINA: EVOLUTION OF EVASION, 1990 and 1995
(million people and %)

	1990	1995
A. Economically Active Population	11.77	13.81
B. Unemployed	0.87	2.57
C. Employed Labor Force	10.90	11.24
D. Provincial and Other Special Schemes	1.81	1.38
E. Workers Eligible for National System	9.09	9.86
F. Affiliates		7.09
G. Non-affiliated		2.77
H. Rate of Affiliation (F/E)		71.9%
I. Rate of Non-Affiliation (G/E)		28.1%
J. Contributors	4.89	4.18
K. Non-contributors	4.21	5.68
L. Rate of Evasion (K/E)	46.3%	57.6%
M. Rate of Effective Coverage (J/E)	53.7%	42.4%
N. Beneficiaries	3.13	3.32
O. System Dependency Ratio (N/J)	64.0%	79.4%
P. Demographic Dep. Ratio	34.4%	33.7%

Source: Based on data of SAFJP, ANSeS and FIEL.

Another way to look at this is to argue that the rate of effective coverage has declined from 54% of eligible workers in 1990 (4.9 out of 9.1 million workers) to 42% in 1995 (4.2 out of 9.9 million workers). Interestingly, the rate of effective coverage, based on those who are actively contributing to the new and old systems, seems to have increased in Chile from 42% of the labor force in 1982 (29% in the AFP system and 13% in the old system) to 50% in 1985 (39% and 11%), 56% in 1990 (48% and 8%) and 61% in 1995 (56% and 5%).[5] However, these data may hide a sharp fall in effective coverage at the time of the introduction of the new system. Another definition of effective coverage, which is based on all affiliates who made at least one contribution during the year, shows a higher level of 75% in 1995, up from 66% in 1989 (Schulthess et al, 1996:221).

The apparent increase in evasion in Argentina should be treated with caution both because past data may have underestimated the true level of evasion and because the current data on active contributors may understate the true level of participation. But there should be little doubt that evasion is still at a very high level and this clearly undermines the short term finances of the public pillar. Despite these concerns, evasion may decline over the medium term as economic conditions improve and policing of compliance is intensified.

With regard to replacement rates and the level of old system pensions, the law on pension solidarity that was enacted in March 1995 (Law 24463) removed the automatic indexation of all public pillar pensions and linked pensions instead to ad hoc adjustments approved in the annual budget. It also allowed differential rates of adjustment between lower and higher pensions. As a result, the effective replacement rate will depend on annual budgetary decisions which will take into account the affordability of annual increases and their effect on pension dispersion (Schulthess 1994). Although this will protect the state budget from the potentially excessive cost of pensions, it will expose the public components of the pension system to the vagaries of inflation as well as to electoral pressures. But of more immediate relevance, the effectiveness of the pension solidarity law is under threat following the multitude of legal actions that have been undertaken challenging its constitutionality.

Basic and Compensatory Pensions

The cost of the basic and compensatory pensions will be insignificant in the early years of the new system since the number of new retirees will be very small. Over time, the number of pensioners claiming the PBU and the PC will rise but the higher normal retirement age, the longer minimum eligibility period, and the anticipated reduction in evasion will all imply a much sounder system dependency ratio and therefore a lower cost rate.

In addition, the new rules that eliminate automatic indexation of pensions in payment will most probably result in a lower level of pensions. A new pensioner who can prove the maximum allowable 35 years of contributions to the old system will be entitled to a PC equal to 52.5% of the average earnings over the last ten years before retirement. Adding the PBU, which for a worker with 35 years of contributions will amount to nearly 29% of the average covered wage, a worker with average earnings will receive a

[5] This information together with a vast amount of data on the pension reforms of Argentina, Chile and Peru is contained in a volume published jointly by the three supervisory agencies (Schulthess et al 1996).

combined pension equal to over 81% of earnings. (The total replacement rate will be lower for high income workers, and higher for low income workers, because the PBU is linked to average covered wages).

However, very few workers are likely to receive such high compensatory pensions because very few workers can prove such long periods of contributions. Moreover, as time goes by, the number of contributory years to the old system will decline. Another factor that will cause PC pensions to be lower is that about one third of all beneficiaries are widows and dependent children who are entitled to significantly reduced pensions. Finally, if PC and PBU pensions are not automatically and fully indexed to either prices or wages, then pensions to older cohorts will be lower than those to younger cohorts. The average pension may thus be much lower than the level of initial pensions paid to new retirees.

As already noted, the public pillar will also be responsible for a fraction of the disability and survivorship pensions for workers of the transition generation. For the AFJP system, the cost of disability and term life insurance is estimated at around 1.2% of covered wages, so perhaps for the transition obligation of the public pillar, which would cover older people with higher incomes, an initial cost rate of 1.5% to 2% might be required. This would decline over time as the public pillar's share of disability pensions would itself decrease. Moreover, the cost of disability pensions for the transition generation would be offset by smaller outlays on compensatory pensions.

The PAP Component of the Second Pillar

In contrast to the private component of the second pillar, the PAP is operated on a "pay-as-you-go" basis without the accumulation of a fund for the payment of future pensions. Current contribution revenues to the PAP appear to be used to cover the deficit of first pillar pensions. This stores trouble for the future as the system dependency ratio of the PAP component will deteriorate over the next 10 to 15 years. This is because the majority of young workers have opted for the capitalization pillar and the demographic structure of the PAP is skewed toward people that are over 35 years old. Moreover, like the AFJP system, the PAP must make provision for the payment of disability and survivorship pensions, which judging from the experience of the private pillar may amount to between 1.2% and 1.5% of covered wages.

The cost of the PAP will be insignificant in the first 20 years after the reform, because both the number of new retirees and the number of years of contributions to the new system will be small. It will increase significantly after 2015 and may be highest between 2030 and 2040.

Transfer of Provincial Pensions

The financial situation of the public pillar is likely to be complicated further in the near future by the proposed transfer of provincial pension systems. These cover public sector employees in the 23 provinces and the Municipality of Greater Buenos Aires. Most of them are technically insolvent. Already 9 out of the 24 provincial systems have been integrated in the national pension system, while the transfer of another 10 systems is currently under consideration.

Provincial pension systems offer more generous benefits than the national system. They have lower retirement ages (and in some cases are based only on length of service) and index pensions to the salaries of employees performing similar duties. Although contribution rates are also higher, the provincial systems suffer in aggregate from large financial deficits.

Integrating the provincial pension systems into the national system is likely to increase the deficit of the latter by a larger amount than the current provincial deficit of nearly 1 billion pesos. This is because the contribution rates will be adjusted to the lower levels applying in the national scheme, while some workers may opt to join the AFJP system rather than stay with the PAP. Adding the past deficit of provinces, the total burden may be over 2 billion pesos. However, much will depend on the terms and conditions of the transfer.

Social Assistance Pensions

The provision for a 30-year minimum contribution period for eligibility for the PBU may have an adverse effect on workers who are unable to comply with this requirement. This stiff eligibility requirement is motivated by the need to combat evasion or at least to eliminate the incentives for strategic manipulation of the system and contain its adverse effects on the finances of the public pillar. But there is a clear risk that this could be achieved at the expense of increased poverty among the old since failure to comply with the new increased minimum eligibility period may leave many workers without a public pension. Strict adherence to the new tougher rules might also imply an unfair redistribution, irrespective of income level, from workers who contributed for a number of years but failed to qualify for a pension to those who met the minimum requirement.

Such stiff eligibility requirements have been criticized when applied in occupational pension schemes and many countries have placed upper limits on vesting periods, i.e. the length of service that is required for acquiring pension rights in such schemes. Even though a national system does not suffer from the same portability problems as company schemes, it would seem that a better way to eliminate incentives for strategic manipulation and encourage full career participation in the national system would have been the adoption of a proportionality rule whereby the PBU would be paid in proportion to a worker's length of contributions by reference to the length of a normal full career. The PBU for workers with interrupted careers (or interrupted contribution periods) could be reduced *pro rata* to the number of years for which contributions have not been made. Under the current provisions, workers with interrupted careers and low wages (and thus low pensions from the second pillar) may need to be supplemented with social assistance pensions that would bring their total pension to a minimum acceptable level.

The budgetary implications of social assistance pensions may be lower than those of a proportionality rule since some of the workers with interrupted careers may receive adequate pensions from the second pillar and may thus not require any additional assistance. However, the stiff eligibility requirement may be having an unintended effect on evasion as workers who are not confident they can contribute for 30 years may decide to evade the system, especially as the overall tax rate may turn out to be very high relative to expected benefits. Adoption of a proportionality rule for the PBU, coupled with other measures to combat evasion and encourage participation, may prove an important factor in improving the finances of the public pillar.

To protect workers with shorter contribution periods, the authorities introduced with Law 24347 an advanced age pension (PEA) to people over 70 who do not qualify for the full amount of the PBU but who have at least 10 years of contributions. This is set equal to 70% of the PBU. But, as discussed below in the comparison with Chile, perhaps a better approach would be to define the PBU with a two-part rule, consisting of a flat pension of, say, 15% of the average covered wage payable to all old people plus 0.5%

of the average covered wage for every year of contribution. Payment of the PBU to people with less than 5 years of contributions would be subject to an income and asset test (means test). This approach would discourage strategic manipulations, would avoid poverty traps and would also integrate the social assistance pension with the main pension system.

Total Cost of First Pillar

Estimating the total cost of the first pillar requires detailed actuarial modeling and a host of data and assumptions about key variables such as the future evolution of beneficiaries, contributors, and the system dependency ratio; the rate of contributions and the average covered wage; and the level of retirement and survivorship pensions and their relation to the average covered wage.

Based on some optimistic assumptions (such as an average retirement pension of 51% of the average covered wage and an average survivorship pension of 38%, a contribution rate of 12% for the first pillar and 11% for the second pillar, an initial ratio between contributors and affiliates of 65% but rising to 95% over time, and constant other tax revenues), a study by two government economists estimates that the public pillar will continue to accumulate deficits until the year 2013, but will start earning a growing surplus after that year (Cottani and Demarco 1996). The annual deficit after taking account of earmarked tax revenues amounts to 1.5% of GDP at first, but declines over time in both absolute terms and relative to GDP. The cumulative deficit reaches 42.3 billion pesos, equivalent to 15% of GDP in 2015 (Table 5). Other studies show an earlier improvement, followed by a new deterioration after 2025 as a result of the future financing problems of the PAP.

The validity of these projections depends on the realism of its underlying assumptions. The most optimistic assumption concerns the projected improvement in the ratio of active contributors to affiliates from 65% to 95%. Although some improvement should be expected, it is difficult to justify such a radical amelioration in the compliance record. A more relevant assumption concerns the projected system dependency ratio but this is not explicitly reported in the quoted study.

Table 5

Public Pillar: Projected Revenues, Expenditure and Deficit
(billion pesos)

	Revenues	Expenditures	Annual Deficit	Cumulative Deficit
1995	10.49	14.24	3.75	3.75
2000	11.59	17.87	3.28	21.43
2005	12.55	14.66	2.11	34.49
2010	13.46	14.33	0.87	41.33
2015	14.13	13.88	-0.25	42.26
2020	14.49	13.37	-1.11	38.31

Source: Cottani and Demarco 1996

It should, however, be noted that despite the concerns, the projected deficit of the public pillar appears financible in the new environment of macrostability and growing financial markets. In fact, partial debt financing of the transition deficit may be preferable to a tax financed transition as debt financing allows spreading the cost of the transition over several generations.

IV. THE AFJP SYSTEM

The AFJP system has many features in common with the Chilean system.[6] Only specialized companies are authorized to manage pension accounts, workers can have only one account, each company can only operate one pension fund, is required to charge the same prices and commissions to all its affiliates[7], and is required to arrange one group term life and disability insurance policy for all its affiliates. The system is heavily regulated and supervised to ensure both its soundness and fair treatment of affiliates.

The record of the private pillar has been characterized by a vigorous response and a robust performance in an uncertain environment (Vittas 1997a). Despite a slow start, the private pillar has succeeded in attracting 67% of all workers who participate in the new integrated system. It also represents 60% of those who are active contributors (Schulthess and Demarco 1996). It has attracted many younger workers and has started to mobilize a large and fast growing pool of long-term financial resources. The assets of the pension funds reached 3.8 billion pesos or 1.4% of GDP in June 1996 and are expected to exceed 20 billion pesos or 4% of GDP by the year 2000.

The AFJPs have earned high real investment returns, although they have also suffered from very high start-up operating costs. Despite the high investment returns, individual affiliates have so far earned negative real returns because of the high commission charges. However, in the longer run, individual net returns are expected to be highly positive. The Argentine private pension pillar shares many of the strengths and weaknesses that have characterized the Chilean pension reform (Shah 1996, Vittas 1997b).

Coverage: Affiliates and Active Contributors

Before the launching of the new system, estimates of the proportion of workers who would opt for the AFJP system varied from 50% to as high as 70%. An important provision of the new law stated that if workers failed to express a preference for the PAP scheme, they would be presumed to join the AFJP system. This was used as a justification for the government expectation that 70% or more of workers would join the AFJP system, since inaction and inertia would favor the private component of the second pillar.[8]

But despite this presumption and despite the massive campaigns of AFJPs between April and June 1994, the pace of affiliation was initially quite slow. Only 1.8 million workers were affiliated when the system became operational at the beginning of July 1994. This represented around 20% of eligible workers

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[6] The structure and performance of the AFJP component of the new integrated pension system is reviewed in Vittas (1997a). See also Schulthess and Demarco (1996) and Rofman and Bertin (1996).

[7] Unlike Chile, AFJPs are allowed to offer loyalty discounts to workers who do not transfer their accounts over a given period. However, like Chile, they are not allowed to offer group discounts or discounts to high balance workers.

[8] Undecided workers were to be allocated to the AFJP chosen by the majority of their co-workers. But in practice they were initially held in a special trust account and were eventually allocated to all AFJPs on the basis of market shares in terms of affiliates.

(i.e. the total employed labor force less those workers covered by special schemes). The pace of affiliation accelerated after July. The number of affiliates reached 2.2 million in August 1994, 4.0 million in June 1995, 5.4 million in June 1996 and 5.6 million in March 1997 (Table 3). Affiliation was encouraged by the amnesty that was announced for the second half of calendar 1995 and by the incorporation of some provincial pension schemes in the national system. During the second year of operation of the new system, many workers who originally chose the PAP switched to the AFJP system.

Total affiliation to the new system reached 8 million workers in June 1996 or about 75% of all eligible workers (Table 3). The share represented by the capitalization system rose from 39% in August 1994 to 57% in June 1995 and 67% in June 1996. However, as in Chile, there is a big discrepancy between affiliates and active contributors. Only about 50% of AFJP affiliates are active contributors and they represent less than 30% of eligible employed workers.

An encouraging feature of the pattern of affiliation is the young age of affiliated workers. 54% of workers who opted to join the AFJP system are less than 35 years old, 37% are between 35 and 49, and 9% are 50 or more[9]. This confirms the expectation that younger workers were more likely to join the private pillar. At the same time, it raises some serious questions about the future finances of the PAP component of the system since its dependency ratio is likely to deteriorate sharply over the next twenty years.

Savings Mobilization

AFJPs mobilized 4.62 billion pesos in the first two years of operation of the new system. Of this amount, around 1.5 billion was used to cover insurance premiums and operating costs, representing 3.5% out of the 11% contribution rate. This left over 3.1 billion pesos (or 7.5% of covered wages) for long-term capital accumulation. At the end of June 1996, the total funds mobilized by the pension funds, including investment income earned, amounted to 3.84 billion pesos, corresponding to 1.4% of GDP (Table 6).

Table 6
Size of Funds

	Level bn pesos	Level % GDP	Change % GDP
December 1994	0.52	0.18	
March 1995	0.95	0.35	0.17
June 1995	1.36	0.47	0.12
September 1995	1.89	0.70	0.23
December 1995	2.50	0.91	0.21
March 1996	3.22	1.22	0.31
June 1996	3.84	1.40	0.18
September 1996	4.49	1.63	0.23
December 1996	5.33	1.91	0.28
March 1997	6.24	2.20	0.29

9 These percentages are based on those who declared their age (no age is provided by 17% of affiliates). In Chile, the 1993 age structure of affiliates was 63%, 29% and 8% for the same age groups.

Source: SAFJP

A further 2.55 billion pesos was collected over the first 9 months of fiscal 1997 (equivalent to 3.5 billion pesos on an annual basis and thus showing an acceleration in contributions). Insurance premiums and commissions absorbed about 800 million pesos, leaving 1.75 billion pesos for long-term capital accumulation. Adding investment income, total funds under management reached 5.33 billion pesos in December 1996 and 6.24 billion pesos (or over 2% of GDP) in March 1997.

Management Companies and Market Concentration

Only specialized pension fund management companies (known as Administradoras de Fondos de Jubilaciones y Pensiones or AFJPs) are authorized to participate in the system. They must be set up as joint-stock companies and can be established by any group of shareholders, including banks and other financial institutions, large corporations, trade associations, labor unions, and groups of workers. AFJPs are regulated and supervised by a specially created agency, the Superintendencia de AFJP or SAFJP.

Apart from AFJPs, life insurance companies also play a big part in the new pension system by providing term life and disability insurance, while specialized retirement insurance companies are exclusively authorized to provide retirement life annuities. Insurance companies are regulated and supervised by the insurance supervisory agency.

AFJPs are required to have a minimum capital of 3 million pesos. They are also required to maintain an investment reserve (encaje) to meet any shortfalls in profitability. This must be equal to the larger of 3 million pesos or 2% of the total assets of the pension fund under management. Thus, to start operations, an AFJP needs a capital of 6 million pesos.[10]

Each AFJP is allowed to operate only one pension fund for all its affiliates. The pension fund is an independent entity and is fully segregated both legally and financially from the AFJP. The assets of the pension fund belong exclusively to the affiliates, are not attachable, and are not affected by any financial losses suffered by the AFJP. To protect the interests of their members, all transactions of the pension fund must be carried out at officially recognized markets where they can be effectively supervised. Furthermore, AFJPs are required to establish custody agreements with authorized custodial institutions for the safekeeping of the securities in which they invest.

The law requires the state-owned Banco de la Nacion to establish an AFJP. It was stated in the law that this AFJP should provide a guaranteed minimum rate of return (expressed in both dollar and peso terms), should not levy any commission fees, and should direct some of its pension fund assets into specified investments. However, some of these provisions have been eliminated or substantially weakened.

[10] These initial capital requirements are much higher than those imposed in Chile. Although this might discourage entry, the primary concern of the Argentine authorities is to avoid a fragmentation of the market and to help establish a robust and well regulated system. Later on, the initial capital requirements could be lowered if the authorities wish to increase the contestability of the market and strengthen the threat of potential competition from new entrants.

The Government objected strongly to the provision of a dollar rate guarantee and this has been eliminated. The management of Banco de la Nacion itself was against the no-charges provision and charges are now levied. The guarantee in terms of a minimum peso rate of return (equal to the rate of interest on savings accounts) has not been dropped yet but it is likely to be watered down significantly. Some commentators have observed that it could be applied to the lifetime performance of an individual capitalization account, from its opening up to the retirement of its owner. If so, the minimum peso rate guarantee would become fairly innocuous. The AFJP of the Banco de la Nacion does place a significant proportion of mobilized funds in regional projects (see below).

Since the introduction of the new system in April 1994, 26 AFJPs have been authorized, though one has failed to start operations. The number of AFJPs was reduced to 22 by mergers that took place during 1995 and was reduced further to 20 in late 1996. Most of the active AFJPs are joint ventures between domestic and foreign banks and insurance companies, although some have been created by trade unions and other groups of shareholders. Domestic and foreign banks control 65% of the capital of AFJPs, followed by insurance companies that hold a further 15%. Because of the larger size of bank-controlled AFJPs, the share of banks in total funds under management is even greater at 73% (Schulthess and Demarco 1996:25-26). Of this, 36% is represented by private domestic banks, 12% by state-owned domestic banks, and 25% by foreign banks (Rofman and Bertin 1996:34). Prior to the launching of the new pension system, prospective AFJPs engaged in considerable preparatory work, not only in developing appropriate computer systems but also in mounting extensive marketing and publicity campaigns. Particularly strong activity was focused on signing up large employers and attracting high income workers.

The vigorous response of the private sector to the new pension system is underscored by the total spending in start-up costs. These amounted to an aggregate sum of over 600 million pesos (Vittas 1997a). The companies will be allowed to amortize their start-up costs over a ten-year period, up from a three-year period that was initially provided. In addition to their start-up costs, the AFJPs have collectively mobilized an additional 270 million pesos of which over 190 million pesos is in the form of equity capital. This covers both their minimum capital and investment reserves (encaje).

The most successful AFJPs are those set up by strong groups of private domestic and foreign banks. The leading AFJPs are already quite large with nearly 1 million affiliates each and 1 billion pesos in assets under management. Some AFJPs have adopted a clear strategy of attracting high income workers and report high average balances per affiliate. Also, the ratio of active contributors to affiliates varies considerably among individual AFJPs. It appears to be higher among AFJPs established by trade unions.

The relative performance of Nacion, the AFJP of the state-owned Banco de la Nacion, has attracted considerable interest because of the explicit and implicit government backing. Nacion has consistently lost market share, declining from nearly 12% of affiliates in September 1994 to 9% in May 1996 and 8% in March 1997. Its share of funds under management is only 6%. This is smaller than its share of affiliates because of the low average account balance. It also has declined, though less sharply.

Concentration in the market is quite high. It has increased considerably following the series of mergers that took place in 1995 and 1996. The largest 3 AFJPs accounted in March 1997 for 47% of affiliates and assets under management and the largest 6 for around 78% of each distribution. At the other end of the scale, the ten smallest AFJPs accounted for less than 8% of the market.

The Herfindahl Index of concentration which was on a slightly rising trend and was close but less than 1000 for both distributions in June 1996, jumped to 1121 for the affiliates distribution and to 1158 for the funds distribution by March 1997. In Chile, the 3 largest companies accounted for 68% of all affiliates in 1994 (down from 73% in 1981) and for 54% of all funds (down from 74% in 1981). The Herfindahl index was 2200 for funds under management in 1981, although it fell to 1260 by 1994 (Vittas and Iglesias 1992, Vittas 1997b).

Investment Policies and Returns

Investment rules impose upper limits on different classes of instruments to avoid excessive concentration of risks and to encourage diversification. Investment limits allow 50% of the fund to be invested in government bonds; 15% in municipal bonds; 28% in bank deposits; 28% in corporate bonds; 28% in mortgage bonds; 35% in equities; 14% in mutual funds; 10% in closed funds; 2% in options and futures; and 10% in foreign securities. Nacion is required to invest at least 20% of its funds in regional projects. With small exceptions, only investments in rated securities (both debt and equities) and traded on organized exchanges are allowed.

The policies pursued by management companies have been quite conservative. Holdings of corporate equities and bonds as well as foreign securities have been well within the permitted limits. In June 1995, the main assets were government bonds at 46% and bank deposits at 27%. Equities, including mutual fund shares, accounted for less than 6% of total assets. In June 1996, bank deposits plummeted to 18% of the total, while equities and mutual fund shares grew to 15% of total funds. Equity and mutual fund holdings reached 23% in March 1997.

The allocation of investments by currency was 43% in peso-denominated instruments and 57% in dollar-denominated instruments in June 1995. This changed to 50/50 by June 1996. The distribution of debt instruments by maturity was 21% in less than 2 years; 40% between 2 and 4 years; and 39% over 4 years.

The funds achieved a high annual investment return of 13% in nominal terms in fiscal 1995. Allowing for inflation of 2.7%, this implied a real rate of return of 10%. In the second year, the average nominal rate of return for all pension funds increased to 23%, yielding a combined annual return for the first two years of 18%. With inflation running at less than 3%, this corresponded to an average annual real return of 15%. The highest returns over the two years have been achieved by smaller companies, although the leading companies were not far behind. Rather surprisingly, the two companies that focus on high balance accounts had relatively low returns. Profitability continued at high levels in fiscal 1997. For the 12-month period ending in March 1997, the average nominal rate of return was 22%. With inflation running at very low levels, this implied a very strong performance in real terms of close to 20%.

Insurance Premiums, Operating Costs and Financial Results

The 11% contribution rate has on average been divided between 3.5% for premiums and fees and 7.5% for long-term capital accumulation. As in Chile, the AFJPs arrange for disability and term life insurance through group policies. These have to make up any shortfall between the accumulated balances in the account of a deceased or disabled worker and the technical capital required to buy the annuity that is determined in accordance with the rules. Because the amount of long-term capital accumulation is lower in

Argentina, while the death and disability benefits are defined in more or less the same way as in Chile, the cost of disability and life insurance should be higher in Argentina, all other things equal.

Because of the lack of historical data, insurance companies acted conservatively and initially charged high insurance premiums. But the cost of disability and term life insurance turned out to be much lower than originally expected. The companies have reallocated their commission charges over time in favor of fees to cover their operating costs, but without reducing overall commission charges as management companies tried to recoup their very high start-up costs.

Operating costs (excluding the amortization of deferred costs) amounted to an incredible 74% of average assets under management in fiscal 1995 but fell to 23% in fiscal 1996, mainly as a result of the rapid growth of assets. The 25 AFJPs spent 600 million pesos before starting operations, another 500 million pesos in the first year and an additional 600 million pesos in the second year, resulting in a total amount of over 1.7 billion pesos. In the first 8 months of fiscal 1997 operating costs reached 500 million pesos (equivalent to 750 million pesos on annual basis) or 10% of average assets. Judging from the Chilean experience, operating costs will likely fall in the long run to 2% or less of average assets. In relation to contributions, operating costs declined from 27% in fiscal 1995 to 22% in fiscal 1996 and 21% in fiscal 1997 (first 8 months).

Operating charges (excluding insurance premiums) levied on affiliates amounted to 46% of average funds in the first year and to 24% in the second. But they fell to 11% in the first 8 months of the third year. Because of the high operating charges, net returns to individual accounts have been highly negative, despite the achievement of high returns by the funds. However, in the long run, net returns to affiliates are expected to be positive since charges will decline fast as a proportion of accumulated account balances.

Companies used a very large number of selling agents (promotores) during the preliminary sign-up period. Almost 50,000 agents were used, although the total number was inflated by the unusually large number of agents hired by Nacion (over 17,000). The total number of agents declined to less than 15,000 by June 1996 but increased to 18,400 in December 1996.

Agents are apparently already responsible for causing too many account transfers. Probably as many as 20% of active accounts are already switching from one company to another. The pattern of account switching has been somewhat unclear. Some large companies have been persistent net gainers and some persistent net losers. In Chile, almost one in two active accounts are transferred every year.

As was the case in Chile, AFJPs suffered heavy losses in the first year of operation of the new system. The operating loss was no less than 180 million pesos in fiscal 1995. The sector achieved a major turnaround in the second year, converting the operating loss to an operating profit of 50 million pesos. This was achieved through some productivity gains but was mostly the result of the lower cost of disability and term life insurance and the retention of a much higher proportion of commission revenues for cost recovery.

Financial results are likely to be much improved in fiscal 1997. 11 AFJPs have already exceeded their break-even point and another 5 suffer a small operating deficit, with only 4 companies continuing to suffer large operating losses. However, the companies have still a long way to go to recoup their very high start-up costs. The importance of scale is underlined by the fact that it is the largest AFJPs that report a positive operating and overall financial result. However, the most successful company seems to be Generar, a smaller AFJP, that focuses on high balance workers.

Regulation and Supervision

Apart from the problem caused by account transfers, there seems to be little concern right now about any adverse impact of regulation. As investment policies have been highly conservative, the various limits, and especially those on equities and foreign securities, have not been binding.

In fiscal 1995, there was some concern that supervision had been mostly preoccupied with controlling the credentials and behavior of agents. However, growing emphasis has been placed on financial and prudential controls to ensure the safety of funds under management and thus protect the interests of affiliates. Some companies emphasize the importance of a consistent and equitable application of the regulations and sanctions as otherwise abiding companies may suffer by comparison to those which disregard the rules.

Policy Issues and Challenges.

The biggest and thorniest policy issues are the excessive level of costs, the marketing intensity of the system, and the high level of account switching. A detailed study of the reasons behind these features, of their implications for the future evolution of the system, and of possible solutions needs to be undertaken in cooperation with market practitioners. The main question to be addressed would be whether the apparently "excessive" costs are motivated by distorted incentives arising from the "draconian" regulatory regime or whether they are due to the massive effort involved in reaching, in a relatively short time, millions of workers with low balances and with no prior holding, not only of mutual fund accounts but also in many cases of bank accounts.[11]

Another challenge is to increase coverage of the AFJP system and combat evasion. The Association of AFJPs could be encouraged to mount a collective publicity campaign to extol the benefits of the AFJP system and its complementarity with the public pillar, while tax incentives and more effective policing of compliance would also have to play a crucial role.

[11] Several Chilean experts (Valdes-Prieto 1994a and 1994b, Arrau et al 1993) argue that the high costs may be due to the imposition of uniform pricing, which discourages group contracts and encourages intensive marketing. Other analysts (Shah 1996) maintain that the high marketing intensity may also be due to the segmentation of the pension funds from the rest of the financial system. Finding a solution to the problem of excessively high costs is clearly a major and even urgent challenge for the Latin American pension reforms.

V. COMPARISON WITH CHILE AND SWITZERLAND

This section provides a brief analytical comparison with the Chilean and Swiss pension systems. The Chilean pension reform was undertaken in the early 1980s and has served as the basic prototype for most Latin American countries. An analysis of the similarities and differences with the Argentine pension reform would be of particular interest, especially for policy makers and analysts in countries outside the Latin American region who may not have access to the rich literature that is available in Spanish. A comparison with the Swiss pension system is offered because of the compulsory multi-pillar structure that has been followed in Switzerland since 1985[12] and the formal resemblance that arguably exists between the systems of the two countries.

COMPARISON WITH CHILE

As is clear there are many similarities with the Chilean pension reform as well as some important differences.[13] Some of the latter are, however, more differences of form rather than of substance. This section focuses first on the similarities and differences between the unfunded public pillars of the two countries and then proceeds to examine the funded capitalization components.

However, one important difference that relates to the overall structure of the pension system should first be mentioned. This concerns the extent of privatization of the two systems. Although the Chilean system is heavily regulated, it is basically managed by the private sector. In contrast, the privatization of pensions is much less extensive in Argentina. Not only does the state provide a basic pension, but in addition workers have the right to stay with the public component of the second pillar, while even in the capitalized component a state-owned institution plays an important part.

Unfunded Public Pillars. A visible difference, but one that is probably more formal than substantive, is the retention by Argentina of an explicit unfunded public pillar offering a universal basic pension to all retired workers with the requisite periods of contributions. This is a formal rather than substantive difference because Chile also has a less visible, but no less real, public pillar in the form of the minimum pension guarantee offered by the state.

A far more important difference relates to the size of the minimum pension guaranteed by the state. In Argentina, when Law 24241 was first enacted, it promised a combined minimum pension guarantee from the two pillars equal to 40% of the average covered wage for workers with at least 30 years of

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[12] The virtues of the first public pillar of the Swiss pension system have been discussed briefly in Vittas (1993) and in World Bank (1994).

[13] There is a rich and ever expanding literature on the Chilean pension system. For an authoritative analysis, see Diamond and Valdes-Prieto (1994). Pinera (1991) provides a vivid discussion of the process of pension reform at the time of the military dictatorship that ruled Chile between 1973 and 1990. Other studies include Arrau (1994), Arrau and Schmidt-Hebbel (1994), Arrau et al (1993), Bustamante (1996a and 1996b), Diamond (1994), Iglesias (1996), Mitchell and Barrero (1997), Myers (1992), Queisser (1995), SAFP (1996), Shah (1994), Valdes-Prieto (1994a, 1994b, 1997), Vittas (1997b) and Vittas and Iglesias (1992).

contributions (27.5% from the PBU and an additional 12.5% from the second pillar). This compared with a minimum pension guarantee of about 25% of the average wage for workers with at least 20 years of contributions in Chile. However, the 40% minimum pension guarantee was vetoed at the time of passage of Law 24241 and was formally removed by the Pension Solidarity Law.

Nevertheless, a real, substantive and very important difference remains. It stems from the fact that in Argentina the PBU is additive to the second pillar pension, while in Chile the minimum pension is subsumed and blended in it: a Chilean worker with a pension above the minimum level will not receive any pension from the state. This implies that, other things equal, the average level of pensions will most likely be higher in Argentina than in Chile. This is truer for lower than for higher income workers and also when the difference between real rates of return and real wage growth rates is not particularly high.[14] If the difference between the two rates is very high, the Chilean system, which allocates 10% of wages for long-term capital accumulation as against 7.5% in the Argentine system, will produce higher replacement rates, especially for high income workers.

The higher targeted level of pensions implies a higher financial cost. The difference in financial burden is very difficult to calculate during the long transition periods. But in the longer run, and assuming no major changes in the parameters of the two systems, the financial cost of the Argentine pension system will probably amount to 27% of covered wages (16% for the PBU and 11% for the second pillar). In Chile the total cost will depend on the number of pensioners who will rely on the minimum pension guarantee. It is very difficult to obtain good estimates of this cost, but most studies put the cost at less than 1% of GDP. Assuming a share of covered wages to GDP of 40%, this would imply a cost rate for the minimum pension guarantee of 2.5%. Adding this to the 13% cost rate of the AFP system (10% for long-term capital accumulation plus 3% for insurance premiums and operating costs) would give a total cost rate of 15.5%. The total cost rate would be higher in Chile if the minimum pension guarantee turned out to be more expensive, but it is unlikely to reach the Argentine level. But pension levels will likely be higher in Argentina for most workers, and especially for low income workers. Thus, the higher cost level in Argentina is paying for a higher level of redistribution.

Another important difference concerns the treatment of past service. In Chile, workers switching to the private system were entitled to a recognition bond that was equal to the present value of their accumulated rights in the old system. Recognition bonds earn interest at a real annual rate of 4% until workers retire. On retirement, the bonds are given to the AFP of the worker's choice. In Argentina, a compensatory pension is paid to new retirees on the basis of their past service and contributions to the old system. Both countries faced a difficult technical problem in ascertaining the past service and contribution records to the old system.

The compensatory pension of the Argentine approach has a clear cashflow advantage for the public

[14] In the case of Chile, a worker with 40 years of contributions and 20 years of retirement life will achieve a replacement rate of 60% if the real rate of return is 5% and real wage growth is 2%. In Argentina, the AFJP system will produce a replacement rate of 45% for a similar worker but if the worker is earning the average wage, the total replacement rate will be equal to 75% after adding the PBU of 30%. A worker at half the average wage will achieve a total replacement rate of 105%, while a worker at twice the average wage will get a replacement rate of 60%.

system since the payment of pensions takes place gradually over the retirement life of a worker while in Chile a capital sum representing the present value of benefits is paid on retirement. The net impact on costs is less clear. Compensatory pensions may involve a lower actuarial cost if the calculation of recognition bonds does not take account of the life expectancy of workers. But on the other hand, the expected increase in longevity will raise the cost of compensatory pensions. The cost of compensatory pensions may also be greater because it is more difficult to reduce the old debt with this method. This is because people can compare annual accrual rates and fight any reduction, while calculating present values and translating old promises into bonds is much harder and amenable to subjective assessment. The Chilean scheme provides a cleaner break with the old system. A compensatory pension approach is meaningful only in countries that retain a formal PAYG pillar and face heavy budgetary pressures.

There are some other notable differences between the two countries. For instance, the Chilean system is mandatory only for employees, in Argentina for both employees and self-employed people. Argentina has a much longer minimum eligibility period, 30 years against 20 years in Chile. In Argentina, two of the components --the PC and the PAP-- are based on 10-year average earnings rather than lifetime earnings and thus provide additional scope for strategic manipulation.

In addition, new workers have no choice in Chile but to join the new private system and to rely on the minimum pension guarantee of the implicit public pillar. In Argentina, all new workers have to join the public pillar and thus are entitled to the basic pension (PBU), but they also have a choice to between the funded (AFJP) and unfunded (PAP) component of the second pillar. Retention of the PAP has been motivated by political realities in Argentina at the time of the preparation of the reform program. The authorities hope that the PAP will be eliminated in the not too distant future (Schulthess and Demarco 1996).

In Argentina, the existence of the PBU and the 30-year minimum contribution period imply a strong penalty for workers who fail to contribute for a minimum of 30 years (although enactment of the advanced age pension went some way to mitigate this adverse effect). Such a stiff requirement may fight evasion but may still encourage some strategic manipulation (i.e., contributions for small amounts, especially by self employed people, to meet the eligibility requirement). In Chile, there is an incentive to contribute for the minimum period of 20 years and for small amounts in order to benefit from the minimum pension guarantee.

In both countries, a more equitable approach would be to express the minimum pension guarantee or the PBU as an accrual rate of the average covered wage per year of contribution or, perhaps even better, to apply a two-part rule, consisting of a flat pension payable to all old people and equal to, say, 15% of the average covered wage plus 0.5% of the average covered wage for every year of contribution, but to require people with less than 5 years of contributions to be subject to an income and asset test.

Such an approach would integrate any social assistance pension with the ordinary retirement pension system. It would avoid poverty traps and would discourage strategic manipulations. A worker with 20 years would benefit from a 25% minimum pension; this would rise to 35% for a worker with 40 years of contributions. Variations to this approach could allow for a higher, say 20%, flat benefit or for a longer period, say a minimum of 10 years of contributions, for exemption from the means test. Moreover, self-employed people should be required to make contributions related to their declared taxable income. The budgetary cost of a two-part rule would need to be assessed but if the cost is high, the parameters could be changed. However, this approach avoids the moral hazard problem of minimum eligibility periods and integrates minimum pension levels with social assistance pensions.

Both countries suffer from a large discrepancy between affiliates and active contributors. Although some discrepancy is to be expected, the size of the discrepancy gives rise to concerns about increased poverty among the elderly. It should, however, be noted that the importance of this discrepancy tends to be exaggerated by critics of the Latin American pension reforms.

First, a certain discrepancy also characterizes social security systems in all countries as well as the otherwise very well managed national provident funds of Singapore and Malaysia. A major part of the discrepancy can be explained by the fact that workers who participate in the labor force for only a few years of their active lives are naturally reported as affiliates but not as active contributors. This group covers students, housewives, intermittently unemployed workers, migrant workers, expatriates, etc.

Second, only in the case of heads of households with interrupted careers and deficient contribution records is there a problem of social adequacy of pensions. Secondary income earners may get a lower pension but household income from pensions may be more than adequate if heads of household have full or near full contribution periods. Yet, despite the validity of these counter arguments, the large discrepancy, with its implied high rate of evasion and delinquency, is causing concern and needs to be investigated thoroughly in both countries. In the case of Chile, where self-employed workers are not required to contribute to the AFP system, failure to participate does not amount to evasion, although effective coverage is low. In Argentina, participation is compulsory for self-employed workers, failure to contribute implies evasion and low effective coverage. Failure to participate is linked to the size of the informal labor market and the explicit or implicit burden of taxation. It is a major issue that merits further in-depth study.

A difference in administrative arrangements that may have important implications in the long run is the centralization of the collection function in the Argentine tax authority (DGI). This is responsible for collecting contributions to both pillars and for distributing them to ANSeS, the public entity that administers the public components of the system, and the individual AFJPs. Although this measure has been aimed at combating evasion and containing collection costs, it has so far met with little success, at least in what concerns a reduction in the rate of evasion. In Chile, contributions are collected by individual AFPs. In both countries, the collection system uses the services provided by the local banking systems and their respective payment clearing arrangements.

Private Funded Pillars. As already noted, there are many similarities in the structure of the private pillars. In both countries, only specialized companies are authorized to manage pension accounts, there is the "one account per worker, one fund per company" limitation, workers have the choice to change management companies, and companies are required to treat all their affiliates equally (this implies uniform charges and one group policy for term life and disability insurance). In Argentina, AFJPs are allowed to offer discounts to loyal customers but not to high balance workers or to group contracts. Companies are free to set the level of their charges but are required to send regular statements to workers and to disclose a considerable amount of detailed information. Their investments are subject to regulations and tight supervision to ensure diversification and safety, but without direction of investments. Also, the retirement, disability and survivorship benefits of the private pillars are broadly similar. Private pension funds have in both countries earned high real rates of return, but they have suffered from very high marketing costs and extensive account transfers.

But there are also some differences in the private tier. In Chile 10% is used for long-term capital accumulation, in Argentina only about 7.5%. Thus, the relative role of the private pension funds in the capital market will be significantly greater in Chile. In Chile, the total size of mobilized assets increased from 0.9% of GDP in 1981 to 3.4% in 1982, 11% in 1985 and 27% in 1990. In Argentina, total funds rose from 0.5% of GDP in fiscal 1995 to 1.4% in 1996. They are expected to reach 4% of GDP in 2000 and 7% in 2005.

In Argentina, the minimum relative profitability returns are expressed in nominal terms, in Chile in real terms. Perhaps for this reason, in Argentina the margin is set at 30% higher or lower than the average return, whereas in Chile it is set at 50%. However, using nominal returns provides weaker protection to workers in times of high inflation. On the other hand, when inflation is low, the profitability requirements are more onerous in Argentina.

Investment rules are more liberal in Argentina, where from the start higher limits for investments in equities have been allowed as well as some investments in foreign securities. Although AFJPs have followed very conservative investment policies and have stayed well within the permitted limits, their holdings of equities (including shares of mutual funds) reached 15% of assets in fiscal 1996 and 23% in March 1997. In Chile, this level of equity holdings was not reached until 7 or 8 years after the reform.

Argentina does not offer indexed debt instruments (other than bonds denominated in dollars). In Chile, indexation of financial instruments is widely spread and this allows the offer of real annuities. Clearly, the Argentine pension system is exposed to the risk of high inflation some time in the future. The authorities may have to reconsider the ban on indexation once the mentality of hyperinflation is eradicated from the economic system.

Operating and marketing costs are very high in both countries, but their adverse impact on net returns is greater in Argentina because of the smaller amount that is retained for long-term capital accumulation. For this same reason, the cost of insurance will also be higher in Argentina since disability and survivorship pensions are defined benefits and insurance companies must make up the difference between (lower) accumulated balances and the technical capital required to purchase a given annuity.

To recapitulate, the main difference between Argentina and Chile lies in the level of targeted pensions and the implied financial cost. Argentina promises higher pensions for all workers (except perhaps those with very high incomes) but its system involves higher payroll contributions, higher insurance and operating costs, and lower long-term capital accumulation. The choice is clearly a sociopolitical one. The higher level of targeted pensions, especially for low income workers, may have been influenced in Argentina by the fact that the pension reform program had to be approved and enacted by a democratically elected body. Whether the higher targets will be achieved will depend on the performance of the economy and on the impact that the modernized and revived capital markets will have on savings mobilization, investment efficiency and economic growth.

COMPARISON WITH SWITZERLAND

The Swiss pension system is a compulsory multi-pillar one.[15] There are many similarities and differences with the new Argentine system.

As regards the public pillar, unlike Argentina, the Swiss unfunded pillar does not offer a universal basic pension but rather consists of two parts: the first part is (roughly) equal to 20% of average covered wages and is paid on the basis of years of contributions. Most Swiss residents are required to make contributions and receive this pension as most appear to have a full contribution record (housewives and widows without economic activity are exempt from the requirement to make contributions, although they are allowed to do so with contribution amounts that are determined in relation to their wealth--Helbling 1991:437-40). The second part is earnings-related and is based on average lifetime indexed earnings. The public pension from the two parts combined cannot exceed (roughly) 40% of average wages.[16] The average public pension is probably around 35% of average earnings, higher than in Argentina but not by much.

Contributions to the first pillar are shared equally between employers and employees, but the federal and cantonal governments cover through a budgetary allocation about 20% of the cost of public pensions. Contributions to the first pillar are not subject to an earnings ceiling and thus the public pillar is highly redistributive, especially for people with similar marital status. The first pillar is compulsory on both depended employees and self-employed workers, although the latter pay a lower contribution rate.

Public pillar pensions are indexed to the arithmetic mean of price and wage inflation. This offers a nice compromise between the need to protect the finances of the system, while allowing pensioners to share in the fruits of long-term economic growth and development. The same special pension index is used to actualize lifetime earnings.

The compulsory second pillar involves an employer mandate (unlike Chile and Argentina where the mandate is imposed on workers).[17] A compulsory second pillar was approved by a referendum in 1972 but it took pension experts 13 years to agree on its structure and rules. The compulsory second pillar was not introduced until 1985. However, this pillar built on a pre-existing (and quite widespread) voluntary system of occupational pension schemes.

The delay in implementing the compulsory system was probably related to the fact that the referendum was a means of defending against an expansion of the first pillar (Helbling 1991:29) and its proponents did not put forward a concrete plan for approval or rejection. When the compulsory system was introduced, it imposed a minimum obligation on employers to offer at least a defined contribution plan.

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[15] The Swiss pension system is examined in Hepp (1990, 1997), Queisser and Vittas (1997), Zuniga (1993), and OECD (1988). Helbling (1991) provides a classic analysis of the evolution of the Swiss second pillar.

[16] The actual formula used is quite complicated and has been repeatedly revised in order to effect a greater tilt in favor of lower income workers (see Queisser and Vittas 1997 for a detailed discussion).

[17] For a discussion of the merits and demerits of worker, employer and hybrid mandates, see Vittas (1996a and 1996b). The advantages of group contracts through employers are also analyzed in Diamond and Valdes-Prieto (1994).

Many employers continue to provide defined benefit plans, while even DC plans are operated with targeted replacement rates and involve higher contribution rates for older workers of the transition generation.

Being employer-based, the Swiss second pillar is operated by trusts and foundations established by employers and managed by trustees appointed jointly by employers and employees. Insurance companies and other financial institutions operate pension plans for groups of small employers.

The Swiss second pillar is less transparent than that of Chile or Argentina. Pension fund supervision is not intensive and the collection of information and publication of data is not as frequent as a compulsory pillar would seem to justify. Historical investment returns have been low because of conservative investment policies pursued by the trustees.[18] Existing investment limits have not in general been binding as asset allocations have stayed well within the prescribed limits.

Detailed data on operating costs are not available and some costs may be hidden. But operating costs are likely to be much lower, mainly because of the absence of the marketing intensity that characterizes the pension systems of Chile and Argentina. As investment policies become less risk averse and holdings of both domestic and foreign equities increase, the net returns of Swiss pension funds may rival and even exceed those of Latin American funds.

The Swiss regulations impose a minimum nominal rate of return of 4% per year. Over time this seems to have become the norm, which trustees have tried to achieve, rather than a minimum. If returns are higher in a particular year, the excess returns tend to be used to create a reserve to be drawn upon in years when returns fall short of the minimum. There is a guarantee fund in operation that is financed from small assessments on all pension funds. It could be argued that the imposition of a minimum nominal rate of return has reinforced the conservative approach of Swiss pension trustees and fund managers to the detriment of worker interests. However, investment policies have been more aggressive in recent years and real rates of return have risen and become more comparable to those of private pension funds in the United Kingdom and the United States.

An important difference with Argentina is that contributions to the second pillar are not based on a worker's total earnings but only on so-called "coordinated earnings". These are set every year but lie between 40% and 120% of average wages. This provision takes account of the fact that low income workers cannot afford and do not need to save too much for their retirement since the public pillar pension offers them an adequate replacement rate. It thus avoids forcing low income workers to accumulate excessive amounts of capital for their retirement. Without a coordination of the benefits from the two pillars, low income workers may end up with replacement rates that exceed 100% of their active life earnings. In contrast to this approach, the Argentine law stipulates that the minimum income on which contributions are levied cannot be less than 3 times AMPO, which is equivalent to 33% of the average covered wage. This provision is inserted in order to put a minimum declared income for the self-employed.

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[18] Davis (1993, 1995) reviews the investment performance of pension funds in industrial countries. He uses published data on portfolio composition and published data on total returns of different instruments in different countries and simulates the returns for pension funds in different countries on the basis of an assumed uniform one-year holding horizon. Hepp (1990) has also underscored the low investment returns earned by Swiss pension funds.

In Switzerland, the contribution rate for the second pillar is very high and increases with age. But as contributions are calculated on "coordinated earnings" rather than total earnings, the effective contribution rates are much smaller than what they appear at first sight. Adoption of the concept of "coordinated earnings" in Argentina would require increasing the nominal contribution rate for the second pillar in order to avoid lowering significantly the effective contribution amounts for long-term capital accumulation.

One argument against the use of "coordinated earnings" is that it forces low income workers to rely solely on the public sector for their pensions. Although undesirable from some points of view, such an outcome may be economically preferable if account is taken of the high operating cots of Latin American private pension funds. Unless the government is prepared to pay a subsidy to low income workers to offset the operating costs of private pension plans that are particularly high for such workers, use of coordinated earnings with a floor set at around 40% of average wages may make more economic and social sense.

A final difference between Switzerland on the one hand and Argentina (and Chile) on the other concerns the decumulation period and the use of annuities. In Argentina and Chile, retiring workers have the option to either use scheduled withdrawals without longevity insurance or to purchase real or nominal annuities. Annuity providers are subject to strong prudential regulations and safeguards but they are otherwise free to set annuity factors on the basis of interest rates and life tables. They are also free to pay hefty commissions to agents and to charge retiring workers for acquisition costs.

In Switzerland, the authorities prescribe the annuity factor for converting capital sums into regular monthly income during a retired worker's lifetime. The annuity factor has been set at 7.2% and has not changed despite fluctuations in interest rates and increasing life expectancy. While avoiding marketing costs, this approach discourages product innovation and may deny retiring workers the benefits of high market returns. Use of a constant annuity factor does not allow for variations in actuarial risks among different groups of workers (Valdes-Prieto 1994a). Whether this is beneficial for retiring workers depends on the effects of competition and innovation on annuity prices. But answering this question is difficult because market conditions vary considerably between Argentina and Switzerland.

Thus, despite the DC nature of the compulsory element of the Swiss occupational pillar, the system operates more like a targeted DB system. The scale of contribution rates that varies with age and the existence of a compensation scheme to cover benefits by companies with an above average proportion of older workers increases the relevance of this characterization. However, the minimum legal rights are set out in the form of DC benefits.

VI. LESSONS AND RELEVANCE FOR EASTERN EUROPE

POSITIVE FEATURES

The Argentine pension reform and the new integrated pension system have many positive features and lessons for other countries.

Perhaps the most important positive lesson is that it is possible to implement radical pension reform through the democratic process. Chile has shown that a radical pension reform is technically and financially feasible, despite concerns about the fiscal implications of the high transition cost and the absence of well developed and highly efficient financial markets. Argentina (alongside Colombia and, to a somewhat lesser extent, Uruguay) has demonstrated the political feasibility of radical pension reform.

Another feature is the revision of the pension reform program with subsequent legislation. This shows that it is not necessary to get the reform program completely right in one go. As long as the reform program is basically sound and moves in the right direction, important weaknesses can be corrected over time, especially if experience with the reform program is broadly positive.

Inclusion of a first pillar paying a basic pension to all eligible workers is another positive feature of the reform program as it allows a diversification across providers and provides for more effective redistribution.

The new Argentine law has succeeded in passing two gradual but hotly disputed changes: raising the normal retirement age by five years; and increasing the minimum eligibility (or vesting) period from 15 to 30 years.

Evasion, or at least the scope for strategic manipulation and system abuse, is likely to be reduced as a result of the change in eligibility requirements, the introduction of a new uniform code, and the transfer of the collection function to the tax authorities.

The performance of the funded component of the second pillar has also been very promising. The private sector has responded vigorously to the challenge of the new system and has performed robustly in a highly uncertain economic environment.

Many pension fund management companies have been established, most as joint ventures with foreign financial institutions. After a slow start, they have attracted 5.6 million affiliates, of which 2.8 million are active contributors. After nearly 3 years of operation, they have mobilized over 6 billion pesos or 2.2% of GDP. They have invested over 20% in corporate equities and about 50% in government bonds and the rest in bank deposits and corporate bonds. They have produced high investment returns of the order of 15%-18% in real terms.

A regulatory agency has been created with the remit to supervise the private tier. It has been able to collect and publish extensive data on the performance of different companies. Despite the financial crisis of 1995, the sector has not experienced any financial difficulties.

NEGATIVE FEATURES

But the Argentine pension reform also has some negative implications.

It suggests that the democratic process and congressional debate may dilute some important features of the proposed reform program. In fact, the program may be diluted even before it is submitted for congressional or parliamentary approval, but even so further dilution should be expected once the pension reform program is in the public domain.

It also suggests that radical pension reform may not be feasible until the economy hits "rock bottom" and the pension system becomes almost insolvent.

The dilution of the reform program caused by congressional amendments, especially the creation of the unfunded component of the second pillar (the PAP component), may undermine the effectiveness of the system and may even create uncertainty about the long-term performance of the funded component. (It should, however, be noted that the authorities expect the PAP component to wither away in the long run.)

Other important weaknesses relate to the lower retirement age for women (60 instead of 65 as proposed by the government) and the 30-year minimum eligibility period. Although the latter will help reduce evasion, there is a risk that it might leave many workers without a PBU. To cope with this eventuality, a pension for people over 70 with less onerous eligibility requirements was introduced in 1994. The principles of proportionality and lifetime career earnings could eliminate incentives for strategic manipulation without causing unfair treatment of workers with shorter contribution periods.

The biggest issue facing the reform program concerns the future deficit of the public components of the system. This will clearly depend on the level of evasion. But another major factor is the massive burden of unpaid past pensions. Because of these risks, the law on pension solidarity was enacted to make the first pillar a strictly "pay-as-you-go" system. This would imply no further increases in contributions or tax transfers and reduction of higher pensions to whatever level would be affordable. It is expected that this measure will encourage workers to opt for the AFJP instead of the PAP component of the second pillar and will thus strengthen the positive impact of the reform.

Another negative feature of the system is the strong marketing intensity of the AFJP component, the high marketing costs and the high level of account switching. This is linked to the high commission fees levied on individual workers which implies that despite the achievement of high gross investment returns by the funds, net investment returns to individual workers have been negative. Although over a worker's full career net returns are likely to be positive, the high upfront costs and the continuing high marketing costs are a cause for concern.

A less well documented weakness is an alleged failure to undertake an extensive educational campaign to explain the benefits of the reform to the public at large and encourage active participation in the funded component of the second pillar.

RELEVANCE FOR EASTERN EUROPE

The Argentine pension reform has a number of important lessons for Eastern Europe. The pension systems of Eastern European countries have many features in common with the Argentine system of the early 1990s.

Perhaps the most significant common feature is the large discrepancy between the system and demographic old-age dependency ratios. Though precise estimates of these ratios vary considerably, there can be little doubt that, as in Argentina, system dependency ratios are much higher in most Eastern European countries than what would be justified by demographic variables alone.[19] The causes behind the discrepancy are also quite similar: low retirement ages, lax early retirement and disability provisions, widespread and growing evasion.

A concomitant common feature is the growing pressure on the finances of public pension systems. Increasing contribution rates would be counter-productive because contribution rates are already quite high and further increases would stimulate even more evasion. Many, though not all, Eastern European pension systems also suffer from the adverse effects of pension indexation, while as in Argentina, the capital markets are not well developed or well regulated.

Given these common weaknesses, a most important lesson of the Argentine experience is that systemic and radical pension reform is feasible through a democratic political process. The collapse of the old Argentine pension system is also a warning against delaying the reform program.

The retention of a first public pillar offering a universal basic pension of about 30% of the average covered wage is likely to enhance the social acceptability of radical pension reform, especially in countries where the concepts of solidarity and redistribution in favor of low income workers attract considerable political support.

The use of compensatory pensions rather than recognition bonds is also likely to mitigate the cashflow implications of the reform for government budgets. This could be particularly important for those countries of Eastern Europe where pension spending exceeds 10% of GDP.

Launching a capitalization pillar as a major part of the reform is important for the success of the program. It is important to downsize the public pillar and create room for the creation of private pension funds. The latter have many positive externalities. They stimulate the development and modernization of capital markets, leading to a more efficient allocation of resources and promoting economic growth.

OUTSTANDING POLICY ISSUES

There are some outstanding policy issues and challenges that confront the Argentine pension system. These include the following:

* The need to contain the future cost of public pensions, both those inherited from the old system and those that will arise from the unfunded component (PAP) of the second pillar.

* The continuing marketing intensity of the private pillar and the high marketing and operating costs.

[19] See Fox (1994), Rocha and Palacios (1996) and Vittas and Michelitsch (1995).

* The failure to use "coordinated earnings" for the second pillar and thus the tendency to force low income workers to "oversave" relative to their incomes and perhaps receive unduly high replacement rates when they retire.

* The failure to use a proportionality rule in determining the universal basic pension. The two-part rule mentioned above would merit consideration.

* The continuing large discrepancy between affiliates and active contributors and especially the low level of effective coverage as measured by the ratio of active contributors to the eligible labor force.

* The clear need to improve compliance and strengthen supervision and policing of the collection process. Even though the tax authority is entrusted with the collection function, the continuing low level of compliance implies a need for administrative restructuring and increased effectiveness.

* In the longer run, there will be a need to reconsider the indexation policy and to authorize the issue of properly indexed bonds in order to facilitate the offer of real annuities.

* There is also an ongoing need to streamline the regulatory framework, relax some regulations while tightening others, but with an ultimate view to integrating the private pension funds with the rest of the financial system.

Despite the existence of these outstanding issues, there can be little doubt that the Argentine pension reform has met with considerable success and has many, mostly positive, lessons for Eastern European countries.

Of course, there is always the need to take account of country specific factors and to tailor-make reforms for each country. In fact, no two Latin American countries have implemented identical reforms (Vittas and Queisser 1997). In countries where there is weak political support for a systemic reform, the new Swedish approach of unfunded defined contribution plans with endogenous retirement ages (Lindbeck 1995, Vittas and Queisser 1997) may be more feasible than a reform along Argentine lines, although the potential benefits of pension reform, especially for the capital markets, will take much longer to materialize under such a system.

ANNEX 1

THE STRUCTURE OF THE NEW INTEGRATED PENSION SYSTEM

With some notable exceptions (e.g. military, police and provincial workers), participation in the new system is compulsory for all workers, including the self-employed, but all workers (including new entrants to the labor force) have a choice whether to join the private or public component of the second pillar.

The First Pillar

The first pillar, which is all public, is responsible for three basic types of benefits, one permanent and two transitory:

(i) a basic universal pension (prestacion basica universal or PBU), equal to 27.5% of the average covered wage, but subject to a minimum eligibility period of 30 years and a normal retirement age of 65 for men and 60 for women;

(ii) a compensatory pension (prestacion compensatoria or PC) for past contributions to the old system and paying a pension equal to 1.5% of average indexed salary of the last 10 years of employment for every year of contribution to the old system (past service) with a maximum of 35 years or 52.5%; and,

(iii) the pensions paid to existing pensioners.

The state is also responsible for the advanced age pension (prestacion por edad avanzada or PEA) which is paid to people over 70 who do not qualify for the PBU but have at least 10 years of contributions to the system. The PEA was introduced with Law 24347 in 1994 and is equal to 70% of the PBU (or about 19% of the average covered wage). Finally, the state also pays disability and survivorship pensions (see below) and various non-contributory benefits (veterans, mothers with more than 7 children, etc.).

The amount of the PBU is specified as 2.5 times AMPO, which stands for Aporte Medio Previsional Obligatorio (or Average Compulsory Pension Contribution). AMPO relates to the contribution assessed on employees and is set twice each year by dividing total contributions by the number of active contributors. As the employee contribution is set equal to 11%, the AMPO amounts to 11% of average covered wages. The PBU is thus indexed to covered wages but with a six-month lag. The amount of the PBU increases by 1% for every additional year of contributions over 30 years and up to 45 years. Thus, the maximum PBU amounts to 31.625% of the average covered wage.

With regard to normal retirement age, the government proposed 65 years for both men and women but was overruled by Congress. Both the higher normal retirement ages and the longer eligibility periods are being implemented gradually.

The stiff 30-year eligibility requirement for the full PBU aims to protect the public pillar from the strategic manipulation that undermined the finances of the old system. However, it may cause increased poverty among the old if many workers fail to comply with the new eligibility requirement. It may also discourage participation and thus contribute to the persistence of evasion. The PEA aims to alleviate these concerns.

The first pillar is financed by a 16% contribution assessed on employers and by earmarked taxes and transfers from general revenues. The old system pensions as well as the compensatory pensions are transitory and when they will cease, the contribution rate for the first pillar will decline. The PBU and the PEA may then be covered by general revenues and the contribution assessed on employers may be dropped altogether. The contribution rate assessed on employers in some sectors and/or regions of the country was reduced for most of fiscal 1995 and for fiscal 1996. As a result, the average contribution rate assessed on employers is estimated at 12% for fiscal 1996.

The Second Pillar

This has both a funded and an unfunded component.

(i) The funded component, to be managed by AFJPs (Administradoras de Fondos de Jubilaciones y Pensiones or pension fund administrators), is a defined contribution system based on individual capitalization accounts. Most AFJPs are privately owned but some accounting for a small share of the market are state-owned.

(ii) The unfunded component, known as PAP (prestacion addicional de permanencia or additional public pension), is a defined-benefit scheme operated by the state.

The ordinary retirement pension from the AFJP system may take the form of either a life annuity or scheduled withdrawals based on the accumulated balance in each account and the life expectancy of the workers and their dependents. The ordinary retirement pension from the AFJP cannot be less than half the amount of the PBU. Workers with low balances on retirement are allowed to make fractional withdrawals equal to half the PBU if their ordinary retirement pension would be lower on an actuarial basis. This implies that account balances may be exhausted prior to their death. The AFJP system also offers disability and survivorship benefits, which are of a defined-benefit nature and are covered by compulsory group disability and term life insurance. The disability and survivorship benefits of workers who switch to the AFJP system will be pro-rated with the public pillar in proportion to the number of years of contribution to each pillar.

The AFJP component of the system has many features in common with the Chilean system. Only specialized companies are authorized to manage pension accounts, workers can only have one account with one company, each company can only operate one pension fund, is required to charge the same prices and commissions to all its affiliates, and is required to arrange one group term life and disability insurance policy for all its affiliates. AFJPs are heavily regulated and supervised to ensure their soundness and fair treatment of affiliates.

The PAP component offers 0.85% of average salary of the last 10 years of employment for every year of service to the new system. It will also cover disability and survivorship benefits, similar to those offered by the private component.

The government did not initially want to propose a PAP component in the reform program. Its inclusion is an example of program dilution that takes place before submission of a draft bill to the democratic process. When it was forced to do so in order to get the bill through Congress, it proposed a 0.5% annual accrual factor, but this was raised to 0.85% by Congress (another example of program dilution after submission of a draft bill). The retention of an unfunded component in the second pillar is one of the main weaknesses of the reform program. It underscores the dilution of the program by the democratic process. The government hopes that the PAP component will be eliminated in the longer run (Schulthess and Demarco 1996:15).

The second pillar is financed by an 11% contribution rate assessed on employees. For the AFJP system, this also covers the administrative expenses and insurance premiums with regard to term life and disability insurance. It is estimated that on average about 7.5% is used for long-term capital accumulation and 3.5% for insurance premiums and administrative expenses. If the PAP component were to operate on a funded basis, it would also have to make provisions for disability and survivorship benefits and for administrative expenses. However, the PAP component is currently operating on a "pay-as-you-go" basis and all its expenditures will be covered from future contribution revenues and budgetary transfers.

Contributions to both pillars are assessed on all earnings up to a specified ceiling. This was initially set at 3,500 pesos per month and is the equal to 60 times the AMPO. As such, the ceiling is over 5 times average earnings. Low income workers are required to contribute to the second pillar on all their earnings. No provision has been made to use the Swiss concept of "coordinated earnings", which exempts earnings below a certain level from contributing to the second pillar.

Workers, including new entrants to the labor force, have the right to join either the AFJP or the PAP components of the second pillar. They also have the right to transfer their account between AFJPs. Workers who choose to stay with the PAP component can later on switch to the private component. Workers who opt for the AFJP system cannot return to the PAP, although a special provision offered since the enactment of the new law allowed such workers to switch back to the PAP system until June 1996.

The public pillar is responsible for the old system pensions, the universal public pension (PBU), the compensatory pension (PC), the PAP, the pension for advanced age (PEA), the disability and survivorship pensions of PAP participants, and a fraction of the disability and survivorship pensions of workers of the transition generation who join the AFJP system. The state also guarantees a minimum level of relative profitability for the AFJP system and provides protection from insolvency of insurance companies. (A minimum pension guarantee equal to 40% of the average covered wage from both the PBU and the private pillar combined was also initially provided, but this was vetoed at the time of passage of the law and was formally eliminated in March 1995). An interesting feature of the new system is the centralization of the collection of contributions to both pillars with the tax authorities, who transfer funds received to ANSeS, the social security administrator, which then distributes funds to AFJPs on the basis of their affiliated workers.

ANNEX 2

PENSION SOLIDARITY LAW (Law 24463)

Significant changes to pension legislation were made with Law 24463. Its main objective was to protect the budget from the excessive cost of the pension system. It effectively stipulated that the state will pay only what it can afford and that in doing so it will favor low level pensions over those at the top.

The law was a response to the continuing high level of evasion and also to the financial threat to the system that was caused by the successful court challenges by pensioners. It has several provisions about the judiciary process in handling disputes and appeals and places time limits on the admissibility of appeals.

The pension solidarity law sought to limit the future cost of public pensions by removing the automatic indexation of all public pensions and linking pensions instead to ad hoc adjustments approved in the annual budget. It also allowed differential rates of adjustment between lower and higher pensions and even contained provisions for a reduction in very high pensions (i.e. those in excess of 3,100 pesos per month). All new public pensions were subjected to an aggregate monthly limit of 3,100 pesos.

Law 24463 also formally eliminated the state guarantee for a 40% combined minimum pension in relation to the average covered wage from all pension sources. This guarantee was clearly unnecessary and was vetoed at the time of passage of the Law 24241. As the PBU is additive to the pension from the private pillar, most covered Argentine workers will likely receive a combined pension of more than 40% of the average covered wage. The law removed all references to pension indexation, except for the determination of the PBU (which is still based on article 20 of Law 24241 and is equal to 2.5 AMPO. However, once determined, future adjustments to PBU paid to retired workers will be subject to budgetary approval. Thus, the PBU may vary for different age cohorts. Because the inflation rate is currently very low, the removal of indexation has had little effect, either beneficial to the budget or detrimental to pensioners.

It remains to be seen how effective Law 24463 will be and whether its provisions will be successfully challenged in the courts. There is already a large number of lawsuits contesting the constitutionality of the law. In addition, by de-indexing pensions, the law exposes the real income of pensioners to the vagaries of inflation, while by linking pensions to the annual budgetary cycle, public pensions may be affected by electoral pressures and considerations. Nevertheless, and despite its apparent weaknesses, the pension solidarity law was a necessary measure for reducing the burden of past pensions.

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