



PENSION NOTES

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The Disability and Survival Insurance: Analysis of Chilean and Peruvian Experiences

EXECUTIVE SUMMARY

This is an analysis of Chilean and Peruvian experiences after carrying out similar, far-reaching reforms of their Disability and Survival Insurance (DSI) systems, and having now completed an operating period that enables drawing conclusions.

Both countries changed the bidding process for the DIS from a bidding process conducted by each one of the AFPs for their members, to a centralized bidding process for all members of the Pension System.

The institution responsible for conducting the centralized bidding process and assigning the DIS to the winning insurance companies (IC) is the Association of AFPs (on behalf of the AFPs), under the active supervision of the Superintendency, pursuant to law and the regulations. In this process, the total members' portfolio is divided into equal fractions, which are awarded to insurance companies, for the purpose of reducing the price to the minimum. The number of fractions awarded determines the percentage of the total cost of claims that each company must pay. Companies can only bid on a maximum number of fractions.

The result of the 5 centralized tenders carried out so far in Chile, and the 3 carried out in Peru, is clearly positive in terms of the cost of the DIS, the significant increase in the

number of participating insurance companies, increased competition, the diversification of risk, greater transparency, easier market access by new AFPs, and the elimination of incentives for selecting members with a lower propensity for accidents.

INTRODUCTION

In the individually funded systems, pensions are financed with the accumulated savings of workers throughout their working lives, including the returns or interests on their investments. But this is not always true, since in some cases, a worker could become disabled or die before reaching retirement age. The Disability and Survival Insurance (DSI) has been legally established to protect workers and their family groups with an adequate pension.

Since disability pensions (in the event of partial or total loss of working capacity) and survival pensions (mainly widowhood and orphanhood) of members covered by the DIS are legally established percentages of the average of the last wages of the worker (adjusted for inflation), the DIS makes a contribution to the individual account of the disabled worker, which is equal to the difference between the present value of the capital needed to pay the pension, and the

accumulated balance in his individual account to date.

Thus, for a worker who becomes disabled or dies at an early age, the contribution or complement paid by the DIS is significant, because his savings in the individual account are reduced, on the one hand, and on the other hand, because the life expectancy of the worker and his family group are significant. For a worker who is close to the official retirement age, the contribution or complement to the DSI is reduced (it can even be zero), due to the greater balance in his individual account, and lower life expectancy. Nonetheless, in the latter case, the likelihood of disability and death is higher.

A premium, as a percentage of income, (denominated taxable income in Chile, since there is a wage ceiling for calculating Social Security contributions), is paid together with the contribution to the pension fund every month. This premium enables financing the cost of the DSI of workers.

An important issue is the assessment of disability, which in Chile is conducted by Regional Medical Committees (RMC) which operate in the major cities, based on a manual for the assessment of disability, where disability is objectively assessed, with transparent and technical rulings. There is a higher authority, the Central Medical Committee (CMC), which analyzes the appeals of workers, the Life Insurance Companies and the AFPs. The procedure is similar in Peru, where disability is assessed by the Qualifying Medical Committee (COMAFP), managed by the Association of AFPs, and the Medical Appeals Committee (COMEC), managed by the Superintendency.

SITUATION PRIOR TO THE REFORMS

In both countries, the AFP's had to take out DSI for their respective contributors, since they were responsible for providing the DSI benefits to them. Thus, each AFP was free to choose the insurance company and the type of contract.

It was observed that the AFPs usually took out the DSI with an insurance company related to them, or to their same business group, and those that had no related company, faced the challenge of finding an insurance company that was preferably not related to its competitors.

In Chile in particular, the DSI accounted for approximately 50% of the operating costs of the AFPs, and they insured only the catastrophic risk with the insurance companies (ICs), through maximum or "stop loss" premiums. In each contract, the cost of claims and the net accumulated premiums were calculated, with the ICs reimbursing the surplus and a percentage of the returns obtained in the investment of the reserves, so that the ICs only received the cost associated to the claims, plus a fixed contract management cost. The above holds true to the extent that the claim is less than the "stop-loss," since otherwise the IC would suffer major losses.

Due to the importance of the DSI in the cost structure of the AFPs, there were strong incentives for them to try to control claims, by monitoring the disability assessment process and directing the efforts of their sales agents to workers with a low propensity for accidents.

In Peru, prior to the reform, if a claim covered by insurance occurred, the insurance company provided the additional contribution to complement the individual savings required for financing the pensions

established by law. The disabled member, with his savings complemented with the additional contribution, requested pension quotes from the insurance companies, with the insurance company contracted by his AFP being obligated to offer a pension equal to the pension stipulated by law. The claim was fully assumed by the insurance company.

The way in which the DSI functioned in Chile and Peru caused a reduction in the number of insurance companies participating in bidding processes, and was a source of criticism regarding competition and bidding transparency.

REASONS FOR THE REFORMS

The DSI reform sought greater efficiency, competition and bidding transparency, by increasing the number of participating insurance companies and economies of scale. In the particular case of Chile, there were also other objectives such as:

- (i) Removing the incentives for focusing the commercial strategy of the AFPs on attracting workers with a low propensity for accidents, which is a zero-sum game in a mandatory system, and consumes resources inefficiently.
- (ii) Reducing the risk of the AFPs, by only operating as fund managers, and not, to a certain extent, as insurance companies.
- (iii) Facilitating the entry of new AFPs, since insurance companies made it very difficult to insure a still non-existent portfolio, and/or charged higher premiums.
- (iv) Seeking greater gender equity, because men and women pay the same cost for

DSI, even though the claims of women are lower.

THE REFORMS

Chile and Peru made far-reaching and similar reforms to their Disability and Survival Insurance (DIS) systems (in 2009 and 2013, respectively). They are summarized as follows:

- There is joint bidding on the DSI for all contributors to the AFPs.
- The cost of the DSI is a fixed premium for the entire coverage period, without returns to the AFPs under any circumstances.
- The total contributors' portfolio is divided into equal fractions, which are awarded to the insurance companies, and on the basis of which the AFPs pay the corresponding premiums and determine the percentage of the total cost of claims that the insurance companies must pay.
- The bids submitted by the insurance companies in the bidding process are binding.
- A maximum number of fractions that an insurance company can apply for is established; the insurance company is obligated to accept a lesser number of fractions than the maximum amount it applied for, at the same premium rate.
- The insurance must be awarded to the insurance companies, so as to minimize the price. Each company winning the bid is paid the premium rate that it offered, but the additional monthly contribution paid by employers for financing the

insurance is determined by the AFPs, and corresponds to a weighted average of the rates offered by each of the winning insurance companies (a sole rate which the company will be informed of).

- Special attention is required by the Disability and Survival Department (DSD), which has been a fundamental tool for successful joint bidding for the DSI in both countries. The DSD was created by the Insurance Trade Association in both countries, in Chile on its own initiative, i.e. without being required by law, whereas in Peru, it was required by law. The sole purpose of the DSD is to centralize the management of the DSI, assuming responsibility for calculating reserves, paying claims, collecting premiums and, in Chile, the Observing Doctor System. The importance of the DSD is that it enables reducing the costs of participating in the DSI for the insurance companies, favoring the entry or re-entry of new insurance companies that were not awarded any fractions in the previous bidding process.
- The institution responsible for awarding the bid and assigning the DSI to the winning insurance companies, is the Association of AFPs (in representation of the AFPs), actively supervised by the Superintendency, pursuant to law and the regulations.

The main differences between the Chilean and Peruvian reforms are as follows:

1. In Peru, the members' portfolio is divided into 7 fractions, including men and women. The resulting bidding rate, is the average of the rates offered for each one of the fractions by the ICs that won the bidding. In Chile, the men and

women portfolios are separate, and each one of them is fractionated, separately calculating the resulting bidding rate for men and women. The additional contribution for financing the insurance is set at the highest level between both rates. Since claims by women are lower, this additional contribution is set at the level of the weighted premium charged by the insurance companies for men, resulting in a difference between the contribution and the premium in the case of women, which is deposited in their individual accounts.

2. In Chile, the additional contribution for financing the DSI is funded by the employers rather than the workers.

RESULTS

Chile

There have been five bidding processes in Chile under the new system. The average premiums are shown in the following table:

**Chile: Results of the DSI Bidding
(Average premiums)**

BIDDING	MEN	WOMEN
1st	1.87%	1.67%
2nd	1.49%	1.44%
3rd	1.26%	1.11%
4th	1.15%	0.95%
5th	1.41%	1.03%

Source: Chilean Association of AFPs

It is not easy to compare the above results with the premiums that were charged prior to the reform, since the coverage of the DSI was modified at the same time, increasing its costs significantly, due to the following:

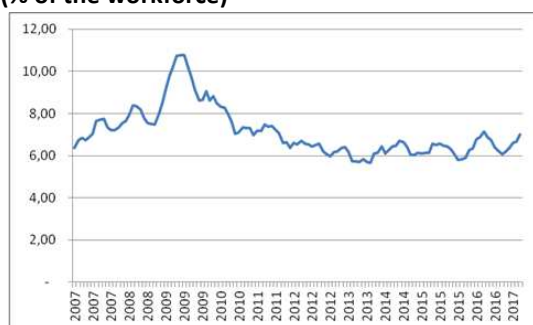
- Non-disabled male spouses and fathers of children out of wedlock were covered (both as beneficiaries of the woman).
- The transition period for completely disabled individuals was eliminated
- The DSI was extended to women up to age 65 if they do not retire and carry on contributing.
- Voluntary and self-employed members were incorporated.

Notwithstanding the above, if we consider that the cost of DIS claims prior to the reform was around 1% of taxable income, we see that in the first bidding there was a significant cost increase of approximately 0.8 percentage points.

This significant increase in the cost of the DSI in the first bidding, and the aforementioned changes in coverage, are explained by two additional elements: the increase in unemployment in the country due to the 2008 international financial crisis (see graph below), in which experience has shown that an increase in this indicator has resulted in a significant increase in disability; and the uncertainty that existed regarding the increase in claims that could occur due to the AFPs being disassociated from the DSI.

Unemployment Rate

(% of the workforce)



Source: National Institute of Statistics (INE).

The value of the premium fell sharply in the second and third bidding (20% and 15% for men, and 15% and 23% for women, respectively) and the dispersion or deviation between bids was also reduced (8.42%, 4.52% and 1.93% for men in the 1st, 2nd and 3rd bidding, respectively), due to less uncertainty regarding the legal changes that were implemented in 2008, the reduction of unemployment, and the availability of more information.

If we look at the difference between the awarded DSI rate and the cost of claims for each of the bidding periods, we can also see that the difference narrows over time, due to a reduction in uncertainty and growing competition between insurance companies.

The increase in the value of the premium in the last bidding obeys the following factors, among others: i) A sharp decline in the interest rate used for calculating the additional contribution the ICs must pay in case of a claim; ii) changes in the disability and survival life expectancy tables, iii) Changes in the guidelines for assessing disability; iv) Civil Union Agreement Law, which regulates, among other matters, civil partners and same-sex relationships that affect the cost of survival pensions, and; (v) Compliance with the term of the transitional period, which makes it mandatory for independent or self-employed workers to contribute.

One aspect that caused particular concern among those entrusted with designing the bidding for the DSI, was the low number of ICs that were offering the insurance to the AFPs prior to the reform, which motivated the Association of AFP's to engage two prominent university professors specializing in bidding, to participate in drawing up the bidding rules and regulations. In fact, prior to the reform, the 5 existing AFPs had taken out

insurance for their members with 5 ICs, three of which belonged to the same controlling group as the AFPs.

On analyzing the results of the first 3 tenders in terms of the number of ICs that had submitted bids, and the number of fractions offered (see table below), it can be seen that the results were very satisfactory, emphasizing the fact that in the first bidding the number of fractions offered surpassed the tendered fractions by 100%, in the second bidding by almost 200%, and in the third bidding by more than 300%. These values consider the fact that two new life insurance companies had been formed solely for the purpose of participating in the DSI bidding.

It is also important to point out the risk diversification that occurs when centralizing the DSI, since when an accident occurs, its cost is assumed by the ICs that won the bidding, based on the number of fractions.

It is important to note that after a while, the term or period of the billing, increased from one to two years.

Finally, it is worth mentioning how the separation of the DSI by gender is working, using current figures (5th bidding). The additional contribution for financing the insurance is charged to the employer, at the same percentage for all workers, corresponding to the average rate for men (1.41%). So the AFPs collect 1.41% of the taxable income (TI) of all the contributors (men and women) and pay each one of the ICs the amount that must be applied to the TI, namely the rate with which each one of them won the bidding, for men and women. Furthermore, since the average rate for women is only 1.03%, the AFP must deposit the difference (0.38% of the TI) in the individual accounts of female contributors.

Bidding Insurance Companies and number of fractions offered

LICITACIÓN	N° de CSV participantes (1)		N° de fracciones ofertadas	
	Hombres	Mujeres	Hombres	Mujeres
1°	9	8	13	9
2°	11	11	18	14
3°	16	14	25	21

Source: Chilean Association of AFPs

- (1) The number of participating LIC is greater, since it considers two insurance companies acting in coinsurance as only one company. 2, 2 and 1 LIC, respectively, participated in coinsurance in the 1st, 2nd and 3rd tenders.

PERU

Three bidding processes have been held in Peru under the new system. The bidding for the DSI is conducted by dividing members into 7 fractions (without separating men and women), establishing a maximum of 2 fractions that every insurance company can be awarded.

The average number of premiums awarded in the bidding are shown in the following table:

Peru: DSI bidding results
(% of taxable income)

BIDDING	PREMIUM
1st	1.23%
2nd	1.33%
3rd	1.36%

Source: Peruvian Association of AFPs

If we consider that the cost of the DSI was 1.31% prior to the reform, the first bidding process generated a small saving (6%). Subsequent increases in the cost of the DSI are explained by increases in the number of claims. It is worth mentioning that claims experienced strong growth in the years prior to the reform, and carried on growing thereafter, but at a more moderate pace.

If one analyses the number of life insurance companies participating in the DSI, it can be seen that the reform entailed an increase of 50% in the number of insurance companies winning tenders, and by more than 100% if we consider the number of companies that submitted bids, compared to the initial situation, in which the 4 existing AFPs had taken out the DSI with a related insurance company in most years.

Finally, in the second bidding process, the bidding term, or period, was increased from one to two years.

CONCLUSIONS

The experiences regarding the centralization of bidding for the disability and survival insurance (DIS) in Chile and Peru, have been clearly positive. In terms of the cost of the DSI, even though there is no robust evidence, the Chilean case shows that after a significant increase in the cost of the DSI, which coincided with changes in its coverage incorporated by the 2008 pension reform, the cost dropped in the following bidding processes, reducing the difference between the cost of claims and the premiums paid to the insurance companies, which would appear to demonstrate that a very competitive bidding system has been achieved. Experience also shows that in both countries, the bidding that each AFP engaged in for its own members prior to the reforms had achieved, competitive market rate levels, fully fulfilling their role as fund managers, even though they were not optimal compared to centralized bidding.

The sharp increase in the number of insurance companies participating in the bidding is noteworthy, generating more intense competition and greater risk diversification for the companies and members covered by the insurance. The fact that insurers compete for a fraction of the total portfolio, and not for a smaller portfolio, helps to reduce systemic risk.

The contribution to transparency is also important, since the bidding by the AFP was often won by an insurer related to the controlling group, which affected the image of the system.

Facilitating the entry of new AFPs, with a DSI cost equal to that of current competitors, and eliminating incentives for selecting members with a lower propensity for

accidents, which in a mandatory system is a zero-sum game, are also arguments for qualifying this experience as positive.