## **ABSTRACT**

The main purpose of the PhD thesis is to demonstrate that in the light of demographic challenges introducing of the funded system which functions next to the system of social solidarity is the right decision. The funded system provides future beneficiaries of the pension system with more security; moreover in the long term it provides higher retirement benefits than the This is provided only when the introduction of pension reform is in parallel accompanied by the introduction of reforms reducing public spending or expanding the tax base. The work formulates the main research hypothesis, according to which OFE investments in the years 2000-2012 resulted in a net higher scores of indexation of pension contributions in the accounts in ZUS. Totally different from the above position of the government resulted from the analysis methodologically incorrect. In the first chapter the author indicates in theoretical way, that retirement can be realized in various ways. The definition of the pension system was accepted for the needs of theoretical and research contained in the treatise. The second chapter points out basic trends in reforming pension systems or improving existing solutions. In the second chapter also polish pension reform, which was an attempt to respond to existing conditions in the world, was presented. In the third chapter the various methods of measuring return on investment were theoretically described. Each of them was justified from the point of view of its theoretical foundation. In this part of the treatise the author proposes a range of methods of measurement with the arguments of why such a choice is correct. In the forth chapter which includes specific disputes about the return of open pension funds, which took place in Poland from the point of view of different measurement methods. The fifth chapter is complementary, since it concerns the polemics in about future rates of return on pension funds. The aim of the fifth chapter is the question of the sustainability of the rates of return obtained by the pension funds in the period 2000-2012. Completion of work includes a review of the main research hypothesis and auxiliary hypotheses. The volume ends with the author's conclusions and observations that have been formulated on the basis of the material presented in this treatise.

**Keywords:** demography, IRR, OFE, pension reform, rate of return, pension system, capital system, PAYG system, geometric mean, internal rate of return, ZUS.

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