Comparing DB vs. DC Plans With Auto-Enrollment

It is commonly believed that defined benefit (DB) plans produce richer benefits (e.g., more retirement income) than defined contribution (DC) plans for those that have access to them. In its February Issue Brief, “How Much Would It Take?,” EBRI explores this topic by calculating the accrual rate necessary for final-average-pay DB plans to generate retirement income equal in value to that generated by 401(k) plans with automatic enrollment.

In this analysis, EBRI’s Retirement Security Projection Model® is used to compare simulated retirement benefits available under 401(k) plans with automatic enrollment relative to benefits available from a counterfactual simulation of a high-three-year, final-average-pay defined benefit plan. All things being equal, it shows that DB plans would typically have to accrue at rates more generous than 1.5 percent to “break even” with auto-enrollment 401(k) plans. In its baseline case, EBRI found that the defined benefit “break-even” rate — or the percentage accrual rate that would be required in order for a DB plan to generate the same retirement income that is projected to come from 401(k) plan eligibility under automatic enrollment for a given worker cohort — is rarely less than 1.5 percent of final pay. Indeed, in only 2 of the 16 combinations of wage quartiles and years of plan eligibility for males are defined benefit “break-even” rates less than 1.5 percent of final pay per years of service. For women, only 5 of the 16 combinations have “break-even” rates under 1.5 percent. (See lowest and highest income quartiles below.)

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However, when subjected to certain “stress tests,” 401(k) plans with automatic enrollment lost their comparative advantage. For example, reducing the rate of return assumptions by 200 basis points as well utilizing current annuity purchase prices significantly decreases the relative attractiveness of 401(k) plans with automatic enrollment.

Understanding the relative benefits of DB plans versus 401(k) plans with automatic enrollment under various scenarios is important as the number of DB plans continues to decline, while 401(k) plans take their place.

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2 The counterfactual DB plan uses the same sequence of eligibility, wage, and job change information simulated for the DC plan. At age 65, the defined contribution balance is divided by the annuity purchase price to determine the value of a nominal annuity starting at that age. A pairwise comparison is then made between that value and what would have been available under the final-average plan under the same employment history. EBRI analysis assumes historical rates of return as well as annuity purchase prices reflecting average bond rates over the period from 1986 to 2013.