

Collective agreements with risk sharing between all stakeholders

1. Introduction

The Dutch occupational pension system is traditionally based on collectivity, mandatory participation and solidarity. Solidarity between the scheme members implies that the risk is shared between all the scheme members. The most common model of the Dutch schemes is a DB type arrangement where the pension fund takes over the financial or longevity risk for the individual.

Due to demographic changes, increasing risks for the sponsoring companies (IAS19) and lately the financial crisis, as a general development, companies look for new types of pension contracts. A popular type is the collective defined contribution. Such schemes combine a defined benefit promise to the participant and a fixed premium for the employer. Only when buffers are high enough the schemes will qualify as DB schemes.

The following paper provides an overview of the current developments with regard to DB, DC and CDC schemes and sheds light on the advantages of the one or the other model.

2. The extremes: DB based on final pay and individual DC

Pension schemes may be categorized by ownership of the pension liability. On one end of the spectrum there are DB schemes, based on final pay and unconditional indexation for the pensioners (an example are many occupational pension schemes in the UK). In these schemes pensioners and employees hardly bear any risks, while the employer is fully responsible. On the other end there are individual DC schemes where the employer/employee pays a fixed premium, the employee has no guarantee at all with regard to the level of his pension and the pensioner gets a nominal pension, without any indexation.

Most important advantage of the traditional DB scheme is the risk sharing between members and generations by collectivity of the pension fund. The individual DC scheme has the advantage of a fixed contribution for the employer, and no additional pension liability.

In between traditional DB and individual DC scheme, all kind of hybrid schemes exist. These hybrid schemes could be characterized by the way the risks are shared between employer and employee/pensioner. Figure 1 shows the differences in risk sharing at the extremes, and the various hybrid schemes in between.

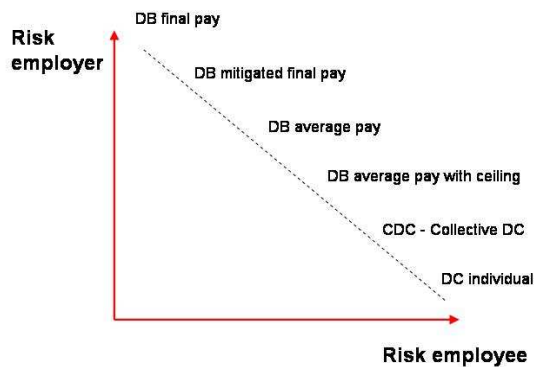


Figure 1 – Types of pension schemes and risk sharing

In the various types of hybrid schemes, the pension liability is owned by different stakeholders. This means the financial risks (both positive and negative) are shared between employers, employees and pensioners. The pension fund may take measures to react to the financial situation of the fund. This could be done by the following steering mechanisms:

- increasing the contributions for both employer and employee
- decreasing the level of indexation, both of the accrued pension rights of the employees and the monthly payment to the pensioners
- reducing pensions and pension rights

The financial turmoil of 2008-2009 illustrates clearly the consequences for both DB and individual DC schemes. In case of underfunding of the DB pension fund, sponsoring companies and participants may be asked for higher contributions or the sponsoring company for an incidental additional contribution. In times of low or even negative economic growth, these extra contributions are undesirable for both the company as to macro-economic effects.

The consequences for a member in an individual DC scheme may vary from unfavourable to disastrous. The example in annex 2 illustrates the consequences for the retirement income of a member in a DC scheme who retires in 2009. For such a member the life long pension benefit may be 30% lower than expected.

3. A hybrid system: Collective Defined Contribution

In the Netherlands a hybrid pension scheme has been introduced, the '**collective defined contribution**' (CDC) system. This system combines advantages of DB schemes with the advantages of DC. Instead of using the traditional DB model which accrues benefits on the basis of final earnings, the Dutch hybrid system links the benefits in most cases to career average earnings, and benefit indexation depends on the scheme's funding position. A CDC plan has a benefit formula similar to a DB plan, and contributions are fixed over a period of time. The accrual is similar to the accrual in a DB scheme, for instance 2% a year. Employers contribute a fixed percentage of

wages to these plans and bear no additional liability if the investments of the plans perform poorly (or interest rate to calculate liability decreases). In turn, plan assets are managed by professional money managers and investment and longevity risks are shifted to the pension plan and hence employees as a group. This guarantees a proper investment mix and enables in addition to the above mentioned steering mechanisms a mitigation of the risks for the individual scheme member. These plans do have the advantages of collective pension schemes, low costs and shared risks between members and generations.

If a CDC plan becomes underfunded, the plan's governing body, with parity representation of employers and employees, decides on how to restore the full funding position. This can be achieved by reducing indexation. If necessary, reduction of accrued rights may be the next step to improve funding ratio. Normally the contributions are fixed for a period of time, for instance five years. After that period, contributions are negotiated again. If the plan becomes overfunded, the workers benefit, rather than the employer. Indexation of accrued benefits will be increased.

What is the effect of such a shift from conditional DB to CDC? The sponsoring company obliges itself to pay a fixed contribution. In the past, several companies with a company pension fund gained from contribution reduction, restitution or holidays. In a CDC scheme the company loses this possibility of restitution of contributions. For Industry wide pension funds this restitution of contribution has always been unknown. For the scheme member, the change from *conditional* DB to CDC will hardly be visible. His accrued benefits and indexation will be conditional like they used to be. In the communication from pension fund to the member, the importance of sound investment returns in order to pay indexed pension benefits should be stressed even more in a CDC scheme.

4. Conclusion

This paper stresses the fact that pension schemes are normally categorized as DB or DC. As deliberated, the unconditional DB scheme is one extreme, the other is the individual DC. The risks related to the pension liability in these two cases are completely embraced by either the employer or the employee. In case of unconditional DB the risks are taken by the employer, in case of individual DC the employee bears all risks. But in between these extremes all kinds of hybrid schemes exist as the Dutch model shows.

As explained in the present paper, in hybrid schemes the risks are shared between employers, employees and pensioners. In the Netherlands different solutions for this risk sharing approach were introduced, of which conditional DB and Collective DC are the ones most used. Within these schemes, the advantages of collective DB schemes are combined with the limited liabilities for the sponsoring company, the advantage of DC pension schemes.

Annex 1 Risk sharing in practice

The recent developments on the financial markets forced pension funds to take measures to improve their coverage ratio. In the Netherlands most pension funds had to make a recovery plan in which they describe how they will increase their coverage ratio. These recovery plans shows in practice who actually bears the pension risks.

Based on a recent survey of 59 of those recovery plans covering around 30% of pension participants and pension assets in the Netherlands, it is found that the employers' share in the recovery of the pension plan deficit will amount on average to only 5% of the total plan deficit. As a consequence the participants in the fund (active employees, former employees and retirees) together with the expected investment returns are required to cover the remaining 95% of the total risk in these severe circumstances. The main drivers for this outcome are the total length of the recovery period (15 years) and the large accumulated effect of not indexing the pensions and pension rights during the whole of this period. In the above situation this means that the employer accounts for on average 5% of the pension fund deficit. According to IAS19 the employer bears all risks. With such a low percentage, there could even be a question whether a liability must be recognized at all.

Annex 2 DB versus DC – an example

The most common type of pension scheme in the Netherlands these days is the DB scheme based on average career earnings with conditional indexation. In these schemes the contribution and indexation are linked to the funding position of the pension fund. The advantage of such a system compared to an individual DC scheme are illustrated in the following example. This example describes the consequences of the financial crisis of 2008 for a pensioner and compares DC with conditional DB¹.

Two individuals have reached the respectable age of 65 and are about to receive their first monthly pension benefit. One has been a member of a hybrid DB scheme with benefits based on the average salary earned and (wage) indexation, conditional on the funding position of the pension fund, for his whole career. The accrued benefits represent an annual (gross) pension benefit of EUR 12.000, including indexation. The other is been a member of an individual DC plan and avails of assets that, at the eve of his retirement, deliver a life-long annuity benefit of EUR 12.000 per annum. If both pension systems are subjected to a financial crisis such as the 2008 crisis around the moment of retirement, the benefits from the DB plan remain the same, i.e. EUR 12.000. Under normal circumstances, these benefits would have been increased to compensate for an increase in wages, e.g. 2.5%. However, as the financial position of the fund has strongly been affected by the crisis, the Board of Trustees decides not to grant any indexation this year. For the DC plan, the situation is completely different. Not only does the financial crisis directly impact on the value of the assets (in this example a loss of 25%), the pension benefits will also be lower, due to a drop in interest rates (e.g. 0.5%-point). The resulting annuity will drop to EUR 8.500 per annum. See also Table 1 below.

¹ Sleijpen, O.C.H.M. On the exportability of the Dutch pension system to the European Union, Maastricht 2009

Table 1: Impact of the financial crisis on pensions: the case of a hybrid DB scheme versus individual DC

	hybrid DB	individual DC
Impact at age 65 (at retirement)	Expected annual pension benefit before crisis: EUR 12.000 No indexation (2.5%): EUR 360 Expected annual pension benefit after crisis: EUR 12.000	Expected annual pension benefit before crisis: EUR 12.000 Decrease in stock market prices (25%): EUR 3.000 Conversion loss (-0.5%-point interest rate drop): EUR 500 Expected annual pension benefit after crisis: EUR 8.500
Impact at age 80 (before the financial crisis)	Expected annual pension benefit: EUR 17.000	Expected annual pension benefit: EUR 12.000
Impact at age 80 (after the financial crisis)	Expected pension benefit: EUR 17.000	Expected pension benefit: EUR 8.500

The aforementioned impact of the financial crisis is the result immediately after retirement. Let's now take a look at the pension benefits 15 years later, at age 80, assuming the financial crisis is a one-off event, whereby the negative impact on financial markets and the economy will gradually wear off.

The conditional DB plan will increase benefits after a few years. Although the indexation in the year after retirement was not granted, it is assumed that indexation will be resumed when the funding position of the fund improves as the effects of the crisis wear off. Moreover, the advantages of collective risk sharing kick in at this point. Eventually, the pension fund is able to increase the benefits with the indexation that has been foregone in the past. The individual DC plan, however, is expected to deliver only EUR 8.500 per annum at 80 because no indexation is granted. This is half the pension benefit from the DB plan. The individual DC plan did not offer an alternative choice but to 'lock in' the negative impact of the financial crisis on the pension savings on retirement.