

CHAPTER 13

Re-Imagining the Pension Plan: Sharing Risk to Achieve Efficient, Sustainable Retirement Security

RICHARD C. SHEA

ROBERT S. NEWMAN

WILLIAM H. WOOLSTON

KATHRYN C. JOHNSON

Richard C. Shea is a partner at Covington & Burling LLP. He served in the Office of Tax Policy at the United States Department of Treasury during the early 1990s.

Robert S. Newman, William H. Woolston and Kathryn C. Johnson are, respectively, a partner and associates at the firm.

The authors wish to acknowledge the helpful suggestions they have received from Julie Edmond.

Synopsis

- §13.01 INTRODUCTION
- §13.02 THE CURRENT SYSTEM'S "ALL OR NOTHING" APPROACH TO ALLOCATING RISK
 - [1] Risk Allocation in Traditional Defined Benefit Plans
 - [2] Risk Allocation in Defined Contribution Plans
- §13.03 REDUCING RISK BY SHARING IT
- §13.04 PLAN DESIGNS THAT SHARE RISK
 - [1] Conceptual Designs

[2] **Portfolio Pension Plan**

[3] **Variable Annuity Plan with Minimum Benefit**

[4] **Collective Pension Plan**

§13.05 **CONCLUSION**

§13.01 **INTRODUCTION**

The United States is moving from a world in which employers bore most of the significant risks of retirement to a world in which individuals bear these risks largely on their own. This shift is seen most dramatically in the replacement of the traditional defined benefit plan by the participant-directed defined contribution plan, as the predominant form of retirement arrangement.¹ The assumption that an employer must assume either all or none of the significant risks associated with retirement benefits threatens to produce negative outcomes for employers and individuals. On the one hand, many employers have concluded that they are no longer willing or able to bear the risks associated with providing retirement benefits through defined benefit plans. On the other hand, most individuals are ill-equipped to assume those risks on their own, as they must in defined contribution plans. As the nation shifts from defined benefit to defined contribution plans, and risk shifts from employers to individuals, employers are left with fewer options to move individuals reliably from active employment to retirement, just as individuals are becoming increasingly pessimistic about their ability to provide for a secure retirement on their own. An obvious, but largely overlooked alternative would be to *share* retirement risks between employers and individuals (rather than *shift* risks from employers to individuals). Sharing risks intelligently can reduce retirement risk overall, increase the efficiency of our retirement system, make the system more sustainable for employers, and improve retirement security for individuals. In hopes of prompting discussion, this article outlines three possible plan designs for sharing retirement risks.

§13.02 **THE CURRENT SYSTEM’S “ALL OR NOTHING” APPROACH TO ALLOCATING RISK**

[1] **Risk Allocation in Traditional Defined Benefit Plans**

In our current retirement system, risk allocation is, for most employers, an “all or nothing” choice between allocating the significant risks of retirement, either entirely to the employer through a traditional defined benefit plan, or entirely to the employee through a participant-directed defined contribution plan, such as a 401(k) plan.

Traditional defined benefit plans place the risks of providing retirement benefits

¹ This article is written principally from the perspective of retirement plans maintained by private employers. We note, however, that retirement plans maintained by governmental employers are increasingly subject to the same trends.

entirely on the employer. A traditional defined benefit plan promises a specified level of retirement income. The employer's funding obligations to the plan therefore depend on the investment performance of the assets set aside to provide the plan's promised benefits.²

The plan's investment experience includes two components: actual investment performance to date and expected investment performance in the future. To reflect expected investment performance in the future (and to ensure that the plan has sufficient assets to provide promised benefits), financial accounting and regulatory funding rules require the plan's promised benefits to be discounted to present value using an interest rate that reflects future risk-adjusted investment expectations. Changes in the investment environment thus affect, not only actual investment performance to date (reflected in the value of plan assets), but also expectations about future investment performance (reflected in the interest rate used to discount promised benefits to present value). As a result, changes in the investment environment can cause significant shifts in the spread between the value of the plan's assets and the present value of its promised benefits. When the present value of benefits exceeds the value of plan assets, the plan is underfunded, and the employer will be expected sooner or later to make up the shortfall. The risk that plan asset values will not keep up with the present value of promised benefits is generally referred to as "investment" risk.

Furthermore, when benefits are promised for the lifetime of retirees, the liabilities of the plan depend on how long the retirees live. The risk that retirees will live longer than expected is known as "longevity" risk. In a defined benefit plan, this risk is measured at the plan level over the entire retiree population rather than at the level of the individual retiree.

Investment risk can cause substantial swings in an employer's funding obligations, as plan assets and plan benefits are periodically re-valued and compared to one another. Longevity risk is less subject to change, as mortality over large groups is easy to predict in the aggregate (absent major unexpected improvements in life expectancy). Financial accounting and regulatory funding rules generally require the value of plan assets and plan benefits to be re-measured and compared annually, and then reflected in the company's financial statements and regulatory funding requirements. The potential for dramatic swings in these obligations (stemming largely from investment risk) has led many employers to reduce their exposure to traditional defined benefit plans. Defined contribution plans have been the design alternative most employers have turned to when doing so.

² Conventional cash balance plans, such as those modeled on I.R.S. Notice 96-8, 1996-1 CB 359, behave similarly to traditional defined benefit plans in these regards, even though the promised retirement benefits are expressed in somewhat different terms.

[2] Risk Allocation in Defined Contribution Plans

Defined contribution plans, in particular participant-directed defined contribution plans such as 401(k) plans, place the investment and longevity risks squarely on the individual. The retirement income an individual will receive from a 401(k) plan depends on several factors. Once contributions have been made, the investment experience of the individual's account will determine the value of the account that is available to provide distributions in retirement. The individual's ability to manage these investments is therefore critical. Furthermore, the timing of an individual's retirement can significantly affect whether this experience is favorable. A disability or early retirement, for example, not only limits the individual's opportunities to fund the account ahead of time but also restricts the ability to time retirement to favorable market conditions.

During retirement, the individual must manage the account to provide retirement income for the individual's lifetime and perhaps the lifetime of his or her spouse. Not knowing how long one is going to live poses a unique challenge that is particularly difficult for any one individual (or couple) to bear. In contrast to defined benefit plans where longevity risk is spread and diversified over a large group, defined contribution plans focus longevity risk on the individual where it is least predictable and therefore most difficult to manage efficiently. Individuals undoubtedly are in the best position to know their own retirement plans, risk tolerances, and health condition. However, the reality is that investment expertise is not widespread, and the vast majority of individuals are ill-equipped to assume either the investment risk of managing their own retirement savings or the longevity risk of planning retirement distributions over their own unpredictable life spans.

§13.03 REDUCING RISK BY SHARING IT

Plan design options that efficiently share risk between employers and individuals offer an untapped resource for improving our retirement system. First, such options provide an alternative between the current polar extremes of allocating all significant risks either to the employer or to the individual. Second, even if many employers are no longer willing or able to bear all the risks imposed on them by traditional defined benefit plans, many employers might still be willing and able to bear at least some of those risks—risk sharing offers employers the opportunity to do that without resorting to the opposite extreme of shifting all risk to the individual. Third, individuals might be willing to share investment risk with the employer in a way that relieves the employer of dramatic swings in financial liability, but under which the employer still guarantees a minimum level of retirement benefit, individuals share in the investment upside, and investment risk is professionally tailored to the individual's investment horizon and tolerance for risk (without the need for the individual to develop the investment expertise to manage his or her own retirement savings). Fourth, some risk allocations under the current system are clearly inefficient, such as allocating all

longevity risk to the individual under defined contribution plans—risk sharing would allow that risk to be diversified across a large group, either by having the employer retain it or by sharing it collectively among the individuals in the plan, or through some combination of these two approaches. Finally, by allocating each risk to the party best able to bear or diversify it (*i.e.*, to the least cost avoider)³ risk sharing could dramatically improve the efficiency of our retirement system and, as a result, provide higher levels of retirement security to individuals at the least cost to employers and individuals.

§13.04 PLAN DESIGNS THAT SHARE RISK

[1] Conceptual Designs

The following three conceptual plan designs incorporate the risk-sharing features described above. These designs are intended to provide examples of how risk sharing can operate in practice. Other designs certainly are possible and might improve on the designs described here. In any event, the designs described below are meant to supplement, rather than replace, the current plan design options available to employers and individuals in structuring their retirement arrangements.

[2] Portfolio Pension Plan

The Portfolio Pension Plan (“PPP”) is a defined benefit plan modeled on the cash balance plan design in which the account balance is adjusted based on the return on an investment portfolio that adjusts over time to each individual’s changing circumstances.

The PPP has many characteristics in common with a conventional cash balance plan: it is funded solely by the employer; the benefit is expressed as an account balance; each employee’s balance is credited during employment with pay credits, which typically are a percentage of the employee’s current pay; the plan offers at least actuarially equivalent annuities for employees and surviving spouses; and the plan sponsor is permitted to subsidize benefits, such as subsidized joint and survivor annuities, disability benefits, death benefits, and plant closing and lay-off benefits. The PPP, like a conventional cash balance plan, provides the employee with a minimum guaranteed benefit, generally equal to the cumulative pay credits added to the employee’s account over the course of his or her career (or, the minimum could be greater if the employer wished to provide a more generous guarantee).⁴

The defining feature of the PPP, and where it differs from a conventional cash

³ See Ronald H. Coase, *The Problem of Social Cost*, 3 J.L. & ECON. 1 (1960); GUIDO CALABRESI, *THE COST OF ACCIDENTS: A LEGAL AND ECONOMIC ANALYSIS* (1970).

⁴ See IRC § 411(b)(5)(B)(i)(II) (Supp. II. 2008); Treas Reg § 1.411(b)(5)-1(d)(2) (as amended in 2010).

balance plan, is the way it credits earnings to the notional account balance (“interest credits” in conventional cash balance plans). A conventional cash balance plan provides “interest credits,” which adjust the account for the passage of time until the employee begins receiving benefits under the plan. In a conventional cash balance plan, a single rate is credited for all participants, usually the yield on a specified government security, such as 30-year Treasury bonds. Rather than credit a single rate for all participants, the individual’s account balance in a PPP is adjusted based on the return on an individually tailored retirement investment portfolio, which reflects and adjusts to the employee’s changing circumstances over time.

This means that each employee would likely earn a different rate of return on his or her account. For example, the employee could be placed in a cohort with other employees of like age and risk tolerance. The cohort begins with an age-and-risk-appropriate diversified portfolio that adjusts automatically over time, like a target date fund. As the employee approaches retirement, the investment allocation would change accordingly. Instead of tying the portfolio to established target date investment strategies based solely on age and expected retirement age, a PPP could, as an alternative, use a more tailored, managed account approach that takes into account additional variables (e.g., other retirement benefits, non-retirement assets, health condition, marital status, expressed risk tolerance, etc.), and that adjusts to reflect changes in these variables over time. PPP investments are managed professionally and automatically so a PPP does not depend on participant direction or education to achieve a balanced portfolio, and the individual does not bear the burden of allocating investments.

The PPP allocates risks between employers and individuals in a way that may benefit both. Because the PPP uses notional individual accounts where earnings adjustments are based on an investment strategy and allocation tailored to each employee’s personal circumstances, the employee bears most of the investment risk. But the investment risk is appropriate and adapts to the employee’s changing circumstances over time. The significant advantage of the PPP investment approach is the employee’s ability to participate in the upside potential from taking on the risk, while also enjoying a minimum benefit guaranteed by the employer. The employer takes on part of the investment risk by providing the minimum benefit (and by voluntarily providing minimum rates of return and/or subsidies), but the plan’s investments could mirror or approximate the participants’ hypothetical investment funds—and perhaps even invest in instruments to hedge against the minimum benefit—so that funding volatility from investment risk would be minimal.

Because the plan offers an annuity benefit, the employer takes on the longevity risk. The employer is in a better position to assume longevity risk than the individual participant because the plan can average mortality across all participants and the plan might be able to hedge against mortality risk as well in its investment strategy (for

example, by entering into a mortality swap). The employer is able to share longevity risk across the plan, thereby diversifying and reducing the risk. The arrangement benefits the individual by avoiding the need for the individual to manage distributions and investments based on guesses about the date the individual (and, in many cases, his or her surviving spouse) will die.

[3] Variable Annuity Plan with Minimum Benefit

Variable Annuity Plans (“VAPs”) are a form of defined benefit plan that has existed since the 1950s. Like traditional defined benefit plans, VAPs offer benefits in the form of deferred annuities. What distinguishes a VAP from a traditional defined benefit plan is that the amount of the annuity can fluctuate year-to-year based on the investment performance of plan assets. A VAP, when combined with a minimum benefit, can effectively share risk between the employer and the individual, while providing the employer greater cost certainty and individuals a meaningful benefit with upside investment potential.

In a conventional VAP, the benefit at normal retirement age is based on a formula that combines service credits with an expected rate of return (the so-called “hurdle rate”) to arrive at a final single life annuity. However, the expected annuity at normal retirement age is not guaranteed. If plan investments outperform the hurdle rate, the annuity at normal retirement age increases. If plan investments underperform the hurdle rate, the annuity decreases. Once benefits commence, some VAPs “lock in” the annuity payment amount; others allow the payments to fluctuate after commencement based on post-retirement investment returns.

Conventional VAPs are favorable for employers, because the investment risk is shared between the employer and the individual. This provides the employer with significant cost certainty. However, conventional VAPs can be unattractive to individuals because of the lack of certainty about retirement benefit amounts; exposure to downside investment risk; and the potential for negative benefit payment adjustments during retirement in plans that allow them. In other words, employees may feel that they bear too much of the investment risk in a conventional VAP.

Investment risk could be more effectively shared in a VAP design if the conventional VAP formula were paired with a minimum benefit. This minimum benefit could be designed in a number of ways. One way would be for the plan to guarantee an annuity based on the cumulative nominal value of the employee’s service credits, without incorporating the hurdle rate and without investment adjustments. Such a minimum benefit would be economically equivalent to the cumulative pay credit minimum benefit in a PPP.

In exchange for the minimum benefit protection, the employer could institute a cap on the investment return rate that could result in upward benefit adjustments. Such a design would allow the individual to participate in a portion of the upside, while

allowing the employer to use excess earnings to fund the minimum benefit or offset mortality losses.

In many ways, a VAP with a minimum benefit is similar to a PPP. Like a PPP, the VAP is a defined benefit plan funded by the employer that provides annuities, death benefits, and other defined benefit features. In addition, the employer takes on the longevity risk and spreads it across the plan, while the investment risk is allocated primarily to individuals and only secondarily to the employer to the extent it is responsible for funding the minimum benefit, minimum rates of return, and any distributional subsidies. However, unlike a PPP, investments would not be tailored to each participant's individual circumstances. Instead, every participant would be credited with the same rate of return, which is tied to the investment performance of plan assets in the aggregate. This latter feature places the plan's investment fiduciaries in the awkward, and ultimately untenable, position of balancing the conflicting risk tolerances of younger and older workers as well as managing the investment of the portion of plan assets supporting benefits already in pay status.

[4] Collective Pension Plan

A collective pension plan ("CPP") is an independent pension fund to which an employer contributes funds on behalf of its employees and from which each participating individual receives an annuity. The fund consists of employer contributions and investment returns, net of administrative expenses, and is overseen by a governing board of employee representatives, employer representatives, and fund investment managers. A CPP would allow employers to effectively eliminate investment risk and longevity risk for themselves, while still providing individuals with a meaningful retirement benefit. In such a design, the investment and longevity risks are borne by the participating individuals, but these risks are born collectively rather than individually. In theory, the diversification of risk across the plan population is more likely to provide a stable stream of retirement income at lower cost than individuals could achieve on their own in a comparably funded defined contribution plan.

CPPs are based on the Dutch collective defined contribution plan design, and are not currently available in the United States.⁵ Indeed, significant legislative changes would be needed for CPPs to be added to the American pension landscape. Although labeled as defined contribution plans in the Netherlands, they would be classified as defined benefit plans in the United States because participants do not have individual accounts.

A CPP's benefit formula would most likely be based on a traditional formula, like

⁵ See, e.g., S.G. Van der Lecq & Adri Van der Wurff, *The Price of Pension Risks*, 13 J. RISK 83 (2011) (discussion of risk sharing in Dutch collective defined contribution plans); U.K. Dep't of Work and Pensions, *Collective Defined Contribution Schemes: An Assessment of Whether and How Collective Defined Contribution Schemes Might Operate in the U.K.* (December 2009) (available at <http://www.dwp.gov.uk/docs/collective-defined-contribution-schemes-dec09.pdf>).

a career average pay formula. The employer makes fixed contributions intended to fund benefits at the level provided under the formula. Unlike a defined contribution plan, the employee does not have an individual account. Instead, the employee has a right to a benefit based on the formula payable in the form of an annuity.

In a CPP, the employer's obligation is limited to making contributions each year that entirely discharge the employer's obligation for benefits accrued during that year. This means the employer is not obligated to pay benefits to participants, maintain a trust fund, or manage investments, or otherwise make contributions in the future to fund accruals in prior years. Instead, the responsibility for paying benefits and managing investments falls to the governing board. Professional asset managers would be responsible for plan investments.

If investments perform well, employee benefit levels and amounts can be increased (assuming that the CPP has an adequate reserve for paying benefits). If the CPP becomes underfunded, the CPP's governing board can take action to reduce either future cost-of-living increases, or in drastic cases, the nominal amount of future annuity payments. Thus, the fund remains in financial balance by adjusting benefits up or down in response to investment and mortality experience. Employers are not obligated to make additional contributions.

The main advantage to employers is that all investment and longevity risks are shifted to the CPP fund, and by extension, to the individuals participating in the fund. The employer has full cost certainty, which means no unexpected funding obligations. Although the investment and longevity risks are transferred to the individual, the risk is shared collectively over the entire plan population, which means the individual is, on average, in a better position than if he were forced to bear the risks alone. The investment and longevity risks are further diversified because the plan's assets are managed by professional managers, who would likely experience better returns than employees acting individually. This means more money would be available to pay benefits.

A key distinction for CPPs is that, unlike in a PPP or VAP, adjustments to benefits based on investment performance are not automatic. Instead, the adjustments are subject to a governance process that is flexible, but that could also involve tense negotiations about how and when to adjust benefits. Accordingly, it is essential for CPPs to have sound governance procedures in place. In addition, government oversight would likely be necessary to ensure a smooth governing process, and to provide an arbiter in the case of disputes.

§13.05 CONCLUSION

The conventional "all or nothing" approach to allocating risks in our current retirement system is not an inherent feature of retirement plan design. Intelligent risk sharing between employers and individuals holds the promise of improving retirement

outcomes for both employers and individuals in ways that simply are not possible under current dominant plan designs. The three plan designs outlined in this article—PPP, VAP, and CPP—adapt principles of defined benefit plan design to re-balance the allocation of risks to employers and individuals. These three designs are meant to be suggestive of a fresh approach to future retirement plan design and only scratch the surface of what should be possible.