The Value of Moving from Defined Benefit to Defined Contribution Pension Plans: Taiwan Labor Pension Fund Evidence

Abstract:
This study investigates the individual welfare consequence when transfer from defined benefit pension plan to defined contribution pension plan using Taiwan Labor Pension Fund data from 2001 to 2010. Different than most previous studies that focused on the importance of the individual’s asset allocation, contribution rate, and ending wealth changes. This study explores the impact of system transition and its influences to the individual’s wealth effect under different pension systems and identifies the main beneficiaries’ characteristics under the defined contribution plan and assist participants more effective use the system. It uses the approach developed by Carroll and Samwick (1997) to estimate the labor income process and follows use Merton (1971) model to estimates their asset allocation strategies.

The result shows male populations with college degree are the main beneficiaries under defined contribution pension plan. The study also finds that personal income uncertainty will reduce the expected utility of defined benefit pension plan, and higher income changes will leads to higher uncertainty of future incomes. This study provides a better understanding of transition in between pension systems from defined benefit to defined contribution plans and its influence in determine individual’s welfare function. It provides evidence about employee benefits scheme and examines the social welfare structure and its importance, which can provide a blueprint for pension managers and authorities.

Keywords: Pension funds; defined contribution; defined benefit; life cycle; portfolio.