THE POLICY LADDER: A FAIR TOOL TO MANAGE PENSION FUND RISK

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ABP recently (July 2003) has introduced a new system of management of pension fund risk, the so-called 'policy ladder' (in Dutch beleidsstaffel*).*
The ladder leads to two important adjustments in the pension plan.

- *The first adjustment is the introduction of a set of explicit rules regarding the allocation of funding risks to the plan members: the ladder establishes a direct relationship between the funding ratio on the one hand and on the other hand the indexation rate and contribution rate.*
- *A second adjustment is the move from a final-pay scheme to an average-wage scheme with conditional indexation applied to all participants, retirees as well as active workers. The ladder implies a firm move from an implicit to an explicit pension deal.*

This contribution presents a description of the background and the working of the policy ladder.

1 PERSPECTIVES ON PENSION PLAN DESIGN

1.1 Standard-of-living risk

The most important risk in providing retirement income is standard-of-living risk.[1] A wage-indexed defined-benefit (DB) scheme primarily aims to protect the individual worker for standard-of-living risk. The pension income of the DB plan is related to the wage-path during the career (average wage) or to final-pay, so workers have the prospect of a standard-of-living at retirement comparable to the pre-retirement period. The pension income will be received as long as the retiree lives. Moreover, during retirement pension income usually is indexed for wage-inflation or price-inflation. Defined benefit pensions have to be seen as deferred wage income (at least theoretically) and contributions paid to the pension plan are to be seen as retirement savings from gross wage income.

Crucial question in the process of funding is: Who is bearing the risk? The answer to this question is decisive for the characterization of the plan. In a pure DB plan, it is the employer who is the risk-bearer with the employees being 100% certain to receive the pre-defined pension income at retirement that is fully indexed over the remaining life of the participant. The participant experiences no exposure to standard-of-living risk.[2] In a pure DC plan (defined contribution), a part of wage income is allocated yearly to the DC account of the individual participant. The individual bears all the risks in the funding by his own. The exposure to standard-of-living risk is maximal.

In the Netherlands, pension plans designed as pure DB plans are absent. Employees and retirees are usually risk-bearers too as they take part in contribution rate risk and accept indexation risk. Moreover, gains and losses in the funding process can be shifted forward in time by accepting – temporarily – a situation of overfunding or underfunding. This implies risk-sharing with future participants, hence intergenerational risk-sharing. Unfortunately, the multi-stakeholder base in risk-bearing is seldom made explicit. What is lacking is a transparent and explicit pension deal.

1.2 Towards an explicit pension deal

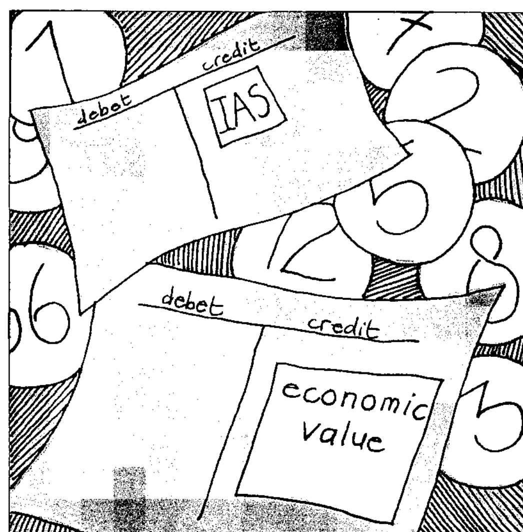
With the term pension deal we mean the contract between employees and the employer that sets out:

- the nature of the pension promise (final pay or average wage, indexation policy),
- the funding of this promise and,
- how the risks in the funding process is allocated (implicit or explicit) amongst the stakeholders.

Many plans in the Netherlands traditionally have been more or less implicit as to the key aspect of risk-bearing. Usually there are no rules regarding how, by whom and to what extent the funding risks of the plan have to be borne. This may easily lead to asymmetry in the pension fund policy in relation to the funding position. In the 90's, pension funds experienced huge surpluses that have been used for cuts in contributions and improvements of the pension benefits of the active employees. After the dramatic fall in stock prices in the last three years, Dutch pension funds struggle with funding deficits. The supervisor insists on a recovery

on the short term, however stakeholders disagree on who has to pay. Actually the situation during the last three years can be characterized as one of 'policy inertia'. The introduction of an explicit pension deal will overcome the prevailing state of apathy, because the set of explicit rules prescribes who has to pay, when and to what extent in a deficit situation. These rules also set down who will benefit, when, and to what extent in a surplus situation.

Furthermore the case of an explicit pension deal is also strengthened because of the switch in valuation and accounting methods towards fair value principles. There is growing awareness that traditional pension fund governance suffers from severe shortcomings in the measurement and management of pension fund risks.



By and large the governance of pension funds has been rooted on the actuarial approach based on book value principles and rules of thumb, like for example a fixed 4% actuarial discount rate. Risk is ignored or disguised. Actually, the actuarial approach leads to a self-constructed portrayal of the financial solidity of the pension fund without a clear insight into the magnitude of actual risk exposure. The situation is now changing rapidly, with the increasing use of financial economics and fair value principles. The economic approach implies market-based valuation of assets and liabilities, so the balance sheet reflects true economic values. Information of financial markets is used to assess the risk position of the pension fund. As the use of fair value principles leads to an improvement of risk measurement, it also reveals the weakness of the current funding position and the urgent need to develop the risk management process that is suited for a fair value framework.

Most Dutch pension funds stem from the 50's and 60's, so they now have a high degree of maturity. Traditionally pension funds make use of the contribution rate as the main tool to control the funding ratio risks. However, an important characteristic of a mature pension fund, is the ineffectiveness of the contribution rate to absorb funding ratio risks.[3] A mature pension fund, therefore, has to look forward to new tools of risk management.

2 POLICY LADDER

ABP has recognized the need to improve the governance of pension fund risks in order to safeguard the sustainability of the pension fund. Fair value principles have been in use since the end of the 90's improving transparency in accounting issues and the measurement of pension fund risks. The policy ladder was introduced recently, aiming to improve the management of pension fund risks.

The basic idea of the ladder is quite simple. We explain the basic idea with help of figure 1. The horizontal axis shows the value of assets. Two points are of crucial importance. This concerns first of all the value of nominal liabilities (with valuation based on the nominal yield curve) and secondly the value of indexed liabilities[4] (based on the real yield curve). Contribution rate and the indexation are set along the vertical axis. When the value of the assets matches the value of the indexed liabilities, the contribution rate is set equal to the cost price of new accrued liabilities and the indexation matches the wage inflation. There will be cuts and charges regarding the base contribution rate and indexation when the value of the assets deviates from the value of the indexed liabilities.

Indexation policy: The size of the indexation is proportionally related to the size of the available indexation reserve, this is the difference between assets and nominal liabilities. There is room for full indexation, when the value of the assets equals the value

of the indexed liabilities. The actual indexation reserve matches the required indexation reserve. The indexation rate will be zero when the assets are equal to or even below the nominal liabilities. The indexation reserve is actually zero. Between these points there will be a cut in the indexation where the cut depends on the actual deficit in indexation reserve. Whenever the assets exceed the value of indexed liabilities, there is room to provide extra indexation until there is a full catching-up of previously missed indexation.

Contribution rate: The contribution rate is set equal to the cost price of the new accrued liabilities of one year of service when the assets are equal to or exceed the value of indexed liabilities. A contribution charge is levied when assets fall short of the indexed liabilities. To the analogy with the indexation cut, the charge will increase when the deficit is increasing. The maximum charge is determined by the annual funding costs in order to build up the required indexation reserve within T years.

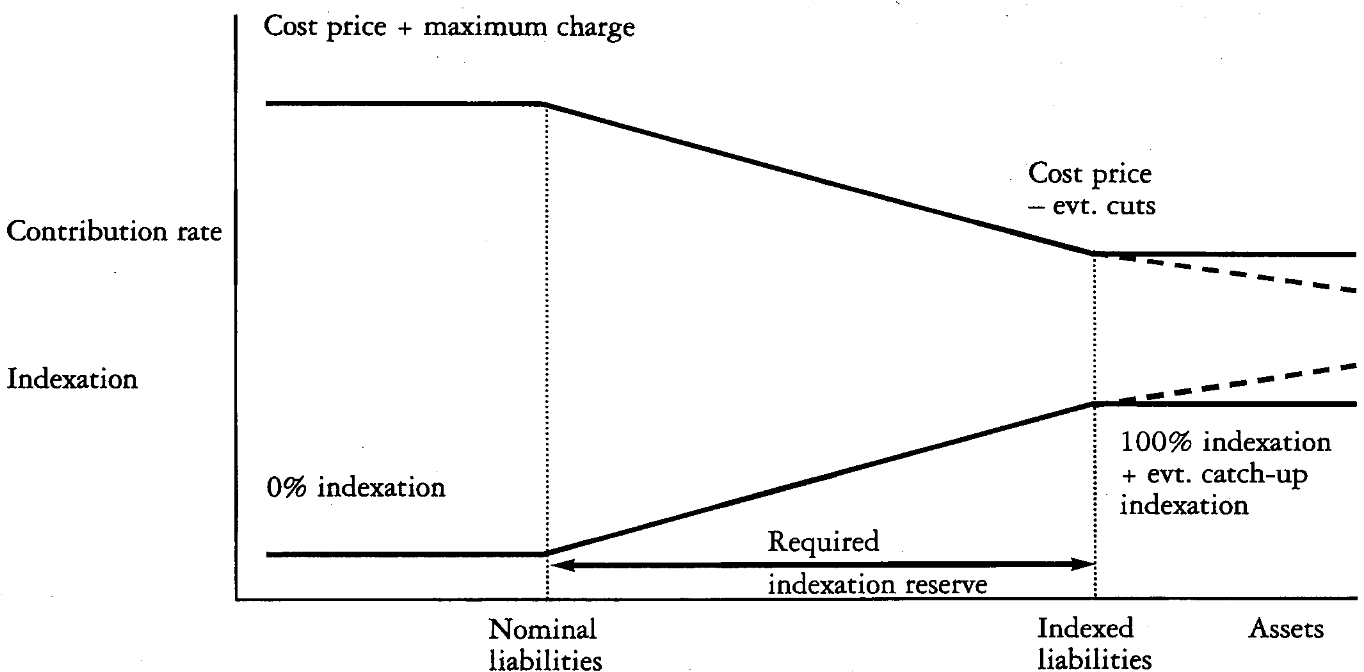
The preceding has set out the basic idea of the ladder. The discussion with the stakeholders and the supervisor *(de Pensioen- en Verzekeringskamer)* has lead to a number of modifications. Compare for the details the official press release in the appendix, in which on July 1st ABP informs on the ladder. All these changes have had no impact on the core principles behind the policy ladder.

The introduction of the 'policy ladder' has a number of advantages that all will contribute to a fair and more sustainable pension plan:

1. Indexation policy and contribution are related explicit and unequivocal to the actual indexation reserve position; this will prevent the re-occurrence of the recent situation of policy-apathy. Using the ladder it is always clear who, when and to what extent takes part in the funding risks;

2. The ladder maintains the DB character of the plan: It is still aimed to realize a target pension income according to the preferred level related to final-pay or average-wage, however this target income now has to be seen as an expected income surrounded by uncertainties as implied by risk-allocation rules of the ladder;[5]

Policy Ladder



3. The ladder leads to a broadening of the risk-sharing capacity of the fund as retirees, workers and future participants are involved in the risk-sharing process;

4. The ladder guarantees that the interests are treated in symmetry of those who pay contributions and the participants receiving indexation.

5. The ladder checks for fairness as the participants take part in the risk by accepting indexation risk proportionally to their accrued rights;

6. The ladder may also be seen as a solution to the question of ownership of the pension fund by stating that in case of discontinuity, the assets of the fund are distributed amongst the participants proportionally to their accrued rights. With this rule, it is always obvious to who the funding shortage or surplus belongs.

3 FROM 'PURE DB' TO 'HYBRID DB/DC' SCHEME

By introducing the ladder, the pension plan is moving away from a 'pure DB' plan towards a 'hybrid DB/DC' scheme. In a pure DB plan, indexation is always given whereas the contribution rate absorbs the funding risks. By introducing the ladder, the scheme has characteristics of a DC plan because funding risks are primarily absorbed by adjusting the indexation rate. Hence, the value of accrued rights and benefits of all participants are volatile as in a DC scheme. At the same time, the ladder still maintains the DB character because the risks regarding future inflation and rates of return are borne by the collectivity of active, retired and future participants. Also it still aims to realize a target pension income according to the preferred level related to final-pay or average-wage.

The ladder is a collective scheme because the risks regarding future inflation and rates of return are borne by the collectivity of active, retired and future participants.

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NOTES

1 Compare the following citation: 'Most economists using a standard life-cycle analysis would probably agree that the primary objective of a pension system is to provide a standard of living in retirement comparable with that enjoyed during the working years', in: Merton R.C. (1983): 'On consumption indexed public pension plans', in: Bodie Z. & Shoven J. eds.: 'Financial aspects of the US pension system', Chicago University Press.

2 There may be some risk in reality due to default risk of the sponsor.

3 The ratio of pension liabilities to total wages is projected to go up from the current 2.6 to 4.5 twenty years from now. A decrease in the funding ratio of 1% then would require an additional contribution of 4.5% of salary in the future instead of the current 2.6%.

4 ABP regeling, ABP omvang, ABO liabilities

5 The volatility in the yearly indexation rate may give ground to characterize the scheme as a DC plan (see paragraph 4).