Privatizing Social Security: The Chilean Experience

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In 1981, Chile introduced a new approach to social insurance, a system of individual capitalization accounts financed solely by the employee. This new privatized system was an improvement over Chile's failing pay-as-you-go arrangement. As many countries worldwide are facing financial problems with their social security system, they are now looking to the Chilean model in trying to find solutions. This article describes the conditions that led to the new system, the transition, and details of the new privatized system.

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In 1924, Chile was the first country in the Western Hemisphere to establish a comprehensive social security program that provided coverage for old-age, survivors, and disability benefits (similar to the present OASDI system in the United States), and cash sickness and medical benefits. By the late 1970's, it had become clear that massive government subsidies would be needed to continue to pay benefits. Then, in 1981, Chile became the first country to change from a pay-as-you-go system to mandatory private savings for retirement. As many countries worldwide are currently facing problems with financing their social security systems, they are looking to the experience of other countries to find solutions. The Chilean model has become a popular one to observe. This article provides a description of the problems of the old public system, the transition provisions, the privatized system and its performance to date, and what the United States can learn from the Chilean experience.

Reasons for Change

Prior to 1981, Chilean social security was not one single system, but rather a large number of separate systems based on occupation. There were three major programs—for government employees, salaried employees, and manual workers—plus more than 30 other programs for various other occupations. In 1979, 94 percent of all contributors belonged to the three major programs, while 13 of the smaller funds had fewer than 1,000 contributors each (Cheyre 1988a). Each fund had different contribution and indexation rates, benefit levels, and requirements for retirement. For example, the fund for salaried employees provided a maximum benefit of 100 percent of final earnings, while the maximum benefit for the manual workers fund was only 70 percent of final wages. Some retirees were also allowed to receive pensions from more than one fund. In addition, each fund had its own administrative organization.

It was believed that the high contribution rates for employers discouraged them from hiring additional workers. Some employers hired workers "informally"—

not as part of their official payroll—to avoid paying social security contributions. Because the system guaranteed a minimum pension, regardless of prior earnings, many workers and employers either evaded contributions altogether or paid contributions on only a portion of earnings. In addition, others underreported their earnings (and thus paid lower contributions) up until the last 5 years of service prior to retirement because those were the only years used to compute the actual retirement benefit (Myers 1992).

Beginning in the 1970's, substantial changes began to be made to the system. The retirement age was raised to 65 for men and 60 for women, special pensions based on years of service were eliminated, and a single method for indexing benefits was introduced for all funds. A severe economic crisis in the early 1970's caused the government to limit wage and pension adjustments below the rate of inflation. In its efforts to lower labor costs and stimulate employment (the unemployment rate was triple what it had ever been), the government lowered the social security contribution rates. Nevertheless, the ratio of actively contributing workers to retirees declined to 2 to 1. The low number of contributors was due, in part, to unemployment, informal employment, and evasion. As a result, the social security deficit rose to about 25 percent of gross domestic product (GDP).

By the late 1970's, it was increasingly clear that changes needed to be made to the social security system. "Public opinion at the time was more in favor of standardizing and centralizing the system while maintaining the pay-as-you-go arrangement (possibly a single system with national coverage) than in changing the system itself."[1] Nevertheless, the military government then in power chose to switch to a totally new system. In making this drastic change, the government hoped to switch the burden of retirement to the individual, lessen the government's financial responsibilities, stimulate the economy, and encourage employment.

The fact that 93 percent of pensioners were receiving only the minimum benefit aided the Chilean authorities in their public relations campaign in favor of the new system. "The lack of vociferous opposition was probably also a factor."[2]

In May 1981, a new privatized system of individual accounts was created. The old public system was closed to new entrants and, thus, would be phased out gradually until there were no covered workers and, years later, no beneficiaries. However, special systems for certain influential groups (the armed forces and the national police) were left in place. Participation in the private scheme became mandatory for those employees entering the labor force (other than the military) and voluntary for the self-employed. Workers currently participating in the old scheme had the option of switching to the new private system.

Transition

A significant issue concerning the switch from a pay-as-you-go public system to a fully funded privatized system is the transition costs, which can be enormous. To help defray these costs, the Chilean government accumulated a budgetary surplus of about 5.5 percent of GDP. This was accomplished, in part, through the sale of state-owned enterprises to the private sector (Diamond and Valdés-Prieto 1994).

The pre-1981 changes to the old pension system—including raising the retirement age, eliminating special pensions based on years of service, and unifying the administrative functions—helped ease the process of transition by decreasing the cost of the system to the government (Vittas 1995). Another factor that made the transition easier for Chile was that in 1981 the ratio of workers to retirees was 9 to 1, compared with about 4 to 1 in the United States (Myers 1996; Scheiber and Shoven).

The employer contribution—which under the old system had ranged from 11 percent to 16 percent of payroll—was eliminated. To encourage workers to join the new privatized system and to compensate for the increased amount of employee contribution, the government decreed that employers grant a one-time 18-percent wage increase for workers who switched to the new system. This yielded a real increase in wages of approximately 11 percent for the employee, while the employer's overall cost remained the same (Ruiz-Tagle 1996).

Those who had contributed to the old system for at least 12 months in the 5 years prior to November 1980 and who switched to the new system, received a recognition bond representing the value of their accrued rights under the old system. "The formula for calculating these accrued rights at the time of entry into the new system is 80 percent of the insured's total earnings in the 12 months prior to June 1979, indexed according to inflation from the last month of such wages up to the date of entry into the new system, multiplied by an annuity factor (10.35 for men and 11.36 for women). After entry into the system, such amounts are indexed for price inflation and accumulated at a compound interest rate of 4 percent per year...."[3] Men who entered the new system at age 61 or older and women who did so at age 42 or older receive an additional amount (Myers 1996). The bonds are funded entirely by general revenues and must be paid, in their entirety, at the time of retirement. The financial burden to the government for these bonds is effectively spread out since the workers will retire at different times (Vittas 1995).

The old public pension system is gradually being phased out. It currently consists of two major funds: the Social Security Service (SSS) for blue collar workers and the Private Employees Fund (EMPART) for white collar workers. Financing is provided through employee contributions and government subsidies.

It is projected that government expenditures for the public program will continue until about 2050, when there should no longer be any beneficiaries in the old system. These expenditures, which include both recognition bond payments and benefits, are expected to increase until about the year 2007, at which point they will begin to decline (Marcel and Arenas 1992). Estimates of these government expenses vary and range from 1.5 percent to 5 percent or more of GDP. (For a discussion of ongoing costs to the government, see the section "Minimum Pensions and Subsistence Pensions.")

New Privatized System: Contribution Rates, Qualifying Conditions, and Benefits

The privatized system set up individual accounts for workers in newly created pension fund management companies (*administradoras de fondos de pensiones*—AFPs). The worker must contribute 10 percent of earnings each month to his individual account up to a monthly earnings ceiling of 60 Unidades de Fomento (UF)—a monetary unit adjusted monthly for changes in the consumer price index. As of May 1996, the UF was about US$31. The worker may make an additional contribution to his or her account, up to a maximum of 48UF. The mandatory 10 percent contribution is tax deferred, while the additional contribution is subject to income tax. To cover the cost of disability and survivors insurance, a worker must purchase an insurance policy, and pay an administrative fee, totaling an average of about 3 percent of earnings. Contributions for health benefits are an additional 7 percent of earnings.

Workers may also set up a separate savings account with the AFP for supplementary contributions. These contributions are technically not considered social security contributions and are subject to income tax. Up to four withdrawals from such accounts are permitted each year. This savings account will be combined with the individual account to finance the worker's retirement.

Early retirement is permitted if the worker has accrued enough funds to provide a pension that equals at least 50 percent of his or her indexed average annual wage over the last 10 years, and is at least equal to 110 percent of the minimum old-age pension. For workers aged 65 (men) and 60 (women) who have contributed for at least 20 years, the government guarantees a minimum pension[4] equal to 85 percent of the legal minimum wage (90 percent at ages 70 or older).

An old-age pension is derived from the insured's contributions—both mandatory and voluntary—plus earnings. Upon retirement, the insured may:

- make scheduled withdrawals from his or her individual account, regulated to guarantee income for their expected lifespan;
- buy an annuity to provide the retiree with lifetime benefits; or
- choose a combination of the above.

All of the pensions are subject to income tax.

There are advantages and disadvantages to each of the different types of retirement options. For scheduled withdrawals, the advantages are that pension fund investment yields may be higher than those of annuities since annuities are based on more conservative real rates of return and mortality tables; dependents inherit the accounts if the insured dies early but do not if an annuity is chosen; there are no commission charges for scheduled withdrawals; and an insured may continue to switch from one AFP to another. One of the disadvantages is that a retiree could exhaust his savings before death (in which case, the minimum pension provision becomes applicable). In the case of annuities, advantages are that rates are guaranteed and because the company is bearing the risk, they are usually lower than fluctuating market rates and that a retiree cannot outlive the annuity. On the other hand, an administrative-expense fee is charged based on the value of the annuity, and the insured are subject to high-pressure sales tactics by agents of insurance companies. It has also been reported that many persons pay large fees for advice on which option to choose (Vittas 1995).

Disability pensions are paid to workers who do not meet the requirements for an old-age pension but who have lost at least 50 percent of their working capacity and have paid 2 years of contributions in the 5 years prior to the onset of the disability. The cause of the disability must be illness or accident, and not work related. (Workers' compensation is a totally separate program.) A partial disability pension, equal to 50 percent of the worker's average inflation-adjusted annual earnings during the 10 years preceding the disability, is payable to those who have lost between one-half and two-thirds of working capacity; those with more than a two-thirds loss receive a total disability pension equal to 70 percent of prior earnings. In the case of unemployment where the worker cannot make contributions, disability coverage is extended for 12 months.

A specialized medical commission evaluates the disability every 3 years. The first determination results in a benefit payable for 36 months. The second evaluation, performed after 36 months, either confirms, changes, or revokes the first ruling. A second determination of disability is final; thereafter, the pension becomes permanent (Callund 1994).

Survivor pensions are payable if the deceased paid 2 years of contributions in the 5 years prior to death. Widows or disabled widowers (benefits are not otherwise provided to widowers) receive 60 percent of the insured's pension; orphans under age 18 (age 25 if a student, or any age if disabled) receive 15 percent (30 percent, if full orphan); and dependent parents receive 50 percent. Pension options for both disabled persons and survivors are similar to those for retired workers (Social Security Administration 1995).

Minimum Pensions and Subsistence Pensions

Under the new system, the government guarantees a minimum pension to: 1) those who have at least 20 years of contributions and whose accumulated funds do not yield the minimum level set by law; and 2) those who have chosen the pension option of programmed withdrawals and have exhausted their funds because they have outlived their actuarial life expectancy.[5] In December 1995, the monthly minimum pension was US$113 for pensioners up to 70 years of age, and US$120 for pensioners aged 70 or older, compared with the minimum wage of about US$143 (SAFP 1996). These amounts are subject to ad hoc adjustments for inflation.

It is estimated that 30-40 percent of workers currently in the system may become eligible for a minimum pension. This eligibility may be the result of low earnings or underreporting of earnings. It is also possible that some workers will contrib-

ute for the required 20 years and then evade future payments, thus qualifying for a minimum benefit (Vittas and James 1994).

A subsistence pension—funded through general revenues—is payable to those not eligible for the minimum pension. In 1992, the amount of the subsistence pension was $36 per month. The number of subsistence pensions available from the government is about 300,000 (compared with 900,000 beneficiaries under the old system); the waiting list is quite long, and the eligibility requirements are very strict (Mesa-Lago 1994). Both the minimum pension and the subsistence pension costs are borne by the government.

AFPs

A pension fund management company (AFP) is a private company authorized to manage one pension fund made up of a group of individual workers' accounts. Each worker is allowed to have one account with one AFP, and each AFP is allowed to operate only one fund. (See the section, "Freedom to Choose.") AFPs collect the workers' monthly contributions, credit them to the workers' accounts, invest these monies according to regulations set by the government, and administer old-age, survivors, and disability benefits. AFPs charge a fee for these services. (For more details, see the "Administrative Fees" section.)

AFPs can be formed by any group of shareholders except banks. Minimum capital requirements for setting up and maintaining an AFP depend on the number of members in the AFP. The 1987 law established the most recent standards: in 5,000 UF (currently about US$160,000) increments range from 10,000 UF for up to 5,000 members and 20,000 UF for over 10,000 members (about US$600,000, Humeres 1995).

The "one fund per AFP rule" may be modified within the next year. In August 1996, a proposed amendment was introduced to allow those who are within 5 years of retirement to transfer their accounts to a newly created lower risk fixed-income fund. It is estimated that about 200,000 persons would be eligible to participate in this new fund. According to the Superintendent of AFPs, this new measure will lower the negative effects that investments in current funds can have for those who are close to retirement (*Estrategia* 1996).

Allowable Investments

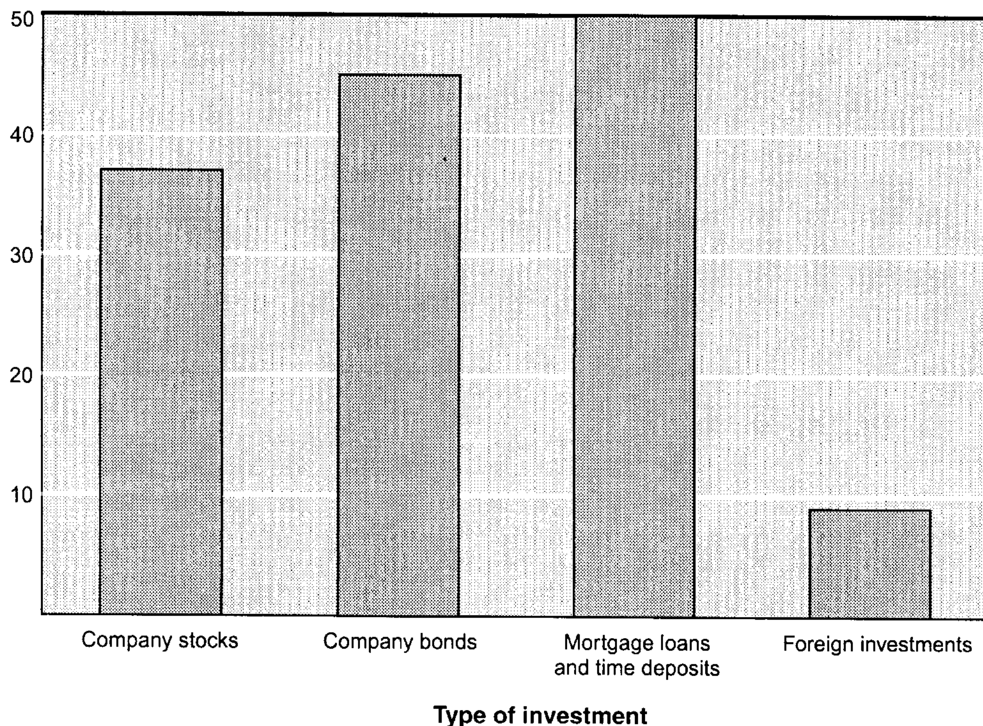
AFPs are subject to very strict investment regulations. When the system was established in 1981, allowable investments were only in low-risk domestic instruments, such as government bonds, time deposits and securities of financial institutions, bonds guaranteed by financial institutions, letters of credit sent by financial institutions, debentures of public and private companies, and shares in other pension funds. Retirement income was therefore tied to the performance of the Chilean economy. Since 1981, the categories of allowable investments have been broadened.

Chart 1 shows the limits on the types of investment as of May 1995. In July 1996, a bill was passed allowing for the creation of international investment funds and international mutual funds, which will be permitted to invest 100 percent of their assets outside of Chile. AFPs and other financial groups will be able to acquire a certain number of shares in these funds and, therefore, expand their portfolio internationally (Chip 1996).

Each AFP must maintain an investment reserve that is equal to 1 percent of its pension fund's assets. Investment of the reserves is subject to the same rules as those for the pension funds. (For more details, see "Performance" section.)

Pension funds must also maintain both a minimum and a maximum rate of return adjusted to the average 12-month return for all the pension funds. If a fund exceeds the average rate by 2-percentage points or by 50 percent, whichever is higher, the excess funds must be placed in a profitability reserve. Conversely, funds whose returns are less than 50 percent, or 2-percentage points

Chart 1.—Limits to AFP investments as a percentage of assets[1]



[1]These percentages represent the upper limit and added together equal more than 100 percent.
Source: International Benefits Information Service, August 1995.

lower than the average, whichever is lower, must make up the difference by transferring funds from either their profitability or investment reserves. If an AFP cannot make up the difference within 6 months, the government will do so, then liquidate the company and the fund, and distribute the individual accounts to other AFPs. At that time, affiliates may select a new AFP for their individual accounts.

Administration

The Superintendent of Pension Fund Management Companies (SAFP), an autonomous government agency that is associated with the Ministry of Labor and Social Security, is responsible for overseeing the individual pension fund management companies. The Superintendent is appointed by the President of Chile and is charged with ensuring the smooth operation of all AFPs. This involves more than 100 employees—such as lawyers, financial auditors, and examiners—who supervise the AFPs' investments, profitability, member contributions, and pension payments. The SAFP is also charged with authorizing the establishment of new AFPs, monitoring the performance of all AFPs, levying fines on or revoking the licenses of AFPs, and interpreting legislation and establishing rules for their applications (Vittas and James 1994; Callund 1994).

The Superintendent also serves as a member of the Risk Classifying Commission, whose function is to evaluate the risk of each type of allowable investment. Other members of the Commission include the Superintendent of Banks and Financial Institutions, the Superintendent of Securities and Insurance, and representatives of three AFPs and of the Central Bank (Callund 1994).

In addition, the SAFP oversees the disability program by setting up procedures, evaluating the system, and supervising the specialized medical commissions that determine eligibility for benefits (Aguirre, et al. 1995).

Participation Rates

As of 1994, there were about 5 million individuals enrolled in the new system, including 190,000 beneficiaries receiving either retirement, disability, or survivors benefits (compared with approximately 900,000 pensioners under the old system). Participation for the self-employed is voluntary and has remained at about 10 percent of the estimated total number of self-employed (about 27 percent of the labor force) since 1989 (SAFP 1995).

The system distinguishes between affiliates: those who have enrolled in an AFP but are not necessarily actively contributing to their account, and those who are regularly contributing to their individual account. Only 58 percent of all affiliates are active contributors. Reasons for noncompliance include making contributions just to qualify for the government-guaranteed minimum pension, being unemployed, and having only seasonal employment. Charts 2 and 3 show the percent of affiliates who are active contributors, and the relationship of each group to the labor force from 1982 to 1994.[6] The latter chart shows that, during each year in 1990-94, only about 55 percent of those in the labor force were actually contributing to the new system (a low rate of coverage compliance) while affiliates accounted for about 88 percent of the labor force during that time period.

A survey conducted by the AFPs in 1990 of those affiliates behind in payments for more than 1 year, showed the reasons for their delinquency: 26 percent (predominantly women) had voluntarily left the work force, 13 percent were unemployed, and 37 percent were self-employed. No specific explanation was given for 22 percent of the affiliates who were delinquent (Marcel and Arenas 1992).

In addition, employers often are either slow or negligent in transferring payment to the AFPs. Under the old system, employers had only one fund to which they sent the contributions. Now they must make payments to several AFPs as well as to the old social security fund for those remaining under the old system (Collins and Lear 1995). Employers who fail to deposit the employee's contributions with the proper pension fund can be sued by the SAFP. As of February 1996, the SAFP had 150,000 suits with employers that had not yet been resolved (Economist Intelligence Unit 1996).

Performance

The overall average real annual rate of return of the funds since the inception of the program has been 12.9 percent. The rates of return in the 1980's were all in the range of 10-15 percent because so much of the investments were in indexed government bonds, which yielded double-digit interest rates; the rates of return on other bonds, mortgages, and time deposits were correspondingly high (while little investment was in common stocks). To date, the highest return was 29.7 percent in 1991, while the lowest was -2.5 percent in 1995. The official explanation for the 1995 rate was poor stock-market performance. Chart 4 shows these large fluctuations in the yields during 1981-95. For the first 6 months of 1996, the annualized return was 2.5 percent.

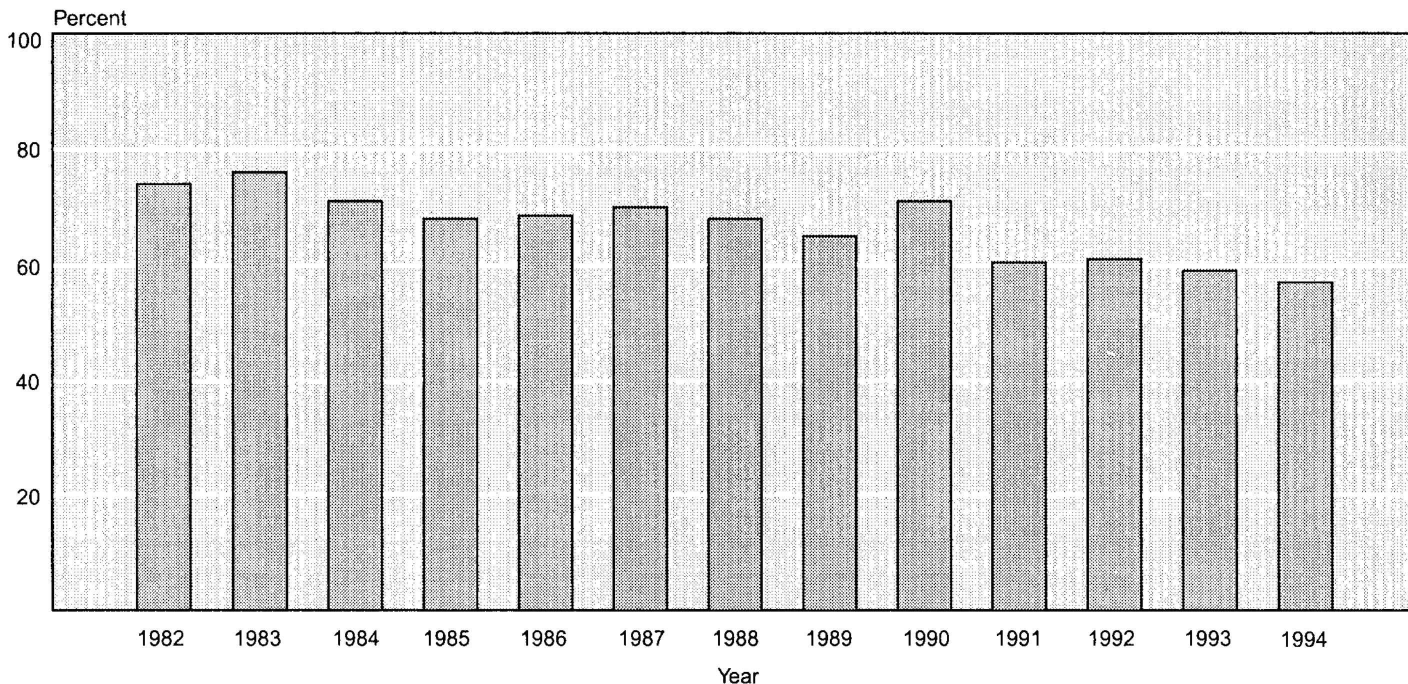
As of late 1995, the value of the assets held by the AFPs was US$25 billion dollars, or 40 percent of the GDP. Chart 5 shows a history of selected types of investments by all AFPs. Fund investments as of March 1996 are reflected in chart 6.

It is interesting to note that at least one AFP has invested in its counterparts in other Latin American countries. Provida, the largest Chilean AFP—with 30 percent of the affiliates—has a 13-percent share of AFP Horizonte in Peru, a 20-percent share of Colombia's Porvenir, and a 25-percent share of AFP Genesis in Ecuador[7] (Provida 1996).

Despite the claims that this privatized system would significantly increase national savings, a number of experts argue that there is no definitive evidence that the pension system alone accounts for the marked increase in Chilean capital accumulation (Mesa-Lago 1994). Vittas, of the World Bank, maintains that the direct impact that the pension system has had on the overall economy of Chile is difficult to deter-

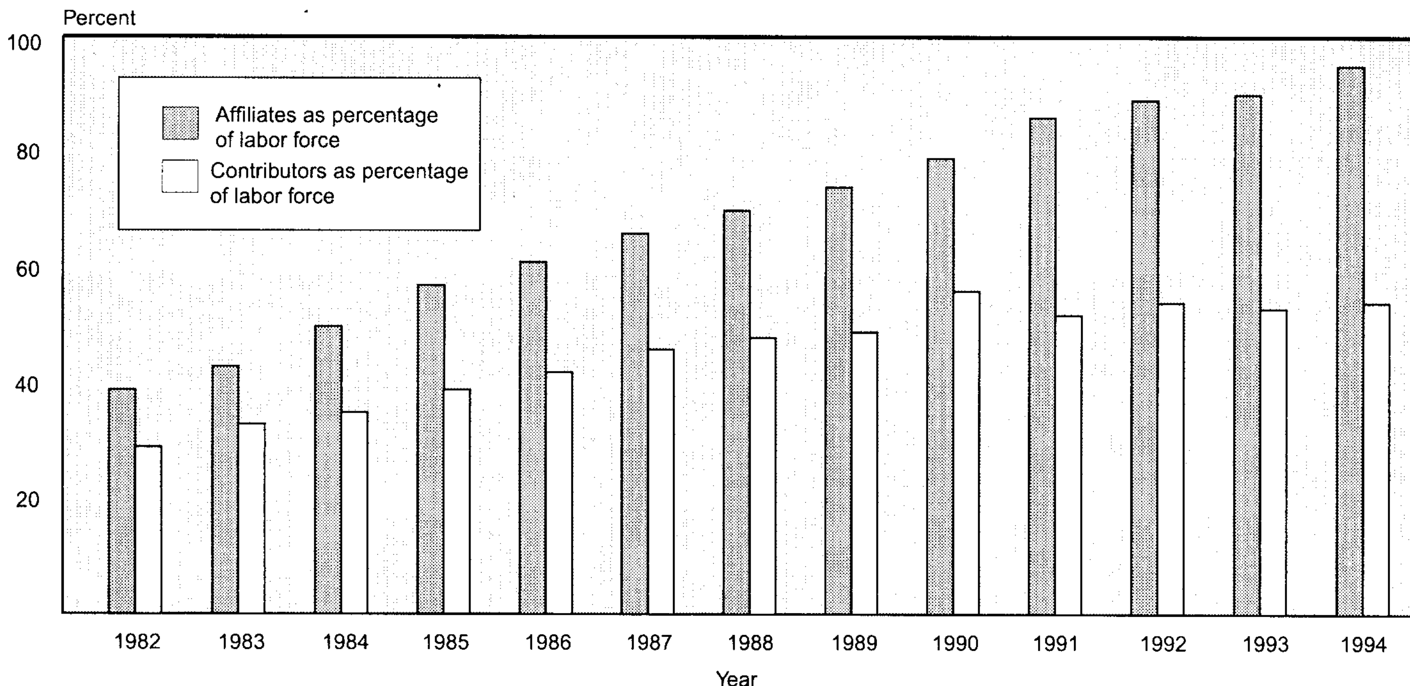
mine. Since other macro-economic policies were put into place at about the same time, it is difficult to assess the contribution of a specific change to the overall high rate of economic growth in Chile between the late 1980's and the early 1990's (Vittas 1995). A recent Merrill Lynch report (1996) concluded that the AFPs account for only 2-percentage points of the 10 percent of GDP growth in Chile's annual national savings rate since the early 1980's.

Chart 2.—Percent of affiliates[1] who are active contributors to the new system, 1982-94



[1]An affiliate is anyone who has joined an AFP. A contributor is an affiliate actively contributing to an individual account in December of each year.
Source: *El sistema chileno de pensiones*, SAFP, 1995.

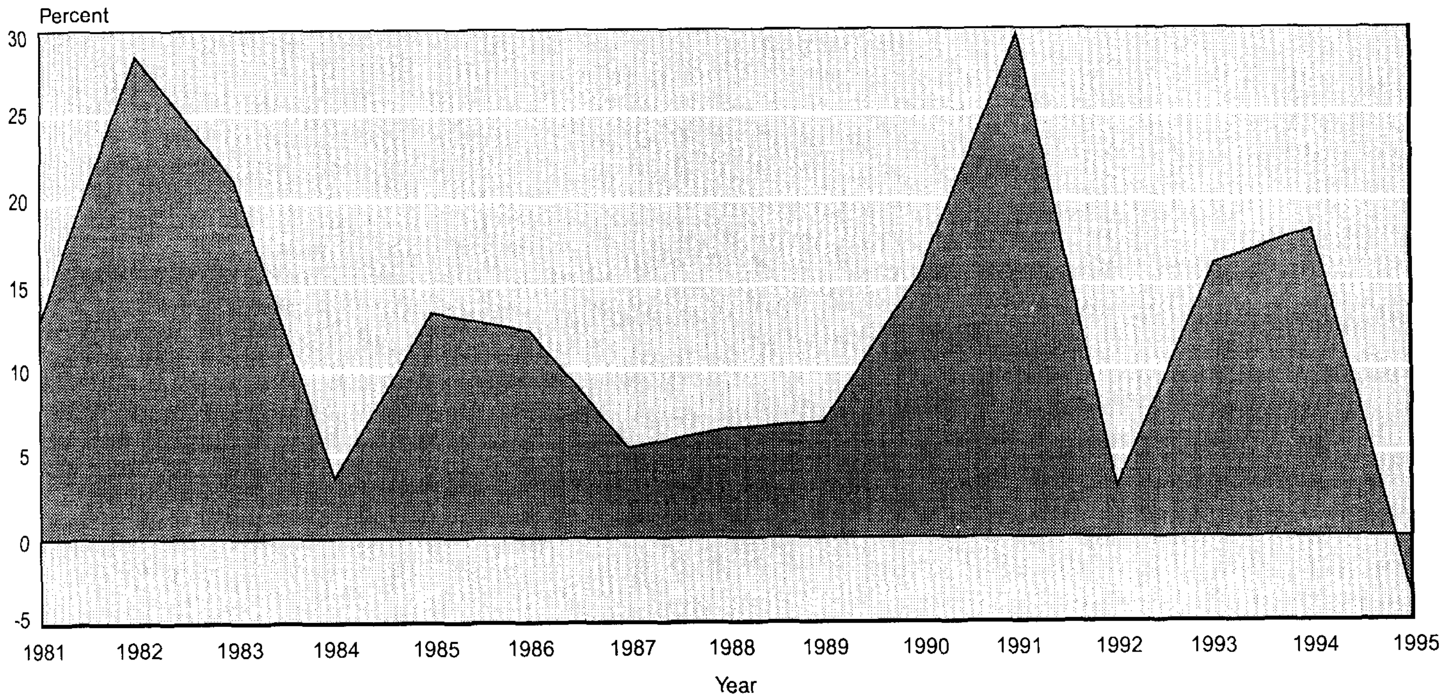
Chart 3.—Affiliates and contributors[1] to the new system as a percentage of the labor force, 1982-94



[1]An affiliate is anyone who has joined an AFP. A contributor is an affiliate actively contributing to an individual account in December of each year.
Source: *El sistema chileno de pensiones*, SAFP, 1995.

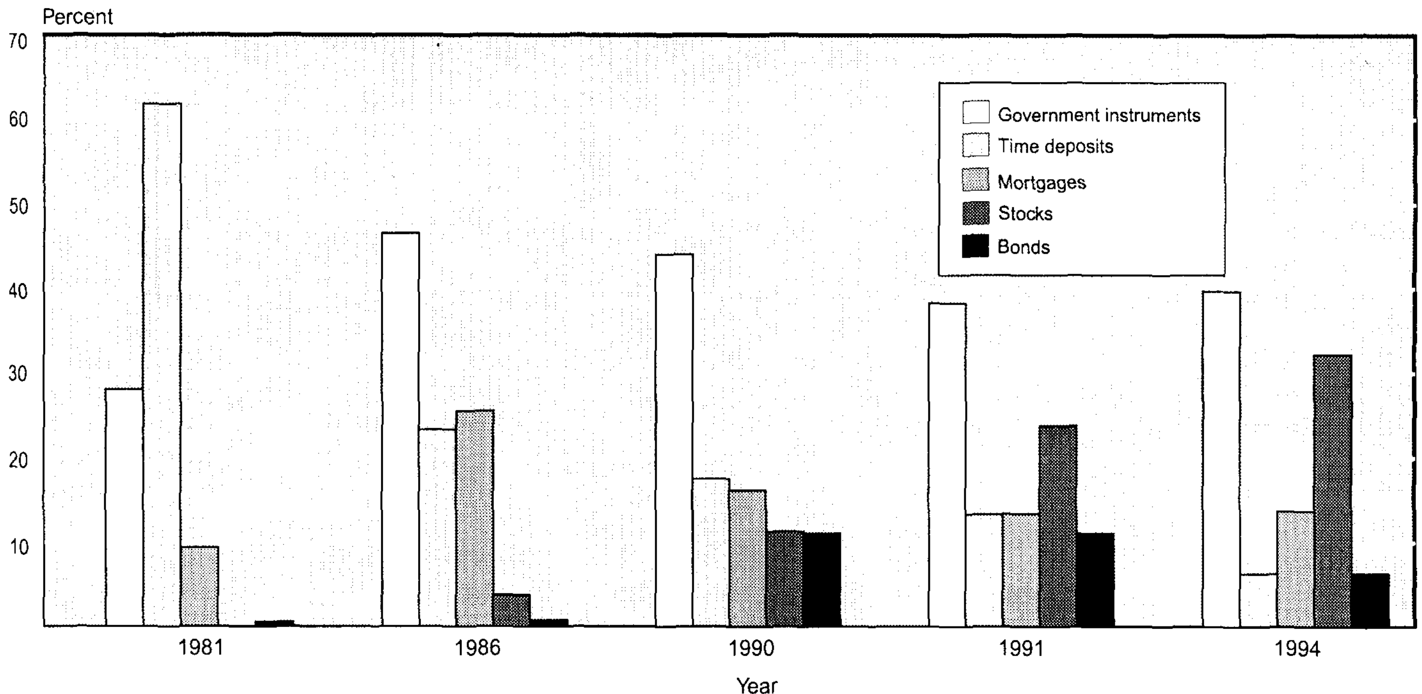
Competition among the AFPs themselves has been an integral part of the plan. In 1981, when the system was established, there were 12 AFPs; in 1994, there were 21. As of July 1996, there are 15 AFPs. During the severe recession of 1982-84, four of the largest AFPs failed and were taken over by the government. They were later resold to various private financial groups, including various U.S. financial consortia (Collins and Lear 1995). For example, Provida, the largest AFP was acquired by Bankers' Trust in 1986, and Aetna Life and Casualty owns 51 percent of Santa Maria, the second largest AFP (Borden 1995). During 1995, the returns were negative for all AFPs for the first time in the systems's 14-year history. As a result, eight AFPs each combined with another and one AFP was liquidated (SAFP 1996).

Chart 4.—Annual real rate of return of AFPs, 1981-95[1]



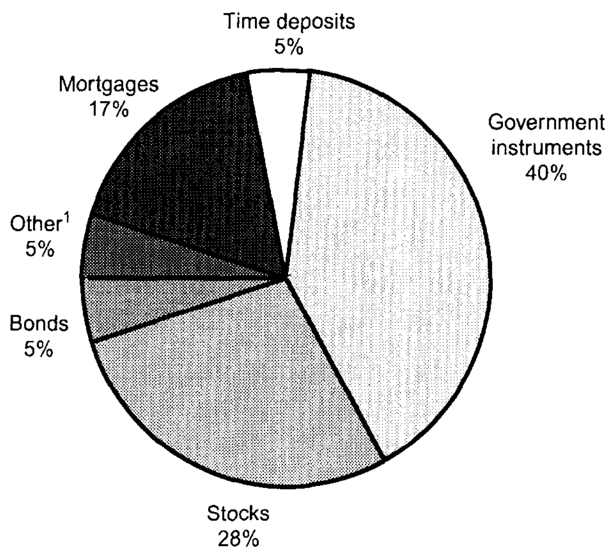
[1]For 1981, the rate is for July-December.
Source: *Boletín Estadístico No. 132*, SAFP, 1996.

Chart 5.—Selected types of AFP investments, selected years 1981-94



Source: Margozzini (1996).

Chart 6.—Pension fund investment, by financial instrument, March 1996



[1]"Other" includes: financial institution bonds (1.27 percent), foreign instruments (0.19 percent), investment funds (2.61 percent), and bank stocks (0.90 percent).
Source: *Boletín Estadístico No. 132*, SAFP, 1996.

Over time, labor unions have also formed AFPs and account for a small percent of the market. Table 1 contains a list of some union-run AFPs.

Administrative Fees and Disability and Survivors Insurance Premiums

AFPs charge a variable rate averaging 3 percent of the worker's earnings for each contribution made (up to the 60UF ceiling), which is used to pay for disability and survivor benefits and for administrative expenses. The AFPs are also allowed to charge an additional fixed rate for administrative expenses for each contribution. In the late 1980's, the fixed rate effectively cost lower earners significantly more than it did higher earners. However, over time, many AFPs have chosen to eliminate this additional fixed rate in an effort to lower the cost to the individual. In July 1996, 6 out of 15 AFPs charged a fixed rate ranging from about 100 to 1,500 pesos a month (about US 25 cents to about US$3.67). The SAFP expresses the combined cost of the administrative fees as a percentage of the mandatory 10-percent contribution. The costs according to five annual earnings levels (in pesos) are shown in the following tabulation.

Earnings levels	Percent of contribution
65,500	33.21
128,400	31.95
192,600	31.51
385,200	31.07
577,800	30.93

Source: SAFP (1996).

Even though the average fee varies by only a few percentage points, the lower earner continues to have to pay at a higher contribution rate than does the higher earner. The official rates of return for the AFPs would be lower if these fees were taken into account.

Also, upon retirement, there may be a fee charged to the individual, depending on which payment option the individual chooses. In 1994, commission charges for an annuity were between 3.5 percent and 4.0 percent of the overall value of the annuity, which about 40 percent of pensioners had chosen (Vittas 1995).

Table 1.—Union-run AFPs

AFP	Union	Percent of total affiliates in all AFPs	Percent of total dollars in all AFPs
Magister	College of professors	1.20	1.7
Future	Private banks	.14	.5
Aporta	State bank	.29	.7
Fomenta	Telephone workers	.17	1.0

Source: Ruiz-Tagle (1996).

Freedom to Choose

By law, affiliates may switch from one AFP to another every 4 months. This switching has caused a problem because of the enormous administrative costs to the AFPs. In 1994, about 1 million persons out of a total of 5 million affiliates switched funds. The decision to move to another AFP involves considering future stock market performance and interest rate projections, which many of the affiliates do not have the background or experience to make. Sara Rix of the American Association of Retired Persons (AARP) states, "Workers' ability to make the wisest investment decisions, to say nothing of their interest in keeping abreast of all that they need in order to make wise decisions, is questioned in Chile....Workers under the new Chilean system, aside from the minimum benefit, are not ensured against poor decisions; nor can the system guarantee a particular rate of return."[8]

In 1987, the number of those who requested AFP transfers represented less than 10 percent of the contributors; from 1988-90, this figure was between 13-15 percent and rose to 34 percent in 1994. Apparently, prior to 1988, the individual had to go in person to the administrative offices of the AFP to request a transfer. Beginning in 1988, this procedure was changed.

As more AFPs entered the market, the number of sales persons began to increase, reflecting growing competition among the AFPs (Margozzini 1995). In order to attract new affiliates, the sales force for all AFPs combined grew from 1,900 in 1982 to 15,000 in 1994 (SAFP 1995). A common

technique is to offer incentives, such as televisions or trips, to switch to a particular AFP, which results in substantial costs to the overall system (Mark 1996). In 1995, average AFP annual operating expenses per affiliate were US $62, a third of which was for sales personnel (SAFP 1995).

To discourage frequent transfers from one AFP to another, an amendment to the law was proposed in July 1996, which would require affiliates to remain with an AFP for at least one year. This one year period would be reduced to 6 months after staying with one AFP for 3 years. An additional transfer charge would be imposed, which could be no more than 50 percent of the actual cost to the AFP. Without this change, officials anticipated that transfers would reach 1.5 million in 1996. As of September 1996, the amendment had not been passed (*El Mercurio* 1996; *Estrategia* 1996).

Adequacy of Benefits

Although average benefits under the new system are reportedly higher than those under the old system, this comparison may not be fair since current beneficiaries in one program may differ by age and income level from those in the other program. Also, the new system is still young and pays relatively few beneficiaries. To date, the pensions being paid by the AFPs are made up, in large part, by the recognition bonds that reflect participation under the old system. No one has been able to retire with 20 years of contributions to the AFPs, since the system is just 15 years old, although there have been some early retirements. Retirement is permitted if the worker has accrued enough funds so that the pension equals at least 50 percent of the worker's indexed annual wage over the last 10 years and is at least equal to 110 percent of the minimum old-age pension. As the new system matures, if the active participation rate in the new system—those actually contributing to their individual accounts—continues at the same low level described above, an increasing number of beneficiaries will receive the minimum benefit funded by the government. This benefit may not be sufficient to maintain a minimum standard of living.

In examining profiles of active contributors in the new system, low earners do not participate as much as high earners. Based on September 1995 data from the SAFP, the mean monthly earnings of contributors is 196,000 pesos (about US$480), compared with an average of 168,000 pesos (about US$412) for all workers (Chilean Statistics Institute 1995). Thus, the earnings of participants are 17 percent higher than for all workers, indicating that lower earners are less likely to participate.[9]

Women represent about 40 percent of the total number of affiliates (SAFP 1996). Women's average benefits are lower than men's because women do not receive credit for their child-rearing years and because they have lower earnings overall. Generally, women's earnings are 25 percent lower than men's (Ruiz-Tagle 1996). Even women whose age and individual accounts at retirement are equal to their male counterparts will have a lower benefit if they choose the annuity option because it would be based on a longer life expectancy (Collins and Lear 1995).

Taxable wages for pension purposes among AFP contributors have not kept up with the growth of average wages in the economy. Between 1982-90, there was a 20-percent difference between these figures. Marcel and Arenas (1992) consider two reasons for this gap: older workers have relatively higher wage increases than younger workers, and there appears to be underreporting of income for social insurance purposes. In late 1990, about 25 percent of all contributions were made on taxable incomes at or below the minimum wage. At the end of 1990, about 70 percent of contributors between ages 30-35 had account balances below 1 million pesos. "This latter figure, duly capitalized, equals barely 25 percent of the funds needed to ensure a pension equivalent to only two current 'minimum incomes'[10] at retirement."[11]

A 6-percent real rate of return is needed to reach the 70 percent of final salary replacement rate expected by the creators of the system. Despite the high average rates of return from the AFPs for the past 15 years, these rates may not be sustainable over the long term. Gillion and Bonilla (1992) assume that real rates of return of at least 4-5 percent would be required to ensure an adequate replacement rate. These could be difficult to maintain in the long term. Robert Myers (1992), former Chief Actuary of the U.S. Social Security Administration, concludes that, as long as about two-thirds of AFP investments are in low-risk government securities or government-backed bank time deposits, the high rates of return to date cannot continue in the long term; rates are more likely to be in the 2-3 percent range.

Government Role

The Chilean pension system is not a fully privatized system. The government plays a large financial and administrative role. It must fund the guaranteed minimum pensions under the new system. This cost could be much larger than originally anticipated and is ongoing. Government transition costs include the recognition bonds and an increasing share of pension payments under the old system, as the number of contributors to the system declines and eventually reaches zero.

In addition, the SAFP, an autonomous government agency, strictly regulates the AFPs and guarantees their solvency. During the 15-year history of the system, a number of AFPs have either merged with other AFPs or failed. Especially during the 1982-84 economic crisis, the government had to step in and take over financial control of some AFPs.

What the United States Can Learn From the Chilean Experience

The private pension system in Chile is still young, with relatively few beneficiaries. Many Latin American countries have revamped their systems along the lines of the Chilean model. These countries include Peru, Argentina, Uruguay, and

Colombia, whose newly privatized systems are already in place. Similar legislation has been passed, but the systems are not yet operational in Bolivia and Mexico. Other countries, such as El Salvador and Ecuador, are still debating the issues. All of these countries had problems very similar to those the Chileans experienced prior to the 1981 changes. In the United States, proposals to privatize the Social Security system are becoming more numerous, ranging from adopting a Chilean model to investing a portion of Social Security contributions in the stock market.

It is too early to make an adequate assessment of the program. Before the U.S. contemplates revamping its system in the direction of the Chilean model, it is essential to give consideration to a number of key issues including: adequate provisions for all income groups, potentially high transition costs, and the government's financial and administrative responsibilities.

Notes

[1] See Marcel and Arenas (1992), p. 11.

[2] See Vittas (1995), p.15.

[3] See Myers (1996).

[4] The minimum pension is funded from general revenues. The author has not been able to obtain figures as to the size of this subsidy.

[5] The amount of the monthly withdrawal is calculated once each year by dividing the amount of money in an individual's account by a pre-determined value needed to pay an annual pension to the individual and in the case of death, to his or her beneficiaries.

[6] In this case, the labor force means the employed, and not the self-employed.

[7] Although Ecuador has not approved the establishment of a privatized social security system, this AFP has been established and has 15,000 affiliates.

[8] Rix (1995), p. 5.

[9] Obtaining distribution of earnings figures for individuals in Chile has not been possible.

[10] This means twice the minimum wage.

[11] Marcel and Arenas (1992), pp. 21-22.

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