



# Private Pension Provision: What an Ageing Europe Can Learn from a Latin Tiger

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## **Executive summary**

Although few people deny that European pay-as-you-go (PAYGO) pension systems are in crisis, reform debates seldom go beyond marginal changes. In European political debates privatisation and full funding are usually objected to both on economic and on moral grounds. This paper describes Chile's privatised, funded system of old-age provision with the purpose of illustrating why personal retirement savings accounts are preferable to European pay-as-you-go systems in both regards. Chile is an excellent showcase not only because it represents the purest example of the move from the latter to the former, but also because it has been in place for long enough to provide a good evidence base.

Chile's system came into being under difficult conditions, but it has produced high and stable returns, and boosted investment, employment and capital market development. It could work even better if regulation of investment, industry structure, price and contract structure were reduced, and if more people were included. When inherent features are analytically separated from accidental ones, it takes only a small step to show how the Chilean experience can be applied to Europe and its lessons learned.

Correctly implemented, privately administered personal retirement accounts are profitable, stable and financially secure. The transition requires fiscal and monetary discipline, but it is manageable. Pension privatisation worked well in Chile, and it could work even better in Europe, because Europe already has sophisticated capital markets and strong institutions in place.

But if Europe wants to benefit from the Chilean experience, it has to question its inherited Bismarckian world view which sometimes confuses state dependency with 'solidarity' and 'social justice'. Instead, a key benefit of personal retirement accounts is that they turn every citizen into a property owner. Widespread ownership of capital assets grants people personal autonomy and control, while PAYGO systems make them dependent on government handouts. Pension privatisation is thus not a necessary evil forced upon us by an adverse demographic development, but a great emancipatory project for the European citizens of the future.

This paper is in favour of the Chilean pension reform project. It must on no accounts be confused with a defense of the military regime that reigned during this period, or be viewed as sanctioning the human rights abuses that were committed.

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“Consider the difference between a private attendant and a court servant. The latter will put up with much more, for he has a pension to expect.”  
-Otto von Bismarck (1881)

“You are absolutely right, general. If this reform is approved, a giant step into the direction of reducing state power will have been made.”  
-José Piñera (1980)

This paper will explain how Chile replaced its public PAYGO<sup>1</sup> pension system with personal retirement saving accounts in 1981, how this new system has evolved since then, and how it could be further improved. Inherent and accidental features will then be analytically separated, so as to address the question of transferability to Europe. Finally, the paper suggests an answer to the question why, despite the merits of personal retirement accounts, PAYGO systems are still the dominant solution in Europe.

## Background

Prior to 1981, Chile’s public pension system had appeared unreformable for decades. Some 32 different occupation-related pension schemes had administered around 150 different entitlement programmes<sup>2</sup> and were overseen by a legal body of 600 institutions.<sup>3</sup> These schemes, known as *cajas*, differed in most key variables, benefits not necessarily bearing a relation to efforts. Affiliates of the largest *caja* paid contribution rates of 23.2%, and each year of working increased their pension entitlements by 1 percentage point. Affiliates of the third largest *caja* paid 16%, and each working year increased their pension by 3.3 percentage points.<sup>4</sup> Benefits were determined by the political process but paid from a common pool, so the formation of vested interests was heavily encouraged. Early retirement options in particular became a popular election promise. Bank employees could retire after 25 years. In the *cajas* covering personnel of equitation sports, retirees in their thirties could be found.<sup>5</sup>

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<sup>1</sup> In this context, pay-as-you-go or PAYGO denominates a pension system in which all benefits are paid from current revenues, so that effectively the economically active support the retirees. In a funded pension system, in contrast, people build up capital reserves during their working lives and use them up after retiring.

<sup>2</sup> Favre et al (2006) p. 11

<sup>3</sup> Arenas de Mesa (2000) p. 12

<sup>4</sup> SAFP-Publications (2006) p. 32

<sup>5</sup> Pinera (1990) p.11

The system was financially unstable. Initially thought to be partially funded, the *cajas* eventually used up their reserves. By the early 60s, capital revenues had sunk to 3% of their income<sup>6</sup>, and remained at such levels. The *cajas* could only meet two thirds of their expenditure by contribution revenue, so the remainder had to be made up from state subsidies. These increased up to 40%, or 3% of GDP, in the PAYGO system's final decade.<sup>7</sup>

Since the 1950s, there had been a broad political consensus that the pension system was being excessively abused by pressure groups, had become burdensome and bureaucratic, and that it paid low pensions to the bulk of the elderly. These criticisms were repeated by governments from very different political factions, be they right-conservative, Christian Democrat or Marxist. They were also backed by the results of various expert committees installed by these governments, but no majority was ever found for profound change.<sup>8</sup> In 1973, out of political and economic chaos, a military dictatorship emerged. Paradoxically, the *junta* hesitantly accepted advice from a group of liberal economists who were enthusiastic about rolling back state power. These “Chicago Boys” presented various proposals to expand their privatisation policy to pensions, but the *junta* declined.<sup>9</sup> It was only when José Piñera took over at the ministry of labour that a true change came within achievable range.

Piñera ended at least the most grotesque abuses practiced by some *cajas* by standardising some key variables such as retirement age and inflation adjustment.<sup>10</sup> But he feared these improvements would likely be reversed by successors and therefore prepared steps to unhinge old age provision from the political sphere once and for all. His proposal for a move towards capitalisation was passed and announced on May 1<sup>st</sup> 1980, but the resistance of social security experts, groups benefiting from the current system, and, unsurprisingly, the majority of the military junta blocked it. September 1980 saw a referendum about a new constitution, which many inside the government viewed as a poll over the market liberal reforms of the Chicago Boys. The result provided the needed back-up. The referendum was accepted with a two thirds majority, so Piñera used the opportunity of the moment and put his reform plan back on the agenda.<sup>11</sup> This time, he got his way.

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<sup>6</sup> Godoy & Valdés (1994) p. 138

<sup>7</sup> SAFF Publications (2006) p. 35

<sup>8</sup> Godoy & Valdés (1994) p. 137ff

<sup>9</sup> Acuña & Iglesias p. 433

<sup>10</sup> Piñera (1990) p. 13

<sup>11</sup> Piñera (1990) p. 32 ff

## The Transition

The decree which laid the foundation for the new pension system was finally passed in November 1980 and was to come into effect six months later. The main actors in the new system would be private pension fund administrators, who could already be set up but not yet engage in any business transactions. The principal task of these *Administradoras de Fondos de Pensiones*, or *AFPs*, was to be the development of an investment plan, and the management of personalised savings accounts belonging exclusively to their clients – not to the *AFPs*. They were prohibited from engaging in any other commercial activities, and required to organise disability and life insurance for their clients, via a group contract with a life insurer. A regulatory watchdog with partial autonomy, the *Superintendencia de AFP*, was created.

It was decided that nothing should change for those who had already retired, while new entrants to the labour force were obliged to join an *AFP*. Current contributors were given a choice. They could either remain in the old system under unchanged conditions; the existing *cajas* were merged into a single organization, the *INP*, but stayed in place. Or they could switch to an *AFP*. In this case, their already accrued entitlements were quantified by a standard formula and paid out to them in the form of a non-tradable so-called recognition bond, due upon retirement. This created a transition deficit.

The transition phase was overshadowed by a number of other difficulties. A capitalisation scheme requires sophisticated capital markets, or at least risk rating agencies, bond custodians and an insurance sector, all of which were underdeveloped in Chile. For the transition phase, a governmental risk classifying committee was set up, and bonds were deposited with the Central Bank. Both tasks have gradually been passed to the private sector. The insurance sector was liberalised and oversight was tightened<sup>12</sup>, so that it could grow alongside the *AFP*-system.

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<sup>12</sup> SAFP Publications (2006) p. 44

## The AFP-System<sup>13</sup>

Today, a Chilean employee is obliged to deposit 10% of monthly gross earnings, up to an earnings ceiling, into a personal retirement account run by an AFP of his or her free choice. This contribution, as well as additional voluntary pension savings up to the same ceiling (APV), is tax exempt. Currently, six AFPs are competing in the market, each of which offers five types of pension funds. These are arrayed by risk and return, A-Funds can contain up to 80% of instruments with variable returns, B-Funds up to 60%, and so on, E-Funds being composed exclusively of fixed-return assets. Workers aged under 55 can choose any fund they wish, older workers become ineligible for A-Funds and retirees for B-Funds. AFPs charge a wage-related fee which pays administrative expenses and pays for disability and survivorship insurance. A retiree can choose to retain his AFP-account, purchase a lifetime annuity from a life insurer, or combine both options. A time-deferred combination, in the sense that a retiree chooses an annuity that begins at some distanced future point of time and lives from his AFP-savings until then, could be interpreted as an insurance against surviving one's own retirement resources.

The results have been impressive. In the last 25 years, AFPs have earned annual real returns of 10% on average. Financial market volatility has not been a major problem because AFPs have continuously diversified their portfolios. In 1983, 97% of all AFP-assets were invested in government bonds and saving products of the domestic banking sector. Today, this share is down to 40%, while 28% are invested in shares of domestic private firms and 32% abroad. Gradually, the capital market has grown in size and diversity, investment possibilities open to the AFPs have been liberalised, and AFPs have made use of these opportunities. Neither the Mexican nor the Argentine crises have been able to do serious harm to the pension funds, and neither have turbulences in the pension market itself. The number of AFPs had risen from 12 in the late 1980s to 21 in the mid-1990s and then dropped back to 6, but workers accounts have not been affected. Initially, an AFP had cost almost 2.9% of a workers monthly gross wage, and the mentioned group insurance another 2%. Today, both figures have about halved. AFP-pensions today are about 25% higher than INP-pensions<sup>14</sup>, although AFP-contributions are 6-8 percentage points lower. Apart from providing high and stable pensions, the reform has also produced a number of great economic side effects.

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<sup>13</sup> Unless indicated otherwise, the information in this chapter is taken from SAFF (2007) and AFP-AG (2007)

<sup>14</sup> Larrain Rios (2005)

## Pension Funding and Private Savings

Economic theory suggests that moving to a funded pension scheme will permanently raise the level of savings and investment.<sup>15</sup> Indeed, each year, Chileans pay about 4.6% of GDP into retirement savings accounts. But is that really a net increase in the savings rate? Or has the introduction of pension saving simply squeezed out other types of savings?<sup>16</sup> Bennett et al (2001) and Coronado (1997) have econometrically modelled private saving behaviour in Chile, to examine whether a substantial offset has occurred. Neither has found reliable evidence that it had.<sup>17</sup> <sup>18</sup> 'Saving' is not a monolithic block, but serves specific purposes. It is unlikely that reserves intended for, say, the purchase of a car, will be liquidated to be transferred to a pension account. Corbo and Schmidt-Hebbel (2003) have shown that about half of the new savings have translated into additional domestic investment, thus enhancing economic growth.<sup>19</sup>

## The Transition Deficit

A commonly heard argument against a reform such as the Chilean one is that it necessarily produces a transition deficit. One generation, it is argued, pays twice. They must save for their own retirement, and support the retirees of the old system through their taxes.

This argument deserves a closer look. What is actually meant by "transition deficit" is the process of transforming a debt hidden from government accounts -the promises made to future retirees- into a visible debt. This creation of public awareness is likely to exercise pressure upon political decision makers to reduce spending and sell off assets. In this way, the transition deficit might have an inbuilt self-containing mechanism. While that effect is, of course, not measurable, the Chilean case makes it at least plausible to assume that it plays a significant role. In 1981, a transitory tax on income of 3% was introduced, but it decreased automatically by one percentage point each year and thus disappeared in 1984.<sup>20</sup> There was also a global budget deficit in the five years following the reform, but it was succeeded by

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<sup>15</sup> See for example Homburg (1988) p. 57

<sup>16</sup> Orszag & Stiglitz (1999) p. 9-12 have claimed such an offset could occur.

<sup>17</sup> Bennett et al (2001) p. 69-72 model voluntary household savings as a function of a number of explanatory variables, including mandatory pension savings.

<sup>18</sup> Coronado (1997) examines whether there is a significant difference between voluntary household savings of AFP-affiliates and non-affiliates when controlled for other factors.

<sup>19</sup> Corbo & Schmidt-Hebbel (2003) p. 8-15

<sup>20</sup> Piñera (1990) p. 27

twelve years of budget surpluses.<sup>21</sup> While it is unknown how taxes and debt would have behaved in absence of pension reform, at least they have not generally increased. In contrast, government expenditure contracted. Its share of GDP was 32% from 1974-84, but 25% from 1985-99.<sup>22</sup> The period from 1985-89 also experienced the greatest wave of privatisations in the regions' history, comprising predominantly areas such as telecommunications and electricity. Government assets worth 7% of Chilean GDP were sold off<sup>23</sup>, more than twice the relative scope of British privatisations in the Thatcher era.

## **A Model for Economic Transformation**

One target of the 1985-89 privatisations was to spread property ownership throughout society, in order to make the market reforms of the previous years irreversible. A programme named *Capitalismo Laboral* encouraged workers to purchase shares in their own company, which turned 30,000 workers into co-owners of their own workplace.<sup>24</sup> Another programme named *Capitalismo Popular* favoured small investors and turned 170,000 Chileans into shareholders. But it was the sales to the AFPs, denominated *Capitalismo Institucional*, which transformed 3 million workers into small-scale capitalists. Thus, 18% of all privatised assets were directly purchased by AFPs.<sup>25</sup> Investment in the affected companies soared. Until 1990, the number of telephone lines in use almost tripled, and energy production went up by a third.<sup>26</sup>

There are reasons to assume that the pension reform had its share not only in encouraging these privatisations (as explained above), but also in explaining its tremendous and lasting success. The quality of Chile's judicial institutions was still mediocre even by Latin American standards in 1985.<sup>27</sup> In the absence of sufficiently developed legal institutions, privatisations are often vulnerable to abuse and self-enrichment.<sup>28</sup> The involvement of expert investors representing millions of people might have been a strong check which enforced greater transparency. Pension funds are also an efficient means of raising a large enough stock of

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<sup>21</sup> de Gregorio (2004) p. 19

<sup>22</sup> Larrain & Vergara p. 80ff

<sup>23</sup> Hachette (2000) p. 134 & *Libertad y Desarrollo* (2005) p. 12

<sup>24</sup> Larroulet (1994) p. 11 & 41

<sup>25</sup> Marcel (1989) p. 33

<sup>26</sup> Sanchez (2005) p. 32-35

<sup>27</sup> See Fraser Institute (2005) S. 67. The Fraser Institute annually computes an index named Economic Freedom of the World. It is composed of various sub-indexes, one of which measures the quality of legal institutions and the prevalence of the rule of law.

<sup>28</sup> See, for example, Stiglitz (2002) p. 136-145

potential investment capital. In 1985, AFPs already had accumulated assets worth 10% of Chile's GDP, a figure that rose to 20% in 1990.

But most of all, sales to private pension funds established a nation of property owners, a stabilizing factor in the new market economy. This idea can best be illustrated by comparing Chile to Venezuela, which had for a long time been regarded as Latin America's success story. In recent years, exactly those sectors privatised in Chile in the 1980s have been nationalised in Venezuela. Such a roll back would be impossible in Chile, re-nationalisation of these sectors would imply expropriating the retirement funds of millions of workers.

## **Labour Markets**

PAYGO systems and funded schemes differ substantially with regard to their effects on labour markets. Social security contributions are mostly perceived as a tax, and taxes on labour discourage work.<sup>29</sup> The same is not true for pension savings, because people pay them into their own accounts, which is, to themselves.

There is a second effect. In a transition country such as Chile, the labour market (as in the economy as a whole) is usually divided into a formal and an informal sector. Lacking legal security, these "extralegal sectors" will tend to be less productive. Cutting taxes on formal employment will lower incentives to tax-evading informal employment. Some people will switch from the informal to the more productive formal sector, changing the composition of the economy in favour of the latter.<sup>30</sup> Pension privatisation can thus increase employment and labour productivity at the same time.

Some have argued that a PAYGO system, too, could be designed in such a way that efforts and rewards were closely connected, so that people would perceive their contribution rates as a quasi-investment and not as a tax.<sup>31</sup> In that case, there would not be a negative effect on labour market participation. But the true reason why PAYGO contributions are not really distinguishable from a tax is that their contributors do not acquire property rights, which

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<sup>29</sup> James (1998)

<sup>30</sup> Edwards & Cox Edwards (2002) p.22 - 28

<sup>31</sup> Orszag & Stiglitz (1999) p. 23-26

they could contractually enforce. Their entitlements are a mere promise of a diffuse nature and will only be made concrete through the political process.<sup>32</sup>

Edwards and Cox Edwards (2002) have found empirical evidence for a positive effect of the pension reform on formal employment. They developed a model simulation of Chile's labour market, dissecting the components determining its shape. Expanding this model, Corbo and Schmidt-Hebbel show that the pension reform has increased formal employment by 3.2% under the most pessimistic assumptions and by 7.6% under the most optimistic.<sup>33</sup>

A privatised pension system can be combined with a means-tested minimum safety net, a much more efficient and transparent instrument to combat old-age poverty than the redistribution inherent in a PAYGO formula. PAYGO systems tend to redistribute large amounts of money, but the distributional net effects are opaque. A tax transfer, in turn, can be a targeted instrument, exclusively directed to the focus group of those who fall below a certain income level. In Chile, there are two types of old-age income supplements, a minimum pension guarantee for people who have contributed for at least 20 years and still fall below a certain level, and a non-contributive assistance pension that ensures subsistence to the poorest. Old age poverty has fallen from 30% in the late 1980s to less than 10%<sup>34</sup>, whilst both forms of payments to the old poor cost about 0.5% of GDP<sup>35</sup> combined. This is much less than government subsidies to the old system pension system. Spending efficiency could be even greater if these two instruments were integrated into one.

## **Capital Markets and Productivity**

Financial institutions represent a very special economic sector. The ability to channel capital to those points of use where it is most productive is a prime determinant of a nation's productivity. Pension privatisation can be expected to be a great stimulus for capital market development. Demand for diverse long-run saving products increases, and professional institutional investors come into play. Chile's development in the last quarter-century seems to confirm this intuition. Capital markets have greatly expanded in size and diversity. In the early 80s, banks were practically the only actors in Chile's capital markets. Today, a wide

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<sup>32</sup> Booth (1998) p.4

<sup>33</sup> Corbo & Schmidt-Hebbel (2003) p. 15-19; p. 33

<sup>34</sup> Soto (2005) p.5

<sup>35</sup> AFP-AG (2004) Publications p.6

variety of institutions such as mutual funds, real estate funds, infrastructure funds, and, of course, the AFPs themselves, have emerged.<sup>36</sup>

Alongside, the nature of economic growth has changed. Economies grow if the amount of labour or the amount of capital grows. But the most decisive long-run source is so-called Total Factor Productivity (TFP), the efficiency in the interplay of the two factors. TFP-growth has virtually been nonexistent in the past, but became a major source of economic growth after the mid-1980s.<sup>37 38</sup> This is the major change that has occurred in recent Chilean economic history.

A good measure for the degree of capital market development is the Financial Intermediation Ratio (FIR), the sum of the most relevant assets traded in financial institutions. Corbo and Schmidt-Hebbel have found econometric evidence that the pension reform has greatly raised FIR, and that FIR has greatly raised TFP. An increase in TFP directly translates into an increase in economic growth.<sup>39</sup>

## **Proposals for Improvement**

### Investment Liberalisation

The range of investment possibilities permitted to the AFPs has been continuously liberalised, and their portfolios, very simple in the early years, have become more and more sophisticated over time. But still, governmental regulation continues to be an obstacle. There are almost 100 specific investment ceilings.<sup>40</sup> Berstein and Chumacero (2005) have estimated the cost of investment regulations by simulating how AFPs would have behaved without them.<sup>41</sup> AFPs would have invested far less in domestic bonds, more in domestic shares, and far more in foreign instruments. Returns would have been more volatile, but generally higher. The authors' conclusion is that investment regulation is equivalent to an annual wealth tax of 5%.

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<sup>36</sup> Hernández & Parro (2004)

<sup>37</sup> Gallego & Loayza (2002) p. 42ff

<sup>38</sup> Fuentes et al (2006) p. 124ff

<sup>39</sup> Corbo & Schmidt-Hebbel (2003) p. 24-34 model FIR as a function of pension savings and TFP-growth as a function of FIR, controlling for a host of other variables respectively. The pension reform explains 31-46% of the increase in FIR, FIR explains 32-57% of the increase in TFP-growth.

<sup>40</sup> Berstein (2006)

<sup>41</sup> Berstein & Chumacero (2005) p. 9, 12 & 19 compute an "investment function" imitating AFP's decisions ex post, with the given regulations. Then, they apply the function to an environment without regulation.

Of all restraints, the most burdensome one is that AFPs must invest at least 70% domestically, while domestic markets have grown too tight. Within most funds, foreign assets yield higher returns than the domestic counterparts.<sup>42</sup> Investment ceilings should be entirely abolished. There are various indices in financial market econometrics to measure the degree of diversification in a portfolio. The SAFP could simply choose one of them, and decree a mandatory minimum value that would apply to domestic and foreign investment alike.

An indirect investment regulation is placed by the return band: if the return of an AFP undercuts the average return of all other AFPs (within the same fund category) by a certain percentage, and for a certain time, the AFP must pay their clients the differential out of its own patrimony. If returns exceed the average return of all other funds, the AFP has to store that excess in a fluctuation account. This measure provides an incentive for all AFPs to closely follow their competitors in their investment decisions. Product diversity is modest, all AFPs offer very similar portfolios.<sup>43</sup> The return band should be abolished.

#### A further round of privatisations

If the greater freedom to invest is to fully develop its potential, sufficient investment options must be available in the domestic market. One of the most positive experiences in recent Chilean history has been the interaction of privatisations and pension savings. New capital has been channelled into vibrant economic sectors, and millions of workers have gained their share in the nation's economy. There is every reason to learn from this past success story and to repeat it. State-owned enterprises still contribute around 9% to Chilean GDP.<sup>44</sup> Hachette (2000) has identified a large number of potential candidates for privatisation.<sup>45</sup> In particular, CODELCO, the state copper company, could be an interesting case. The privatisation of natural resources is a highly controversial topic in contemporary Latin American politics, re-nationalisations have already taken place in Venezuela and Bolivia. The notion that those resources should not be privately owned because they rightfully belonged to 'the people' has become a common phrase. Chile could introduce a new argument in this debate if 'the people', more precisely: concrete individuals, in their role as pension savers, could hold actual and enforceable property titles to these resources.

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<sup>42</sup> SAFP publications (2006a) p. 2

<sup>43</sup> SAFP (2006) Statistics

<sup>44</sup> Schmidt-Hebbel (1998) p. 19

<sup>45</sup> Hachette (2000) p. 148

### Competition between industry structures

The development of a new industry is by necessity a search process. It cannot be known in advance which particular activities are better integrated into one supplier, and which are better split among various suppliers. It is exactly this search process which has never taken place in the Chilean pension fund industry. AFPs have never been permitted to either become active in any other business, or to delegate one of their principal tasks to a subcontractor. Many activities of other financial institutions, such as banks, are akin to those of the AFPs. In a reassignment of tasks between these institutions, a large potential could be hidden.

A side effect of the current prohibition of experimenting has been an increasing concentration of the pension fund industry since the mid-1990s. The number of AFPs has dropped from 21 to 6, and although profit rates have been 28% on average over the mentioned time span<sup>46</sup>, not a single new entry has been recorded. Some have argued this was necessary to exploit economies of scale. Large AFPs are cheaper than small AFPs.<sup>47</sup> But a closer look at the AFP's cost structure shows that economies of scale exist only in the cost of marketing, not in the actual management of pension funds.<sup>48</sup> And if related financial products such as other types of saving accounts could be marketed, unit costs of marketing would most likely be lower. In other words, forbidding AFPs to expand in scope forces them to expand in size. The pension industry is excessively concentrated, and at the same time less efficient than it could be. The business area of AFPs should be open to banks, mutual funds and insurance companies, and the same should apply vice versa. Integrated, specialised and all sorts of mixed solutions should be allowed to compete with one another. Companies should be allowed to set up alternative pension plans for their employees, subject to the same oversight as open funds. Security of funds need not be endangered if pension funds are held under separate custody.

### Higher participation

About 60% of the Chilean labour force are covered by a formal pension system, most of them by an AFP, less than 3% still remaining with the INP.<sup>49</sup> This figure must be interpreted with great caution. Mandatory contribution does not apply to the self-employed, who

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<sup>46</sup> SAFP (2006)

<sup>47</sup> SAFP Publications (2006) p. 111

<sup>48</sup> Valdés Prieto (2005) S. 4

<sup>49</sup> Iglesias & Paredes (2004) p.17

represent about 28% of the labour force.<sup>50</sup> Subtracting them, coverage is about 80% of the remaining labour force. This latter number, too, must be further disaggregated. Of the formally employed, which is, of workers with a labour contract, 94% are covered.<sup>51</sup> Lack of coverage is thus not a universal phenomenon, but a problem largely limited to two clearly definable groups, the self-employed and the informally employed. Any remedies must hence be tailored to these groups.

Lack of coverage among the self-employed is a problem because this group does not show alternative mechanisms of old-age provision, as surveys reveal.<sup>52</sup> Berstein et al (2006) have proposed an interesting solution, based on the observation of a behavioural “status-quo-bias”: For US (401)-k pension plans, participation rates have been compared between two coverage regimes. In some companies, newly hired employees were not automatically enrolled but could join anytime. In others, new entries were automatically enrolled, but could leave anytime. One should expect equal results. But in reality, coverage rates were 37% in the first and 85% in the second type of company. Related studies controlling for other factors corroborate these findings.<sup>53</sup> Berstein et al propose to reverse the decision process. The self-employed could be automatically enrolled to an auctioneered AFP, which they could of course change at any time. They could choose to quit entirely, but this would require an active decision on their part.

The second determinant of coverage gaps is informality. About 28% of the labour force show informal occupation patterns.<sup>54</sup> Bureaucratic hurdles to legal economic activity, be it for entrepreneurship or for contractual employment, are still higher in Chile as against the OECD average. The cost of legally setting up an enterprise is 12% of an annual average wage, compared to 1% in the USA. An indicator for labour market flexibility, ranging from 0 (complete flexibility) to 100 (complete inflexibility), evaluates Chile with 29 points when it comes to terminating an employment and with 65 in the negotiation of working conditions (USA: 5 and 29).<sup>55</sup> A minimum wage of 40% of an average wage<sup>56</sup> also has its share in driving people into informality. As an emerging economy cannot cope with legal burdens in a way

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<sup>50</sup> Berstein et al (2006) p.3

<sup>51</sup> Arenas de Mesa, Behrman & Bravo (2004) p.13-15

<sup>52</sup> Berstein et al (2006) p.9

<sup>53</sup> Madrian & Shea (2001) quoted in Berstein et al (2006) p.16f

<sup>54</sup> Albagli, Garcia & Restrepo (2004) p. 30

<sup>55</sup> Fuentes & Mies (2005) p. 21-23

<sup>56</sup> Albagli, Garcia & Restrepo (2004) p. 29

OECD-countries might, further legal reforms should reduce them to far below OECD-levels. This would clear the way for a massive entry into the formal economy.

#### Competition between contract and price structures

Nation-wide surveys have revealed that most AFP-affiliates are totally unfamiliar with key variables of AFP-savings. Only about a fifth could correctly (=within +-20%) name their own account balance, or the number of funds per AFP. No more than 16% knew their own type of fund, and the monthly price of their own AFP is practically unknown.<sup>57</sup>

In the area of old-age saving, a large variety of contractual types are imaginable, but only individual contracts are legally permitted. Individual contracts are one possible solution, but group contracts organised by an employer for his employees, or by a union for its members, might be preferred by some, and so might group accounts. The right to contract an AFP should be expanded to companies, unions and other voluntary organisations. Workers who feel insecure with the AFP-system could leave the choice to somebody they trust, while those willing to organise their pension savings by themselves could, of course, go on doing so. Combinations are imaginable, some workers might find it convenient to participate in a company account for mandatory savings, and run an individual account for voluntary pension savings.

Together with the rigid contract structure, the rigid price structure should be liberalised. AFPs should be able to charge fixed prices, grant group discounts, discounts for permanence, and other offers. The SAFP should require unmistakable contractual clauses for the withdrawal from a group contract or account, and ensure nobody is defrauded of his accumulated funds.

#### **Summary: What are the Results, and Why?**

Altogether, it can be concluded that the Chilean pension reform has been a courageous experiment that produced impressive results. Out of adverse starting conditions, such as underdeveloped capital markets and mediocre legal institutions, and without any model of reference, a surprisingly well functioning system has emerged. For a quarter of a century, AFPs have provided high returns, not in each single year, but with quick recoveries from

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<sup>57</sup> Arenas de Mesa et al (2006) p.17-21

backslides. Stability has been another chief merit, with neither a case of major fraud, nor with a 'Chilean Enron' having taken place. The pension reform has raised economic growth via various channels, it demonstrably exercised a positive impact on savings and investment, on employment and formalisation, and on financial deepening and Total Factor Productivity. There is less hard evidence, but good reasons to assume that it has greatly facilitated the privatisation project of the 1980s.

In other areas, results are mixed. Workers have greater freedom of choice than any PAYGO-system can provide, but a highly concentrated pension industry with enormous profit rates and poor product diversity has developed. More people are covered today than in the early 80s, but similar rates had already been achieved in the early 70s, so the AFP-system has no clear advantage over the old system in this regard. Many people feel insecure with key variables of old-age saving, so it is not surprising that some surveys show a strong public discontent with the AFP-system.

Positive and mediocre results have in common that they are no random phenomenon, but consequences of a specific implementation and/or of a specific sequence of companion reforms. To each point, entirely different scenarios are imaginable:

- Prolonged high returns have been possible because financial markets have continuously deepened, because AFP-investment has been continuously liberalised, and because AFPs have made actual use of their opportunities. Without an adequate regulatory framework and high-quality institutions, establishing, for example, clear bankruptcy procedures, a Chilean-type pension reform is doomed to instability. Without investment liberalisation, it would be doomed to low returns. But both conditions given, private schemes are more stable than state PAYGO. The risk of politicians withdrawing pension revenue for other purposes is eliminated, and international diversification makes pensions less dependent on domestic business cycles.
- High reliability has become possible because of clear and transparent liability rules. An essential feature has been the strict separation of an AFP's legal estate and its client's accounts. If an AFP would, for example, lend on their client's assets, it would be sued for misappropriation. Ensured by the oversight of the SAFP, this has insulated people's accounts from turbulences in the AFP-market. If there were legal grey areas in the definition of pension accounts, confidence crises could occur.

- The increases in savings and investment, and the reasonable handling of the transition deficit, have been rendered possible by strict fiscal and monetary discipline, and by a thorough drawback of the state from its entrepreneurial role. It is to his lasting merit that then-Finance Minister Hernán Büchi had the will to sell off state enterprises even if they were profitable, and to cut expenditure even when privatisations provided high revenues. The current government should build on Büchi's legacy and initiate a further round of privatisations. Attractive investment opportunities for the AFPs were created, millions of workers were turned into small-scale capitalists, and the deficit was contained by net gains from increased efficiency of the privatised companies. This is by no means a matter of course. If the transition deficit had been financed through increases in taxes, debt, or even inflation, it would have come at a very high price.
- Positive incentives to formal employment have been generated, because allocative and distributive policy targets have been thoroughly separated. In this way, the AFP-system can fulfil its task undisturbed, and redistribution can be performed by a pinpointing instrument at minimal cost. The Chilean arrangement is far better than any mixed system, but it could be further improved. Assistance and minimum pension should be melded into an integrated instrument.
- Concentration in the pension industry is largely a product of an artificially constructed industry structure. Limited by law to the distribution of one single product, minimum efficiency frontiers in many segments of the AFP's cost structure rises. Unable to expand in bandwidth, AFPs are forced to expand in size. Supplementing the existing choice between companies with choice between company categories, the pension business could become a highly competitive industry.
- Moderate coverage rates are a result of exempting the self-employed from pension provision, and of a tenacious informal economy. The latter could be reduced by cutting bureaucratic barriers to legal entrepreneurship and employment.
- Poor financial literacy of many AFP-savers is most likely not country-specific, but it does not have to be a major problem because alternatives to individual contracts are available. The Australian model of employer-based pension contracts could coexist with a model giving labour unions a key role, as these had suggested initially, with the current Chilean solution of individual contracts, and perhaps with further alternatives. The weight of each type of contract would then be country-specific and could be totally different elsewhere.

## Would it Work in Europe?

Not all of the merits of the Chilean reform would equally apply to Europe. Long-term real returns of 10% could not be achieved here. Promoting savings and financial markets would be desirable, but as our economies are already highly capitalised and our financial markets highly sophisticated, the boost to growth would be much weaker than it was in Chile. At the same time, the transition deficits would be a lot larger in Europe, both because our PAYGO systems usually comprise the whole labour force, and because they provide not only a minimum living standard but often fairly high replacement rates.

But at the same time, the pressure from an ageing society is far greater in Europe. While a rising life expectancy raises the cost of old-age provision in any pension system, and while funded schemes are not fully independent of demographics either, the adaptability of a funded scheme is enormously greater. Two extreme thought experiments illustrate this point:

- What would happen if the entire young generation of a country decided to leave it (and no immigrants would follow)? If it happened in Europe, the older generation would be left to either work until their last day of life, or to starve. If it happened in Chile, the retirees would have to transfer the whole capital stock abroad, because there would be nobody left at home to use it. That would come at an economic loss, and many people would not be happy with it because they would presumably prefer to have their old-age assets geographically close to them. But even in this extreme case, old-age income would not drop to zero.
- What would happen if a number of miraculous pharmaceutical innovations (gradually) raised the average life expectancy to 120 years? In Europe, fierce political battles over the distribution of the cost burden would break out. Young entrants to the labour force would be unwilling to spend the lion's share of their income on sustaining the older generation, retirees would be unwilling to see their living standards fall, and older workers would be unwilling to see retirement age raised. As no government would be likely to touch what voters regard as their deserved "entitlements", the adaptation would surely be delayed and the additional cost financed by debt. If it happened in Chile, the additional burden would be large too, but the adaptation process would be entirely different. The price for the purchase of a lifetime annuity, which represents an "exchange rate" between a stock of savings and a life-long

stream of income, would rise. This would act as a signal to all workers, even if they would not actually purchase an annuity themselves. Young people who would observe this rate continually worsening would see an incentive to save a larger proportion of their wage for old-age. To workers close to retirement age, additional working years would suddenly seem relatively more attractive than at the old “exchange rate”. So while people would certainly not be happy about having less money for present consumption and working longer years, the adaptation process would begin sooner, run more smoothly, and take account of differing preferences. It would not involve political battles between different age groups, as it would be obvious that the change was not the result of any deliberate political decision. An arbitrary political decision process would be replaced by a self-steering market mechanism.

Meanwhile, if Europe adapted Chilean-style reforms, it could easily avoid many of the enormous difficulties that the Chilean reform had faced:

- The Chilean reform was a risky experiment in the sense that, as was explained, capital markets and the institutional infrastructure had to be developed in parallel. At the same time, many people had no experience with any type of financial institutions. All of this would hardly play a role in Europe, where fully developed capital markets, sophisticated regulatory institutions and a high degree of financial literacy can simply be taken for granted. Some countries even have complementary pension funds already in place.
- As pension fund administrators could be granted maximum freedom to invest from the very first day, great product diversity could emerge quickly. There could even be pension funds addressing a specific lifestyle group with “ideologically” motivated investment: There could be a “green AFP” investing large parts in solar and wind energy, or a “labour union AFP” investing a large share domestically. This is a degree of diversity that no state system could ever offer.
- As there is no noteworthy “informal sector” in Europe (moonlighting is not the same thing), universal participation could easily be guaranteed. Even the unemployed could be covered if a share of their benefits were transferred to the recipients’ retirement account, immunising the system against frictional imbalances in the labour market.
- In 1980, the share of government spending in Chilean GDP was about 27%. In many European countries today, that share is almost twice as high. So there is definitely

room to finance the transition deficit, especially in those countries with large public sectors.

Altogether, many of the positive economic side-effects of the Chilean reform would be less pronounced in Europe. But so would many of the Chilean problems. After all, the role of a pension system is not to boost the economy, but to guarantee a high and stable old-age living standard. In that regard, Europe would need a Chilean-style reform far more desperately than Chile did.

### **The Debate for Pension Reform<sup>58</sup>**

This paper has shown that both the benefits and the shortcomings of the Chilean reform are a result of systematic factors, and attempted to explain briefly how the former could be adapted and the latter avoided. It has also been shown that although some benefits of the Chilean reform are not transferable to Europe, many are, and some would apply even more strongly. Why, then, are fully funded solutions a rare exception worldwide, and not even seriously considered in most of Europe? Political-economic decision models usually argue that a transition creates winners and losers<sup>59</sup>, but these models are unconvincing. Pension privatisation can be a pure gain. The market interest rate is usually higher than the indirect yield of a PAYGO system<sup>60</sup>, the capital stock in an economy with a funded scheme is permanently higher, and the transition deficit partially offsets itself. In short, a privatisation creates the means by which those who lose from it can be compensated. The trouble with these models is that they reduce the decision process to a weighing of economic variables, while any observer of everyday politics knows that social policy issues are not debated in this way. They are more of a battle of ideas. A historical retrospect is enlightening because it shows that they have been so since their modern origin.

The debates that accompanied the introduction of Otto von Bismarck's welfare state in the 1880s were not technical, but ethical in nature. Chancellor Bismarck had spoken of "dividends from human tragedy" when referring to private insurance. Social insurance issues should "from the moral viewpoint not [be a] subject matter of speculation and a source for

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<sup>58</sup> unless indicated otherwise, all information of this chapter is taken from Habermann (1994) p. 169-195 and Raico (1999) p. 153-177; translations mine

<sup>59</sup> see, for example, Townley (1981)

<sup>60</sup> Blankart (2003) p. 398

the payout of dividends”. His premise was that government action, aspiring to the “common good”, was ethically superior to private actions driven by base motives.

No less founded in ethical value judgements were the arguments of the adversaries of Bismarck’s welfare state, led by the Reichstag deputies Eugen Richter and Ludwig Bamberger. Since the late 1840s, numerous mutual self-help initiatives were emerging in the German states, on a voluntary and decentralised basis, covering a number of risks such as accidents or illness. They were organised as cooperatives or were run by labour unions, and provided an alternative to commercial insurances.<sup>61</sup> Richter and Bamberger feared that compulsory monopoly insurances would bleed these voluntary initiatives to death - and assumed that this was even intended by Bismarck. In some of these associations, people developed a spirit of loyalty and personal belonging. According to his critics, it was Bismarck’s very intention to weaken this culture of social self-organisation, for being out of reach of government control, and replace it with a culture of state-dependency. Workers should be bribed into projecting the mentioned loyalty upon the state instead. Ludwig Bamberger asked whether “human individuality, self-determination, the free initiative of the responsible citizen” were to be replaced by “the supervision of the police and the caring hand of the state“. Eugen Richter indicted that workers should “learn to regard themselves as state pensioners”, in order to “develop the sentiment of dependency” typical for these. In this view, the welfare state does not appear as a humanitarian institution, but as an instrument of power and control. Detmar Doering (2006) finds proof for this perspective in the fact that the welfare monopolies of the 1880s did not cover those risks for which voluntary insurance mechanisms were indeed underdeveloped, such as unemployment. Instead, they covered –surprisingly- those areas where private initiatives were already relatively advanced.<sup>62</sup> Richter and Bamberger embraced the voluntary alternatives because of their spirit of independence and self-determination. For the specific issue of old old-age provision, the alternative they held against Bismarck’s monopoly was “everything which is appropriate to facilitate and boost savings, capital accumulation, land acquisition and homestead” (Richter).

A hundred years later, though in a totally different historical environment, the arguments of then-labour minister Jose Piñera sounded astonishingly similar to those of Richter and Bamberger. Piñera had never spoken of the pension project in mere economic terms, and

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<sup>61</sup> Habermann (1994) p. 150-162

<sup>62</sup> Doering (2006) in the preface of the new edition of Richter (1891) p. 23f

never made high capital returns his principal point. When publicly announcing the reform on November 6<sup>th</sup>, 1980, he said it would “drastically widen the margins of individual liberty”, that “an enormous source of state power and discretion” would be eliminated, and that it made “every worker a proprietor”.<sup>63</sup> Richter and Bamberger would have been delighted.

State-run PAYGO might, in many countries, perform in a mediocre fashion or worse, but Bismarck and his heirs have won the battle on moral terms. Friedrich Hayek had once said that “the ultimate decision about what is accepted as right and wrong will be made not by individual human wisdom but by the disappearance of the groups that have adhered to the “wrong” beliefs”. This is exactly what has happened. At least in continental Europe, positions such as those of Eugen Richter and Ludwig Bamberger have simply disappeared. Concerning old-age provision, criticism of PAYGO systems’ vulnerability to demographic change and of their high payroll tax burden may be heard. But Bismarck’s concept of a virtuous, all-benevolent government is still the unchallenged implicit premise behind social policy debates. Practical issues must also play a large role, for example, public fears that funded pensions were “unstable” need to be addressed. But anyone who tries to win a debate which is primarily of an ideological nature with technical arguments only has lost right from the start. Supporters of private funded solutions must not abandon the realm of moral arguments to their competitors. Like Richter, Bamberger and Piñera, they must emphasize the differences of principle that distinguish a mechanism based on individual property accumulation, secured by enforceable contracts and independent of personal discretion, from a system based on dependence on political bodies, all of whose variables are and can only be decided in the sphere of political power.

It is sometimes said that European systems are run by the government, while the Chilean and similar ones were ‘run by the private sector’. This is a superficial perception. A mechanism of private savings accounts is not really run by anybody; it simply runs and steers itself. Europe needs to be reminded that this is the only form of provision fit for a society of free citizens.

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<sup>63</sup> Pinera (1980); translations mine

## References

**Acuña, Rodrigo & Iglesias, Augusto:** “La Reforma a las Pensiones”

Think Tank *Centro de Estudios Públicos* (CEP);

*Las Reformas Sociales* Chapter 11;

Santiago de Chile

[http://www.cepchile.cl/dms/archivo\\_3264\\_1617/11\\_acuna.pdf](http://www.cepchile.cl/dms/archivo_3264_1617/11_acuna.pdf)

**Albagli, Elias; Garcia, Pablo & Restrepo, Jorge:** “Evaluación de la Flexibilidad del Mercado Laboral Chileno desde una Perspectiva Internacional”

Central Bank of Chile;

*Economía Chilena* Volumen 7 #2;

Santiago de Chile (2004)

[http://www.bcentral.cl/esp/estpub/estudios/economiachilena/2004/ago/Vol7N2ago2004pp27\\_46.pdf#search=%22Evaluacion%20de%20la%20Flexibilidad%20del%20Mercado%20Laboral%20Chileno%20desde%20una%20Perspectiva%20Internacional%22](http://www.bcentral.cl/esp/estpub/estudios/economiachilena/2004/ago/Vol7N2ago2004pp27_46.pdf#search=%22Evaluacion%20de%20la%20Flexibilidad%20del%20Mercado%20Laboral%20Chileno%20desde%20una%20Perspectiva%20Internacional%22)

**Asociación Gremial de AFP (AFP-AG):** “The AFP System – Myths and Realities”

Santiago de Chile (2004)

**Asociación Gremial de AFP (AFP-AG):** Statistics

Santiago de Chile (2007)

[http://www.afp-ag.cl/02\\_04.asp#](http://www.afp-ag.cl/02_04.asp#)

**Arenas de Mesa, Alberto:** „Cobertura Previsional en Chile. Lecciones y Desafíos del Sistema de Pensiones Administrado por el Sector Privado“;

Comisión Económica para América Latina y el Caribe (CEPAL);

*Financiamiento del Desarrollo* #105;

Santiago de Chile (2000)

<http://www.eclac.cl/publicaciones/xml/8/5788/lcl1457e.pdf>

**Arenas de Mesa, Alberto; Bravo, David; Behrman, Jere:** “Characteristics of and Determinants of the Density of Contributions in a Private Social Security System”;

University of Michigan Retirement Research Center;

*Working Papers* No. 077 (2004)

<http://www.mrrc.isr.umich.edu/publications/Papers/pdf/wp077.pdf>

**Arenas de Mesa, Alberto; Bravo, David; Behrman, Jere; Mitchell, Olivia & Todd, Petra:** “The Chilean Pension Reform Turns 25: Lessons from the Social Protection Survey” (2006)

[http://rider.wharton.upenn.edu/~prc/PRC/VYP/PRC%20VYP9-](http://rider.wharton.upenn.edu/~prc/PRC/VYP/PRC%20VYP9-2006.pdf#search=%22The%20Chilean%20Pension%20Reform%20Turns%2025%3A%20Lessons%20from%20the%20Social%20Protection%20Survey%22)

[2006.pdf#search=%22The%20Chilean%20Pension%20Reform%20Turns%2025%3A%20Lessons%20from%20the%20Social%20Protection%20Survey%22](http://rider.wharton.upenn.edu/~prc/PRC/VYP/PRC%20VYP9-2006.pdf#search=%22The%20Chilean%20Pension%20Reform%20Turns%2025%3A%20Lessons%20from%20the%20Social%20Protection%20Survey%22)

**Bennett, Herman; Loayza, Norman & Schmidt-Hebbel, Klaus:** “Un Estudio del Ahorro Agregado por Agentes Económicos en Chile”

Central Bank of Chile;

*Documentos de Trabajo* No. 085;

Santiago de Chile (2001)

[http://www.bcentral.cl/esp/estpub/estudios/bancacentral/pdf/049\\_082Bennet.pdf#search=%22Un%20Estudio%20del%20Ahorro%20Agregado%20por%20Agentes%20Economicos%20en%20Chile%22](http://www.bcentral.cl/esp/estpub/estudios/bancacentral/pdf/049_082Bennet.pdf#search=%22Un%20Estudio%20del%20Ahorro%20Agregado%20por%20Agentes%20Economicos%20en%20Chile%22)

**Berstein, Solange:** “The Chilean Pension System: Facts and Challenges” (2006)

<http://www.oecd.org/dataoecd/29/46/36446467.pdf#search=%22The%20Chilean%20Pension%20System%3A%20Facts%20and%20Challenges%22>

**Berstein, Solange & Chumacero, Romulo:** “Cuantificación de los Costos de los Límites de Inversión para los Fondos de Pensiones chilenos”

SAFP;

*Documentos de Trabajo* Nr. 3;

Santiago de Chile (2005)

<http://www.safp.cl/files/doctrab/DT00003.pdf>

**Berstein, Solange; Pino, Francisco & Reyes, Gonzalo:** “Trabajadores Independientes: Incentivarlos u Obligarlos a Cotizar? Una Tercera Opción”

*Corporación Expansiva;*

*en foco* No. 66;

Santiago de Chile (2006)

[http://www.expansiva.cl/en\\_foco/documentos/07032006110226.pdf](http://www.expansiva.cl/en_foco/documentos/07032006110226.pdf)

**Blankart, Charles Beat:** “Öffentliche Finanzen in der Demokratie. Eine Einführung in die Finanzwissenschaft“

Franz Vahlen Verlag;

5th edition, Munich (2003)

**Booth, Philip:** “The Transition from Social Insecurity”;

*Economic Affairs* Vol.18 #1;

London (1998)

**Corbo, Vittorio & Schmidt-Hebbel, Klaus:** “Efectos Macroeconomicos de la Reforma de Pensiones en Chile”

Central Bank of Chile;

Santiago de Chile (2003)

[http://www.josepinera.com/text/corbo-](http://www.josepinera.com/text/corbo-schmidt.pdf#search=%22Efectos%20Macroeconomicos%20de%20la%20Reforma%20de%20Pensiones%20en%20Chile%22)

[schmidt.pdf#search=%22Efectos%20Macroeconomicos%20de%20la%20Reforma%20de%20Pensiones%20en%20Chile%22](http://www.josepinera.com/text/corbo-schmidt.pdf#search=%22Efectos%20Macroeconomicos%20de%20la%20Reforma%20de%20Pensiones%20en%20Chile%22)

**Coronado, Julia Lynn:** “The Effects of Social Security Privatization on Household Saving: Evidence from the Chilean Experience”;

Federal Reserve Board of Governors (1997)

<http://www.federalreserve.gov/pubs/feds/1998/199812/199812pap.pdf>

**Doering, Detmar:** Preface to the new edition of

Richter, Eugen: “Sozialdemokratische Zukunftsbilder. Frei nach Bebel”;

Berlin (1891); new edition Lichtschlag Medien und Werbung KG, Grevenbroich (2006)

**Edwards, Sebastian & Cox Edwards, Alejandra:** „Economic Reforms and Labor Markets: Policy Issues from Chile” (2002)

[http://www.anderson.ucla.edu/faculty/sebastian.edwards/labor\\_chile.pdf#search=%22Economic%20Reforms%20and%20Labor%20Markets%3A%20Policy%20Issues%20from%20Chile%22](http://www.anderson.ucla.edu/faculty/sebastian.edwards/labor_chile.pdf#search=%22Economic%20Reforms%20and%20Labor%20Markets%3A%20Policy%20Issues%20from%20Chile%22)

**Favre, Michele; Mellguizo, Angel; Muñoz, Angel & Vial, Joaquin:** “A 25 Años de la Reforma del Sistema Previsional Chileno. Evaluación y Propuestas de Ajuste”

BBVA Provida (2006)

[http://serviciodeestudios.bbva.com/TLBB/fbin/AMAR\\_0603\\_DocumentosChile\\_01\\_tcm208-](http://serviciodeestudios.bbva.com/TLBB/fbin/AMAR_0603_DocumentosChile_01_tcm208-70363.pdf#search=%22A%2025%20A%C3%B1os%20de%20la%20Reforma%20del%20Sistema%20Previsional%20Chileno%20Evaluacion%20y%20Propuestas%20de%20Ajuste%22)

[70363.pdf#search=%22A%2025%20A%C3%B1os%20de%20la%20Reforma%20del%20Sistema%20Previsional%20Chileno%20Evaluacion%20y%20Propuestas%20de%20Ajuste%22](http://serviciodeestudios.bbva.com/TLBB/fbin/AMAR_0603_DocumentosChile_01_tcm208-70363.pdf#search=%22A%2025%20A%C3%B1os%20de%20la%20Reforma%20del%20Sistema%20Previsional%20Chileno%20Evaluacion%20y%20Propuestas%20de%20Ajuste%22)

**Fraser Institute:** “Economic Freedom of the World : 2005 Annual Report” (2005)

<http://www.fraserinstitute.ca/admin/books/chapterfiles/EFW2005complete.pdf#>

**Fuentes, Rodrigo; Larrain, Mauricio & Schmidt-Hebbel, Klaus:** „Sources of Growth and Behaviour of TFP in Chile”;

Central Bank of Chile,  
“Cuadernos de Economía” Vol. 43 (2006)

**Fuentes, Rodrigo & Mies, Verónica:** “Mirando el Desarrollo Económico de Chile: Una Comparación Internacional”

Central Bank of Chile;

*Documentos de Trabajo* #308;

Santiago de Chile (2005)

<http://www.bcentral.cl/esp/estpub/estudios/dtbc/pdf/dtbc308.pdf>

**Gallego, Francisco & Loayza, Norman:** “La Epoca Dorada del Crecimiento en Chile: Explicaciones y Proyecciones”;

Central Bank of Chile;

*Estudios Publicos* Vol. 5, #1;

Santiago de Chile (2002)

[http://www.bcentral.cl/esp/estpub/estudios/economiachilena/2002/abril2002/recvol5n1abr200237\\_67.pdf](http://www.bcentral.cl/esp/estpub/estudios/economiachilena/2002/abril2002/recvol5n1abr200237_67.pdf)

**Godoy, Oscar & Valdés, Salvador:** “Democracia y Prevision en Chile: Experiencia con dos Sistemas”

Forthcoming in *Cuadernos de Economía* #93 (1994)

[http://www.economia.puc.cl/index/download.asp?id\\_publicacion=549](http://www.economia.puc.cl/index/download.asp?id_publicacion=549)

**de Gregorio, José:** “Economic Growth in Chile: Evidence, Sources and Prospects”

Central Bank of Chile;

Serie *Documentos de Trabajo* Nr. 298;

Santiago de Chile (2004)

<http://www.bcentral.cl/esp/estpub/estudios/dtbc/pdf/dtbc298.pdf>

**Habermann, Gerd:** “Der Wohlfahrtstaat. Die Geschichte eines Irrwegs”

Ullstein Verlag, Frankfurt & Berlin (1994, new edition 1997)

**Hachette, Dominique:** „Privatizaciones: Reforma Estructural pero Inconclusa“

Forthcoming in Larrain, Felipe & Vergara, Rodrigo: “La Transformación Económica de Chile”, Chapter 4;

Think Tank *Centro de Estudios Publicos* (CEP);

Santiago de Chile

**Hernández, Leonardo & Parro, Fernando:** “Sistema Financiero y Crecimiento Económico en Chile”

Central Bank of Chile;

*Documentos de Trabajo* #291;

Santiago de Chile (2004)

<http://www.bcentral.cl/esp/estpub/estudios/dtbc/pdf/dtbc291.pdf>

**Homburg, Stefan:** “Theorie der Altersicherung”;

Springer-Verlag, Berlin/Heidelberg (1988)

**Iglesias, Augusto & Paredes, Ricardo:** „Análisis de Propuestas para Aumentar la Cobertura de Trabajadores Independientes en el Sistema de AFP”;

AFP-AG;

Santiago de Chile (2004)

[http://www.fiap.cl/p4\\_fiap/site/artic/20060328/asocfile/ASOCFILEI20060328173227.pdf](http://www.fiap.cl/p4_fiap/site/artic/20060328/asocfile/ASOCFILEI20060328173227.pdf)

**James, Estelle:** „Pension reform: Is there an Efficiency-Equity Trade-Off?”

Conference on Inequality Reducing Growth in Latin America’s Market Economies

Inter-American Development Bank (1998)

<http://www.worldbank.org/html/dec/Publications/Workpapers/WPS1700series/wps1767/wps1767.pdf#search=%22estelle%20james%20pension%20reform%20an%20efficiency-equity%20tradeoff%22>

**Larrain, Felipe & Vergara, Rodrigo:** “Un Cuarto de Siglo de Reformas Fiscales”

Forthcoming in Larrain, Felipe & Vergara, Rodrigo (Editors): “La Transformación Económica de Chile” Chapter 3;

Think Tank *Centro de Estudios Públicos* (CEP);

Santiago de Chile

**Larrain Rios, Guillermo:** “Compatibilizar protección social e incentivos: por una reforma previsional integral” (2005)

[http://164.77.202.58/LYD/Controls/Neochannels/Neo\\_CH4232/deploy/guillermo\\_larrain.ppt](http://164.77.202.58/LYD/Controls/Neochannels/Neo_CH4232/deploy/guillermo_larrain.ppt)

**Larroulet, Cristián:** “Efectos de un Programa de Privatizaciones: El Caso de Chile (1985-1989)”

Forthcoming in *Estudios Públicos* #54;

Think Tank *Centro de Estudios Públicos* (CEP);

Santiago de Chile (1994)

**Libertad y Desarrollo (LyD):** “Las Privatizaciones en Chile: Un Instrumento”

Santiago de Chile (2005)

**Marcel, Mario:** “Privatización y Finanzas Públicas: El Caso de Chile 1985-88”

CIEPLAN;

*Colección Estudios CIEPLAN* No. 26;

Santiago de Chile (1989)

**Moguillansky, Graciela:** “Privatizaciones y su Impacto en la Inversión”

Forthcoming in French-Davis, Ricardo & Stallings, Barbara: “Reformas, Crecimiento y Políticas Sociales en Chile desde 1973” Chapter 5;

CEPAL;

Santiago de Chile

**Orszag, Peter & Stiglitz, Joseph:** “Rethinking Pension Reform: Ten Myths about Social Security Systems” (1999)

<http://www.worldbank.org/knowledge/chiefecon/conferen/papers/rethinking.pdf#search=%22Rethinking%20Pension%20Reform%3A%20Ten%20Myths%20about%20Social%20Security%20System%22>

**Piñera, José:** Speech of José Piñera, Minister of Labour and Social Security, announcing the pension reform; November 6th 1980

[http://www.josepinera.com/pag/pag\\_tex\\_discurso\\_nov80.htm](http://www.josepinera.com/pag/pag_tex_discurso_nov80.htm)

**Piñera, José:** „El Cascabel al Gato“ (1990)

[http://www.josepinera.com/text/el\\_cascabel\\_al\\_gato.pdf](http://www.josepinera.com/text/el_cascabel_al_gato.pdf)

**Piñera, José:** “A Note on Privatized Disability Insurance in Chile”

Center for Pension Reform

**Raico, Ralph:** “Die Partei der Freiheit. Studien zur Geschichte des deutschen Liberalismus”

*Schriften zur Wirtschaftspolitik* Band 7;

Lucius & Lucius Verlag, Stuttgart (1999)

**Sanchez, Rafael:** “Privatizaciones: Una Revisión”

Serial Paper *Serie Informe Económico* #155;

Think Tank *Libertad y Desarrollo* (LyD);  
Santiago de Chile (2005)

**Schmidt-Hebbel, Klaus:** "Chile's Takeoff: Facts, Challenges, Lessons"

Central Bank of Chile;  
Serial Paper *Documentos de Trabajo* #34;  
Santiago de Chile (1998)  
<http://ideas.repec.org/p/chb/bcchwp/34.html>

**Soto, Mauricio:** "Chilean Pension Reform: The Good, the Bad and the In-Between";

Center for Retirement Research at Boston College;  
*An Issue in Brief* Nr. 31 (2005)  
[http://www.bc.edu/centers/crr/issues/ib\\_31.pdf](http://www.bc.edu/centers/crr/issues/ib_31.pdf)

**Stiglitz, Joseph:** "Globalization and its Discontents"

Penguin Books; London (2002)

**Superintendencia de AFP (SAFP) Chile** (2007)

<http://www.safp.cl/>

**Superintendencia de AFP (SAFP) Publications:** "The Chilean Pension System" (2006)

<http://www.safp.cl/sischilpen/english.html>

**Superintendencia de AFP (SAFP) Publications (a):** "Inversión de los Fondos de Pensiones en el Extranjero a Septiembre de 2006"

División Financiera;  
Santiago de Chile (2006a)

**Valdés Prieto, Salvador:** "Licitaciones para Aumentar la Competencia entre las AFP"

Think Tank *Centro de Estudios Públicos* (CEP);  
*Puntos de Referencia* Nr. 278;  
Santiago de Chile (2005)  
[http://www.cepchile.cl/dms/archivo\\_3654\\_1839/pder278\\_valdes.pdf](http://www.cepchile.cl/dms/archivo_3654_1839/pder278_valdes.pdf)