

A Fund for Life

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Pension and Welfare Reform in Practice

Edited by Eamonn Butler and Matthew Young

Acknowledgements

"The experience of Chile's pension reforms" by Dr José Piñera was first published in Washington DC by the Cato Institute in 1995 and appears by kind permission of the Cato Institute.

"Strengths and weaknesses of the Chilean pension reform" is an edited version of a May 1995 World Bank paper which appears by kind permission of the World Bank and its author, Dimitri Vittas.

"The financial structure of Chile's pension funds" by José A Garcia-Cantera and Brian R Pearl was first published by Salomon Brothers in December 1995 and appears by kind permission of the authors.

"Pension funds and the Chilean economy" and "Chile's pension funds and capital growth" are reproduced by kind permission of *Latin Finance*, the Latin American Information Service, and the author, Jim Freer.

Bibliographical information

Published in the UK in 1996 by
ASI (Research) Ltd
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ISBN 1 873712 79 0

Set in Palatino 12pt

Printed in the UK by Swiss Life (UK) plc

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Introduction

By Dr Eamonn Butler

Director, Adam Smith Institute

The UK debate on welfare

The growing intensity of the UK debate on the future of the welfare state has led policymakers and commentators to look around the world at other models by which different countries organize their basic pension and social insurance programmes.

Such an exploration leads quickly to the conclusion that where they can, countries are moving to replace or supplement their old pay-as-you-go pensions and benefits programmes with ones built on the principles of funding and individual accounts. Not just the newly emerging countries of the old Eastern Bloc, but those in the Far East and in Latin America are taking up the funding theme. Meanwhile the developed economies like Australia, New Zealand, and even Denmark have started to move in the same direction.

The relevance of Chile

The example of Chile is particularly interesting and relevant to our thinking about how our old, unfunded, collective, politicized, bankrupt pay-as-you-go system might be transformed into one that is funded, based on individual accounts, actuarially sound, and secure.

Chile made just such a transformation, starting in 1981. In so doing, it has had to face up to the practical, political, and commercial problems that any country making the same change would face. Some of the solutions that it has used are highly innovative; while the practical experience of the reforms over many years gives us much more than theory to work on.

A few critics scorn whether Chile is at all relevant to the debate here in the UK. It is, after all, a Latin American country of only 11 million people, its pension reform was introduced during a period of military dictatorship, and that the fast growth rates it has achieved as a developing country have helped it moved to a funded system in a way that would be impossible here.

Yet the truth is that Chile — to some extent as a result of its pension reforms — has a rapidly maturing economy that now makes it perhaps the only Latin American country that is paying its own way. The reforms were calculated to

be practicable with an estimated 4% capital growth rate, though in fact the economy and the pension funds have achieved far better than that.

This economic boom of the last decade, and the part that the pension reforms have played in it, are outlined by Jim Freer in his two articles on the Chilean economy and capital markets later in this report. Since Freer wrote, the Mexican economic crisis produced a significant downturn for most of Latin America, and even the Chilean pension funds reported a negative rate of return in 1995. But such is the depth that the new system has given the Chilean economy that it weathered the storm far better than any of the other countries in the region.

The Chilean politician Dario Paya, who grew up with the system, tells us that even with all its many faults and its negative returns last year, there is nobody who would want to go back to the old pay-as-you-go system.

Dr José Piñera, the architect of the reforms and another contributor to this report, is also adamant that the nature of the political leadership at the time made little difference too. His view is that when dealing with something as sensitive as people's pensions, it is impossible to move forward with reform unless there is broad popular agreement that reform is right. It was not a case of imposing the new system, but giving people the option to join it, and trying to convince them to join it by good argument, rather than force. The fact that the old system was visibly crumbling helped a lot: but in the end it came down to good design, good politics, and simple persuasion.

Assembling the information

With all of this in mind, the Adam Smith Institute, in its proposal for a Fortune Account system, by which people can opt out of national insurance and into a private alternative that will provide the same or better benefits, has drawn heavily on this experience.

The Fortune Account proposal is of course different. It covers not just the basic pension but other insurable benefits too. The UK is different: there is already much more expertise in fund management, more understanding about private and funded pension vehicles and personal insurance, and a more fully developed and open capital market than Chile had to start with. So the Chilean experience does not apply without modification. Yet the Chileans have certainly solved many of the problems of making the transition, and even where they have not yet got it right, their experience is instructive.

However, partly as a result of these very differences of language, culture, and distance, it has been difficult for commentators in the UK to obtain good information on the workings of the Chilean reforms. So we have collected some of the key commentaries in English that have informed our own thinking on the practical transition questions.

Along with those already mentioned are the articles by Dimitri Vittas of the World Bank and By José A Garcia-Cantera and Brian R Pearl of Salomon Brothers. Although these pieces appeared back in May 1995 and December 1994 respectively

(and have been only minimally updated) they remain as classic and instructive commentaries that are well worthy of inclusion here.

The experience of Chile's pension reforms

By Dr José Piñera

Former Minister of Labour, Chile

My theme is the experience we have had in Chile with our new private pension system. I would like to comment on how the new system works, how we were able to make the transition from the old system to the new one, and what have been the main economic, social, and political consequences of the new system. I will not explain the shortcomings of the old pay-as-you-go system in Chile. Those shortcomings are very well known because that is the system that is failing all over the world.

In Chile we accomplished a revolutionary reform. We knew that cosmetic changes — increasing the retirement age, increasing taxes — would not be enough. We understood that the pay-as-you-go system had a fundamental flaw, one rooted in a false conception of how human beings behave. That flaw was the lack of a link between what people put into their pension programme and what they take out. In a government system, contributions and benefits are unrelated because they are defined politically, by the power of pressure groups.

So we decided to go in the other direction, to link benefits to contributions. The money that a worker pays into the system goes into an account that is owned by the worker. We called the idea a "capitalization scheme".

Contributions and benefits

We decided that the minimum contribution should be 10 percent of wages. But workers may contribute up to 20 percent. The money contributed is deducted from the worker's taxable income. The money is invested by a private institution, and the returns are untaxed. By the time a worker reaches retirement age — 65 for men, 60 for women — a sizeable sum of capital has accumulated in the account. At retirement the worker transforms that lump sum into an annuity with an insurance company. He can shop among different insurance companies to find the plan that best suits his personal and family situation. (He pays taxes when the money is withdrawn but usually at a lower rate than he would have paid when he was working.)

As I say, a worker can contribute more than 10 percent if he wants a higher pension or if he wants to retire early. Individuals have different preferences: some want to work until they are 85; others want to go fishing at 55, or 50, or 45, if they can. The uniform pay-as-you-go social security system does not recognize differences in individual preferences. In my country, those differences had led to pressure on the congress to legislate different retirement ages for different groups. As a result, we had a discriminatory retirement-age system. Blue-collar workers could retire at 65;

white-collar workers could retire more or less at 55; bank employees could retire after 25 years of work, and the most powerful group of all, those who make the laws, the congressmen, were able to retire after 15 years of work.

Under our new system, you don't have to pressure anyone. If you want to retire at 55, you go to one of the pension-fund companies and sit in front of a user-friendly computer. It asks you at what age you want to retire. You answer 55. The computer then does some calculations and says that you must contribute 12.1 percent of your income to carry out your plan. You then go back to your employer and instruct him to deduct the appropriate amount. Workers thus translate their personal preferences into tailored pension plans. If a worker's pension savings are not enough at the legal retirement age, the government makes up the difference from general tax revenue.

Account administration

The system is managed by competitive private companies called AFPs (from the Spanish for pension fund administrators). Each AFP operates the equivalent of a mutual fund that invests in stocks, bonds, and government debt. The AFP is separate from the mutual fund; so if the AFP goes bankrupt, the assets of the mutual fund — that is, workers' investments — are not affected. The regulatory board takes over the fund and asks the workers to change to another AFP. Not a penny of the workers' money is touched in the process.

Workers are free to change from one AFP to another. That creates competition among the companies to provide a higher return on investment and better customer service, or to charge lower commissions.

The AFP market opened on May 1, 1981, which is Labour Day in Chile and most of the world. It was supposed to open May 4, but I made a last-minute change to May 1. When my colleagues asked why, I explained that May 1 had always been celebrated all over the world as a day of class confrontation, when workers fight employers as if their interests were completely divergent. But in a free-market economy, their interests are convergent. "Let's begin this system on May 1," I said, "so that in the future, Labour Day can be celebrated as a day when workers freed themselves from the state and moved to a privately managed capitalization system." That's what we did.

Today we have 15 AFPs. There have been mergers, but in 15 years, workers have not lost a penny. Of course, we created a regulatory body that, along with the central bank, set some investment diversification rules. Funds cannot invest more than x percent in government bonds, y percent in private companies' debentures, or z percent in common stocks. Nor can more than a specified amount be in the stock of any given company, and all companies in which funds are invested must have credit ratings above a given level.

We set up such transitional rules with a bias for safety because our plan was to be radical (even revolutionary) in approach but conservative and prudent in execution. We trust the private sector, but we are not naive. We knew that there were companies that might invest in risky financial products and lose a lot of money. We didn't want the pension funds investing workers' money in derivatives in Singapore. If the system had failed in the first years, we would never have been able to try it

again. So we set strict rules 14 years ago, but now we are relaxing those rules. For example, only three years ago we began to allow the funds to invest abroad, which they weren't allowed to do initially, because Chilean institutions had no experience in investing abroad. The day will come when the rules will be much more flexible.

Transitional arrangements

Let me say something about the transition to the new system. We began by assuring every retired worker that the state would guarantee his pension; he had absolutely nothing to fear from the change. Pension reform should not damage those who have contributed all their lives. If that takes a new law or a constitutional amendment, so be it.

Second, the workers already in the workforce, who had contributed to the state system, were given the option of staying in the system even though we thought its future was problematic. Those who moved to the new system received what we call a "recognition bond," which acknowledges their contributions to the old system. When those workers retire, the government will cash the bonds.

New workers have to go into the new private system because the old system is bankrupt. Thus, the old system will inevitably die on the day that the last person who entered that system passes away. On that day the government will have no pension system whatsoever. The private system is not a complementary system; it is a replacement that we believe is more efficient.

The real transition cost of the system is the money the government ceases to obtain from the workers who moved to the new system, because the government is committed to pay the pensions of the people already retired and of those who will retire in the future. That transition cost can be calculated. In Chile it was around 3 percent of gross national product. How we financed it is another story. It will be done differently in each country.

Suffice it to say that even though governments have enormous pension liabilities, they also have enormous assets. In Chile we had state-owned enterprises. I am sure that the UK government, even after its many privatizations, still has gigantic assets. Are they more or less than the liabilities of the state pension system? I don't know, but the Adam Smith Institute will study that. In Chile we calculated the real balance sheet and, knowing there were enough assets, financed the transition without raising tax rates, generating inflation, or pressuring interest rates upward. In the last several years we have had a fiscal surplus of 1 to 2 percent of GNP.

Results of the change

The main goal and consequence of the pension reform is to improve the lot of workers during their old age. As I will explain, the reform has a lot of side effects: savings, growth, capital markets. But we should never forget that the reform was enacted to assure workers decent pensions so that they can enjoy their old age in tranquillity. That goal has been met already. After 14 years and because of compound interest, the system is paying old-age pensions that are 40 to 50 percent higher than those paid under the old system. (In the case of disability and survivor

pensions, another privatized insurance, benefits are 70 to 100 percent higher than under the old system.) We are extremely happy.

But there have been other enormous effects. A second — and, to me, extremely important — one is that the new system reduces what can be called the payroll tax on labour. The pension contribution was seen by workers and employers as basically a tax on the use of labour; and a tax on the use of labour reduces employment. But a contribution to an individual's pension account is not seen as a tax on the use of labour. Unemployment in Chile is less than 5 percent. And that is without disguised unemployment in the federal government. We are approaching what could be called full employment in Chile. That's very different from a country like Spain, with a socialist government for the last 12 years, that has an unemployment rate of 24 percent and a youth unemployment rate of 40 percent.

Chile's private pension system has been the main factor in increasing the savings rate to the level of an Asian tiger. Our rate is 26 percent of GNP, compared to about 15 percent in Latin America. The Asian tigers are at 30 percent. The dramatic increase in the savings rate is the main reason that Chile is not suffering from the so-called tequila effect that plagues Mexico. We do not depend on short-run capital flows because we have an enormous pool of internal savings to finance our investment strategies. Chile will grow by about 6 percent of GNP this year. It has been isolated from short-run capital movement because its development is basically rooted in a high savings rate.

Pension reform has contributed strongly to an increase in the rate of economic growth. Before the 1970s Chile had a real growth rate of 3.5 percent. For the last 10 years we have been growing at the rate of 7 percent, double our historic rate. That is the most powerful means of eliminating poverty because growth increases employment and wages. Several experts have attributed the doubling of the growth rate to the private pension system.

Finally, the private pension system has had a very important political and cultural consequence. Ninety percent of Chile's workers chose to move into the new system. They moved faster than Germans going from East to West after the fall of the Berlin Wall. Those workers freely decided to abandon the state system, even though some of the trade-union leaders and the old political class advised against it. But workers are able to make wise decisions on matters close to their lives, such as pensions, education, and health. That's why I believe so much in their freedom to choose.

Conclusion

Every Chilean worker knows that he is the owner of an individual pension account. We have calculated that the typical Chilean worker's main asset is not his small house or his used car but the capital in his pension account. The Chilean worker is an owner, a capitalist. There is no more powerful way to stabilize a free-market economy and to get the support of the workers than to link them directly to the benefits of the market economy. When Chile grows at 7 percent or when the stock market doubles — as it has done in the last three years — Chilean workers benefit directly, not only through higher wages, not only through more employment, but through additional capital in their individual pension accounts.

Private pensions are undoubtedly creating cultural change. When workers feel that they own a fraction of a country, not through the party bosses, not through a politburo, but through direct ownership of part of the financial assets of the country, they are much more attached to the free market, a free society, and democracy.

By taking politicians out of the pensions business we have done them a great favour because they can now focus on what they should do: stop crime, run a good justice system, manage foreign affairs — the real duties of a government. By removing the government from pensions, we have accomplished the biggest privatization in Chilean history — someone even called it, the mother of all Chilean privatizations, because it has allowed us to go on to privatize the energy and telecommunications companies.

That has been our experience. Of course, there have been some mistakes. There are some things that should be improved. There is no perfect reform. With hindsight and experience, I know I would do some things differently. But on the whole, it has been a success beyond all our dreams.

Strengths and weaknesses of the Chilean pension reform

By Dimitri Vittas

Adviser, Pensions and Insurance

Financial Sector Development Department, The World Bank

Introduction

In May 1981, Chile replaced the pre-existing social pension system with a private system of personal pension plans. The old pension system was a mature and highly fragmented system that operated on a "pay-as-you-go" (PAYG) basis, suffered from widespread evasion, and faced great financial difficulties. The new system is based on individual capitalization accounts with fully funded, fully vestable and fully portable benefits. It is government mandated and regulated but privately managed and its management is entrusted to specialized pension fund management companies, known as *Administradoras de Fondos de Pensiones* or AFPs.

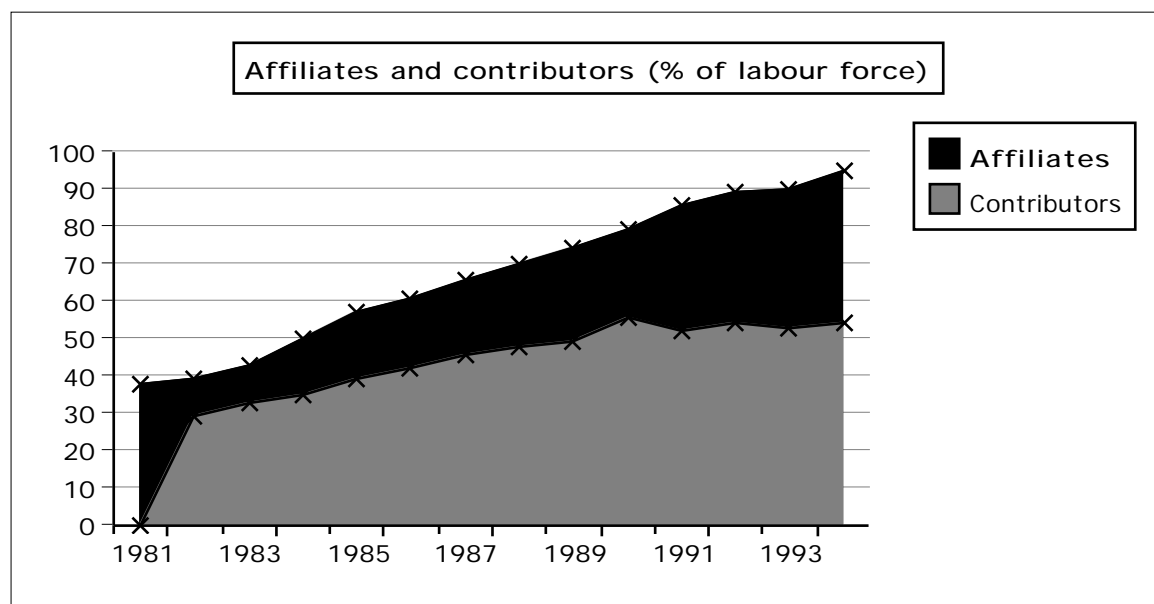
Participation in the new system is compulsory for all new employees, including civil servants, but optional for self-employed people, and for members of the old system, although special financial incentives were provided to encourage workers to switch to the new system.

Workers must contribute 10% of their monthly salary plus an additional amount to cover the premium for compulsory term life and disability insurance and the operating costs of the management companies. This additional contribution was relatively high in the early years of operations but now averages around 3%, though it differs slightly from company to company. Additional voluntary contributions are also permitted and they benefit from the same tax deferral benefits as compulsory contributions.

Benefits include old age, disability and survivorship pensions. Old age pensions are financed from the accumulated balance in the account. They can be obtained on retirement (65 for men and 60 for women) in the form of life annuities or scheduled withdrawals. Early retirement and lump sum withdrawals are allowed if the balances are sufficient to pay stipulated levels of pensions. Disability and widows pensions are defined benefits equal to 70% of a worker's reference salary (average actualized salary over last 5 years of employment). The AFPs are required to make up any shortfall in the balance needed to buy an annuity that meets this specified replacement rate.

Membership and fund accumulation

The success of the Chilean AFP system is underscored by the rapid expansion of coverage and the large accumulation of funds. The number of affiliates as a share of the labour force rose from 38% in 1981 to 79% in 1990 and 95% in 1994, when 5 million workers were members of the system.



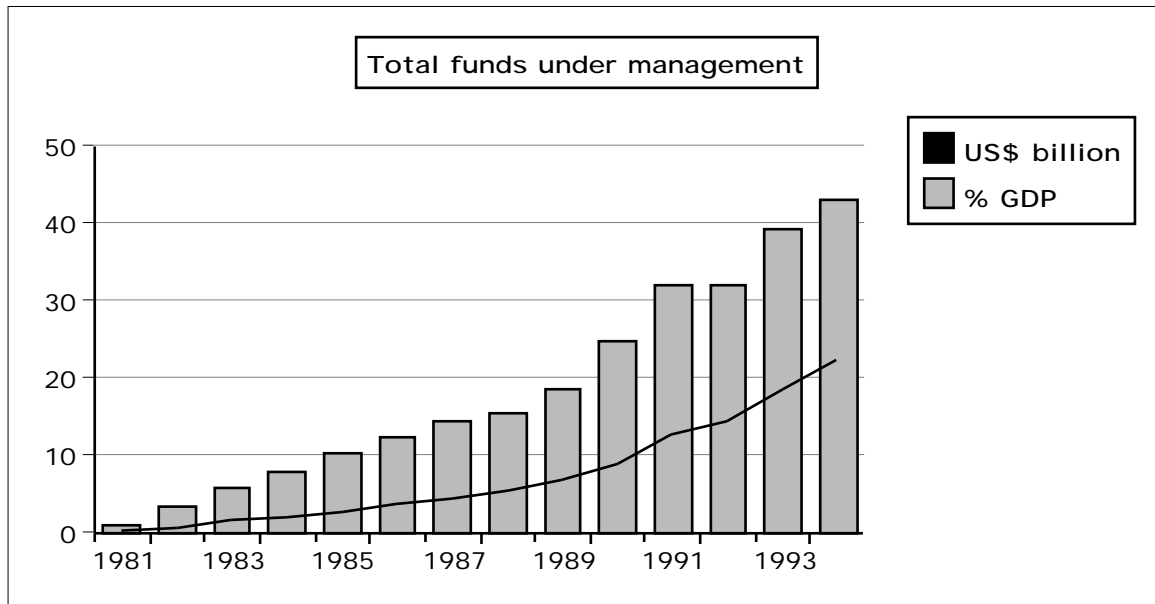
However, only 54% of the labour force were active contributors by December 1994, up from 30% in the early 1980s. The discrepancy is mostly due to employment spells and temporary withdrawal from the labour force. It signifies that a large number of workers will contribute for only a fraction of the normal full career of 40-45 years. The average contribution density is estimated at 60% or 24-27 years. Although many workers will retire with low balances and low pensions, the situation will be no different from what would have happened under a pay-as-you-go scheme.

A more striking aspect of the early success of the new pension system is the rapid accumulation of long-term funds. Total funds increased from 0.3 billion US dollars (or 0.9% of GDP) in 1981 to US\$2.8 billion (or 10% of GDP) in 1985, US\$9.1 billion (or 25% of GDP) in 1990 and US\$22.3 billion (or 43% of GDP) in 1994. Adding the assets of insurance companies, which have benefited greatly from the creation of the new system, brings the total resources of long-term contractual savings institutions to over 52% of GDP.

Fund investment patterns

The profile of pension fund investments experienced considerable change over the years, in large part in response to changing investment rules, but also in response to changing market prices and conditions. In 1981, 62% of assets were placed in bank deposits and the rest in various types of bonds (mostly state and mortgage bonds). By 1985, the share of bank deposits was down to 21%, while holdings of bonds increased to 79%.

Following the privatizations of the mid-1980s and the authorization to hold equities, corporate equities accounted for 11% of total funds in 1990. Corporate bonds also reached 11%, as a result of the large expansion of the corporate bond market, in the late 1980s. The share of state securities



remained constant at 44%, while bank deposits and mortgage bonds declined to 17% and 16% respectively.

Mostly as a result of the rise in the equity prices of privatized utilities, corporate equities accounted for 32% of total assets in 1994. Bonds declined to 60% from 71% in 1990, while bank deposits absorbed only 5% of total assets.

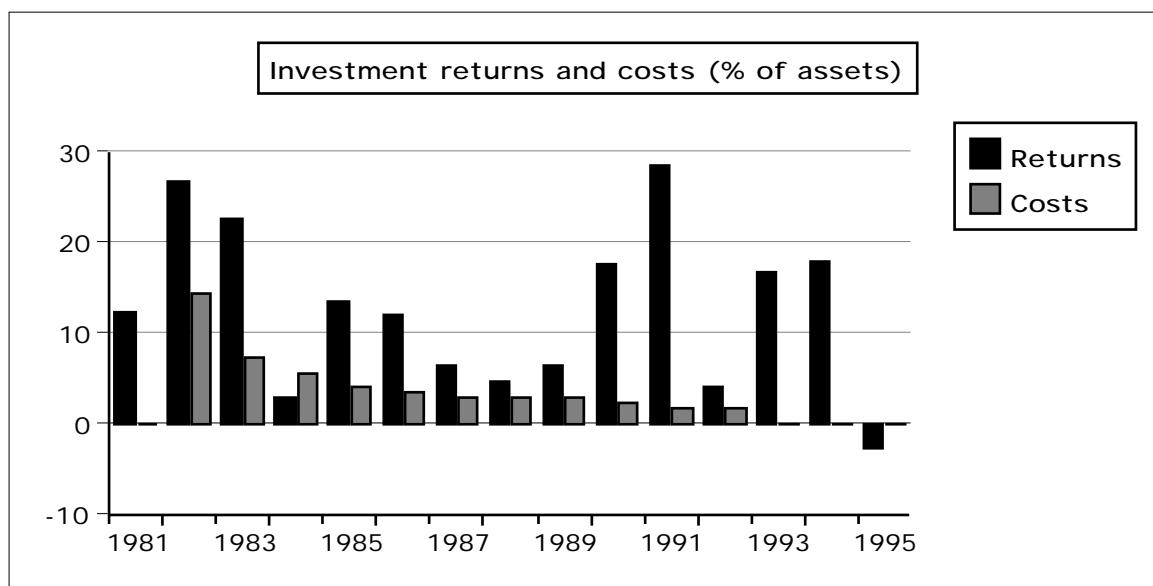
The Chilean experience suggests that pension funds can be an effective force in stimulating financial innovation, improving market efficiency, and inducing desirable changes in fiscal, legal and regulatory policy on capital market development.

The quantitative impact of the Chilean pension funds has been very large for some financial instruments. For instance, in 1994 the holdings of pension funds represented 55% of all government bonds (including securities issued by the central bank), 62% of mortgage bonds and 59% of corporate bonds. They also accounted for 11% of corporate equities and 9% of bank deposits.

The pension funds have played an instrumental role in the privatization of several utilities in the mid-1980s. Their combined holdings represent between 10% and 35% of the equity of privatized utilities. Equities of privatized utilities account for 83% of the total equity holdings of pension funds.

The spectacular capital accumulation of the AFP system is more impressive if one bears in mind the modest level of the mandatory contribution (or saving) rate. The rapid growth of assets stems to a large extent from the very high

level of real returns achieved over the first fourteen years of operation of the system. These averaged 14% per year. They fluctuated from nearly 29% in 1991 to less than 3% in 1984. In three years the real return exceeded 20% and in another six years it surpassed 10%, while in the remaining five years it was positive but less than 10%. In only 3 out of the 14 years was the real rate of return less than 5%.



In 1995, the pension funds earned for the first time a negative real return to the tune of 2.5%. This was caused by a rise in real interest rates and a decline in stock market prices, especially of the utilities in which pension funds are heavily invested.

Admittedly, the spectacular overall investment performance derives from the particular macroeconomic circumstances that prevailed in Chile in the 1980s. The economy reached rock bottom in the early 1980s when GDP collapsed by 14% in 1982. After the advent of the major banking crisis in 1981-83, the level of real interest rates reached very high levels. Pension funds invested heavily in indexed debt instruments and, as real rates fell during the 1980s, they made very large capital gains. In the late 1980s, pension funds started to invest in equities. Their high real returns in the 1990s appear to derive mostly from the spectacular performance of the Santiago equity market.

Market structure and concentration

For most of the 1980s, there were 13 AFPs in operation, but in the 1990s eight more were authorized. Some of the new AFPs had a very low volume of business, and by the end of 1995, consolidation brought the numbers down to 15, mostly through mergers, although one small company was liquidated (with no financial losses being suffered by its affiliated workers).

AFPs must meet a minimum capital requirement of about US\$600,000 if they have more than 10,000 members (lower if their size is smaller). They are set up as joint-stock companies and can be established by any group of shareholders, including large corporations, trade associations, trade unions, other financial institutions, and groups of workers.

The industry has a high, but declining, level of concentration. In terms of affiliates, the largest three companies (Provida, Habitat and Santa Maria) accounted for 68% of the total in 1994.

In terms of funds under management, the market is less concentrated. The largest companies controlled 54% of the market. Another two companies (Cuprum and Summa) accounted for nearly 10% of the market each.

At the other end of the scale, nine companies had less than 1% of the market each, accounting collectively for less than 4% of the total.

Although the industry is contestable, as is shown by the relatively large number of new entrants, it is not easy to achieve the required size to reap economies of scale. This is partly attributed to the limited responsiveness of workers to price and return incentives, while the tight investment rules seem to bring about a near uniformity of investment portfolios.

However, there is immense variability in profit performance, which suggests that some companies are able to capture sizeable economic rents, deriving from their higher efficiency and market segmentation policies, while other companies suffer big losses.

The high concentration of the industry also has implications for corporate governance: the managers of five institutions may come to wield considerable power in corporate affairs with attendant conflict of interest problems. The authorities are taking steps to avoid abuses of power, but the measures will not be tested for a number of years to come.

Operating costs

The AFP system suffers from rather high operating costs, which are a result of its decentralized and competitive nature. Total charges levied on active contributors amount to 3% of covered wages (or 30% of contributions). Of these, between 1.5% and 2.0% is used to cover operating costs (including high marketing costs and selling commissions) and the rest is used to pay for disability and term life insurance premiums. In recent years, the insurance premiums seem to have declined and the proportion retained by the companies to have increased.

The charges were much higher in earlier years, when a rather stiff fixed fee was also levied. Over the 1980s, several companies abolished their flat fee, while others allowed its real value to fall. Total charges amounted to 8.7% of covered wages in 1984 but were steadily reduced and reached the 3% level in the early 1990s. Operating costs, excluding insurance premiums, were also high in relation to total assets, amounting to over 14% in 1982. But as a result

of the large expansion of assets under management, operating costs fell to 2.3% of assets in 1990 and to less than 2% in 1992.

This level of operating costs is comparable to that of most insurance companies in the US and the UK. However, it compares unfavourably with the costs of well run company pension funds.

The significance of the high operating costs tends to be exaggerated. What matters for workers is the net investment return. In this respect, the Chilean pension funds produced very high net returns, amounting to over 10% on average over the first fourteen years of their existence. Nevertheless, when investment returns in Chile decline to more sustainable levels, the high operating costs could have a bigger effect on net returns. Moreover, from a broader economic perspective, annual operating costs of 2% on assets corresponding to 43% of GDP amount to almost 1% of GDP.

Selling agents and account switching

A basic ingredient of the new Chilean pension system is the individual choice given to workers to switch their accounts among management companies. This is perceived as the foundation of a private, decentralized and competitive system. However, there has been a high incidence of switching accounts. Switching reached nearly 30% of active accounts in 1994, up from 10% in the 1980s.

The problem is that workers seem to be enticed to switch accounts in response to marketing gimmicks and pressure from salesmen rather than in response to long-term performance. This may explain the high marketing costs and selling commissions, which absorb between 30% and 40% of all operating costs.

There has been a veritable explosion in the number of selling agents from around 2,000 in the mid-1980s to nearly 15,000 in 1994. The large number of agents may explain both the rise in account switching and the big increase in the number of members. However, the more modest rise in active contributors suggests that the high cost of selling agents may inflate the overhead costs of the system without a commensurate increase in effective coverage and accumulated assets.

Pensions and the annuities market

The number of AFP pensioners has increased gradually over the years. In 1994, there were nearly 200,000 pensioners. Of these, about 30% were old age pensioners, another 30% opted for early retirement, 8% were disability pensioners, and the rest were surviving dependants. About 45% of pensions were in the form of scheduled withdrawals and another 40% are life annuities. Pensions under the new system are more than 50% higher than pensions under the old system.

Scheduled withdrawals have several advantages over life annuities: in the event of early death, remaining account balances are inherited by dependants; they allow participation in the higher returns that may be achieved by pension fund investments; they are not based on conservative actuarial assumptions (as annuities tend to be) regarding real rates of return and mortality tables; they are not subject to hefty commission charges; and they continue to allow retired workers to transfer their balances to other AFPs. Their main disadvantages compared to annuities are that workers run the risk of outliving their own savings and assume the investment and inflation risk.

The Chilean pension law makes no provision for the offer of group annuities. This has turned out to be a major weakness of the system as newly retired workers are exposed to immense selling pressure by agents of insurance companies. The commission costs of annuities are reported to amount to 3.5% to 4% of the value of the contracts. Various proposals have been floated to create certified advisers that would offer independent and more economic advice to retiring workers.

Prudential and investment rules

A mandatory system is premised on the argument that people behave myopically and will not make adequate provision for their retirement needs under a voluntary system. It is also supported by a weaker moral hazard argument that people who do not save will rely on the state for support in old age. Whatever the reason, a government that imposes a mandatory saving system has an obligation to ensure that it is safe, works well, is simple and easy to understand, and will deliver the promised benefits. This obligation is stronger when the new system affects millions of workers who are unsophisticated investors and lack familiarity with the workings of modern financial markets.

In Chile, the government has established a vast array of prudential and investment rules to protect the interests of workers and ensure that the new pension system is subject to a robust regulatory and supervisory framework. The main objectives of regulation are simplicity and transparency on the one hand and safety and profitability on the other.

The 'one account' and 'one fund' rules. To ensure simplicity, transparency and compliance with the new pension law, each worker is allowed to have only one account with one AFP of his or her choice. Workers have the right to change management company but they must transfer the whole of their balances when they do so. In the same spirit, each AFP is allowed to operate only one fund for all its affiliates. This aims to avoid the confusion that is created when companies operate several funds.

These two rules are controversial, not only because they limit the individual choice given to workers, but also because they are at odds with the arguments in favour of diversification. Workers may prefer to place their savings with several AFPs and thus hedge their bets, but cannot because of the "one account per worker rule".

Similarly the "one fund per AFP" rule forces all affiliates to invest in the same portfolio irrespective of their risk preferences and financial needs. Yet young workers who have a long horizon may prefer to invest in equities, middle-aged workers may prefer to invest in bonds, and workers near retirement may prefer to invest in money market instruments.

Non-discrimination rules. Another set of rules prevents AFPs from discriminating among their affiliates. Thus, all members are subject to the same commission charges. In addition, each AFP is required to arrange one group policy to cover term life and disability insurance for all its members.

The "uniform pricing" rule prevents companies from rewarding their loyal customers, which might discourage workers from changing management companies. However, the high frequency of account switching is forcing a reconsideration of the case for loyalty bonuses.

Legal separation of assets. To protect the interests of members in cases of insolvency of the management company, the pension fund is set up as an independent entity and is segregated both legally and financially from the AFP. The assets of the pension fund belong exclusively to the members, and are not affected by any financial losses suffered by the AFP. This rule, together with the solvency rules and state guarantees discussed below, has ensured that no workers have suffered any losses since the inception of the new scheme.

Solvency rules. AFPs are required to maintain investment reserves, known as "encaje", equal to 1% of the total assets of the pension fund under their management. This limit was originally set at 5% of total assets but, as pension funds grew, it was deemed excessive and the requirement was lowered to its present level in 1983.

The purpose of the investment reserves is to provide additional protection to workers in case of inadequate performance by the management company. The investment reserves must be used to make up any shortfall in performance before a company is liquidated.

Investment rules. AFPs are subject to very strict investment regulations.

Initially, no investments in corporate equities were allowed but ultimately such investments were permitted. Today, pension funds can invest up to 40% of their assets in equities. Pension funds are not allowed to place more than 5% of their assets in the equity of any single company or to acquire more than 7% of the equity of a single company. These limits are substantially reduced for companies with concentrated ownership and illiquid securities.

Investments in overseas assets were originally prohibited. They have recently been allowed up to a rather low 10% limit, in order to diversify country risk.

For pension fund managers in developed countries, who are generally free to set their own investment guidelines, the application of so many investment limits would appear excessively bureaucratic and inefficient. But in the context of the experience of developing countries, the absence of strong and

transparent capital markets, the compulsory nature of the pension system and the lack of familiarity of pension members with capital market investments, the detailed investment rules appear justified. The rules must, however, be revised in a flexible and timely manner to take account of the growing maturity of the system.

Valuation and trading rules. AFPs are required to value their marketable securities on a daily basis at market prices. For non-marketable assets (such as real estate), the supervisory agency has developed special models that must be followed for valuation and reporting purposes. All transactions of the pension fund must be carried out at officially recognized markets where they can be effectively supervised.

Minimum profitability. AFPs are subject to maximum and minimum return (or profitability) requirements for the pension fund under their management. If the real investment return is 50% higher than the average for all pension funds, or exceeds the average by 2 percentage points (whichever yields the higher rate of return), the AFP is required to place the difference in a profitability reserve. This reserve does not belong to the AFP, but is an asset of the pension fund. Similarly, if the real investment return on a pension fund is less than half the average of all pension funds, or if it is lower than the average by 2 percentage points (whichever yields the lower rate of return), the AFP is required to make up the difference, first by transferring funds from the profitability reserve (if such a reserve has been established) and, if this is inadequate, from its investment reserves.

Information disclosure. AFPs must meet rigorous information disclosure requirements. They report daily to the supervisory agency their investment transactions and submit monthly reports on their financial position and overall performance. They are also required to provide regular statements (three times a year) to their members disclosing the last four monthly contributions paid by employers, the financial performance of the pension fund and the accumulated balance and rate of return on their individual account. To meet concerns about misleading advertising, AFPs are further required to use in their publicity material data on the average performance of the industry as a whole.

State guarantees

The Chilean pension system involves three types of guarantees offered by the state. First, there is a guarantee for the payment of a minimum pension to members who have made contributions for at least twenty years. The state undertakes to make up any shortfall in the level of the benefit up to the minimum pension. The minimum pension amounts to around 25% of the average wage.

Second, the state guarantees the minimum profitability of pension funds. An AFP would first use the profitability reserve of the pension fund, if one already exists, to make up any shortfall in the rate of return and then draw on its investment reserves. An AFP that is unable to make up a shortfall in the rate of return is forced into liquidation. The balances of individual

capitalization accounts are transferred to other AFPs, with the state making up the shortfall in profitability.

Finally, the state guarantees the annuity payments for old age pensions as well as for disability and survivorship pensions of failed insurance companies. The guarantee covers 100% of the minimum pension and 75% of the difference between the minimum pension and the value of the benefit involved up to a specified limit.

The minimum pension guarantee aims to protect workers with low wages and unstable working careers and thus interrupted contributions. But it is open to strategic manipulation as it encourages self-employed workers to contribute for no more than twenty years at the lowest possible salary. A better alternative would have been to offer a 1% of the average wage for each year of contribution. Thus, a worker with 40 years of contributions would be covered by a 40% minimum pension guarantee (the level which prevails in most OECD countries), and one with twenty years of contributions with a 20% minimum pension guarantee.

The offer of the guarantee in conjunction with the option to use scheduled withdrawals from the capitalization account, instead of buying a life annuity, creates an additional moral hazard problem in that low-balance workers may opt for scheduled withdrawals on retirement knowing that if they outlive their AFP balances, they will receive the minimum pension guaranteed by the state. Scheduled withdrawals have the additional benefit that in the event of early death, the remaining balance on the account will be inherited by their dependants. A solution to this moral hazard problem would be to require all retired workers who opt for scheduled withdrawals to buy a deferred life annuity for at least the minimum pension.

Financing the transition

Before concluding this paper, it may be useful to discuss briefly some transition issues and especially the financing of the cost of transition from a "pay-as-you-go" system to a fully funded one.

The cost of the transition, which stems from the loss of contribution revenues but a continuation of pension payments, was effectively covered in three ways. First, the government undertook to issue recognition bonds to workers who transferred to the new system. The value of recognition bonds was calculated at the time of transferring to the new system but the bonds were issued only on retirement. Recognition bonds were equal to the present value of accrued benefits based on length of past service and contributions to the old system. The bonds earned interest at a real rate of 4% per year but their deferred issuance spread their cost over the remaining active life of transferring workers. Second, the government ran a budgetary surplus on its other transactions so that meeting the deficit of the old pension system did not put undue pressure on government finances. And, third, the government issued bonds that were effectively bought by the new pension funds.

Conclusions

There can be little doubt that the performance of the Chilean AFP system over its first fifteen years of operation has not only been highly successful but has exceeded all reasonable expectations at the time of its launching. The Chilean experience shows that a bold reform of a bankrupt public pension system is financially feasible. But the system has notable strengths and weaknesses that contain important lessons for other countries contemplating similar reforms.

The main strengths of the system are:

- Its emphasis on personal responsibility and capital accumulation, the direct link between contributions and benefits and the reduction of incentives for strategic manipulation and evasion.
- The simplicity and transparency of the whole system.
- The support provided by state guarantees as well as the tight and effective regulation and supervision, coupled with a flexible relaxation of rules as the system gained in maturity and credibility.
- The achievement of high net investment returns and the payment of high pension benefits.
- The vast accumulation of long-term financial resources and the development of the capital markets.
- The Argentine approach, which pays a basic public pension that is additive to any pension derived from the private pillar, ensures a higher replacement rate for most workers, although at a higher cost. For this reason, the Argentine approach, which combines a public pension pillar with a Chilean-type private pillar, may be politically more acceptable and thus easier to implement in many countries.

The system suffers from several weaknesses, some of which are more important than others and raise more difficult and pressing policy issues. Weaknesses include the following:

- The less than universal coverage suggested by the big discrepancy between the number of affiliates and the number of active contributors.
- The low level of the guaranteed minimum pension and the incentive for strategic manipulation offered to self-employed workers and to workers who move in and out of the labour market.
- The high level of marketing costs and the high frequency of account switching.
- The malfunctioning of the annuities market, the absence of group annuities and the high level of commission charges.

- The uniformity of investment portfolios that result from the "one fund per company" and "one account per worker" rules as well as the tight investment regulations and the minimum profitability requirements.
- The high concentration of the industry, with its potentially adverse implications for competitive efficiency as well as for corporate governance and conflict of interest issues.

The significance of these strengths and weaknesses may change over time. Some strengths may wane (e.g. investment returns are not expected to persist at such high levels forever), while some weaknesses may be self-correcting or may be eliminated by appropriate policy changes. Overall, though, the new system replaced a fragmented and nearly insolvent "pay-as-you-go" system, has grown at a very high rate, has achieved high investment returns, and has been well regulated and supervised.

The financial structure of Chile's pension funds

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Background

In 1981, faced with important demographic changes and a highly inefficient and nearly bankrupt state-owned and state-operated pension system, the Chilean government was forced into a change. Instead of simply reforming the old "pay-as-you-go" system, the government elected to create an alternative system consisting of domestic, private, competitive pension-fund companies (*Administradoras de Fondos de Pensiones* or AFPs) among which individuals could choose to manage their individual pension fund contributions.¹

Since then the AFPs have become the most important institutional investors in the Chilean market. Their growth has been largely responsible for the expansion of the domestic corporate bond market and the increase in stock market trading volumes. Over the 1985-93 time frame, AFP assets under management grew at a compound annual rate (CAGR) of 34%, fuelled in part by high stock market returns.

Over the years, more and more workers have been incorporated into the AFP system. By 1994, the AFPs had 4.7 million affiliates, representing 90% of Chile's total employed labour force. As the number of affiliates has expanded, so too has the number of AFPs.

The mechanics of the system

AFPs are required by law to be single-purpose companies. The services that they provide include the collection of affiliates' contributions, management of individual accounts, investment of the pension fund resources, obtaining disability and survival insurance coverage and paying insurance premiums for affiliates, and providing benefits. The AFPs are governed by the norms established in the Social Security Reform Law, and the Pension Funds Superintendency, a government regulatory agency, oversees the compliance with all regulations contained in this law.

Membership of the pension fund system is compulsory for contracted employees and voluntary for those self-employed. The AFP invests their contributions in securities that are credited to the affiliates' individual capitalization account. These contributions are tax-deductible, although they become taxable at the time of withdrawal. Affiliates also can make voluntary investments in the AFPs, which earn the same return as standard contributions, with the added advantage of being able to

¹ 10% of the individuals who participated in the old system decided to remain in it. This alternative remained until 1984.

make periodic withdrawals. Voluntary contributions are taxed, but currently, the returns generated on investment of these resources are tax-exempt.

AFPs are authorized to charge commissions to affiliates in return for the service that they provide. These commissions are established freely by each AFP, although currently, the law requires that they be uniform to all affiliates within each AFP. The commission structure has simplified and become more transparent over the years. Although the AFPs are authorized to charge for a variety of services,² in practice, only affiliates who are actively contributing to their accounts are charged commissions. All AFPs charge a variable monthly commission, which is expressed as a percentage of monthly gross income. Some AFPs also charge relatively small monthly fixed commissions.³

AFPs compete actively for the affiliateship of Chilean workers. Although affiliateship is obligatory, affiliation is individual (as opposed to collective or through companies), giving the individual full liberty both in selecting an AFP initially and transferring from one to another. At present, transfers between different AFPs are cost-free to affiliates. The only implicit restriction is a limit of one transfer every three months, which is the time required to process the necessary paperwork.

At retirement, the member can choose one of the following three options: an immediate life-long annuity plan, a deferred annuity plan and a "scheduled withdrawal" plan. In the first case, the affiliate selects an insurance company, which gives to him a monthly fixed income (annuity) for the remainder of his life in exchange for the value of his entire individual capitalization account savings.⁴ In the second option, the affiliate contracts a life-long annuity plan from an insurance company, to start at a date specified in the future, leaving sufficient funds in his individual capitalization account for an interim pension, which covers the period from the time the individual selects this option to when the annuities begin to be paid. In the third case, the affiliate keeps his funds deposited in his individual capitalization account in the same AFP and withdraws a monthly pension in accordance with a pre-established formula until the funds are exhausted.⁵

² The services for which the AFPs are authorized to charge fees include the following: fixed monthly commissions; a variable commission expressed as a percentage of monthly gross income; a fee upon receiving a subscriber's funds from another AFP (in case the subscriber elects to switch institutions); a fixed fee for each withdrawal made from the subscriber's voluntary savings account; and a monthly charge for each pension payment in the case the subscriber chooses to maintain his funds in the AFPs at retirement (the so-called "Programmed Withdrawal" option).

³ Whereas the variable commission is deducted from the contributor's monthly pretax income, the fixed commission is charged against the contributor's individual account. Thus, an increase in the variable commission has an adverse effect on the contributor's net income, while an increase in the fixed commission only decreases the profitability of the contributor's individual account.

⁴ For the affiliate to select this alternative, the insurance company must offer a pension equal or superior to the minimum pension in effect at the time of retirement.

⁵ If the pensioner selects the "Programmed Withdrawal" plan, the possibility always remains to switch to the life-long annuity plan; however, once the subscriber chooses to transfer the savings in his or her individual capitalization account to an insurance company in exchange for a life-long annuity, he or she forever loses the option of going back to the "Programmed Withdrawal" plan.

The AFPs are required to contract an insurance company to provide disability and life insurance coverage for affiliates. A portion of the monthly variable commission that the AFP charges to contributors is destined to pay this insurance. In the case of total disability before retirement, affiliates meeting certain requirements are entitled to a pension equivalent to 70% of their base income.⁶ In the case of the member's early death (before retirement), his beneficiaries also have the right to a pension, which varies depending on the number of beneficiaries and their relationship with the deceased. If the sum in the affiliates individual capitalization account is not sufficient to provide the required pension, insurance companies must contribute the difference.⁷

Protection against poor performance

The State guarantees minimum old-age, invalidity and survival pensions for affiliates who have contributions for a certain minimum number of years. If the insurance company fails to meet its contractual obligations for disability, survivor or annuity pensions, the State provides 100% of the funds necessary to finance the minimum pension level and provides 75% of the funds above the minimum level up to a ceiling of 45 UF per month (around US\$1,292). AFPs are liable for the remainder of the difference required to complete financing of pensions.

Each pension fund is a separate legal entity from the AFP. This means that the pension fund is immune to the financial well-being of the AFP. If a particular AFP were to go bankrupt, affiliates would simply transfer the funds of their individual capitalization accounts to a different AFP.

Each AFP must form a reserve fund equal to 1% of the value of the pension fund. The purpose of this reserve fund is to ensure that the performance of an individual pension fund does not drop below a minimum profitability (defined as the lesser of the average return of all pension funds less 2% or 50% of the average real return of all the pension funds). Returns on investment are calculated based on the preceding-12-months' performance of the system's funds. If for a certain month, the pension fund's real return on investment for the preceding 12 months falls below the minimum rate allowed, the difference is transferred from the pension fund's own reserve. If this does not suffice, it comes from the AFP's mandatory investment reserve. The pension fund's reserve is created from so-called excess returns on investments, (when a pension fund's average real return on investment for all the preceding 12 months exceeds the greater of the average real return of all the pension

⁶ Base income is equal to the monthly average of the individual's gross income over the past ten years, adjusted for inflation. In the case of workers with fewer than ten years of membership, income is calculated based on the effective period they were affiliated.

⁷ The insurance company's contribution, expressed in UFs, is the difference between the funds necessary to finance the invalidity or survival pension of the subscriber and the sum of the resources accumulated by the individual and the value of a Recognition Bond upon the death or the officially recognized invalidity of the subscriber. The Recognition Bond is an interest-earning bond that reflects the inflation-adjusted value of the contributions made by subscribers who participated in the prior-to-1982 social security system.

funds plus 2% or 50% of the average real return of all the pension funds for this same period).

Historically, the required minimum profitability has discouraged the AFPs from increasing pension fund investment risk and has tended toward similar pension fund investment portfolios among the various AFPs (see Table 1). More liberal rules now in place might change this.

Table 1: Investments of selected Chilean pension funds

	Equities	Govt. Paper	Mortgage Bonds	Time Deposits	Corp. Bonds	Bonds of Fin. Inst.
Provida	33.37%	43.53%	10.69%	2.75%	8.03%	1.30%
Habitat	34.31	40.23	9.96	5.69	6.80	0.64
Santa Maria	34.20	39.14	11.05	5.43	7.52	1.01
Cuprum	33.60	37.15	16.58	7.19	4.17	0.71
Summa	30.47	35.68	16.92	8.15	6.02	0.89
Proteccia	30.97	38.97	11.08	12.44	3.88	2.25
Industry	33.25%	39.01%	12.89%	6.01%	6.40%	1.17%

Source: Superintendency of AFPs, June 1994.

AFP revenues and costs

Commissions are the primary source of AFP revenues. Commissions are made up of a variable component (expressed as a percentage of gross income) and a fixed one. As such, the commission revenues of a particular AFP are a function of its total number of contributors, their gross incomes and the respective AFP's variable and fixed commission rates. Despite a general decline in the commission rates observed since 1984,⁸ commission revenues have shown a growth tendency, thanks to the increase in the number of contributors⁹ and, in the past several years, to the steady increase in real wages.¹⁰ Another trend witnessed over the past few years has been a decrease in the relative importance of the fixed commissions relative to variable ones. Whereas in 1988 all 13 of the existing AFPs charged fixed commissions only, today few do.

The other important item on AFP income statements is reserve fund revenues. These correspond to the earnings obtained through the investment of these resources, equivalent to at least 1% of the pension funds that the AFPs manage. The income generated from the reserve fund belongs to the AFP, but it does not necessarily

⁸ Over the 1984-93 period, the weighted average variable commission (expressed as a percentage of monthly gross income) fell from 3.58% to 3.02%, a 15.8% real decline.

⁹ The number of contributors in the system grew at a 10.5% compound annual growth rate over the 1984-93 period.

¹⁰ Since 1990, average monthly income has advanced at a 7% compound annual growth rate in real Chilean peso terms.

constitute a distributable cash flow because as the fund grows, so do the reserve requirements.

The AFPs' principal expense items are disability and survival insurance costs, administrative expensed and sales expenses. Like the variable commissions, the initial cost of disability and survival insurance, a *provisional premium rate*, is expressed as a percentage of gross monthly income. The provisional premium rate is based on estimates of the mortality and disability rate corresponding to a specific AFP,¹¹ and it allows for an insurance company's profit margins. When the real mortality and disability rate is beneath the expected one, the insurance companies reimburse AFPs all or most of the cost difference.¹² In practice, since 1988, the death and disability rate often has been overestimated, producing income for many of the AFPs. In case the real mortality and disability rate were to exceed the expected one, the AFPs would pay an additional premium, which is capped in a way that insurance companies assume most of this risk. Over the years, the relative importance of life insurance expense has declined with respect to total operating costs, reflecting economic growth in Chile and the real drop in disability and mortality rates.

Over the 1984-89 time frame, the total cost of the pension fund system (defined as the amount paid by affiliates for the aggregate of services received) fell from 8.69% to 3.55% of average monthly income, equivalent to US\$16.20 and US\$8.80 in real terms, respectively. This fall largely resulted from a concurrent 23.9% reduction in the average operating costs of the system (as well as increased competition), which led to reduced net commissions. Nevertheless, starting 1990, the declining tendency in operating costs per affiliate reversed course. Over the 1990-93 period, operating costs per member increased by about 21%; concurrently, the cost of the pension fund system (rather than continuing to fall) remained steady at around 3.1% of average monthly gross income. During the same time frame, operating expenses remained steady at around 3.1% of average monthly gross income. The 1990-93 increase in operating expenses resulted mainly from an increase in sales costs.¹³

Regulating pension fund investment

The norms that establish pension fund investment regulations have been loosened significantly over the years. This has happened largely in response to the need to prevent the growth in the total pension fund resources from outstripping the investment alternatives. For the first time, in 1991, a new series of regulations came into effect allowing the AFPs to invest a percentage of their assets outside of Chile — in "investment-grade" debt securities. This percentage recently was increased from 3% to 4% of assets under management and is now much higher. AFPs also are now permitted to invest a small portion of their assets in start-up projects (depending on a risk classification) and other assets, such as shares of publicly traded companies with

¹¹ Disability and mortality rates vary among AFPs, generally, in inverse relation to average monthly income of their respective subscribers. Sex and age are also factors that influence insurance costs, with women and lower-aged people representing lower mortality and disability rates.

¹² This refund is registered as a revenue item on the AFP income statement (*refund of disability and survival insurance income*). The importance of this revenue item has diminished over the years as estimates of the mortality and disability rates have better approximated the real one.

¹³ In 1993, 93.5% of these costs corresponded to sales force remuneration.

low liquidity; debt instruments and convertible bonds for project financing; and foreign company debt instruments.

These new limits on investments will have a positive impact on the further development of the Chilean capital markets. In particular, the new limits on company stocks and on foreign investments will continue to the sophistication of markets and investors.

The central bank of Chile sets the limits on permitted investments for AFPs within a range established by the law,¹⁴ so that the real operating limits actually may be lower than the legal limits.

Table 2: Current and projected investment limits

Instruments	Current Law	Investment 30 June 1994	New Limits
Government Paper	45%	39.3%	50%
Mortgage Bonds	80	13.2	50
Time Deposits (CDs)	30	6.2	50
Private & Public C. Bonds	50	8.6	50
Company Stocks	30	31.8 ^a	40
• Low Ownership Concentration	30		
• Real Estate Companies	10		
• High Ownership Concentration	10		
Investment Fund Shares	10	0.2	
• Real Estate	10		10
• Venture Capital	5		0
• Non Real Estate	10		5
Commerce Effects	10	0	20
Foreign Investment	3	0.6	12
Fixed Income	3		12
Variable Income	0		6
Other Instruments Authorized by the Central Bank	0	0	5
Securitized Credits	0	0	10
Hedging Transactions	0	0	15

^a Above legal limit because investments are allowed to appreciate above the limit as long as they were acquired while the AFP was below the limit. If an AFP exceeds the limit of 20%, it has three years to sell any excess holdings.

Source: Superintendency of AFPs.

A highly competitive system

Over the past few years, the AFP system has been characterized by fierce competition as new AFPs have tried to capture market share and old ones have tried

¹⁴ A new amendment to the law contemplates a substitution of the current system in which the central bank sets a maximum limit that has no legal cap (meaning up to 100%) but that cannot be lower than a percentage indicated by the law, with a system in which the central bank will be able to traverse a minimum and maximum range defined by the law.

to maintain and expand their own. The level of member turnover (the number of affiliates who switched from one AFP to another) has grown dramatically, climbing from 306,819 in 1988 to 875,874 in 1993, representing about 25% of the total contributors. Growth in the number of industry salespeople has shot up as well, rising from 2,727 in 1988 to 10,771 in 1993.

**Table 3: Profitability of selected funds, July 81 - August 94
(Compound annual average return)**

	1982-88	1989-93	Jul 81 - Aug 94	Sep 93 - Aug 94
Cuprum	13.2%	15.6%	14.5%	22.6%
Habitat	13.1	14.4	13.7	21.8
Proteccion	8.4	15.9	13.2	23.3
Provida ^a	12.9	13.3	13.4	21.6
Santa Maria	12.8	14.1	13.6	22.2
System	13.0	14.3	13.9	22.2

^a Date from 1986, when the company was incorporated.

Source: Salomon Brothers Inc.

All of this has taken place in an industry in which it is very difficult to differentiate among companies, given the strict investment restrictions, which have produced very similar pension fund portfolios among different companies and, consequently, similar pension fund returns. For the July 1981 — December 1993 period, the system had an average real annual return of 13.7%; the highest return recorded by a single AFP was 14.3%, and the lowest was 13.2%. As a result, until now, the AFPs have faced the key challenge of, on the one hand, holding down operating costs to maintain margins and, on the other hand, competing through larger sales forces.

A new competitive environment

In-as-much as, over the past five years, the AFP industry has moved toward new market players, bigger sales forces and increased turnover rates, we do not expect these tendencies to continue over the next several years. Given market saturation and high start-up costs, we view the possibility of significant new entrants as very unlikely within the next five years.¹⁵

There is also a possibility that legislation will be enacted that will discourage affiliate transfers between AFPs in an effort to curb the high implicit costs to the system. One proposal would permit the AFPs to apply a differentiated fee structure to affiliates. This would allow an AFP to charge lower fees to affiliates that keep their funds deposited in that AFP's pension fund for a longer time, thus establishing economic disincentives for transfers.

¹⁵ This prediction made in December 1994 proved very true: the overexpansion of the sector, caused by deliberate policy to encourage new funds, and the intense competition, caused by more liberal rules on affiliate transfers, could not be sustained. The number of pension fund administrators is now only two-thirds of its historic peak, and close to the number with which the system started.

Another factor that will shape the future environment is the progressively more uniform rate of return, which we expect to see across the industry. In a period of economic expansion and a rising stock market, many of the newer and smaller AFPs flourished by being able to invest higher proportions of their pension fund assets in certain high-growth stocks and, thereby offer higher returns to affiliates. Nevertheless, economic slowdown in Chile and the regulation that penalizes those companies that obtain a return on their investments 2% lower than the average will lead to diminished stock market returns and reduced dispersion of different AFP returns.

As a result, affiliates will pay closer attention to service and the fees charged by the AFPs. In this regard, we believe that room exists in the market for price competition favoured by the expected decline in the number of AFP transfers. And so, if in the past three years the AFP battle has focused on sales forces, in the next three, we believe that the focus is going to switch to price and service.

At present,¹⁶ AFPs are required by law to be single-purpose companies; they must engage exclusively in pension fund management activities. This signifies that the AFP system's main future growth will result from growth in the labour force (which is forecast to grow at 1.7%-2% annually) and increases in real wages (which are forecast to grow at 2% annually). The 10% of the labour force that is independent and currently does not contribute to the AFP system could also represent a source of AFP growth, if AFPs can provide the incentives to encourage more independents to enter the system.

Internationalization

One area in which AFPs have been able to expand is in the international market. Over the past few years, many Latin American countries have not only sought to privatize their social security systems, but also have attempted to emulate the Chilean model. In general, the Chilean AFPs have been eager to contribute capital to know-how to these privatization efforts, and we expect them to continue to do so. Chilean AFPs have invested directly in foreign pension funds, and several also have sold software and consulting services to foreign AFPs. The main targets of Chilean investments have been Argentina, Peru and Colombia.

The following are examples of AFP investment and other activity abroad:

Argentina. Habitat holds a 7.48% stake in AFJP Activa. In 1993, Provida sold a software package to AFJP Banco de La Nacion, the fourth-largest Argentine AFP, for US \$3 million.

Peru. Provida has a 13% stake in Horizonte, which has 23% market share of affiliates and 25% market share of assets under management. This company targets high and middle income affiliates.

Santa Maria entered the Peruvian market in association with Aetna Chile. Together, they hold 29.5% of Peru's AFP Integra. This AFP has a 22% market share of total affiliates and a 33% one in terms of total assets under management.

¹⁶ December 1994.

Cuprum has a 19.61% stake in AFP Nueva Vida. Nueva Fida has a 4% market share in terms of total affiliates.

Colombia. Provida holds a 20% stake in Colombia's AFP Porvenir. AFP Porvenir has a market share of 38% both in terms of affiliates and 38% in terms of total assets under management. This company targets middle- and low-income individuals.¹⁷

Other long-term innovations

Over the past several years, we have observed a mild tendency toward deregulation of the AFP Industry. This has been most evident in terms of pension fund investment restrictions, which continually have broadened, allowing for greater investment alternatives. Given that this deregulation process is expected to continue, in the long run, it is easy to conceive of a AFP system with a very different face. One likely scenario is that in the long run, AFPs will be able to distinguish themselves more readily both in terms of their pension fund investment mix and in terms of risk. Much like unit trust companies AFPs could even one day manage a variety of funds (instead of just one) with differing characteristics.

Another area where we expect changes in the future relates to AFP fees. Although AFPs are currently authorized to charge a fee for maintaining the individual capitalization accounts for the affiliates who choose the "scheduled withdrawal" option at retirement, in practice, none of the AFPs currently charges for this service. At present, more than 40% of the system's affiliates chooses the "scheduled withdrawal" option at retirement, even though AFPs do no marketing of this service. Given the implicit costs of these services, we view it as natural that AFPs will one day convert the "scheduled withdrawal" option into a source of revenues.

Beyond these and other possible internal changes in the AFP business, there also has been a lot of talk in the market as to whether AFPs could some day expand into totally different, albeit related, business areas. If it were not for the single-purpose limit, with their large computer facilities and branch networks, some of the larger AFPs like Provida, Habitat or Santa Maria could otherwise offer financial products or services like credit cards or electronic fund transfers and data-processing intensive services like tax payment or health care administration, all on a very competitive basis. Although we do not anticipate that the government will modify the single-purpose limit in the near future, in the long run, it is a possibility that cannot be ruled out.

¹⁷

For a full description of the Colombian pension reforms, see Klaus Schmidt-Hebbel, *Colombia's Pension Reform: Fiscal and Macroeconomic Effects* (Washington DC: World Bank Discussion Paper 314, 1996).

Regulation, results and relevance

By Eamonn Butler

Director, Adam Smith Institute

Chile's reforms and the UK

The role of the state in Chile's reformed pension system is to guarantee certain benefits, to set the rules under which the system operates, and to enforce the laws and regulations governing it.

Much of the experience of the pension reforms in Chile — some bad, but overwhelmingly good — and of the way in which they are regulated, are of considerable relevance to the UK, or indeed any of the many countries that are contemplating the introduction of a funded pension and/or benefits system.

They are particularly relevant to ideas such as the Fortune Account proposal already made in the UK by the Adam Smith Institute.¹⁸ While this differs in that it includes not just pensions and disability insurance but a whole range of insurable benefits presently offered by the state, it is designed as a basic vehicle for provision, rather than a second tier (or in the World Bank's language, "second pillar") system. And in moving to an individual and funded basic system, the Chileans have had to solve many of the political and commercial questions that we have to solve with the Fortune Account here.¹⁹

The regulator

In Chile, the agency which sets and enforces the rules on the new Pension Fund Administrators (AFPs) is the Superintendency of Pension Fund Administrators (SAFP, to use its Spanish-language acronym).

The aim of the regulation is to protect the contributions of scheme members, to safeguard public funds (which may be called upon in the event of a failure), and to maintain public confidence in the health and security of the system.²⁰

¹⁸ See, for example *The Fortune Account* by Eamonn Butler and Madsen Pirie (London: Adam Smith Institute, 1995).

¹⁹ For an overview, see Karl Borden in *Singapore Versus Chile: Competing Models for Pension Reform* (London: Adam Smith Institute, 1996).

²⁰ A description of the role of the Superintendency, and details about the regulation and evolution of the reformed pension system, can be found in *The Chilean Pension System Based on Individual Capitalization* (Santiago: Superintendency of Pension Funds Administrators, May 1995). Much of what followed is based on this source.

The Superintendency's main tasks are to:

- approve or reject plans to create an AFP;
- supervise each AFP's legal, administrative, and financial structure and operations;
- ensure AFPs maintain their minimum capital and reserve requirements;
- interpret and apply the current laws and regulations and propose reforms where necessary;
- maintain system discipline by imposing fines or winding up AFPs where required.

To achieve these aims, the Superintendency retains six divisions:

- the *Controllershship* supervises the working of the system, settles legal issues, proposes reforms, and levies fines where necessary;
- the *Control of Institutions* division supervises the running of the individual accounts, enforces the rules on advertising and information;
- the *Finance* division (further divided into *markets*, *risk*, and *financial control* departments, is responsible for AFP balance sheets, investment, capital requirements and so on;
- the *Benefits and Insurance* division, comprising management-control, benefits, and regulations units, ensures that benefits are paid promptly and supervises the insurance side of the system;
- the *Studies* division is in charge of assessing and forecasting the operation of the system;
- the *Administration and Computing* division designs administrative computer support for the supervisory process;
- the *Health Commissions* unit checks the assessment of disability claims and the AFPs' compliance with the rules on disability pension payments.

Failure of AFPs. In the event of an AFP failing, the state guarantees the member's pension or disability benefit, and makes up any shortfall in the fund. If a pensioner's insurance company fails and cannot pay the retirement annuity, the state makes the member's pension up to 100% of the minimum level and 75% of anything above it, up to a certain ceiling. Several AFPs have merged and been closed in the past, but the pension assets of the members have remained secure in each case.

Guaranteed benefits

Minimum pension. All AFP affiliates who meet certain basic requirements are entitled to a minimum pension guaranteed by the state, even if the balance in their pension fund at retirement is insufficient.

Minimum yield. Each month, each pension fund administrator must achieve a minimum yield, linked to the average yield of all AFPs by formulae explained by Dimitri Vittas elsewhere in this report.

Fund administrators must maintain a fluctuation reserve, which must be drawn on if the actual yield of a fund drops below the minimum requirement. If that reserve is insufficient, then the fund administrator's cash reserves must be drawn on. If that is still insufficient, the state makes up the

difference (thus protecting the entitlements of savers) and takes steps to wind up the AFP.

Relevance for the UK. Even in Chile, there is debate about if and why minimum yield rules should be imposed on the AFPs. The main reasons for having them are to keep down the cost of the government guarantee of a minimum pension, and to create a benchmark to keep AFP performance high. On the other hand, competition, good public information, and easy transfer of affiliates between funds should be enough to keep performance high; the rule produces very similar and conservative investment strategies; and since the minimum yield is only relative, the benchmark moves and the government could still face high guarantee costs if all funds performed badly.

To leave pension funds without such a benchmark might produce a slight negative incentive — that a poorly-performing fund may face little pressure to improve because the government would make up the pensions of its members nonetheless. But this seems a minor threat, and it is doubtful that one would want to add the complexity of minimum yield regulation here in the UK.

Obligations on contributors

The new pension fund system is compulsory for everyone entering salaried employment in Chile, although it remains optional for self-employed workers.

All salaried scheme members ("affiliates") who are in work are required to make regular deposits into an AFP to provide a fund to finance their retirement. The required level is 10% of their taxable income, plus any additional contribution, all free of tax.

The AFPs in turn open individual capitalization accounts for each affiliate, where these regular contributions are deposited, the money being collectively invested by the AFP. For this service, the AFPs are allowed to charge a monthly commission.

Something over 60% of the active members of the workforce in Chile are covered by the new system, or have chosen to remain in the old one. This is higher than in previous years when there was no alternative to the old system, but it still means that some 40% of the workforce are not making regulation contributions towards their retirement pension. Of the self-employed population, only about 10% are members.

Relevance for the UK. If the UK moved to a funded system like a Fortune Account, there would certainly be a demand to improve on this figure by making sure that self-employed persons were fully covered. However, there are problems.

Self-employed income tends to fluctuate widely, within the year, and between years — perhaps even between decades. Meanwhile the range of self-employed jobs ranges from the lowest-paid contract cleaner to the

highest-paid company director. It may be that regular monthly pension contributions are not the best solution for some of these groups.

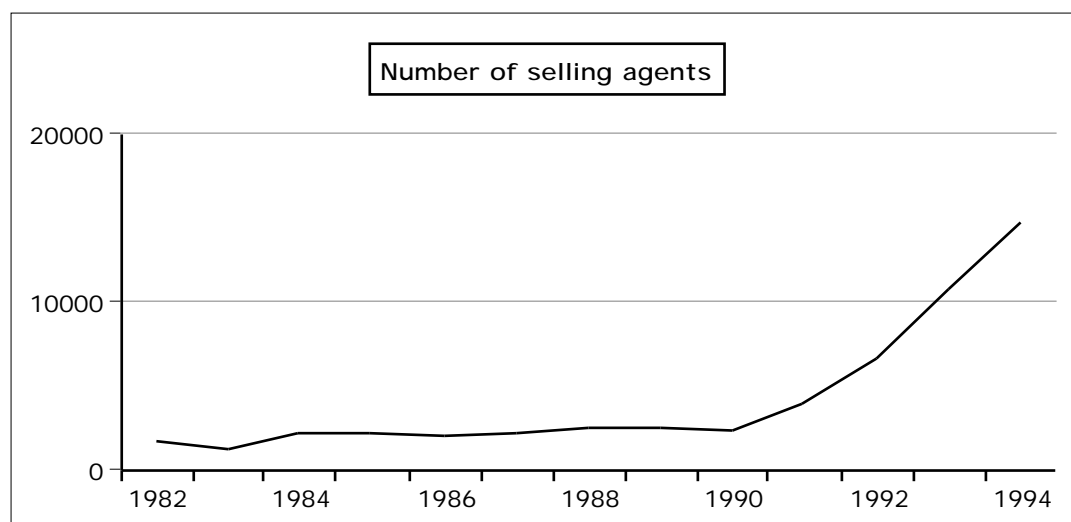
If funding is proposed only for the *second* pillar of pensions, the first pillar remaining the basic state pension, then it is contentious to *require* self-employed persons to make such contributions. They may well argue that their best investment is to build up their own business, not to buy a second-tier pension. On the other hand, if funding is proposed for the basic pension — as it is in the Adam Smith Institute's idea of a Fortune Account — then compelling self-employed workers to join in seems uncontroversial: without that basic provision, there would be a serious risk of self-employed persons becoming a public charge on retirement.

Transfers between AFPs

All workers can choose their AFP freely, and affiliates can transfer their account balances from one AFP to another up to three times per year and without cost.

In the first year of operation, there was little regulation of transfers, and fund administrators experienced high rates of affiliate turnover. Regulations in late 1982 imposed a minimum period of three months before an incoming affiliate could transfer out again, and affiliates had to appear in person to make the change. Transfers in this period (1982-88) averaged about 13,700 per month.

In March 1988 the rule to appear in person was dropped. Together with the large increase in the number of AFPs being created at that time, transfers spiralled up again to over 48,000 per month. Sales and marketing budgets soared as the funds attempted to retain their existing clients and attract new ones.



Relevance for the UK. Chile's aim was to make its system fully competitive by allowing people to transfer as freely as possible, but rapid churning of

accounts is a source of great cost to investment managers: not just in administrative cost, but in the increased cost of sales and marketing.

UK pension companies point out that a pension should be thought of as a long-term investment, and that members should not be allowed to change very often. In investment terms, a minimum transfer period of five to seven years seems to find agreement; but in political terms this is clearly too long for people to be trapped with a fund manager whom they no longer trust.

Annual transfers are probably quite enough to give people the feeling that they are in control of their own pension savings, and manageable enough for the industry (particularly because there will probably be flows of members in either direction). It may be possible to allow people to transfer more often if a fee (probably £50 or below) is charged to cover the extra administration costs.

Collection of contributions

Chile's AFPs are moving rapidly to reduce their payment collection costs through technological improvement. At present, employers collect the contributions and send them off to the relevant AFP chosen by each worker. Most employers will have to send off only two or three such batches, but in the worst case an employer with a dozen employees may be sending out more than a dozen contributions to a dozen AFPs. This imposes costs on employers and AFPs alike.

New collection systems will be based on electronic data transfers between employers and AFPs, and electronic funds transfer between the bank accounts of employees and the AFPs.

Relevance to the UK: The cost of contribution collection has been a point of much debate in the UK, with some commentators arguing that the national insurance system cannot be beaten for cost, and others saying that even a privatized system should use the national insurance data-processing centre in Newcastle to collect premiums in a single batch from employers and then farm them out to the relevant pension or Fortune Account providers. However, electronic systems do promise the chance of reducing costs considerably in this part of the process, and the lessons of Chile's experience with new payment collection software and hardware will be instructive.

Benefit rules

Pensions. Affiliates reaching the legal retirement age (65 for men, 60 for women) are entitled to take out a retirement pension, though they are not obliged to do so.

There are three ways of drawing the pension on retirement.

Run-down. First, the retiring affiliate may keep his or her individual account in the AFP, and draw it down according to an actuarially-determined set

schedule. The affiliate takes the risk of running down the balance before death: but the majority of people choose this option, on the grounds that they have other savings they can draw on or family who will provide for them; and should the affiliate die before extinguishing the balance, any unused money can be passed on to family and friends.

Annuity. The second option is for the retiring affiliate to transfer his or her fund to a life insurance company which pays a lifetime annuity. In this case the insurer takes the risk on life expectancy, but there is nothing to pass on when the pensioner dies. Once the annuity contract has been signed, it cannot be revoked.

Deferred annuity. The third option is for the retiring affiliate to contract with a life insurance company to pay an annuity starting at some specified future date; in the meantime, funds can be withdrawn from the individual's fund to produce a regular interim income.

Unrestricted surplus. Whatever route is chosen, if the affiliate can obtain a pension of more than 120% of the minimum guaranteed pension, and more than 70% of his or her taxable earnings over the last ten year, then any surplus balance in the fund is available for discretionary spending.

Early retirement. Early payment of pension is allowed, if the affiliate has sufficient funds to obtain a pension of at least half of his or her taxable income over the last ten years, and a pension at least 10% more than the guaranteed minimum pension set by the state.

Disability and survival. Affiliates losing more than fifty percent of the ability to work are entitled to partial disability pensions, rising to become full disability pensions when two-thirds of the ability to work is lost. The policing of the rules on disability and ability to work comes under the Health Commissions unit of the Superintendency.

On the death of an affiliate, designated dependants (such as the spouse, parents, or children) are awarded survivors' benefits. These are paid out of the affiliate's unused fund and the insurance company responsible for his or her disability premium.

Inheritance. If there are no beneficiaries entitled to survivor's benefits, the balance in the individual's fund simply becomes part of his or her estate, which can be willed to others.

Application to the UK. The UK is already embroiled in a debate about the future of the tax-free lump sum available to pensioners in the private sector. Part of the reason for this is the extra cost and complexity in dealing with different tax treatments of different forms of pension payment.

From an intellectual point of view, allowing people considerable freedom in how they draw their pension is desirable — provided that there is no threat of them using up their fund, and then becoming a charge on the state in future years. It is particularly desirable that people should be able to have some unused balance to pass on to their friends and relatives.

On the other hand, the tax and regulatory compliance on such an open system may add significant costs onto any reformed system. In translating the Chilean system to the UK context, it may be that restricting people to the pure annuity route, requiring people to take out an annuity on retirement, would provide the least expensive way of paying pension benefits and keeping the costs of the system under control.

Voluntary additions

Voluntary savings accounts. The voluntary savings account system was created in 1987 as a supplement to the individual pension account, the aim being to provide affiliates an additional savings vehicle and to help lower-paid workers to save for themselves.

The voluntary savings accounts are quite separate from the individual pension accounts, and affiliates can make regular deposits into them and make up to four withdrawals each year.

Self-employed workers, who may have a fluctuating income stream, can instruct their AFP to dip into their voluntary account to cover their regular contributions to their pension account.

On retirement, affiliates can transfer all or part of their voluntary savings into their retirement fund to increase their pension. On death, any unused voluntary savings balance can be bequeathed to friends and family.

AFPs may apply standard rates of commission on withdrawals or transfers from voluntary savings accounts, but in practice it is never charged.

Voluntary contributions. Another mechanism, voluntary contributions, are a way of allowing people to increase their pension, to retire earlier, or to cover past gaps in their contribution record. Thus an affiliate can deposit more than the obligatory 10% of income into his or her retirement account, up to a certain maximum. These additional contributions are also tax-free.

There is also a mechanism by which employers can boost the pension funds of their employees by a one-off or regular contribution, still free of tax and unlimited in relation to taxable income.

Indemnization savings. There is also a special account, designed primarily for Chile's domestic help workers by which workers can provide to indemnify themselves in the event of the loss of their job and their families in the event of their death. Again, there is special tax treatment of these indemnization contributions.

Recognition bonds

The bond system. The fact that most workers have transferred to the new system has left the state with the burden of continuing to pay the pensions of those currently retired. The state similarly accepts its obligations to those

who have not yet retired but who may have paid into the old system for many years and expect some pension entitlement in return.

The past contributions of the working population are recognized by past service bonds — known colloquially as *recognition bonds* — that are issued to them by the government and credited to their pension account. The bonds pay out when the worker has reached the legal retirement age, or claims a disability pension, or dies. Those choosing to retire early can trade their bonds on the stock market, or use them to buy a life annuity, so releasing some of the value of the bond before retirement.

For the government, the recognition bond principle saves having to pay the pension entitlements of past contributors immediately when they leave the old system and join the new. It has to pay out only when that individual retires. But the state does accept the full value of its obligation. The bonds are indexed to price inflation, and accrue a real annual interest of 4%, capitalized every year.

Cost of the transition. During the first ten years of Chile's pension reform, the state had contributed 4%-5% of GDP towards the payment of pensions and recognition bonds arising out of the old system. Estimates suggest that the average annual expenditure on recognition bonds will be 1% of GDP over the next twenty years, peaking in 2005, when it will reach 1.2% of GDP. Although this transition cost has been high, the government has been able to cover its obligations successfully up to now and expects to do the same in the future.

Lessons for the UK. The recognition bond system has received much acclaim as a way of crystallizing the rights of past contributors in a way that is financially manageable. It ensured that nobody would be left worse off by virtue of the pension reform.

On the other hand, the calculation of the precise entitlement of each person was a nightmare that took several years to complete, and cost a great deal to accomplish.

To a UK that was considering a recognition bond system as part of a plan to move to a funded pension system, the lesson from Chile is clear. A quick and easy estimate of each person's entitlement is better than a long and protracted effort to calculate it perfectly. Few people have any idea what their past national insurance contributions are worth to them, and even actuaries will disagree about the precise figure that is appropriate in each individual case. Standard figures based on age and number of years' contributions should be perfectly acceptable to nearly everyone and provide an instant transfer value for the recognition bond.

Of course, it is worth mentioning that few people think their past national insurance contributions will buy them much anyway — particularly young people. For the youngest workers, the recognition bond could quite reasonably be set at zero: they expect no more, and they have plenty of time to save privately and recoup any loss they might in fact suffer.

One might take the same principle up the age ranges, raising the value of the bond closer and closer to the real average entitlement as people get older. Calculations by Michael Bell in *The End of the Welfare State*²¹ show that, at the age of 47, a single man would still be better off giving up all his past entitlements for the privilege of saving his future NICs on his own behalf. Some of the large mass of people below that age might resent getting only a fraction of their full entitlement, but as a rational matter, they would probably be willing to accept it with little fuss. That saving would make the transition to a funded system much more affordable.

Pension fund investment rules

In order to maintain the financial security of the system, Chile's pension funds are allowed to invest only in a range of instruments specifically identified in the law. These are financial assets on public offer, including government bonds, corporate bonds, convertible bonds, equities, investment fund shares, and foreign stocks and bonds.

The law stipulates that AFP funds are invested not just to produce a minimum yield, but to provide adequate security. A risk rating system allows a yardstick by which everyone involved can judge whether particular instruments are eligible or not on the grounds of riskiness. Private companies work alongside the Risk Rating Commission to evaluate the various instruments.

All dealing involving pension fund assets must take place in specified markets, principally those with open trading systems, ready access to trading information, and transparent and fair rules of procedure. There are ceilings on the total amount which each AFP can invest in particular instruments, groups of instrument, issuers, and risks.

Per instrument. The ceilings on the amount invested in any one kind of instrument are designed to promote diversification in the pension funds' portfolios. For example, no more than 50% of the portfolio can be committed to relatively safe investments such as government bonds, time deposits, and guaranteed securities. The limit on corporate stock is 40% of the portfolio; while the limit on bills of exchange is 20%.

There is a source of confusion about these investment rules which, unfortunately, was repeated in the Adam Smith Institute report *Singapore Versus Chile*.²²

The table published by the pension fund administrators suggests that while the upper limit on what the AFPs can invest in government bonds is 50%, there is also a 35% lower limit. This has led critics to say that the threat of politicization is still strong, and that the reform is a very limited privatization, since the funds have to invest more than a third of their resources in government bonds.

²¹ London: Adam Smith Institute, 1994.

²² London: Adam Smith Institute, 1996.

However, a footnote to the table (which appears on page 39 of *The Chilean Pension System Based on Individual Capitalization*)²³ explains that these are just the range of values within which the maximum investment limit may be set by law. Thus the law says that the regulator cannot set the maximum investment limit for gilts at less than 35% of a portfolio. The limit on gilts can be 35%, or as high as 50%. But if a fund does not want to invest in government issues at all, it does not have to.

Per issuer. There are rules to prevent the over-concentration of a fund's assets in any particular issuer — such as a bank, leasing company, investment fund, or the state itself.

Per specific risks. To limit exposure to particular risk, there are limits to the percentage of a portfolio that can be invested in restricted instruments or those with relatively high risk. There are also limits on investment in real-estate corporate stock, real-estate investment fund shares, and bonds backed by mortgages or by real-estate leasing contracts.

Per group of instruments. There are further restrictions on investments of groups of instruments, such as variable-yield instruments.

Per issuer related to the AFP. The investment limits are reduced when the issuer is related to the AFP.

Evolution of investment limits. In the early days, the AFPs were encouraged to pursue a conservative investment strategy, and the investment limits were designed with that in mind. Thus there was no limit to the amount of government stock they could maintain in their portfolios, and large limits for bonds (60%), time deposits (40%), and shares in other pension funds (20%). But corporate stock was not permitted.

By 1985 there was more confidence, and the funds were allowed to invest up to 30% of their resources in privatized industry shares. Privatization itself deepened the capital market, and from 1986 to 1990 there was greater liberalization and more investment in private company stock and, eventually, in foreign paper.

Reforms in 1995 made the investment limits even less conservative. New instruments were permitted, such as shares in investment funds, convertible bonds, recognition bonds, foreign variable-yield instruments, and unsecured corporate bonds. Hedging operations were permitted, but shareholdings in other pension funds were ruled ineligible.

Relevance to the UK. The Chilean pension funds' investment managers have nevertheless chosen to be quite conservative in their strategy. In particular, even when the restrictions on overseas investments were reduced, there was no great rush to use up the extra latitude. Part of this is explained by the pension funds' relative lack of experience when it comes to foreign investment.

²³ *The Chilean Pension System Based on Individual Capitalization* (Santiago: Superintendency of Pension Funds Administrators, May 1995).

The UK has much more experience when it comes to investment management and it seems likely that the rules here could be a good deal more liberal. Again, we should be looking for regulatory systems that will give investors reasonable security while not imposing large compliance costs on fund managers.

Commission structure

AFPs are free to set their commission at any level within the legal framework. It is assumed that competition will keep prices sharp, and AFPs in fact apply only a small number of the charges they are allowed to apply.

Commissions must be similar for all affiliates of the same AFP, with few exceptions. Some AFPs use a fixed commission, while all apply a percentage commission on the affiliates' eligible income. This market structure gives greatest benefit to lower earners, who receive the same service but pay a lower total price.

Affiliates who are not contributing because they are unemployed, do not pay commissions until they are back contributing again, although they continue receiving the shared yield.

Evolution of commissions. In 1982-83, the AFPs sharply raised their percent-of-earnings commissions in order to cover their costs during a period of economic recession. By 1987, however, a large drop in operating costs allowed a 37% decrease in average costs to customers. Then the rise of competition forced rates down even further, with economic prosperity and rising incomes allowing the AFPs to cut the rates and still raise revenues.

From 1984 heights of 8.7% of taxable income, the average contributor now faces commissions of around only 3% of taxable income.

Customer information

The AFPs are required to provide a great deal of information to their affiliates, presented in a standard form designed by the regulator to allow easy comparison.

Four-monthly statements. In February, June, and October, account holders are sent a summary of their account's movements since the last statement, including inpayments, charges, and balance (expressed both in cash and in shares). This applied not only to the standard pension accounts, but to voluntary savings accounts and severance savings accounts.

Comparative tables. The regular pension fund statements also include two comparative tables, showing the yield for each AFP during the last 12 months and 36 months.

Passbook. Each AFP must provide its affiliates with a passbook which they can ask to be made up as often as they want.

This concept has been criticized in the UK as an anachronism, and in technical terms it is: plastic cards and ATMs can do the same job more cheaply. On the other hand, the passbook has an important psychological role. Many people, particularly pensioners, like to have a tangible record of their savings that they can check any time; and some may even regard them as more trustworthy than their fickle electronic equivalents.

For exactly these same reasons, there is a positive case for obliging the operators of a funded system in the UK to use this same old-fashioned but trusted technology; or at least to give people the option of using it.

Information board. Each pension fund administrator has to set up an information board in each of its offices, explaining:

- the commissions charged;
- background information on the fund (yield, value, portfolio make-up, and daily value of the shares);
- background information on the AFP (subscribed capital, paid-up capital, cash reserve, net worth, names of the directors, etc).

Information brochures. The AFPs must have brochures drawn up using everyday language, and the headings they must contain as a minimum are regulated by the Superintendency.

Legal aspects of AFP operation

Each pension fund administrator can control only a single fund. There is a minimum capitalization, rising as the number of affiliates grows. The equity capital of the AFP has to be kept separate from the fund. AFPs are not allowed to award benefits other than those defined in law.

AFPs can develop subsidiaries to supplement their business, however. The larger AFPs can provide services such as collection and in payment of contributions. Some have started consultancy and investment advice services abroad.

The AFPs are responsible for the management of individual accounts; investing the funds to provide an adequate yield; the award and payment of benefits, and providing information to affiliates and the regulator.

Evolution of the industry

AFP numbers. The system began in 1981 with twelve AFPs, and continued with the same number until Alameda and San Cristobel merged (forming AFP Union) in 1985. In 1983 cash reserves were lowered (to 1% of funds under management), and in 1987 further liberalization reduced the minimum capital requirement.

The aim was to encourage the development of more pension funds, including those managed by trade unions. Between 1986 and 1990 three more AFPs entered the market, although the last of these was wound up in 1991 for not complying with the minimum equity capital rules. In 1992, another six began operating; another three emerged in 1993; and in 1994 one more was created and one of the 1992 group was wound up for failing the minimum capital test.

By May 1995 some 21 funds were operating, though it was commonly accepted that the government's efforts to encourage new AFP formations had produced overcapacity in the market. One of the results of this excess

competition was intensive spending on sales forces, advertising and marketing, which nudged administrative costs back up after they had been falling for some years. Predictably, after more mergers and closures, the number is back down to 15, close to the original number.

Three AFPs dominate the market, the largest of which has about 30% of the affiliates and controls 20% of the funds under management; and alongside these there are many smaller ones, associated with particular industries, unions, or affinity groups. But individual workers maintain complete freedom to affiliate with the pension fund administrator of their own choosing, and to transfer to another without cost.

Relevance for the UK: Affiliates join individually: they are not signed up *en bloc* by their trade union leaders or employers, for example. While it might be thought that such group arrangements might keep down the administrative costs of the system, this principle was specifically considered and rejected in the law.

Not only would such arrangements limit the freedom of individuals to choose their own pension provider — one of the most important decisions they could ever make. More than that, the power which such group deals would give to trade union leaders was too large an obstacle to the smooth working of competition in the new system.

As people in the UK look to Australia's funded pension system, in which the trade unions have a good deal of control, it is perhaps worth reflecting that Chile, after reflection, made a specific decision to keep the system based on individual rather than collective choices.

Associated industries. Alongside the AFPs is a large life insurance sector, contracting with the AFPs primarily for disability and survival insurances. Then there are computer companies, data processing firms, brokers, banks, and other financial institutions which collect contributions or provide other services to the industry.

Wider effects of the reforms

As we have seen, about 60% of Chilean workers are members of a pension scheme. More than a quarter of a million are now receiving old-age, survivors' or disability pensions under the new system. Nearly a million have voluntary savings accounts alongside their pension provision, with voluntary savings totalling over £200 million.

All of this has had significant effects on the savings ratio, the depth and spread of the capital markets, and government budget management. The legal obligation on the AFPs to obtain high but secure yields has spread the same pressure more widely in the market. The funds are actively involved in project and infrastructure financing: indeed, there are specific allowable instruments to enable them to fund corporate development and real-estate ventures, to back new companies, and to invest in public-works companies. They have become an alternative source of finance for growing businesses, and important sources of large project capital in other countries too.

The housing sector has received a particular boost. Pension funds have favoured real-estate investments, and about one-eighth of their portfolio is in mortgage bonds issued by financial institutions — indeed, they hold 60% of the total mortgage bonds on issue.

Insurance has been boosted, partly due to the requirement of the AFPs to take out disability and life insurance cover for their affiliates. The life market has expanded, benefits have increased, and costs have fallen substantially.

Pension funds and the Chilean economy

By Jim Freer

LAIS Newsletter

Chile possesses the region's state-of-the-art wisdom on private pension systems, having made the choice to dismantle a state-run program in 1981 — a bold move at that time in Latin America. Since then, the system has virtually completed its transition from public to private: only the oldest of workers remain connected to the state system. The success of the pension funds, known as AFPs, can be measured in the higher benefits received by their members compared with workers under the old system. A prized bonus of the AFPs, and an impetus for other Latin American countries to replicate the Chilean model, is the pronounced boost to the national savings rate and the stock market.

Contributing to one of the private pension funds has been obligatory since 1983, except for the independently employed and those earning less than the statutory minimum wage. Thus, the state-run system is destined to eventually disappear. The law establishes a fixed contribution of 10% of taxable income to be paid monthly into the fund of the employee's choice, plus a variable amount — on average, less than 3% of taxable income — used to purchase disability and life insurance prior to pension age and to cover the AFP's expenses.

A better return. The number of pensions paid under the new system are still relatively few but they are an improvement on those paid by the previous system. For workers paying into private accounts, which can be moved from one AFP to another, return on investment is a key factor. In 1994, this averaged 18% and for the period since 1981 is above 13%. There is strict legal control over investment policy by AFPs, although regulations are being relaxed somewhat to allow for portfolio diversification.

Catalyst for savings. Pension reform plays a role in the economy that goes beyond the realm of social security. The funds accumulated in the private pension funds amount to more than \$22 billion, equivalent to almost 50% of GDP. This has had an important impact on the rate of savings, spurred the development of the capital markets and made financing available for new investment. Furthermore, the needs of the private pension funds have been an important boost for the insurance sector, both in its size and sophistication.

Room for foreigners. Foreign investment is prominent in the ownership of Chile's AFPs, most notably in the majority stakes held in four funds. These are the Interamericana group in AFP Union (99.9%), the Santander group in AFP Bansander (99.9%), the French insurance group AGF in Proteccion (59.9%) and Aetna in Santa Maria (52.1%). An important minority stake is that of the Chase Manhattan Bank (22.31%) in AFP Provida, Chile's biggest private pension fund.

The locally owned AFPs can be divided into three types; those owned by one or more of Chile's economic groups, those owned by a specific sector such as the organization representing the construction sector, which runs AFP Habitat, and those formed by trade unions principally for the use of their own workers. Almost all of Chile's main economic groups have some stake in a private pension fund.

Chile's pension funds and capital growth

By Jim Freer

Latin Finance

Latin America will no doubt still be vulnerable to financial crises during the opening years of the 21st century. But by then, several of the region's major nations are hopeful that their young private pension systems will be providing their capital markets with much-needed cushions against downturns and resultant retreats by foreign investors.

Chile's new strength

"One of the most important things about our [privatized pensions] system is that it provides depth to our capital markets," says Albert Cussen, general manager of Provida SA, Chile's largest private pension fund with 1.6 million members and \$5.5 billion in assets.²⁴

Julio Bustamante, superintendent of Chile's *Administradora de Fondos de Pensiones* goes an extra step, saying: "In Chile, pension funds established the capital markets. In five years, I am confident that several other nations will have successful systems".

It is hard to dispute Bustamante, based on the results of the pension programme Chile established in 1981. The system, which is mandatory for all new workers, provides cash savings for workers who converted from the government's pay-as-you-go system. By July 1995, Chile had 18 pension funds (AFPs) with total assets of \$25.2 billion. Chile's savings rate has zoomed from 9.4% of GDP in 1982 to 25% last year. Its private pension system has generated an average annual return of 14%.

Chile's capital markets have grown in tandem with the pension system. The number of companies listed on the *Bolsa de Comercio de Santiago* increased from 228 in 1985 to 279 last year. Market capitalization on that exchange grew from \$2 billion in 1985 to \$68 billion in 1994.

During the same period, the number of listed companies on the major exchanges of Argentina, Brazil, Colombia and Venezuela declined, although market capitalization grew sharply in each country. According to pension industry officials, many small public companies in those nations failed or were forced to merge with larger companies because they lacked a base of domestic investors and/or were unable to attract foreign investors. Chile has turned that scenario around because its pension system provides mid-size companies access to local capital.

²⁴ As at May 1995, when this was written.

"Chile is now basically independent," says Paul Craig Roberts, an economist and fellow at the Institute for Political Economy in Washington, DC. "It has such a huge pool of private savings that it doesn't need any foreign investment. I think this will help it attract even more foreign investment, particularly as it continues to privatize major industries."

"The number of companies trading in Santiago has grown enormously, and it has not just benefited the Chilean market, but also our neighbouring countries," reports Provida's Albert Cussen. "We have been able to invest abroad by financing Chilean companies that are operating in other countries."

According to Chile's Foreign Investment Committee, overseas investment by Chilean non-financial companies grew from \$15 million in 1990 to \$411 million in 1993 and \$865 million in 1994. A large share of those investments are being made by Chilean companies who owe their domestic growth primarily to investments by private pension funds.

Energy companies and telecommunications firms are prominent among these "non-financial investors," according to Eduardo Moyano, president of Chile's Foreign Investment Committee. About 50% of those investments are in Argentina and about 20% are in Peru.

"These (Chilean) companies are in good financial positions and many of them have a good know-how in privatization," Moyano reports. "It's not strange that they are going to Argentina to participate in the privatization of energy and communications companies. They understand the country, and their cost of money is lower because they can borrow in our local market and then invest in a neighbouring country."

New regulations

Long-standing rules permit Chilean pension funds to invest a maximum 3% of assets in foreign countries but bar them from buying foreign equities. Last year, Chilean regulators prepared regulations to raise the foreign investment limit to 9% and permit funds to invest up to 4.5% of assets in investment-grade foreign equities, including American depository receipts.

Cussen anticipates that Provida could reach the 4.5% limit within two years. "We will be in many Latin countries that have ADRs, and there could be some attractive opportunities in Colombia," he said.

Edward Monahan, Price Waterhouse's director of Latin American pension advisory services, based in Arlington, Virginia, said this change is an example of how Chile has "selectively and judiciously" loosened its investment rules. He said that fund managers in Latin nations need time to develop skills that are required when they "go down the risk ladder" and assess smaller companies that have been overlooked by institutional investors from the US and other major countries.

In Chile, those pension funds have become what Monahan calls "the local repository for investor knowledge." At some point, foreign institutional investors could become significant investors in second-tier firms in Chile and other countries. If that kind of market evolves, some observers anticipate that Latin pension funds could help create

a new tier of companies with the capability of diversifying their funding sources and issuing debt on international markets.

Other regional reforms

Argentina introduced its optional-conversion pension system in August 1994. After 11 months, the system had approximately three million members and total assets of just under \$1.5 billion. Argentina's 1995 banking and financial crisis slowed the rate of contributions, although not significantly, according to Carlos Martinez, a partner in Price Waterhouse's Buenos Aires office.

Argentine funds can invest up to 35% of assets in Argentine equities and up to 20% of assets abroad (up to 10% of assets can be in foreign equities). Martinez, whose firm advises private pension plans, said few of Argentina's 25 *administradoras de fondos de jubilación y pensión* (AJFPs) are investing heavily in Argentine stocks or in foreign securities. Most funds are focusing on low-risk instruments, such as fixed-rate bonds.

Peru, which preceded Argentina down the privatization path by one year, has been plagued by a slow rate of conversion from the old system into the new. But in June last year, the Peruvian Congress passed a law that reduces each worker's contribution to the private system from 15% to 11% of salary and raises each worker's contribution in the government-run system from 3% to 11%. The higher cost of participating in the new system had been a detriment to conversions.

According to Lima-based securities firm Godoy & Barclay, Peruvian fund administrators anticipate that the change will lead to an increase from 2,000 to 20,000 conversions per month.

In **Bolivia**, the Ministry of Capitalization has initiated a proposal for a private pension system. The proposed private funds would replace Bolivia's 34 quasi-public funds and become a key part of its capitalization plan. Under this system, private investors can purchase up to 50% of newly privatized companies.

Mexico has been developing its own reforms along the Chilean model would be the Chilean model, where every worker would pay a percentage of his or her income into an individualized account.

The new pension system would replace Mexico's pay-as-you-go programme, under which retirees are financed by current workers. Estimates suggest it might take Mexico between five and ten years to reach a critical mass of \$35b-\$40b in pension assets.

Brazil is considering a partial or full privatization of its social security system.

Colombia is moving forward with a system it implemented in 1994.²⁵

²⁵ This is a mixed pay-as-you-go and fully funded scheme, introduced as a substitute for the old pay-as-you-go system. Income redistribution within the scheme has been made transparent, and pension rights of previous contributors and current pensioners have been recognized. For a complete description of the Colombian reforms, see *Columbia's Pension Reform: Fiscal and Macroeconomic Effects* by Klaus Schmidt- (Washington DC: World Bank Discussion Paper 314, 1996).

The political benefits of pension reform

By Dario Paya

Deputy for the Independent Democratic Union, Chile

I am very grateful to the Adam Smith Institute for giving me this opportunity to learn so much about the Chilean pension system.

You see, when our debate about pension reform was happening in the 1970s, I was in elementary school.

Today, the AFP system is universally accepted (I don't know *anybody* who'd like to change it), and is a fact of life for every Chilean, not a matter of debate or even great political interest.

Still, if you ride in the metro in Santiago you will see a lot more advertising for AFPs than Coca-Cola.

In every carriage you will find six or seven posters for any of the 20 or so AFPs in the market, telling you why you should "cambiarse" (move to a new AFP): "the lowest administrative fee"; "the best investment return after 10 years"; "last month, the highest monthly return in AFP history!"; or simply, "the best service".

People can move up to 3 times a year, so AFPs must always deliver what they promised, or else. Legions of very nice young ladies visit the workplaces making sure that you know what's best for you, and give you the chance of changing AFP immediately "sin moverse de su escritorio" (without leaving your desk).

In one word: a market. So, there's nothing really miraculous about the Chilean system.

Consequences of reform

Let me point to four considerations which I hope will be of interest as you consider the British situation.

One obvious benefit of the Chilean system is the clear advantage of having the pension funds *invested* rather than having the money "under the mattress". Especially when it is a "public mattress".

For Chile in the 1970s, the truth was that, as it is so often the case when it comes to the "public mattress", the money wasn't there anymore. Politicians

can do all sorts of things on a public mattress, the first being to spend any money they might find under it.

So in fact, the money was never there. But, consider the situation if the money was there after all, accumulating, year after year. Would you be at ease knowing that a government, could at any moment think of a "wise" way of spending it?

In Chile, the pension funds amount to 40% of GDP. I wouldn't be at ease, especially after two years being in Congress myself, with letting politicians control that kind of money.

So when considering the Chilean model versus that of Singapore, I would personally choose the former because I would rather have many different funds, privately-managed, instead of one big public mattress with politicians on top of it.

Second, a critical need for small developing nations is investment capital. As I mentioned, the Chilean pension funds are 40% of GDP. More than 50% of those funds are invested in the stock of private companies, private bonds or mortgages. Home building, and indeed the building of the whole economy indeed have a new source of *domestic* financing.

Third, as a conservative elected in a working class district, one of my biggest problems is to explain to people the downside effects of the "tax-and-spend" and regulatory policies of the left — policies which always sound very popular to less well-off people.

Well, now we all have a fund, invested in all sorts of companies, large and small. And when those companies do poorly, because the country is doing poorly, because taxes were raised again, because government spends a little more and regulations strangle the last surviving small company — the fund does poorly. And your pension is hurt. And you've lost money. Your future, your retirement years are being jeopardized.

Instead of long term, abstract macroeconomic considerations, we can relate the effect of high-tax and tight regulation policies directly through the monthly report each worker will get from his AFP.

Finally, I think it is fair to say that not even Marx could have seriously dreamt the extent to which the largest companies in Chile would now belong to Chilean workers, through AFPs. This makes the preaching of class struggle much more difficult, and the old debate over who owns wealth — a debate which the left in my country formerly tried to settle with guns — a thing of the past.

Other ASI publications on welfare reform

The Fortune Account by Eamonn Butler & Madsen Pirie

£12

Individuals should be able to opt out of the state welfare system and into an individual, funded and privately managed *Fortune Account*.

Singapore v. Chile: Competing models for welfare reform £18
by Eamonn Butler, Mukul Asher & Karl Borden

Examines the funded *Fortune Accounts* of both countries and calls for UK reforms which would combine the best elements of both systems.

The end of the welfare state £25
by Michael Bell, Eamonn Butler, David Marsland and Madsen Pirie

Calls for new and imaginative thinking in welfare with the provision of private lifetime savings accounts and the separation of the insurance and savings functions.

Needs reform; The overhaul of social security £15

Replace the current welfare system with an internal market, similar to the health and education reforms, in which private agencies compete to distribute benefits efficiently, using innovative techniques.

What's wrong with the welfare state? £15
by Eamonn Butler and Matthew Young

Examines the faults of the current state pay-as-you-go welfare system and concludes that reform must be implemented in the form of individual saving and insurance.

Over to you £10
by John Willman, Stephen Pollard, Bernard Jenkin MP,
Madsen Pirie, Eamonn Butler & José Piñera

Policy experts from both left and right agree that the welfare state cannot survive without much needed reforms. The remedy: *The Fortune Account*.

A friend in need: Based on an idea by Frank Field MP £10
by Timothy Evans

Opt out of state unemployment insurance and into private provision through friendly societies or commercial insurers. The report examines how friendly societies might work.