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THE ACCOUNTANT PENSION FUND
AN ACTUARIAL MATHEMATICAL MODEL FOR A PROPOSAL LAW

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ABSTRACT

This paper adapts an actuarial mathematical model, built for the Italian public pension system based on the proposal law 3035/2009, due to Giuliano Cazzola and Tiziano Treu, to the Accountant Pension Fund "Cassa Nazionale di Previdenza e Assistenza dei Dottori Commercialisti" (CNPADC).
From 2004 CNPADC has introduced the notional defined contribution system. Moreover, CNPADC has made available a simulator to calculate the replacement rate, that is, the ratio between the first annual pension accrual and the average of the revalued income for the last 10 years. Based on this system, the aim of the paper is to use the logic of Cazzola-Treu, which guarantees a minimum threshold for the replacement rate of the direct pension, providing a rigorous mathematical-actuarial model that explicates a sort of rate of contribution at a tendential equilibrium, in a pure pay-as-you-go system. This model - built considering all the pension components (direct, invalidity, inability and survivor's) - reveals on which parameters it is possible to intervene to maintain the standard of living in retirement, in compliance with the law.
The rate of contribution at a tendential equilibrium can be defined as a sort of tendential average replacement rate with a collective logic, considering that it refers to the asymptotic demographic equilibrium theorem referred to the totality of the CNPADC members.

Classification AMS*: 97M10, 91D20, 97M30*
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