

Abstract

The newly Labor Pension Act will be carried out in 2005 soon. Under this new pension system, employees will be given the choices of converting their traditional defined benefit (DB) pension plan into an individual-account defined contribution (DC) pension plan with full control over assets allocation and investment decisions. Under DC pension plan in Taiwan, there are two types of pension plan- Individual Account System and Commercial Pension Plan System- for employees to choose. DC and DB pension plan are totally different in essences, so on the basis of our assumptions, switch options will exist among Individual Account System and Commercial Retirement Plan System. Thus, in order to maximum employees' retired wealth, employees might choose the optimal time to convert Individual Account System into Commercial Pension Plan System.

Although our model is deterministic in nature, we believe that it provides an intuitive insight about switch options. We find not only the optimal switch time between Individual Account System and Commercial Retirement Plan System but also the "trade-off" economic values. This paper designs a model of maximizing retired wealth and makes numerical simulation to analyze optimal switch time. We find it is the "rate of change" of these two different pension systems affects the times for employees to exercise switch options. Besides, both the payment-rate scaled present value of the DB pension annuity and the retirement horizon are significant parameters in our analysis. Third, we also calculate the threshold investment returns between Individual Account System and Commercial Pension Plan System under various investment environments. Finally, we also contrast the effects of exercising switch options between younger and older employees. In short, we want to provide some principles for employees to make the optimal retired wealth allocation under Newly Labor Pension Act, then exercise switch options at the proper time.

Key word: Newly Labor Pension Act, Individual Account System, Commercial Retirement Plan System, optimal switch time, switch options, converting values

摘要

勞退新制即將在 94 年 7 月 1 日起正式實施，在新的退休金體系下，勞工可由舊制的確定給付制轉換到擁有資產配置與投資決策權利的確定提撥制。台灣的勞退新制可分為兩種退休金制度供勞工選擇 - 個人帳戶制及其他年金制。確定提撥制與確定給付制在本質上有諸多的差異性，分別具有不同的優缺點，在本文的假設下，轉換選擇權存在於個人帳戶制與其他年金制之間。另外，在期望達到勞工退休金財富極大化的目標下，勞工會選擇在適當的時點，由個人帳戶制轉換到其他年金制。

雖然本文是採定值模型來分析，但是提供一個直觀上充分的洞悉與表徵，來解釋勞退新制下之個人帳戶制及其他年金制之間，若存在一最適轉換時點，其在經濟意涵中所表示之抵換關係與經濟價值為何。本文建構一個退休金財富極大化之模型，結合數值模擬的方法來分析其要點。研究結果發現，最適轉換時點之衡量，是由兩種制度下的變動率，而非帳戶內金額之大小來決定；此外，年金精算現值計算經折現後的給付率和剩餘工作年數，對於勞動工作者的選擇也屬重要變數之一。另外，本文針對年輕的勞工，在不同投資報酬率環境下，計算出兩種制度間抵換的價值；最後，本文也探討了執行轉換選擇權對於不同年紀的勞動工作者影響的幅度。總而言之，本文希望提供勞動工作者在勞退新制下，一個退休金財富配置最適化的準則，及執行轉換選擇權時參考的方針。

關鍵字：勞退新制、個人帳戶制、其他年金制、最適轉換時點、轉換選擇權、轉換價值、