

Does Competition in Privatized Social Services Work? The Chilean Experience

RONALD FISCHER, PABLO GONZÁLEZ and PABLO SERRA ^{*}
Universidad de Chile, Santiago, Chile

Summary. — This paper examines the premises under which the privatization of Chilean social services of 1981 was carried out. Reformers expected that (i) competition between providers would ensure a more efficient supply of services, and (ii) shifting decisions to households would guarantee a better satisfaction of household needs. Although some of the benefits of competition are lost through rent dissipation, especially in the providers' search for the more profitable customers, we conclude that the reform has benefited society by providing competition to public providers and reducing the risk of political capture. The major lesson, however, is that the full benefits from privatization-cum-competition are slow to arrive and require able regulators. Moreover, the benefits of privatization may depend to a large extent on implementation fine tuning.

Key words — Latin America, Chile, social services, privatization, regulation

1. INTRODUCTION

This paper evaluates the privatization of social services undertaken in 1981 by the Chilean government.¹ Our assessment of these reforms considers their original intent, which was to increase the efficiency of markets through liberalization as well as to increase freedom of choice. The government expected that competition between providers would ensure a more efficient supply of social services. Moreover, shifting decisions concerning social services to households would guarantee a better match between supply of services and household needs. The paper derives the lessons from this quarter-century experience by taking advantage of the similarities and differences among the social services.

A private pension fund system and a private health insurance system that link benefits to contributions started to operate in 1981.² The government also introduced a voucher system that does not discriminate between public and private schools, and established non-discriminatory rules for the entry of new institutions into tertiary education, which previously had been tightly restricted. In addition, in a bid for decentralization, local governments became responsible for the primary level of the public

health care system as well as for public schooling. As many countries are considering giving the private sector a more substantial role in the provision of social services, the Chilean experience is of interest because of its wide-range and early implementation.

There were limits to the liberalization process, however, because the government established restrictions on consumer sovereignty.³ For instance, dependent workers must contribute 10% of their gross wage income to the privately administered pension fund of their choice, and must spend at least an additional 7% of wage income in purchasing a health insurance plan. The government subsidizes education directly, rather than providing cash-transfers to families. The reasons for these restrictions can only be guessed, as they were not made public by the government. One possible explanation is moral hazard in decisions involving social services. Senior citizens without pension plans or severely ill citizens without health plans would demand and probably receive State support even without having

^{*} We thank the three anonymous referees for the very helpful comments. Final revision accepted: September 8, 2005.

contributed to the system. A second reason would be the self-control problems recently described by the behavioral economic literature (Mullainathan & Thaler, 2001). Even when individuals realize their self-control problems, they could still undersave. In this context, mandatory savings could be welfare enhancing (Diamond & Koszegi, 2003). Similarly, families could underinsure in health and underinvest in education. Externalities, at least in education and health, might also account for these restrictions on household sovereignty.

The reformers were also concerned about the functioning of these industries, as they provide complex services, which are characterized by asymmetric information and require knowledge to make the correct choices. There are at least two restrictions that consumers face when making decisions: first, the limited availability of relevant information and, second, their restricted capacity to process the information when available. Obtaining relevant information is costly and individual consumers might prefer to use proxies that they believe are correlated with the “unobservable” relevant characteristics of the services.⁴

It is probable that the decision maker did not have complete confidence in the ability of families to decide correctly on complex issues requiring specific knowledge. Hence, the State retained its regulatory and supervisory powers, and set limited trust on unregulated market forces. First, it kept a close eye on the financial solvency of social security institutions. It set limits on the types of financial instruments in which the pension funds could invest and caps on investment in the different instruments. Other rules tended to protect consumers. Since 1991, the health insurance firms are required to renew their contracts to any affiliate who desires renewal, and yearly raises in plan costs are capped. Schools are restricted by the curricula defined by the Ministry of Education.⁵ The State also provides minimum levels of information about social services or forces social service providers to do so. For instance, it runs a national standardized test for primary and secondary students, which enables comparisons between schools.

Competition among private providers was expected to result in better quality or lower prices for services and more variety.⁶ However, although individuals value freedom of choice, there is increasing evidence that this is expensive in social services. The administrative costs of competitive service suppliers are high because they lose the scale economies of a single

compulsory system and they incur additional costs to attract customers (advertising, salespeople, and the like). Another reason why individual choice is expensive is that regulations or market conditions tend to limit price discrimination, providing incentives to spend resources (salespeople) to attract clients whose compulsory contributions exceed the costs of service provision (Diamond & Valdés-Prieto, 1994).

The Chilean pension funds administrators (AFP) receive a fee that is, in the main, a fraction of the affiliate's contribution to the pension fund. However, since the cost of an AFP consists of a large fixed cost (the research department) and variable costs that depend on accumulated funds, younger and higher income individuals are more attractive to AFPs. Analogously, private health insurers try to attract clients with lower than average health risks and, unless forced to do so, do not renew contracts to families whose members develop chronic or catastrophic illness. Schools compete for better-endowed students and force out underachievers in order to perform better on national standardized tests. Since parents tend to prefer those schools that perform well on national tests, school owners devote resources to attract skilled students.

A further possibly undesired effect of individual choice in privately provided social services is that it generates market segregation when private providers search for “good” customers. In addition, segregation by suppliers might be reinforced by segregation by consumers. For instance, upper class or more educated parents might prefer schools attended by children of similar families (either due to peer effects, social segregation, or social networks). Similarly, health insurance customers might prefer insurers with a low risk portfolio that cater to households with fewer health risks, as they are less likely to default. Social stratification could be reinforced in a world of imperfect information because poor and less educated households have fewer social networks, less information, and a smaller ability to use the information (for school choice, see references in Schneider, 1999, pp. 6–7). Hence, policies that provide access to relevant information and train consumers on exercising choice are likely to improve market efficiency as well as reduce segregation.

The rest of the paper is organized in the following way. Section 2 analyzes the pension fund system, while Section 3 studies the health insurance market. Section 4 deals with education, and Section 5 concludes.

2. THE PRIVATIZATION OF THE PENSION SYSTEM

(a) *Description*⁷

In 1980 the government introduced a law that created the private pension fund system, which began operating in 1981. This new system introduced compulsory savings accounts for retirement. Dependent workers are required to save 10% of their gross wages (with a maximum of around US\$ 150 per month) in the AFP of their choice (the contribution is deducted from the personal income tax base).⁸ At retirement, workers make phased withdrawals from their individual accounts, and at any time they can pull out the remaining funds to purchase an annuity which provides a fixed monthly income in real terms. Workers contributing to the previous pension system at the time of the reform were allowed to choose between keeping their old system and switching to the new system.⁹

In addition, workers pay a percentage of their monthly deposits as a fee to the pension fund administrators.¹⁰ Although AFPs are free to set their commissions, they have to charge the same rates to all affiliates independently of costs (including the cost of the insurance that covers a disability pension and a pension for survivors in case of death). As the cost of AFPs consists of a large fixed cost and variable costs that depends on accumulation while their income is derived mostly from the variable fee on wages, they prefer to attract young and high-income workers.

The State remains responsible for some aspects of social security. First, it regulates and supervises the AFPs. In this role, its main task is to determine the types of instruments in

which the funds can invest and to set limits to investment in the different instruments. Second, it provides state guarantees to the funds in AFP's. Third, the State continues to pay the pensions of workers retired on the previous pay-as-you-go system and receives contributions from the workers that chose to remain in that system. Fourth, it acknowledges the contribution to the old public system of workers who switched to the private system by granting them a "recognition bond," which adds to the accumulated funds at the time of retirement.¹¹ Fifth, it guarantees a minimum pension to workers that have contributed for at least 20 years to the pension system. Finally, it pays a minimum pension, based on need, to individuals over age 65 and the disabled over age 18.

Until the year 2000, AFPs were allowed to operate only a single fund. In that year, they were authorized to create a second fund conceived for workers close to retirement that prefer less risk, since this fund could only invest in fixed income instruments. In August 2002, three additional types of funds were introduced, with the object of increasing the options for affiliates. Each of the five funds has different maximum and minimum limits for their investments in variable income instruments, as shown in the first two columns of Table 1. Workers now choose both type of funds as well as the pension fund manager.

(b) *Evaluation of the private pension fund system*

We focus on the impact of the new pension system on AFPs and workers. Table 2 shows that pension funds administrators have been

Table 1. *Types of pension funds*

Type of fund	Legal limits on variable income instruments		Distribution of affiliates by type of fund			Real rate of returns ^c September 2002– December 2003 (%)
	Maximum (%)	Minimum (%)	Default assignment ^a (%)	Choice ^b (%)	December 2003 (%)	
A	80	40		12.2	3.1	22.0
B	60	25	53	25.7	42.0	12.5
C	40	15	42	48.7	43.8	7.9
D	20	5	5	6.7	9.7	6.5
E	0	0		6.7	1.3	1.8

Source: Superintendencia de AFPs and Asociación de AFPs.

^a Corresponds to the default assignment at the inception of the multi-fund system.

^b Figures corresponds to 43.3% of affiliates that made an explicit choice up to October 2003.

^c Annualized.

Table 2. *Profitability of the fund administrators and of pension funds*

Year	Administrators profit rate (%)	Funds type C real rates of return (%)
1985	17.9	13.4
1990	56.7	15.6
1995	21.7	-2.5
1997	17.5	4.7
1999	30.3	13.3
2000	50.1	4.4
2001	33.8	6.7
2002	27.0	3.0
2003	25.6	10.6

Source: Superintendencia de AFPs.

very profitable for their owners. By the mid-1990s, the AFPs became less profitable due in part to rent dissipation caused by an increase in their selling efforts. The salaries of salespersons reached 36% of operational costs of AFPs in 1997 (45.3% of the total when the insurance premium is excluded). At the time, it was common for affiliates to receive gifts from salespeople for switching AFPs. Since the profitability of the funds in the different AFPs was similar, 5% of affiliates switched every month. In an attempt to reduce the sales effort and hence lower commissions charged to affiliates, the government made it more difficult to change AFPs. By the year 2000, sales effort represented a mere 14.9% of operational costs and had declined further to 12.9% by 2002.

Although affiliates were helped by the fall in net commissions, the major beneficiaries of the regulatory change were the AFPs. The reduced efforts to attract affiliates increased their profitability (see Table 2). The government is now attempting to increase competition by opening the system to other financial institutions. In these last two years the profitability of AFPs has declined due to an increase in the survivors and disability insurance premiums which has not been transferred to prices. This premium increased from 41.7% of AFP's operational costs in 2000 to 44.0% in 2002. This is due to aging in the affiliates of the new system and also to increased disability claims due to higher unemployment during these years (Castro, 2005).

The biggest advantage for workers brought by the private system is that they have more security about the destiny of their pension contributions.¹² Diamond (1996) believes that the Chilean privatized mandatory pension system provides a high degree of insulation against

political risks. As individual accounts are considered private property, they are entitled to the same protection as other assets. The above does not imply that the system is fully protected from government expropriation, as stressed by Orszag and Stiglitz (2001) and Mesa-Lago (2002). As shown by the recent case of Argentina, during a severe crisis the government can require pension funds administrators to buy public bonds that represent a sure loss for pension funds, in effect expropriating the savings of workers.

However, the old system was prone to political risk even under normal conditions. During the first years of operations the old system collected funds in excess of withdrawals, as the ratio of pensioners to contributing workers was low. This led to a reduction in the requirements for entitlement to a pension and to the use of the funds to pay for other benefits or services. For instance, some pension funds provided 25–30 years mortgage loans to affiliates, with nominal interest rates of 5% when average inflation was close to 20%. There also was the latent risk that the government could reduce pension benefits discretionally to finance a budget deficit, as occurred in 1985.¹³

The old system was also notorious by its lack of fairness. Fifty-two different pension systems for different industries and occupations not only multiplied bureaucracies but also led to uneven retirement benefits. Pension benefits depended on the ability of affiliates to a specific fund to exert political pressure (Arellano, 1985). The system redistributed from the poor to the well to do and full indexation to wages was only granted to selected high-income workers. White-collar workers could retire younger than the blue-collar workers: blue-collar workers retired at the age of 65, while white-collar workers could receive pensions after 35 years of work. In the case of the public sector, employees could retire after 30 years, and after 24 years of work in the case of bank employees.

The private pension fund system seems to be costly.¹⁴ In 1984, on average workers paid commissions of 47.6% of the pension contribution (see Table 3), a sharp rise from the 35.7% of 1982. However, by 2002, average commissions had fallen to 24.3% of contributions. As a percentage of accumulated funds, commissions fell from 11.8% in 1984 to 1.3% in 2002, due to the increase in the accumulated funds. These numbers are high when compared to the administrative costs of the Chilean public pension system, which represented 1.4% of pay-

DOES COMPETITION IN PRIVATIZED SOCIAL SERVICES WORK?

Table 3. *Commissions of pension fund administrators*

Year	As % of wage income			As % of accumulated fund ^a	
	Gross	Insurance premium	Net ^b	Gross	Net ^b
1982	3.57	2.50	1.07		
1984	4.76	3.50	1.26	11.82	3.13
1985	4.51	2.52	1.99	4.46	1.97
1990	3.15	1.03	2.12	4.20	2.83
1995	3.06	0.76	2.30	2.12	1.59
1997	2.96	0.71	2.25	2.01	1.53
2000	2.49	0.93	1.56	1.44	0.90
2002	2.43	0.91	1.52	1.28	0.87

Source: Superintendencia de AFP (Documento de trabajo No. 4).

^a Own calculations based on information of the Superintendencia's bulletins. Computed by dividing yearly total commissions by average accumulated funds.

^b Excludes the survivors and disability insurance premium.

outs and 7% of worker's contributions in the year 2000.¹⁵ One of the explanations for the lower costs is that the public pension system manager does not invest funds but works on a pay-as-you-go basis, using government transfers to cover the deficits.

Net commissions, that is, those that exclude the cost of the survivors and disability insurance premium are a better reflection of administrative costs. On average, workers paid net commissions of 21.2% of the pension contribution in 1990 (see Table 3) and 15.2% in 2002. In turn, net commissions as a percentage of accumulated funds declined from 2.83% to 0.87% in the same period. Unfortunately, information on insurance premiums is unreliable in the first years of the system, as AFPs overstated insurance while understating commissions (in 1983, only 43% of their income came from affiliates' net commissions, with the remainder consisting of rebates from insurers).

Diamond (1996) claims that the issue is the relative administrative efficiency of the private market, not particular features of the Chilean system. He claims that the cost per person in Chile is not very different from the costs of other privately managed pension systems, and these are usually more expensive than well-run unified government-managed systems. Note, however, that commission charges have fallen substantially since 1994 and could fall even further in the future. In particular, AFPs charge annual commissions of only 0.47–0.64% of the accumulated funds in the case of the voluntary retirement savings funds that were created in 2002, a much lower rate than the 0.87% for mandatory pension savings. A

possible explanation for this difference is that competition for voluntary pension savings is stronger than in the case of mandatory pension savings, since other financial institutions can participate in this market. It appears that there are barriers to entry into the pension fund market, and it has become more concentrated over time as the three main AFPs concentrate 78% of all affiliates.¹⁶

The average annual real rates of return since inception till 2003 of the different pension funds vary from 10.1% to 10.6%. This extraordinary performance of pension funds reflects high rate of returns to capital in the Chilean economy in general, which are in turn explained by the collapse of the financial system in the early 1980s that led to soaring rates of return on government bonds and extremely high interest rates, and the colossal climb of equity prices in the early 1990s after return to democracy. Furthermore, the AFPs were highly constrained in the types and the amounts of instruments they could invest, which makes it difficult to judge their investment performance. Rates of returns have been lower in recent years. From January 1998 up to December 2003, the average rate of return on pension funds fell to 6.7%.

Consequently, in spite of the high cost of the system, affiliates have had high effective real rates of return, that is, real rates of return once commissions are discounted from the fund. From its inception in July 1981 up to December 2003 the average annual effective real rate return for fund type C was 7.0% for an individual earning around US\$ 120 per month (the minimum legal wage) and 7.3% for an individual earning around US\$ 1,400.¹⁷ Rates of returns

have moderated in recent years. The average effective real rate of return was 5.7% for the lowest income workers and 5.9% for those with monthly salaries above US\$ 1,400 during 1998–2003. Again, it is more appropriate to exclude survivors and disability insurance premium, but information on the latter is not reliable (see Table 3). A rule of thumb, however, would be to increase the above effective rates of return by 1%.

An oft-touted advantage of the AFP system is that it allows for freedom of choice among administrators.¹⁸ However, workers did not have much actual choice, as the composition and consequently the results of fund portfolios of different AFPs were quite similar. Moreover, since the law sets penalties for AFPs whose fund returns are more than 2% below the average of the industry, while there is no compensating benefit when the returns are higher than average (except for marketing possibilities), AFPs followed a herd-like investment behaviour. The limits on investment have been relaxed over time, and hopefully investment ability will become more important in the future. The multi-fund system will generate more investment diversity, one of the reasons for its introduction. Table 1 shows that the profitability of the new funds can vary substantially.

Diamond and Valdés-Prieto (1994) believe that affiliates seem to choose among AFPs according to past returns, and that the public seems to be unaware of the trade-off between risks and return.¹⁹ However, it appears from Table 4 that affiliates chose the AFP that charges the lowest commission. The two AFPs

with the lowest commissions are the ones with the largest number of affiliates, while the most expensive ones are the smallest. An alternative explanation is that the larger AFPs can afford to charge lower commissions because of scale economies. There are other explanations, and without a more detailed analysis, it is difficult to choose among these hypotheses.

When the recent reform was introduced, affiliates could choose among the five funds that each AFP was allowed to administer. There was a default assignment that depended on the age of the affiliate. The fourth column in Table 1 shows the distribution of affiliates if they had all been assigned by default. Before the new funds started operating, 35.0% of affiliates, including both active and retired workers actively exercised their choice and by October 2003 the figure was 43.3%. The fifth column in the table shows the choices of affiliates who made an explicit option and the sixth column shows the distribution of affiliates by fund in April 2003. This seems to indicate that affiliates are willing to make choices when they have more at stake.

However, affiliates still seem to have little information on the working of the pension fund system. A sample survey of 17,000 beneficiaries of the APF system conducted during the second half of year 2002 found that 30% of the interviewed read the quarterly account statement they receive.²⁰ Moreover, only 10% said that they could understand it, and 1% used it for decision making. About 95% did not know how much fund managers charged for the service.

Table 4. *AFPs market participation and performance*

AFP	Affiliates	Commissions July 2003	Real rates of return May 2000–April 2003 (%)		Real rates of return May 2002–April 2003 (%)	
			Fund	Net ^a	Fund	Net ^a
Cuprum	312,122	24.90	5.07	4.19	2.74	2.01
Habitat	811,280	24.01	5.80	4.95	4.16	3.43
Magister	66,002	28.22	5.83	4.73	4.45	3.53
Planvital	97,931	29.44	5.68	4.58	3.76	2.80
Provida	1,454,441	24.03	5.31	4.46	3.20	2.47
Suma	431,823	25.64	5.54	4.59	3.52	2.72
Sta. María	283,488	26.02	5.48	4.54	3.48	2.67
System	3,457,087		5.46	4.57	3.48	2.72

Source: Superintendencia de AFPs.

^a Excludes the survivors and disability insurance premium cost and corresponds to an affiliate with an income of Ch\$ 254,100 in April 2003.

3. THE HEALTH INSURANCE SYSTEM ²¹

(a) *Description*

A second innovation, introduced in 1981, was the partial privatization of the health insurance system. Before 1981, all workers had to contribute compulsorily to the public health insurance system (Fonasa) even if they did not use its services. ²² Under the new system, private health insurance firms, known as Isapres, were created. All active and retired workers must contribute 7% of their wage (or pension) to a health insurance system, with a maximum compulsory contribution of US\$ 120 per month. Workers can choose between one of the 10 open private health insurers (Isapres) or Fonasa. Currently, the private system covers about 18% of the population, while Fonasa covers almost 70%, and the armed forces health systems and the private sector cover the rest of the population. People that are self-employed can pay into either system (Isapres or Fonasa).

Fonasa offers the same array of health plans to all affiliates, independently of their contributions and of the number of dependants of the affiliate. Affiliates can choose between two forms of health provision: free choice or institutional. Under free choice, the affiliate and its dependants can select a private health provider (which has a contract with Fonasa at specified rates), but they must pay a co-payment. In the institutional mode, co-payments are lower and inversely related to the beneficiary's income (the co-payment is zero for low-income individuals), but beneficiaries get health provision from the public system, without choice. Since Fonasa serves the destitute, provides public goods (vaccination programs and health campaigns, etc.), and finances the primary health centers that are supervised by the municipalities since 1981, 54% of its funding comes from the State.

The private system is run on a totally different basis: the affiliate signs an annual contract with an Isapre that specifies the benefits she will receive, and which depends on her contribution, age, sex, the number of dependants and their age, sex, etc. ²³ Affiliates can improve their basic plan by paying additional, voluntary contributions. In December 2003, voluntary contributions amounted to 34.1% of compulsory contributions. The clients of Isapres can use private health providers in two ways: first, they can buy a voucher previous to receiving service from a provider that has a contract with the Isapre (at pre-specified rates). The cost of the voucher is

the client's co-payment. Alternatively, they can choose any provider and get a reimbursement from the Isapre afterwards. In general, the reimbursement does not cover the full cost of the visit, so there is an implicit co-payment. The amount of the co-payment or reimbursement depends on the specific plan that the affiliate has contracted with the Isapre. On average, Isapres pay 68% of medical costs, the remainder being the co-payment by affiliates.

The private system is too expensive for most Chileans. The compulsory contribution is not sufficient for low-income individuals or for potential affiliates with high health risks to buy into a good plan. The nationally representative CASEN survey of the year 2000 showed that only 3.1% of the members of the lowest income quintile are beneficiaries of Isapres (while 54.2% of the households in the highest income quintile were beneficiaries). In September 2003, only 5.1% of beneficiaries of the Isapres system were older than 60, while their presence in the population is more than double that percentage according to the 2002 census.

The number of beneficiaries of the Isapre system grew every year until 1997, when it came to represent 26.5% of the population. Since then, the percentage of the population that is a beneficiary of the system has been decreasing, reaching only 17.8% of the population in 2003 as shown in Table 5. Several reasons explain this decline: (i) increased unemployment since the late 1990s, (ii) increased funding for Fonasa, making it relatively more attractive (expenditure per affiliate increased by 300% in the 1990s), (iii) the decline in (less expensive) collective plans in Isapres, partly explained by the elimination of the tax incentive for the corporate contribution to the collective plans of their employees, (iv) better supervision by Fonasa to bar Isapre affiliates from getting free services (as indigents) from the public system, and (v) the increase in the costs of the Isapres.

There has been a general increase in the cost of the medical services, as shown in Table 6, due to an increase in both the number of health visits by beneficiary and in the cost of these visits. Rodríguez and Tokman (2000) have constructed a quantitative index of the cost of health procedures. They have estimated that the number of procedures just about doubled in the period 1990–99 in the Isapre system, while total costs (excluding sickness compensation) increased by 165%, showing that there has been an increase in the unit costs of medical services of about 30%. ²⁴ These increases continued in

Table 5. *The private health insurance system*

Year	Number of beneficiaries	% of population	Administrative costs	Profit rate ^a	Profit/sales	Health medical visits	Expenditure per beneficiary ^b Thousands of December 2000 Ch\$	
							Isapres	Fonasa
1985	545,587	4.5	29.0	39.9	6.01	8.36	118.9	–
1990	2,108,308	16.0	21.4	26.8	7.67	9.04	104.9	37.6
1995	3,763,649	26.5	20.0	23.1	4.83	9.41	147.4	88.3
1997	3,882,572	26.6	19.0	15.3	3.00	10.18	162.7	103.6
2000	3,092,195	20.3	17.5	9.2	1.82	13.12	212.5	118.3 ^c
2002	2,828,228	18.7	14.9	18.0	1.40	14.00 ^d	197.4	–
2003 ^e	2,729,088	17.8	14.4	21.6	2.50	13.70 ^d	–	–

Source: Series Estadísticas, Superintendencia de Isapres. Rodríguez and Tokman (2000).

^a Profits over equity.

^b Excludes the subsidy of medically certified absence from work. Co-payments included, using data for the year 2000. The expenditure in the Program for Complementary food is excluded from Fonasa.

^c Corresponds to 1999.

^d Provisional numbers for 2001, 2002, respectively.

^e Data to September 2003.

Table 6. *Health services provision per beneficiary, year 2000*

Type of service	Fonasa	Isapres	Difference (%)
Doctor visits	3.65	3.80	4.1
Lab. exams	4.56	4.12	–10.0
Surgery	0.08	0.11	37.5
Expenditure per beneficiary (Ch\$ of 2000) ^a	87,339	137,525	57.1

Sources: Fonasa Statistics, Superintendencia de Isapres, and authors' calculations.

^a Excludes co-payments by Isapre patients and medical licenses.

the next decade: comparing 2002 with 2003, both health visits and unit costs increased by 6% (Resultados Sistema Isapre, April 2004). A large fraction of the increase in unit costs is due to newer and more sophisticated medical treatments and better service quality.²⁵ The stricter regulation of Isapres has also contributed to their costs and hence to the higher price of their plans. The 1990 law forced Isapres to renew contracts to expensive affiliates and it increased the minimum required coverage.

(b) Evaluation

The Isapre system was very profitable until the late 1990s. Even in 1995, when the system was already mature, the profit rate on equity was 30%. In recent years, the profitability of

the system has been variable, as new regulations have increased costs. In 1999, for instance, the average profit rate was 2.2%, bouncing back to 21.6% in the year 2003 as Isapres were able to raise rates (at the cost of a reduction in the number of affiliates) as shown in Table 5. Nevertheless, the margins are becoming thinner: the earnings to sales ratio fell from almost 8% in 1990 to 2.5% in 2003.

Contrary to the AFP market, the private health insurance market remained relatively unconcentrated until recently, though this seems to be changing. The three largest Isapres have around 23% each of all beneficiaries, and there is an additional Isapre with more than 10% of the market. While the Herfindahl index has increased to only 1800, it is set to become more concentrated in the future as margins decrease and the risk reducing effect of a larger mass of clients becomes more important. The low concentration does not necessarily imply competition among Isapres, since a large fraction of affiliates are captive in their Isapres due to pre-existing illnesses among members of their families, which ensures that other Isapres will not accept them as clients.

The system has been beneficial to higher income families, since, under the previous system, their contributions were just another form of taxation, as they did not use the public system. An overall welfare assessment is difficult, since the public health system lost the compulsory contributions of these same households. The expense per beneficiary in the Isapre system is

almost 60% higher than in the public system, even though this difference has decreased over time. This comparison underestimates the cost of the private health system, because it omits the direct payments of Isapre affiliates for the part of their treatment that is not covered by their plan, which represents 33% of the total expenditure. Notice, however, that the number of health visits does not differ substantially between the two systems, except in the case of surgery, as shown in Table 6.

A cursory analysis might suggest that the public system is more efficient. The problem with that interpretation is that there is a significant difference in the quality of care between the two systems. Economic principles suggest that private, individual health care insurance with free choice of services and providers is more expensive than public insurance without free choice. First, because there is a tendency to overprovide services: the emblematic example is the fact that 65% of all pregnancies in the private sector ended in a caesarean section in 2003, while the average for the public sector without free choice was less than half that rate.²⁶ Second, the administrative cost of individual insurance contracts is higher, among other things, because Isapres evaluate the health risks of each new affiliate and must ensure that reimbursements are appropriate for their particular plans.²⁷ In the year 2003, the administrative and marketing expenses were 17.5% of total expenses, while the profit rate was 6.9%. The administrative cost in Fonasa is only 1.5% of the total expense. On the other hand, other economic principles indicate that public systems are less efficient due to lack of competition. Public hospitals financed by Fonasa are probably less efficient than the private clinics that provide services for Isapres. There are no serious estimates of the extent of these inefficiencies, but anecdotal evidence suggests that they might be large.

One of the main problems of the Isapre system used to be that plans offered a good coverage for routine health care, but a poor coverage of catastrophic illness, which should be the main object of compulsory health insurance. Strong criticism forced the Isapres to introduce catastrophic illness insurance in the year 2000. This program covers all expenses beyond a pre-specified yearly expenditure by the beneficiary. The system does not allow free choice and works as a "managed care" system for these patients. Preliminary evidence seems to show that this approach works well, but the

system has only operated for a few years. Anecdotically, the system had covered 50 transplants by March 2003, including six heart transplants and 11 liver transplants. Furthermore, expenditures of the catastrophic insurance system exceeded its premiums by 5%.

In any case, it is interesting to speculate as to the reasons why clients would choose plans that lack good coverage for catastrophic illness. One explanation is that affiliates are myopic and do not evaluate the cost and/or probability of rare but costly illnesses. Second, affiliates are able to switch to the public system if they acquire an illness with little coverage under their Isapre plan. Third, the system is not transparent, since plans have limits on payments that depend on a standard devised by each Isapre that is hard to uncover for each treatment.

Another problem is that Isapres try to exclude beneficiaries who develop expensive illnesses.²⁸ In an attempt to end this problem, since 1991, the Isapres are required to renew their contracts to any affiliate who wishes to renew. However, the Isapres found a way around this obligation by raising the price of existing plans and offering new plans with similar benefits but at the original price only to affiliates that do not represent a high risk. The Superintendencia that supervises Isapres has instituted rules that try to reduce this type of risk selection, by limiting the yearly price raises in plans. However, this approach runs counter to the inherent instability of the private health insurance system. Since low cost affiliates in a given plan are attractive to other Isapres, there is a tendency to poach them with a plan with similar characteristics but without the expensive individuals. Even if this last problem might be solved, affiliates that (or whose dependants) acquire an expensive illness will still be unable to switch between Isapres, thus losing one of the main advantages of the system: the freedom of choice between Isapres.

For a young healthy single agent, her defined contribution should be higher than her health costs, so she is a profitable affiliate and Isapres will compete for her by offering unneeded health services.²⁹ This type of inefficient rent dissipation replicates the phenomenon that occurs in AFPs, and is caused by the compulsory contribution. When these same clients grow old, their fees will increase and they may have to switch to plans with lower coverage, just as they start needing the better coverage.³⁰ Hence, there are strong pressures to change to a system in which at least a minimum level of

health insurance can be bought at a fixed price independently of age, sex, and health status, financed via a compensation fund.

Most of the problems arise from the serious information asymmetries in private health systems (see Fischer & Serra, 1996). There are ways of reducing these problems, but they remain intrinsic to private health insurance systems, so they cannot be totally eliminated from a system that combines free choice of providers and asymmetric information. Recent legal reforms have tried to address the problems of the Chilean Health system by creating a minimum health plan called AUGE. Isapres and Fonasa are now required to offer coverage for the 24 most important health problems, with the maximum annual co-payment being a multiple of the affiliates' monthly contributions. Fonasa will have to abandon its strategy of promising universal coverage while rationing health care by making patients wait (at least for the 24 diagnostics covered by the new plan), sometimes for years, to receive treatment. Isapres, which have timely care, will have to limit the co-payments for these diseases in all their plans.

The progress in regulating Isapres since 1990 has solved some of the major problems of the system.³¹ Other problems remain: clients who cannot change Isapres after developing chronic diseases (*captive* clients), the rise in medical costs caused by competition between Isapres for new clients and those caused by moral hazard in the doctor-patient relation. Finally, note that catastrophic illness insurance and the AUGE plan both require Isapres to collaborate in creating a unified plan to avoid cream-skimming of the healthier affiliates, but this facilitates cartelization. The basic dilemma remains: the productive efficiency of competition versus its inability to insure patients due to cream-skimming; the legal changes have just changed the weight given to these problems, arguably for the better.

4. PUBLIC EDUCATION AND SCHOOL VOUCHERS

(a) *The reform*

The three main elements of the educational reform were (i) the shift of public resources from tertiary to primary and secondary education, (ii) the transfer of state-owned schools to local municipalities, and (iii) the establishment of a non-discriminatory subsidy (an implicit

voucher) per enrolled student both at public and private schools. The role of the central government was reduced to supporting and controlling schools (Parry, 1997). The financing of the university system changed radically as the responsibility for financing tertiary education shifted from the state to families. This decision was based on two premises. First, spending in tertiary education is regressive, since the majority of tertiary students belong to middle and upper income households. Second, the private return to tertiary education is high and externalities are less likely to exist than in primary education, which means that there is less need to subsidize tertiary education since the benefits are internalized.

Policy makers believed that state-financed primary and secondary education would be improved by having education providers compete for students, as public fund transfers to institutions would depend on the number of students attending classes, and having parents deciding for their children's education. The government's strategy was based on the premise that the competition for students would be based on academic quality, which in turn assumed parental involvement in children's education and the capability of evaluating alternative educational offers. They also trusted that another benefit of the reform would be an increased diversity in the educational offer, reflecting the heterogeneous preferences and needs of families. Moreover, policy makers believed that choice itself was a positive good, above and beyond the effects on school and student performance.

Non-discriminatory transfer rules were established to insulate the system from the influence of specific interest groups. Vouchers differ according to the cost of providing education. The value of the monthly voucher is around US\$ 50 for primary schools and US\$ 60 for secondary non-vocational education. Subsidies for vocational secondary schools and differential education (for children with learning disabilities) are higher because classes are smaller and require more equipment. Schools located in rural areas receive an additional per capita subsidy that decreases with the number of students. Although it has been recognized that the underprivileged students are costlier to educate, the voucher system still does not differentiate along this dimension.

The country has gone a long way to decentralize the finances of the publicly funded education system and to shift resources from tertiary education to secondary and primary education. In

DOES COMPETITION IN PRIVATIZED SOCIAL SERVICES WORK?

1980, just before the policy reform, the Education Ministry transferred 37.5% of its budget to higher education institutions and 7.3% to schools. In the year 2003, these figures were 11.2% and 64.0%, respectively (see Table 7). The amount transferred through vouchers is roughly 82% of total school subsidies, and of voucher transfers, 40% went to private schools.

The number of private subsidized schools more than doubled during 1980–2003,³² while the number of public schools fell slightly in the same period (see Table 8). The growth in the private subsidized sector might have been greater if the value of the voucher had not been reduced substantially in the mid-1980s. According to figures of the Ministry of Education, if the real value of the subsidy per student is set at 100 in 1982, by 1985 the value in real terms had fallen to 75, and even by 1990 it stood at 76. This led to stagnation in the number of private schools by the mid-1980s after the rapid growth of the first half of the decade. The private, subsidized schools survived the decline in the value of the voucher in the 1985–94 period by increasing enrolment by 20%. During

the 1990s the fall in the per capita subsidy was reversed, and the real value of the average voucher recovered to 104 by 1994 and to 202 in 2002. In 1994, the number of private schools started increasing once again (see Table 8).

Since 1993, the private subsidized schools have been allowed to charge fees to their students subject to some conditions, which include an upper limit on the fee (US\$ 68 per month), a special tax favoring the Education Ministry, and the availability of scholarships benefiting families that cannot afford these fees. Even though the secondary municipal schools can also charge fees, these are in practice much lower and are charged on a lower percentage of their enrolment. In the year 2002, the 1,663 private subsidized schools charging fees received Ch\$ 126 billion from students' fees, while the corresponding 110 municipal schools received only Ch\$ 2.3 billion. The additional resources in the private subsidized schools may widen the existing gap between private and municipal schools (discussed below). However, in the year 2003, municipal schools received additional funding amounting to Ch\$ 71 billion from the

Table 7. *Budget of the Education Ministry (millions of Ch\$ of 2002)*

Year	Total	School subsidies ^a		Tertiary education	
		Amount	%	Amount	%
1980	717,332	52,087	7.3	268,695	37.5
1981	806,865	194,134	24.1	197,676	24.5
1985	727,930	329,063	45.2	200,777	27.6
1990	586,300	374,101	63.8	110,484	18.8
1994	876,400	528,747	60.3	144,304	16.5
1995	1,011,302	640,133	63.3	156,984	15.5
2000	1,654,419	1,041,911	63.0	209,378	12.7
2003 ^b	1,986,839	1,271,270	64.0	222,042	11.2

Source: Ministry of Education, document in process.

^a Excludes capital transfers, transfers in kind, and especial programs.

^b Preliminary figures.

Table 8. *Number of primary and secondary schools*

Type of school	1980	1985	1994	2003
Public, centralized	6,370	808	0	0
(%)	72.4	8.2	0	0
Municipal	0	5,668	6,221	6,138
(%)	0	57.8	63.6	54.7
Private, subsidized	1,627	2,667	2,707	4,155
(%)	19	27	27.7	37.0
Private, no subsidy	802	668	860	930
(%)	9.1	6.8	8.8	8.3
Total	8,799	9,811	9,788	11,223

Source: Estadísticas de la educación 2003, Ministry of Education.

municipalities as well as Ch\$ 53 billion from regional governments for infrastructure improvements.

(b) *Evaluation*

The overall results of the reform of 1981 are still unclear. There is no question that parents value choice, and this is one of the reasons for the wide acceptance of private subsidized schools. Another fact is that private schools require less public funds than municipal schools. Indeed, private schools have financed their own infrastructure, while municipal schools use the previously existing infrastructure of state schools. Another positive effect of the reform is the decrease in the rates of truancy, which is explained by the inherent characteristics of the voucher scheme, though it is probable that the incentives in the system have led to looser standards for passing grades. Although profitability rates are not available, the rapid expansion of private subsidized schools reveals this to be an attractive business for private investors, if the second half of the 1980s is excluded.

A more complex question is whether the reform has added value to education or not. Unfortunately, the scores of the national standardized tests that measure educational achievement (SIMCE) are not comparable with those previous to 1998, and cannot be used to assess the impact of the reform. Moreover, the large reduction in the voucher value during the second half of the 1980s is likely to have had a negative impact on the quality of education. Data shown in Table 9 are consistent with this hypothesis. Using the private non-subsidized schools as control group, we can see that the relative performance of private subsidized schools deteriorated in the 1980s and improved in the 1990s, mimicking the fluctuations in the value of vouchers.

The decrease in teachers' salaries worsened the pool of applicants to teaching schools while existing teachers with the best outside opportunities left the educational system, and this

change in the quality of the stock of teachers has long-lasting effects. After decades of decline, the quality of new students at teaching schools began to improve in 1996, following steady improvements in teacher salaries since 1990. Teachers' compensation in the municipal sector more than doubled during the last decade, from an average monthly salary of \$272,109 in 1990 to \$699,104 in 2003, both in Chilean pesos of 2003.

There has been much disagreement about the impact of the reform on the educational system as a whole. Subsidized private schools on average have performed better than municipal schools on standardized tests. However, the performance gap between the two types of school could be attributed to differences in students' socioeconomic characteristics, including their parents' education. Studies using individual student data for tenth grade in the 1998 SIMCE results show that private subsidized schools perform better than municipal schools in national standardized tests, even after accounting for socioeconomic variables (Mizala & Romaguera, 2001; Sapelli & Vial, 2001). Hence, socioeconomic differences of the student body explain part, but not the whole of the performance gap between private subsidized and municipal schools. Possible explanations for the residual gap are (i) that private schools have managed to do better because they are more flexible, efficient, and have better incentives, (ii) that subsidized private schools spend more per student than municipal schools due to the additional fee they charge, and (iii) private subsidized schools can select students, whereas municipal schools cannot reject students unless they have no openings.

Parry (1996) reported that 15% of municipal schools and 63% of private subsidized schools in Santiago (where selection might be more widespread) applied some method of selection. Elacqua and Fabrega (2004) figures are 24% for municipal schools and 60% for private schools, respectively. Moreover, it is easier to expel students from private than from municipal schools. Student performance does not only

Table 9. *National standardized test results (SIMCE), fourth grade*

	1988	1990	1992	1994	1996	1999 ^a	2002
<i>Type of school</i>							
Municipal	49.25	56.7	63.85	64.43	68.00	238	237
Private subsidized	56.35	58.8	70.15	70.66	73.65	257	257
Private non-subsidized	76.15	80.05	86.05	85.07	85.85	298	299

Source: Ministry of Education.

^a Before 1998 scores represent percentage of success. From then onwards, scores are normalized around 250.

depend on the quality of the education provided by the school, but also on personal abilities, parental educational level, peers' skills, and so on. Hence, due to peer effects, it is rational for parents to send their children to schools that attract the best students. Therefore, prestigious schools can choose their students based on academic achievement prospects, so that standardized tests magnify the contribution of selective schools to the results.

Perhaps the comparison between municipal and private subsidized schools is beside the point, since one of the main benefits of the voucher system has been to increase the awareness of school quality and to make schools behave more competitively. However, the voucher reform of 1981 has not led to a dramatic improvement in school quality and achievement, as shown by the performance in international tests (PISA, TIMSS). There are several potential explanations for the poor international performance: factors limiting competition, the decade of low funding that followed the reforms, and the low quality of teachers. Nevertheless, the latest research results in Chile and other countries seem to show a positive effect of competition on school performance.³³

Several circumstances have dampened competition, the mechanism through which the quality of schooling was supposed to improve. First, parents did not have objective measures of school quality: tests equivalent to the SIMCE have been used since the 1980s, but only in 1995 were they published at the school level.³⁴ Moreover, parents—even those considering several alternatives—do not use test score information when selecting the school for their children (Elacqua & Fabrega, 2004). Practical reasons (such as proximity) and school values appear to be the most important factors explaining school choice. Second, the Teachers Statute has reduced the municipalities' flexibility in the hiring and firing of teachers and, in practice, has excluded municipalities from the wage bargaining process. Third, municipal schools have been shielded from competition.

The idea behind (implicit) vouchers is that the income of a school should depend primarily on the number of students, and not on historical budget assignment. However, city mayors manage the voucher income of students enrolled in municipal schools, and for political reasons some mayors have refused to adjust the expenditures of schools with fewer students.³⁵ A second factor is imposed exogenously on the system: the Teachers Statute of 1991, which made it

almost impossible to fire teachers independently of their performance, and which set a fixed pay scale that depends on seniority and not on performance. Even though the minimum wage established in the Estatuto applies also to the private subsidized schools, other conditions do not apply, and it is possible to fire teachers at the end of the school year.

By setting a national pay scale, the Teachers Statute re-established a centralized bargaining process between the Teacher's Union and the Ministry of Education, distorting the market. Although the Statute was made more flexible in 1995, following a financial crisis in the municipal sector,³⁶ the Teacher's Union managed to stall the individual evaluation of municipal teachers' performance for more than a decade, despite being part of the Statute. After years of negotiating, and while several municipalities were designing their own evaluation procedures, the Teacher's Union finally accepted an evaluation program for municipal teachers that will take place every four years starting in year 2005 onwards. Those teachers that fail the test are forced to take a remedial course, and are re-evaluated the following year. If they fail this second test, they are suspended from teaching while they concentrate on training for a year. If they fail the test a third time they are dismissed with a severance payment.³⁷

Another supply-side incentive mechanism, the National Performance Evaluation System (SNED) that provides supplementary funding to the top quartile of schools, was introduced in 1996 to reward schools with better performance. In order to reduce any perverse incentives, the SNED compares schools with respect to their past performance and to similar schools (with similar socioeconomic characteristics) and penalizes schools that apply admission tests or expel students. The SNED also introduced incentives for schools located in rural areas that are insulated from competition. Authorities are considering the publication of value added indicators together with the raw scores and the results of individual students.

5. CONCLUSIONS

The privatization of social services produced several benefits. First, it reduced the uncertainty caused by political manipulation of the public pension system, increasing the security and predictability of pensions.³⁸ The burden of the old system—given these political

pressures—was increasing over time and there were doubts about the financial sustainability of the system, even at a time when the aging of the population was not envisaged. The private health insurance system has provided an alternative to the public system for a fifth of the population, while at the same time putting pressure on the public system to improve.³⁹ Similarly, while the evidence in favor of the voucher system in education is not conclusive, it has put pressure on the public system to improve. This does not mean that privatization has been trouble-free. As is well known in privatization processes, the details of reform are essential to its success. The Chilean experience offers lessons both through the improvements made to the original design as well as by the problems that remain.

Most households lack the information and/or knowledge needed to make rational decisions.⁴⁰ The cost of acquiring the necessary knowledge is high and circumventing the information asymmetry is a hard task for individuals. As a result, many individuals do not grasp the main aspects that are involved in choosing a provider of social services. The lack of understanding or information on the part of consumers has led providers to focus their competitive efforts on marketing rather than on the variables that are relevant from the point of view of an enlightened consumer (extent of coverage of a health plan, long-run net rate of return on a pension fund, and quality of education). For instance, Isapres offered a wide menu of health plans, but few of them provided good coverage for catastrophic illness until they were required to do so.⁴¹

The role of the government as a provider of objective information—a public good—has been insufficient, though it has improved in the last few years. In order to improve user information, the government could make AFPs provide risk measures of their portfolios. Similarly, Isapres should publish their rate structure in terms that are more comparable to those of other Isapres than at present. In education, until recently, parents did not have objective measures of school performance, but the Ministry of Education still does not supply parents with information on their children's performance, as well as information on the educational value added provided by the school.

Another criticism of individual choice in social services is that it is costly. In addition to the normal costs that arise from the effort to attract more customers (advertising and the like),

there is the cost of attracting the best customers, because the price structures allowed by the regulator do not reflect the cost of providing the service to different agents. A potential solution to this problem is to set prices in such a way that all agents are equivalent for the provider. For example, school vouchers could be higher for underprivileged students.⁴² In health insurance, possible solutions include compensating Isapres (or Fonasa) for accepting beneficiaries that are costlier than average. Otherwise, an Isapre that offers good catastrophic insurance may end up (through adverse selection) with a portfolio of very expensive beneficiaries. These measures would not only increase the efficiency of the system by reducing socially unproductive expenditures but would also attenuate any possible effects of the reforms on social equity and segregation.

Excessive regulation has been another factor in limiting the benefits from competition: a more efficient and diverse supply of services. In the case of private pension funds, restrictions on portfolio investment and rules that penalize administrators whose funds perform poorly *ex post* (apart from the market punishment due to the defection of affiliates from such a fund) resulted in similar performances from all pension funds. This is another reason why competition between administrators has focused on variables that are irrelevant from the social welfare point of view. The Teachers' Statute has reduced flexibility in the public system and municipal schools have been shielded from competition. Experimentation is restricted by the curriculum set by the Ministry of Education. Beneficiaries of the private health insurance system prefer plans with little coverage for expensive but infrequent diseases because they can always switch to the public system. Hence, the full gains from competition have yet to be achieved.

There are measures that could facilitate entry of new providers. AFPs should establish a centralized facility in charge of keeping records of individual accounts and mailing periodic statements to affiliates. This organism would ease entry by having regulated essential facility performing tasks that have strong scale economies (see Diamond & Valdés-Prieto, 1994).⁴³ Employers are already able to electronically transfer their employees' pension contributions to a centralized system set by the AFPs. Providing new entrants with information on all workers might also facilitate entry.

Critics of privatization have suggested that it has reduced social equity, an unwarranted claim,

as no solid evidence has been produced to demonstrate the point. Before the reforms, social services were regressive, with most of the benefits accruing to the middle and upper income classes. Health provision was segregated. Until 1979, the Servicio Nacional de Salud (SNS) served blue-collar workers and the destitute through its network of hospitals and clinics, while the Servicio Médico Nacional de Empleados served white-collar workers. Only the latter system allowed beneficiaries to choose between the SNS or private providers—via co-payments. In education, the main channel for a potential reduction in equity after privatization is an increase in segregation. Many private subsidized schools have focused on the best students, leaving the rest (normally corresponding to economically disadvantaged families) for the municipal system. Under the old system, however, the best public schools were able to select their students (and attracted middle class families). Hence, it is not clear if segregation has increased in education.

Moreover, the government created a safety net for the poor. There is a minimum pension guaranteed to all workers that have contributed at least 20 years to the AFP system. The public health system serves workers whose income does not allow them to buy into a good private plan, as well as the destitute. Finally, most municipal schools are open to all students. Thus, public expenditure can be focused on the poor, and this has already occurred in the pension and the health systems and is being discussed for the school system. Nevertheless, there are indications that choice benefits higher income households more than lower income households. The reason is that choice is costly and favors the better-informed workers.^{44, 45} Current policy makers believe that the poor would benefit more from less choice, in exchange for lower costs

and/or more expanded services. This is at least the observed trend in regulation. The Auge plan guarantees more services and limits costs, and Isapres have responded by reducing the choice of providers. Similarly, the regulator of the pension fund system is considering a plan where the administration of large groups of workers is auctioned to AFPs, with the expectation that costs would be substantially reduced, due to competition for these pre-packaged groups.

Moreover, it is plausible that privatization did not reduce social equity because the pre-1974 situation was very inequitable, and a safety net, which was previously absent, was built. We believe this comparison is relevant for most developing countries, as their starting point is likely to be similar in terms of an inefficient state providing low quality social services that in many cases do not reach the poor or at least are very unequally distributed (see [World Bank, 2003](#)). The fact that richer and more educated households are more likely to derive benefits from choice is relatively less important. This is a relatively smaller advantage as compared to the possibility of capture of social services by the middle classes that existed in the less transparent system prevailing before 1974.

In short, information asymmetries present a difficult problem for individuals that have led social service providers to focus competition on marketing variables rather than on reducing costs or enhancing quality. In spite of this shortcoming, privatization-cum-competition is increasingly successful, as social services markets continue to improve. This has required regulatory improvements to reduce information asymmetries and eliminate regulations that dampen competition. However, additional reforms that would increase competition or cater more to the needs of the poor are still missing.

NOTES

1. This was part of an all-encompassing privatization process, which, in turn, was a building block of the country's shift toward a market economy in 1974.

2. In the past, there was no relation between the contributions of workers and the benefits they received, so they were perceived as payroll taxes.

3. This point is stressed by [Orszag and Stiglitz \(2001\)](#) and [Mesa-Lago \(2002\)](#).

4. The notion that citizens use shortcuts to get the information they need to make appropriate choices is well documented by political scientists ([Iyengar, 1989](#); [Lupia, 1992](#)).

5. Any departure from the sanctioned curricula requires ministerial approval.

6. The effect of the ownership change is likely to be stronger when public bureaucrats had considerable scope to pursue their own agenda before privatization.

7. For a detailed account of the pension reform, see [Diamond and Valdés-Prieto \(1994\)](#) and [Mesa-Lago \(2004\)](#).
8. Self-employed workers can also accumulate funds in the system, and this provides same tax advantages. However, only 7% of them contribute to the pension fund system and virtually all of them are high-income professionals ([Arenas de Mesa, 2004](#)).
9. Most of them choose to switch as their pension contributions were reduced from 20% to about 15%, raising their take home wage.
10. AFP managers may also charge a fixed fee, allowing for some degree of differentiation among workers. However, this fee represents a small fraction of AFP's revenues. Some authors believe that this pricing strategy is the result of the authorities' pressure in order to avoid the regressive effects of the fixed fee.
11. The recognition bond pays a 4% annual real interest rate from the time of the switch to that of retirement.
12. A shortcoming of the AFP system is its low coverage. According to [Arenas de Mesa \(2004\)](#) and [Arenas de Mesa and Gana \(2004\)](#), the effective coverage rate of the pension system was 62% in 1975, when the liberalization process began. It fell to 48% in 1980, just before the new pension system was introduced, and rose again to 61% in 2002. Thus, the low coverage rate seems to be caused by changes in the structure of employment, and is not due to features of the AFP system.
13. Moreover, as benefits were calculated on the basis of the average contributions during the last three years before retirement as well as the number of years of contribution. Salaries were underreported in the initial years and boosted in the last few years, increasing the government burden.
14. According to [Orszag and Stiglitz \(2001\)](#), this is true for all private pension fund systems.
15. This is similar to the 8% of contributions that were spent on administration in the 1960s and 1970s, excluding the cost of capital ([Diamond & Valdés-Prieto, 1994](#)).
16. Potential entrants have to incur in the cost of capturing affiliates from existing AFPs. Moreover, they have no information on which are the most attractive clients, and hence are likely to end with a less profitable portfolio of affiliates.
17. The effective rate of return of workers' contribution is computed by subtracting the commission, net of the insurance premium, from the return on the funds.
18. [Mesa-Lago \(2002\)](#) demystifies this claim by signaling that workers cannot select specific investment instruments or even the profile of their portfolios.
19. Moreover, the government does not report the standard deviation of past returns.
20. See Webpage of the Superintendencia de AFPs (<http://www.safp.cl>).
21. A complete, though dated analysis of the Isapre system and the role of asymmetric information (moral hazard and adverse selection) can be found in [Fischer and Serra \(1996\)](#). See also [Bitran and Almarza \(2000\)](#) for an analysis of equity in the health system and [Titelman \(2000\)](#) for a recent analysis and comparison of the public and private sectors.
22. High-income workers did not use the public system due to its low quality or long waiting times.
23. While Isapres cannot charge differently depending on the health related risks, they are not required to accept all applicants. In practice, this means that an applicant that suffers from a chronic condition (i.e., a condition that increases her expected health costs) will not be expelled by his Isapre, but on the other hand becomes *captiva* in his original Isapres and cannot switch, except to Fonasa, which accepts all comers.
24. Costs in the public system rose faster, as total expenditure in Fonasa increased by 290% in 1990–99, while the index of health procedures increased by only 22%. Thus, unit costs increased by 141% in the public sector (institutional) in the same period.
25. The increase in health costs is a worldwide phenomenon. [Hall and Jones \(2004\)](#) show that as income increases, the marginal utility of other spending decreases relative to the increasing value of life, and this explains the increasing share of health expenditures in national accounts.
26. Interestingly, in the free choice form of the public sector, the caesarean rate was the same as in the private sector ([Fischer & Serra, 1996](#)). This suggests that free choice rather than the affiliation of the health system leads to overprovision. [Gruber and Owings \(1996\)](#) test this induced demand model for caesarian sections in the USA.
27. The Isapres must also ensure against fraud, which occurs when affiliates lend their personal identification cards to non-beneficiaries.

DOES COMPETITION IN PRIVATIZED SOCIAL SERVICES WORK?

28. This is characteristic of private health insurance: [Cutler \(2002\)](#) shows that adverse selection in plans is empirically very important.
29. This is even more so for men, since they do not have the risk and associated expense of pregnancy.
30. Recently, catastrophic risk insurance programs have become more popular, as clients of Isapres decide to cap their payments at the compulsory amount, while purchasing insurance programs that guarantee free choice in the case of a catastrophic health event. This shows that consumers are becoming aware of the risk associated to catastrophic illness.
31. Quoting a former Isapre Superintendent: "It is difficult to regulate an industry which grew used (as the Isapres did in the period 1981–89) to being unregulated."
32. In 1981, only 15% of all primary and secondary students attended private subsidized schools (mainly non-profit religious schools) and 7% non-subsidized private schools. In 2003, the figures increased to 38 (mainly for profit) and 9%, respectively.
33. [Auguste and Valenzuela \(2003\)](#) found that competition has had a positive effect in the overall performance of the Chilean system, improving achievement by 0.4 standard deviations. Recent studies for the USA seem to prove that choice improves education ([Hanushek & Rivkin, 2003](#)). However, these experiments are for small populations, and adverse effects of segregation on overall system results do not operate. [Wöessman \(2000\)](#) finds that competition has positive effects on education using the TIMSS 1999 sample of countries.
34. The Ministry of Education has recently started publishing results adjusted by family income and other characteristics.
35. Political surveys indicate that the quality of municipal education is not decisive when electing mayors.
36. The introduction of more flexibility in the Statute allowed for some rationalization in municipal schools, especially rural schools. A once and for all special incentive retirement program accompanied the change.
37. Additionally, a voluntary system of accreditation in teaching excellence in subsidized schools was implemented in 2003. This year 935 teachers applied for certification and 409 of them obtained it. Written examinations and observations of classroom performance are used in the assessment process.
38. [Diamond and Valdés-Prieto \(1994\)](#) asserts that this is the main benefit of the Chilean private pension system, which otherwise should be thoroughly revamped.
39. A recent survey found that most affiliates are unhappy with their Isapres, but more than 80% declared that they do not want to switch to the public system ([Adimark, 2003](#)).
40. Of course, their decisions may be rational in a world where agents have limited information. Moreover, rationality lies in the eyes of the beholder.
41. Though, as we show later, there are other possible explanations for this feature.
42. There are pilot programs focused on students coming from extremely poor households. A larger program is planned for 2006, covering a third of students enrolled in pre-school and in the first four years of primary education.
43. Note, however, that in Chile several financial clearinghouses are used to forestall competitive entry.
44. [Levin \(1998\)](#) writes that "families that are better-off may be more likely to take advantage of school choice... because of better access to information, greater ability to afford transportation, a higher penchant to exercise educational alternatives, and greater generic experience with choice and alternatives."
45. In the pension fund system, 54% of men and 64% of women have always stayed in the same pension fund. However, younger and higher income affiliates switch fund managers more often. This fact is consistent with the idea that high-income, better-informed workers are more able to benefit from competition. Another possible explanation is that younger and higher income workers are more attractive for AFPs, and hence, more efforts are made to attract them.

REFERENCES

- Adimark (2003). *Imagen de Isapres*, October, <http://www.adimark.cl>.
- Arellano, J. P. (1985). *Políticas sociales y desarrollo. Chile 1924–1984*. Santiago: CIEPLAN.

- Arenas de Mesa, A. (2004). El sistema de pensiones en Chile: Principales desafíos futuros. In *El sistema de pensiones de Chile en el contexto mundial y de América Latina: evaluación y desafíos, ponencias del seminario internacional*. Santiago: Oficina Internacional del Trabajo.
- Arenas de Mesa, A., & Gana, P. (2004). Protección social, pensiones y género en Chile. In F. Bertranou, & A. Arenas de Mesa (Eds.), *Protección social, pensiones y género en Argentina, Brasil y Chile*. Santiago: Oficina Internacional del Trabajo.
- Auguste, S., & Valenzuela, J. P. (2003). Do students benefit from school competition? Evidence from Chile. Unpublished manuscript, University of Michigan.
- Bitran, R., & Almarza, F. (2000). Equity in the financing of Social Security for Health in Chile. *Health Policy*, 50, 171–196.
- Castro, R. (2005). *Seguro de invalidez y sobrevivencia: Qué es y qué le está pasando*. Santiago: Superintendencia de AFP.
- Cutler, D. (2002). Health care and the public sector. NBER Working Paper 8802.
- Diamond, P. (1996). Privatization of social security: Lessons from Chile. In P. Diamond, D. Lindeman, & H. Young (Eds.), *Social security, What role for the future?*. Washington: Brookings.
- Diamond, P., & Koszegi, B. (2003). Quasi-hyperbolic discounting and retirement. *Journal of Public Economics*, 87, 1839–1872.
- Diamond, P., & Valdés-Prieto, S. (1994). Social security reforms. In R. Bosworth, R. Dornbush, & R. Labán (Eds.), *The Chilean economy: Policy lessons and challenge* (pp. 257–328). Washington, DC: The Brookings Institution.
- Elacqua, G., & Fabrega, R. (2004). El consumidor de la educación: el actor olvidado de la libre elección de colegios en Chile. Unpublished manuscript, Universidad Adolfo Ibáñez.
- Fischer, R., & Serra, P. (1996). Análisis económico del sistema de seguros de salud en Chile. *Revista de Análisis Económico*, 11, 187–217.
- Gruber, J., & Owings, M. (1996). Physician financial incentives and caesarean section delivery. *RAND Journal of Economics*, 27(1), 99–123.
- Hall, R. E., & Jones, C. I. (2004). The value of life and the rise in health spending. NBER Working Paper 10737.
- Hanushek, E., & Rivkin, S. (2003). Does public school competition affect teacher quality? In C. Hoxby (Ed.), *The economics of school choice*. Chicago: University of Chicago Press.
- Iyengar, S. (1989). How citizens think about national issues: A matter of responsibility. *American Journal of Political Science*, 33, 878–900.
- Levin, H. (1998). Educational vouchers: Effectiveness, choice, and costs. *Journal of Policy Analysis and Management*, 17(3), 373–391.
- Lupia, A. (1992). Busy voters, agenda control and the power of information. *American Political Science Review*, 86, 390–404.
- Mesa-Lago, C. (2002). Myth and reality of pension reform: The Latin America evidence. *World Development*, 30(8), 1309–1321.
- Mesa-Lago, C. (2004). Evaluación de un cuarto de siglo de reformas estructurales de pensiones en América Latina. *Revista de la CEPAL*, 84, 59–82.
- Mizala, A., & Romaguera, P. (2001). Factores socio-económicos explicativos de los resultados escolares en la educación secundaria en Chile. *El Trimestre Económico*, LXVIII(4), 515–549.
- Mullainathan, S., & Thaler, R. (2001). Behavioral economics. In *International encyclopedia of social sciences* (1st ed., pp. 1094–1100). Pergamon Press.
- Orszag, P. T., & Stiglitz, J. (2001). Rethinking pension reform: Ten myths about social security systems. In R. Holzmann, & J. Stiglitz (Eds.), *New ideas about social security: Toward sustainable pension systems in the 21st century* (pp. 17–56). Washington, DC: The World Bank.
- Parry, T. (1996). Will pursuit of higher quality sacrifice equal opportunity in education? An analysis of the education voucher system in Santiago. *Social Science Quarterly*, 77(4), 821–841.
- Parry, T. (1997). Achieving balance in education decentralization: A case study of education decentralization in Chile. *World Development*, 25(2), 211–225.
- Rodríguez, J., & Tokman, M. (2000). Resultados y rendimiento del sector público de salud en Chile. Technical Report 106, CEPAL, Serie Financiamiento del Desarrollo.
- Sapelli, C., & Vial, B. (2001). Evaluating the Chilean education voucher system. Unpublished manuscript, Pontificia Universidad Católica de Chile, Santiago, Chile.
- Schneider, M. (1999). Information and choice in educational privatization. In *Conference on setting the agenda, Teacher's College, Columbia University, April*.
- Superintendencia de Isapres (2004). Resultados Sistema Isapre, April.
- Titelman, D. (2000). Las Reformas al Sistema de Salud en Chile, Desafíos Pendientes. *Financiamiento para el Desarrollo* CEPAL Series, Number 104.
- Wöessman, L. (2000). Schooling resources, educational institutions, and student performance: The international evidence. Kiel Working Paper No. 983, Kiel, Institute of World Economics, December.
- World Bank (2003). Making services work for poor people. *World Development Report 2004*, September, Washington, DC.