



Pension Notes

No. 6 – SEPTEMBER 2015

Pension options in the individually funded systems: Evaluation and proposals for improvement¹

1. Introduction

The purpose of this document is to analyze the different pension options existing in the individually funded systems, with particular emphasis on the conditions that must be met. It also discusses some proposals that have been put forward for their improvement.

The different types of pension options available in an individually funded system must ensure compliance with the main objectives of this type of pension system. In general terms, one could say that the purpose of an individually funded system is to grant to the largest number of workers reaching retirement a stable and financially sustainable pension that reasonably replaces the income received during their active phase.

This document is structured as follows. The following section analyses the pension process, emphasizing the Chilean experience, since a substantial change for improving its functioning was introduced in this country in 2004, as well as other factors that affect the amount and safety of pensions in the passive stage. Section 3 reviews the non-traditional and traditional pension options (immediate life annuity and programmed withdrawals), while section 4 presents the proposal of introducing a longevity insurance. Finally, section 5 presents the conclusions and recommendations.

2. The pension process and other relevant factors for the amounts and safety of pensions

Before reviewing pension options as such, it is important to point out the importance of the pension process in the individually funded system, i.e. the mechanism whereby members choose their pension mode. It is crucial for the regulations and institutional framework of the pension systems to ensure that this process is competitive, transparent, simple and inexpensive for members. The different institutions licensed to offer pension products must also have the necessary and timely information for participating in a competitive environment for the provision of pensions. Moreover, retiring members must have access to mechanisms that inform them of the alternatives available to them in a simple and comparable manner (Acuña *et. al.*, 2015).

¹ Document drawn up by FIAP.

Thus, the existence of a competitive market in which pension providers and pension seekers participate simultaneously, with information on the individuals who are retiring and the offers of the different agencies providing pensions, is essential for ensuring a greater pension amount from the accumulated balance in the individual accounts of members.

It is interesting to analyze the particular case of Chile, since it is the country in which the individually funded system has been operating for the longest time and in which the pension process was significantly improved in 2004, when the Pension Amounts Queries and Offers System (SCOMP)² was created. This system is mandatory for all members who wish to retire and choose a pension mode. The purpose of SCOMP is to enable retirees to make queries regarding pension offers, and receive, in the form of a certificate, clear, complete and comparable information regarding the pension amounts offered by the different pension providers (life insurance companies and pension fund managers) under the different pension options.

The implementation of SCOMP sought to improve certain deficiencies prevailing in the pension process, in particular: (i) the high intermediation commissions, which decreased pension amounts; and (ii) the asymmetry of information between future pensioners and sales agents, who had significant influence on the final decision of members, who often chose their pension options based on limited and often biased information regarding existing offers.

Several studies have examined the effects of SCOMP on the pension system. Among others, Morales and Larraín (2015), using data for the 2001-2008 period, found that competition in prices (pension amounts) has increased after its implementation. Acuña *et. al.* (2015), on the other hand, point out that the main results obtained from the operation of SCOMP are: increased competition via prices in the provision of pension options; the reduction of intermediation commissions paid by retirees, and therefore an increase in the pensions received; and the transparency and quality of information received by members and the agencies providing pensions.

The amount and safety of the pensions received by members of the individually funded systems also depend on the characteristics of the regulations and the operating conditions of the agencies involved in the pension products industry, i.e., life insurance companies and pension fund managers. Several countries are experiencing limitations and inefficiencies in the operation of these industries and in the development of their range of pension products, which must be corrected in order to improve the benefits that members receive. For example, the only existing pension mode in Uruguay is life annuity, which is currently offered only by *Banco de Seguros del Estado*, since there are no conditions for greater competition in the market.

² For further details on SCOMP, we invite you to watch the following video on our YouTube channel: <https://www.youtube.com/watch?v=OIAP3x5o1L4>

3. Pension options: traditional and non-traditional

Traditional pension options are understood to be those that are most often present in countries that have reformed their pension systems by introducing individual funding. Thus, programmed withdrawal (PW) and immediate life annuity (ILA) are the two traditional pension options.

Non-traditional pension options, on the other hand, are usually hybrids between the two traditional options, for example: temporary income (TI) with deferred life annuity (DLA) or immediate life annuity with programmed withdrawal. The lump sum retirement mode is also considered to be non-traditional.

Table No. 1 shows which of these pension options are present in FIAP member countries. It must be pointed out that there are other non-traditional pension options that are not included in Table No. 1, such as for example the Family Pension in Colombia, which enables combining years of contributions between married or common law couples to meet pension requirements, or combining balances to access the minimum pension.

Table No. 1
FIAP member countries: presence of pension options

| Country | Traditional Options | | Non-traditional Options | |
|-----------------|-----------------------|------------------------|-------------------------|---|
| | Programmed withdrawal | Immediate Life Annuity | Lump Sum | Temporary Income with Deferred Life Annuity |
| Bolivia | | • | | |
| Bulgaria | • | • | | |
| Chile | • | • | | • |
| Colombia | • | • | • (1) | • |
| Costa Rica | • | • | | |
| El Salvador (2) | • | • | • (1) | • |
| Kazakhstan | • | • | | |
| Mexico | • | • | • (1) | |
| Peru | • | • | | • |
| Dominican Rep. | • | • | | |
| Uruguay | | • | | |

(1) In Colombia, El Salvador and Mexico lump sum retirement is permitted only if members fail to meet the requirements to qualify for a pension.

(2) In practice, the only mode that members in El Salvador can currently choose is programmed withdrawal.

Source: FIAP.

3.1. Traditional Pension Options: Immediate Life Annuity and Programmed Withdrawal

Although most of the countries that have reformed their pension systems, creating individually funded systems, have established the two traditional pension options, i.e., immediate life annuity or programmed withdrawal, only life annuity is available in Bolivia and Uruguay. In El Salvador, although the regulations establish the existence of the life annuity and programmed withdrawal options, members only can opt for the latter in practice, since the annuities market is still not developed in the country, mainly due to the conditions in which certificates of transfers are paid to members who switched from the former pension system.

In the **programmed withdrawal mode**, members receive a monthly pension charged to the balance of their individually funded accounts. The pension amount is calculated annually based on the characteristics of the pensioner and his legal survival pension beneficiaries (mainly age and gender), current mortality tables, the discount interest rate for the calculation of the capital needed for paying each pension unit (assumed return in future years) and the accumulated balance in the individually funded account.

Thus, under this pension mode, members maintain ownership of the balances accumulated in their individual accounts; there is no solvency risk, due to legal and accounting separation between the balances accumulated in the individual accounts of pensioners enrolled in the pension funds and the fund managers' own resources; the decision may be revoked, i.e. a member who chooses this pension mode can subsequently reverse his decision and opt for another pension mode; and there is competition, because members can change provider while maintaining ownership of the funds. Should the pensioner die, the remaining balance will be used for paying the survival pension to his beneficiaries, and if there are no beneficiaries, any remaining funds will be paid as an inheritance.

A regular and fair criticism of programmed withdrawal is the declining trend of the pension amount as the pensioner gets older, which contradicts the intended purpose of a pension system of offering stable benefits over time. In programmed withdrawal the pensioner assumes two important risks: longevity and return on investments. The longevity risk implies that if the pensioner's age or the lives of his beneficiaries extend beyond the average life expectancy, the amount of the pension is reduced, possibly reaching values considerably less than the first pension received and/or amounts that do not cover minimum standards of living. On the other hand, since the member maintains ownership of the existing balance in his individually funded account, he must assume the investment risk of such balance and the corresponding volatility in pension amounts, depending on the fund in which he keeps his pension savings. Pensioners are annoyed by the fact that the pension amount in the programmed withdrawal mode decreases, since it is a concept that is difficult to explain and understand (Edwards and Diaz, 2011).

In order to mitigate the declining programmed withdrawal profile, the Chilean pension reform of 2008 established the application of an adjustment factor which reduces the initial programmed withdrawal amount, with the aim of forming a reserve that is later used to smooth changes in its amount over time. The reserve begins to be used to raise the amount of the pension when it becomes less than 30% of the initial benefit received. From that moment onward, the reserve

covers a certain period, but if the pensioner lives longer than estimated, he will be subject to new reductions of the pension amount when the reserve is exhausted. Accordingly, this reserve establishes a temporary floor (30% of the amount of the initial pension) to programmed withdrawal, but does not prevent further reductions if the pensioner lives for a long time.

One proposal that is currently being discussed and that would help to protect against the risk of longevity is the one put forward by Bernstein, Morales and Puente (2015), who suggest the establishment of a mandatory longevity insurance to protect those who live beyond the average life expectancy. The longevity insurance would be paid throughout the active life of the worker and would cover pensions after a certain advanced age (85) through the purchase of a deferred life annuity at the time of retirement. Thus, workers can access all of their pension savings to finance the first stage of their old age (between 65 and 85), in which the probability of survival is high, leaving the later stage (after 85) to be financed with the insurance³. This smoothes the decreasing programmed retirement profile, and at the same time establishes a floor (the authors propose 70% of the initial pension) which would be reached on turning 85, at which time the longevity insurance would begin to pay the pensions.

One pension mode that already exists in several countries (see Table No. 1) and provides protection against the risk of longevity, is temporary income with deferred life annuity. However, as we will discuss in Section 2.2, there is little demand for this pension mode and the terms of deferral of life annuities are very short.

Immediate life annuity, on the other hand, consists in a constant pension paid monthly by a life insurance company to the pensioner until the time of his death, and subsequently, to the legal survival pension beneficiaries. The amount of the ILA may or may not be corrected for inflation. In Peru, for example, ILAs can be taken out in new soles, adjusted according to the inflation in the country, or in U.S. dollars, in which case there is no adjustment for inflation. In general, the ILAs paid in Latin American individually funded systems are expressed in real terms, i.e., corrected for inflation.

In this type of life annuity, the pension fund manager transfers the funds accumulated in the member's individual account to the life insurance company, due to which the member loses ownership of these funds. The insurance company assumes 100% of the investment and longevity risk of the pensioner and his legal beneficiaries.

Table No. 2 shows a comparison of the main features of the two traditional pension options.

³ Further details on the longevity insurance are presented in Section 4 of this document.

Table No. 2
Programmed Withdrawal vs. Immediate Life Annuity: Main Characteristics

| Characteristics | Programmed Withdrawal | Immediate Life Annuity |
|--|--|------------------------------------|
| Management | AFP | Insurance Company |
| Possibility of change of pension mode | Yes | No |
| Ownership of the funds | Member | Insurance Company |
| Longevity risk | Not covered | Covered by Insurance Company |
| Investment risk | Not covered | Covered by Insurance Company |
| Risk of bankruptcy of the fund manager | No | Yes, with limited State guarantee |
| Inheritance | Charged to the balance of the individual account | Only via guaranteed payment period |
| Stability of the pension | Variable pension, usually decreasing | Constant pension |

Source: FIAP based on Edwards and Diaz (2011).

The best pension mode for members depends on their preferences, characteristics and particular conditions, such as the structure of the family group and the existence of other savings that will be allocated to pension and health. For example, Lejarraga, Vidal and Devesa (2002), provide evidence that, in general, individuals not committed to leaving an inheritance would always obtain greater returns by taking out a life annuity through an insurance company than they would achieve through programmed withdrawal. What is important is the existence of the necessary conditions for members to be able to adequately select the pension mode that most suits them, for which they must have sufficient, transparent, simple and comparable information, and a selection process that allows them to evaluate the benefits and the amounts of the different existing options, while promoting competition between the different agencies providing pension products.

In this regard, Blake (1999) points out that the life annuity markets are not sufficiently developed, even in many of the most financially advanced countries, which usually makes life annuity costs very high. Nonetheless, he highlights the remarkable depth achieved by the Chilean life annuity market, which is the most important life annuity market in the world after the United Kingdom, and which also offers relatively high pension amounts for those who opt for this pension mode (Rocha, Morales and Thorburn, 2008).

Another aspect of the life annuities market one must pay attention to is the existence of evidence of adverse selection, i.e., individuals who expect to live longer are precisely those who most demand life annuities⁴. In order to protect themselves from this asymmetry of information, the insurance companies charge higher premiums. Hence, the life annuity received by the member is less than he would have received in the absence of this market flaw.

Furthermore, life annuity intermediation costs are high in some countries. These costs reduce the income offered by insurers to pensioners. According to Devesa and Vidal (2001), the transformation of cumulative savings in the individually funded account into a life annuity in Latin American countries involves very high commissions. In Chile, for example, the commission received by life annuity sales personnel could be as much as 6% of the fund accumulated in the individually funded account, and sometimes even more. In order to curb this extremely high cost, Executive Decree No. 782 of September 15, 2010 (ratified on June 7, 2012) stipulated that the commissions of life annuity sales personnel cannot be more than 2% of the accumulated fund, with a cap of 60 UF (approx. USD 2,362⁵).

Other problems of the life annuity markets mentioned in the literature are conflicts of interest in the sales process, lack of transparency and the limited knowledge of the consumer (Palacios and Rofman, 2001).

There are also rules and regulations in several Latin American countries that restrict the development of the life annuities market. In Chile, pensioners can only take out life annuities whose amounts are greater than the Basic Solidarity Pension⁶, otherwise, they must opt for programmed withdrawal. In Colombia, the constitutional requirement that the pension cannot be less than the minimum wage severely limits the development of the life annuities market. In Uruguay, the constitutional requirement for pensions to be adjusted to the variation in wages and the scarce offer of financial instruments indexed to such variation, restrict competition in the life annuities market and turn it into a virtual monopoly run by *Banco de Seguros del Estado*. The lack of competition in Uruguay is aggravated by the absence of other pension options. According to Acuña *et al.* (2015: 37) one of the main challenges of the individually funded system in Uruguay is the use of updated mortality tables, the separation of the reserves of pension life annuities from the reserves already existing for other business areas, as well as improving the ratio between the assets and liabilities of life insurance companies.

In conclusion, both programmed withdrawal and immediate life annuity have advantages and disadvantages, so a member's option for either of these two pension options will depend on his personal preferences, the characteristics of his family group and his financial reality. One cannot

⁴ James and Vitas (2000) find evidence of adverse selection in the annuities markets of Canada, the United Kingdom, Switzerland, Australia, Israel, Chile and Singapore. Similar results are reported by Mitchell and McCarthy (2002) for the United States and the United Kingdom and by Finkelstein and Poterba (2000) for the United Kingdom.

⁵ As of June 30, 2015: 1 UF = CLP 24,982.96 and 1 USD = CLP 634.58.

⁶ The Basic Solidarity Pension in Chile enables those who do not have the right to a pension in any pension regime to access an amount of CLP 89.514 as of June 2015 (USD 141 at the exchange rate on 30.06.2015). This amount is adjusted automatically on July 1 each year, by 100% of the variation of the Consumer Price Index (CPI) of the last 12 months, counted as of the last adjustment, or when this variation reaches or exceeds 10%, if this occurs first.

say that any pension mode is "better" than the other, but rather what is crucial is that the pension system provides the individual with the possibility of choosing between different pension alternatives, so that he can choose the one that most fits his individual characteristics. The necessary measures for improving the different pension options must also be taken.

3.2. Non-traditional Pension Options

This section provides a brief description of some of the non-traditional pension options, particularly lump sum withdrawal and temporary income (TI) with deferred life annuity (DLA). It must be pointed out that it does not include the full range of pension options existing in different countries. Table No. 1 shows the FIAP member countries in which these pension options are available. Lump sum withdrawal is available in Colombia, El Salvador and Mexico, whereas TI with DLA is available, at least officially, in Chile, Colombia, El Salvador and Peru. However, in practice this pension mode is not operational in El Salvador, and in Colombia it is practically non-existent.

Lump sum withdrawal

This mode involves the one-off⁷ withdrawal of the total amount accumulated in the individually funded account. It allows members full freedom and flexibility for disposing of their funds and using them for the purpose that they deem appropriate, such as the purchase of a life annuity, payment of a mortgage or any other use. The total freedom provided by this option involves the risk that members who choose this mode will not be financially disciplined, will spend the money and will not have a pension flow over time, remaining unprotected during much of their passive lives. This mode is allowed in Romania and the United Kingdom (only in the case of defined contribution pension plans).

In the Latin American region, the Mexican, Colombian, and El Salvadorian fund managers return the accumulated balances in the individually funded accounts to members who fail to meet the requirements for receiving a pension. In Colombia, for example, the pension must be at least equal to the minimum wage, a requirement that the majority of members do not meet with the accumulated balances in their individual accounts. This is most likely in the case of lower-income individuals. In El Salvador, balances are also returned to members who do not have a minimum number of years of contributions at retirement age; lower-income workers and women are the ones who mostly fail to meet this requirement (Acuña *et al.*, 2015).

Lump-sum withdrawal is inconsistent with the objectives of a pension system, due to which Acuña *et al.* (2015: 71) state that in the case of members who recorded very few contribution periods and therefore, have low balances accumulated in their individual accounts, *"the design of benefits should not contemplate a one-off return of funds, but rather the payment of pensions. If the balances in the accounts are insufficient for financing a minimum level of pensions, the benefits can be raised until such minimum level is reached, even if it entails a fewer number of years"*

⁷ Withdrawal in several installments is also allowed occasionally, as for example in El Salvador.

receiving the pension. After this period has concluded, the pensioner may or not receive State support depending on whether he meets the respective requirements". According to the same authors, lump sum withdrawal should only be allowed for those members who have a very low balance and are not eligible for receiving benefits from the non-contributory pillar.

Temporary Income with Deferred Life Annuity

This is a combination of the immediate life annuity and programmed withdrawal pension options. This pension mode is allowed in Chile, Colombia, El Salvador and Peru. However, in practice it is not yet operational in El Salvador, and in Colombia is virtually unused.

On opting for this pension mode, members take out a life annuity with a life insurance company from a date after they retire. In the period prior to the date on which the member begins to receive the life annuity, he receives a monthly pension financed with the funds especially withheld for such purposes in his individually funded account with his Pension Fund Manager. Thus, the member maintains ownership of these funds and assumes the financial risk only for that part of the balance that remains in the fund manager, and for a limited period of his life. Nonetheless, he does not assume the survival risk, which must be assumed by the insurance company with which he took out the deferred life annuity (DLA), as well as the financial risk of this second pension period.

Temporary income (TI) with DLA allows the member to take advantage of both pension options. On the one hand, he maintains ownership of the part of the fund destined to TI, which is left as an inheritance in case of death without survival pension beneficiaries. On the other hand, on including a deferred life annuity, the member has a guaranteed pension for life and does not assume the longevity risk faced in programmed withdrawal.

An additional advantage of this mixed mode, compared to programmed withdrawal, is that adjustments associated with life expectancies are not considered for calculating the temporary income amount (i.e., adjustments using mortality tables are not made), which makes the temporary income amount greater than the amount that would be obtained when opting for traditional programmed withdrawal.

Different studies agree that TI with DLA, in which the DLA starts to be paid at an advanced age (for example at age 85), is one of the best pension options from the social security standpoint. For example, Antolin (2008a and 2008b), states that TI with DLA is an inexpensive alternative that enables achieving a balance between flexibility and protection: temporary income provides flexibility and liquidity for meeting any contingency, whereas deferred life annuity provides guarantees against the risk of longevity, using only a small portion of the total accumulated balance. The author estimates that between 10-15% of the accumulated fund would be sufficient to finance a deferred life annuity that would start paying benefits at age 85. Similar results are

obtained by Edwards and Diaz (2011), who estimated that only 11% of the accumulated fund would be required to fund a deferred life annuity that would start operating at age 85⁸.

Antolin (2008b) emphasizes that the main policy recommendation for policymakers is to make it mandatory for members to buy a deferred life annuity that starts payments at an advanced age (for example, at the age of 85), and destine the rest of their individually funded account to programmed withdrawal. According to the same author, the obligation to acquire a deferred life annuity can only be enforced if there are adequate financial instruments for insurance companies to be able to cover the risks involved. However, practical experience shows that "forcing" members of an individually funded system to purchase a life annuity may be counterproductive; as it is perceived by them as an "expropriation" of their savings (they lose ownership of their funds).

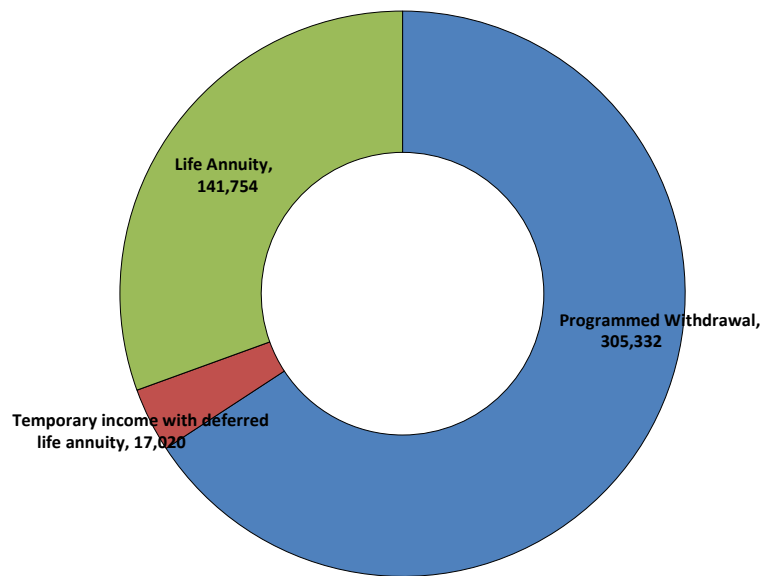
In the United Kingdom, for example, it was mandatory until April 2015 to purchase a life annuity after age 75 for women and 77 for men. However, a new law came into effect on April 6, 2015, that eliminates this requirement and provides full freedom to the members of defined contribution systems to choose the amount and periodicity of withdrawals from their pension funds. According to the authorities, this change in regulations is due to the fact that individuals are sufficiently capable and responsible to know how to distribute their savings in old age. Nonetheless, Blake (2014) considers that this measure is counterproductive, because, with the exception of the terminally ill, it is very difficult for an individual to reasonably anticipate how long he will live. Another one of Blake's criticisms (2014) is that the decumulation process is very complex, since it does not only involve the accumulated funds, but also other factors such as the decision to leave an inheritance, the taxes involved, etc. If an elderly person errs in the decumulation process, his decision is irreversible.

Despite the potential benefits of this mixed pension mode, international experience has shown that there is very little demand for this alternative. In the case of Chile, according to data from the Superintendency of Pensions, TI with DLA accounted for only 3.7% of all old-age pensions paid in the month of June 2015, (see Graph No. 1). This figure, however, also includes individuals who cannot opt for a life annuity since they do not meet the condition that it must be greater than the Basic Solidarity Pension, due to which they are forced to retire in the programmed withdrawal mode. If we consider only old age pensioners who can choose between the three pension options (programmed withdrawal, immediate life annuity and temporary income with deferred life annuity)⁹ it can be seen that the TI with DLA share is much greater, standing at 38% in the last quarter of 2014 (see Graph No. 2).

⁸ In their estimates the authors assume an individual without beneficiaries. They also assume that the amount of the RVD is equal to the amount of the RT.

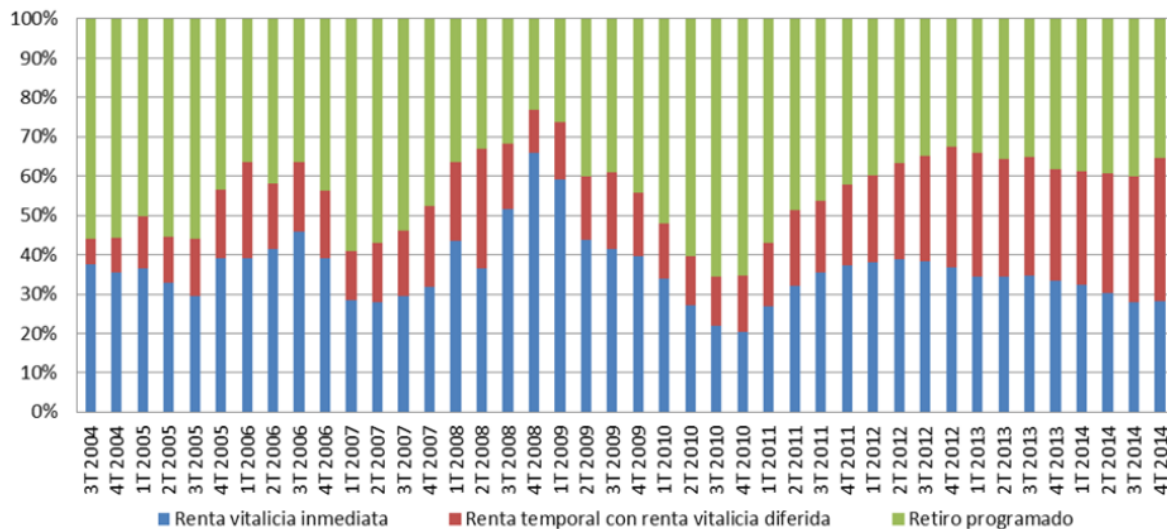
⁹ Using data from the Pension Amount Consultation and Offers System (SCOMP)

Graph No. 1
Chile: Number of old-age pensions paid, according to type of pension
 (To June, 2015)



Source: Chilean Superintendency of Pensions

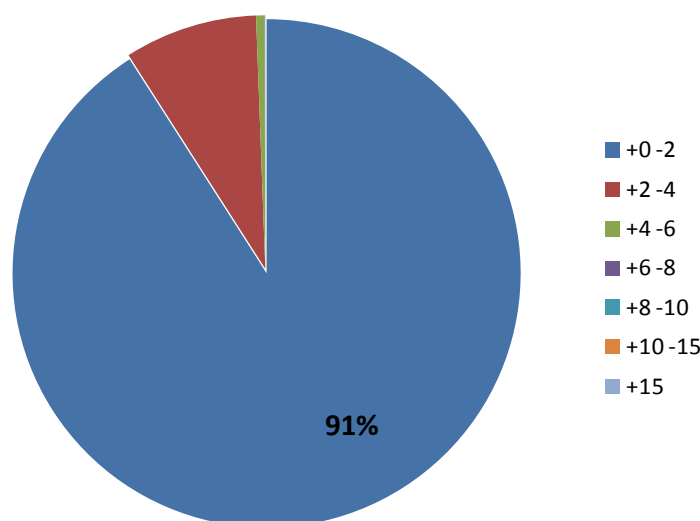
Graph No. 2
Chile: Number of new old age pensioners, by type of pension
 (includes only those pensioners consulting SCOMP)



Source: Berstein, Morales and Puente (2015) based on SCOMP data.

Unfortunately, the DLA deferment period is very short, concentrated mostly between 0 and 2 years: to June 30, 2015, 91% of the RVD had a deferment period of between 0 and 2 years (see Graph No. 3), which reflects a preference for very short-term liquidity.

Graph No. 3
Chile: Total number of deferred life annuities taken out for old age pensions, by years of deferment
 (To June 30, 2015)



Source: Chilean Superintendency of Pensions.

In the case of Colombia, the demand for RT with RVD is still very limited. According to data of the Financial Superintendency of Colombia, only two of the 20,587 old-age pensioners to February 2015 are in the TI with DLA pension mode (i.e. 0.01% of the total number of old age pensioners). In fact, about 90% of old-age pensions are in the programmed withdrawal mode. The life annuities market has not developed properly due to the fact that insurers must ensure that the amount of the pension is equal to or greater than the minimum wage (which is adjusted every year). In order to stimulate the life annuities market, the Government issued Decree 036 at the beginning of 2015, whereby it bears the cost of the growth of the minimum wage over and above productivity. This decree establishes the coverage mechanisms that allow insurers to ignore the risk of minimum wage increases, in order to be able to offer life annuities and facilitate the retirement of members in this pension mode.

In Peru, TI with DLA accounts for a greater number of total pensions than in Chile and Colombia. In fact, it is the most used mode, with a market share of 35.4% to June 2014 (Acuña *et al.*, 2015). However, the deferment period is a maximum of up to two years, but the Superintendency of Banking, Insurance and AFPs (SBS) has recently proposed to extend it to 5 years.

There are several factors that would explain why this pension mode has a low share in the total number of pensions. According to Edwards and Diaz (2011), these factors are related to both the demand (members) and offer (insurance companies) factors.

On the demand side, there is a lack of understanding by members regarding their characteristics, costs and benefits. Also, deferred life annuity for very long periods (for example 10, 15, or 25 years) generates uncertainty among members, since they have no contact with the insurance company throughout that period. Finally, there is a selection bias, i.e., the people who expect to live longer are the ones most attracted by such products. A solution to the latter problem is to make it mandatory to purchase a deferred life annuity that starts paying at an advanced age (for example, at the age of 85), as suggested by Antolin (2008b).

On the supply side, insurance companies have less incentive to offer this pension mode, since deferred annuities are expensive due to the lack of long-term investment instruments and the difficulty of predicting mortality over long periods of time. In this regard, Antolín (2008a) suggests that the Government could contribute to the solution of this problem through the publication of reliable longevity rates that could be used by the insurance companies as a benchmark for pricing deferred life annuities. The Government could also contribute to the development of this pension mode by issuing long-term sovereign debt instruments.

In the Chilean case, there is also a distortion in the commissions of pension advisors that encourages them to promote immediate life annuity. In particular, pension advisers obtain a higher commission if the member opts for an immediate life annuity than if he chooses a temporary income with deferred life annuity (see Table No. 3).

Table No. 3
Chile: Commissions for pension advice, according to pension mode

| Pension Mode | | Minimum rate (% of the fund) | Ceiling in UF* |
|--------------|-----|---------------------------------|----------------|
| RVI | | 2.0% | 60 |
| RP | | 1.2% | 36 |
| RT with RVD | RT | 1.2% | 36 |
| | RVD | 0.8% | 24 |
| RVI con RP | RP | 1.2% | 36 |
| | RVI | 0.8% | 24 |

(*) 1 UF= CLP 24,982.96 to June 30, 2015.

Source: Chilean Superintendency of Pensions.

Diaz and Edwards (2011) propose a series of measures for promoting the use of this pension mode in Chile, in particular:

- Correct the standing rules and regulations to modify the commission structure so that it is the same for temporary income with deferred life annuity and immediate life annuity.
- Modify the SCOMP bidding system to extend deferment terms beyond 10 years.
- Train social security advisers in this pension mode.
- Design a communication strategy for promoting this pension mode.

Other non-traditional pension options

As of August 2004, Chilean law has allowed life annuities to have a variable component. In order to take out this pension mode, which is known as **variable life annuity**, it is required to have a fixed component at least equal to the Basic Solidarity Pension. However, there are no products on the market to date that incorporate this pension mode. Another option available in Chile and Peru is **immediate life annuity with programmed withdrawal**¹⁰, which offers the possibility of simultaneously taking out immediate life annuity and programmed withdrawal. When choosing this option, the funds that members have in their individual account in the AFP are divided, purchasing an immediate life annuity with part of them and opting for programmed withdrawal with the rest of the fund.

Colombia recently launched the **Family Pension**, which provides spouses or common law couples who have reached the legal retirement age (57 for women) and 62 for men) with the possibility of adding their weeks of contributions to meet the legal requirements for accessing a pension, or adding their saved capital for financing a shared pension which exceeds the amount of the minimum pension.

4. The proposal of a longevity insurance as an alternative for improving pensions

Berstein, Morales and Puente (2015) propose the creation of a longevity insurance as an alternative for increasing the replacement rate of existing Latin American pension systems, particularly in Chile, Mexico, Colombia and Peru, within a context of population aging. Such insurance would enable covering the survival risk in the case of programmed withdrawal, which currently does not offer protection against that risk. This insurance also reduces the cost of life annuities, and enables increasing pensions under any of the two traditional pension options (i.e. programmed withdrawal and immediate life annuity).

The longevity insurance would be paid throughout the active life of the worker and would cover pensions after a certain advanced age (85) through the purchase of a deferred life annuity at the time of retirement. Thus, workers can access all of their pension savings to finance the first stage

¹⁰ In Peru, this mode is known as mixed income, in which the member takes out two simultaneous monthly pensions: one in the form of a life annuity in dollars and the other in the programmed withdrawal mode in new soles. There is also the Combined Income mode, in which the option of acquiring a life annuity and a programmed withdrawal is offered, with the additional option of a percentage of the life annuity being paid in dollars (70%, 60%, or 50%).

of their old age (between 65 and 85), in which the probability of survival is much higher, leaving the later stage (after 85) to be financed with the insurance.

According to the proposal, the implementation of this insurance would help to correct the main shortcomings of the traditional pension options. On the one hand, the fact that it is mandatory would avoid adverse selection (as in the case of immediate life annuities) and would generate an ample "pool" in the financing of pensions at advanced ages. On the other hand, in the case of programmed retirement, which does not currently provide coverage of the longevity risk, this scheme would enable incorporating this coverage.

The implementation of this type of insurance would also benefit from the advantages of deferred life annuities which, as previously mentioned, are considered one of the best options from the social security standpoint. However, according to available records, they have a low share in total pensions (Berstein, Morales and Puente, 2015).

5. Conclusions and recommendations

Existing pension options must have characteristics consistent with the objectives of the individually funded system and pension systems in general, in particular the provision of stable benefits throughout the retirement stage of the individual. It is therefore necessary to review and improve the rules and regulations governing programmed withdrawal in the different countries, in order to mitigate the declining profile of the pension amount. The implementation of measures that will stimulate the development of the temporary income with deferred annuities market, a pension mode that already exists in several Latin American countries, and whose benefits are reported in the literature, or the taking out of a longevity insurance that covers survival after a certain age, can offer solutions to this problem.

It is also necessary to restrict the lump sum provision of the total balance accumulated in the individual savings accounts of members who retire and do not meet the requirements for accessing a pension, only authorizing it in exceptional cases in which the accumulated amount is too low and does not suffice to cover a certain number of minimum pensions (which should be stipulated by law).

In the case of life annuities, it is necessary to implement measures that strengthen the competence and solvency of the insurance companies, reduce the risks faced, facilitating the proper balance between their obligations of paying pensions and the assets backing them, for which it is fundamental to develop the financial market and the supply of suitable instruments for the investment of their reserves (Acuña *et al.*, 2015).

Finally, the individually funded system must ensure competition between the different agencies providing pensions. For such purposes, the pension process must be reviewed and improved in order to ensure that it is competitive, transparent, simple and inexpensive for members. To achieve this goal, it is necessary to have a system that allows the operation of a market in which pension providers and pension claimants jointly participate.

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