The Cost Control on a DB Underpin Hybrid Pension Plan

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Abstract: The Defined Benefit (DB) underpin Defined Contribution hybrid pension plan offers an attractive combination of benefit security and upside potential for pension plan members, and offers cost containment for employers, whilst still ensuring the provision of adequate equitable benefits. The DB underpin guarantee is valued and hedged as a financial option, within the traditional funding paradigms of actuarial science. Assuming fixed interest rates, and assuming that salaries can be treated as a tradable asset, contribution rates are developed for Projected Unit Credit and Traditional Unit Credit funding methods. In addition, for the accruals methods, we demonstrate the implied hedging strategy. The traditional unit credit approach shows promise as a funding method in terms of average costs and in the incidence of costs, on average. However, the average monthly hedging costs are time dependent and can be unstable when employees are close to retirement. Some cost control approaches will be proposed to reduce the volatility of hedging cost.