



OPTIMAL INVESTMENT STRATEGIES FOR DEFINED CONTRIBUTION (DC) PENSION FUND WITH MULTIPLE CONTRIBUTORS VIA LEGENDRE TRANSFORM AND DUAL THEORY

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Abstract

We studied in this paper the optimal investment strategies for DC pension fund with multiple contributors by applying Hamilton Jacobi – Bellman equation, Legendre transformation and dual theory to find the explicit solution for CRRA and CARA utility functions respectively. We obtained a general solution for CARA utility function similar to that with only one contributor as in Gao (2009) and a different result for CRRA utility function when compared to the one with one contributor.

Keywords: CRRA, CARA, DC, Pension fund, Optimal Strategies, Legendre Transform.

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