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## Minimum Pension Guarantee in Funded Pension Schemes: Theoretical Model and Global Implementation

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**Abstract :** In this study, the financial position of pension actors in the market during the pension system transition toward a more funded capitalized scheme is explored, mainly via an option benefit model. This is enabled by not considering the economy as a single earning cohort. We analytically demonstrate a socio-economic anomaly in the funded pension system, which is in favor of high earning cohorts on at the expense of low earning cohorts. This anomaly is realized by a lack of insurance and exposure to financial and systemic risks. Furthermore, the anomaly might lead to pension re-reform back to unfunded scheme, mostly due to political pressure. We find that a minimum pension guarantee is a rebalance mechanism to this anomaly, which increases the probability to of the sustainable pension scheme. Specifically, we argue that implementing the guarantee with an intra-generational, risk-sharing mechanism is the most efficient way to reduce the effect of this abnormality. Moreover, we exhibit the convergence process toward implementing minimum pension guarantee in many countries which have capitalized their pension systems during the last three decades, particularly among Latin America and CEE countries.

Keywords: benefits, pension scheme, put option, social security

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