

PREDICTING THE DEVELOPMENT OF VOLUNTARY PENSION FUNDS IN SERBIA BY APPLYING THE MATHEMATICAL METHOD OF LINEAR REGRESSION

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ABSTRACT

The introduction of private pension funds, which operate with the state pension fund, is the essence of the reform of the pension system in Serbia. Private pension funds are based on voluntary benefits. Thus, the functioning of the pension system takes place in three interconnected processes: payments to a voluntary pension fund, investment of free funds, and ultimately programmed payments – pensions. Stability in the voluntary pension funds and predictability of payments allow the quality of investment portfolio to be formed and achieve a long-term yield of investment. In this work we implement the method of least square approximation for data processing and a mathematical method of linear regression, which give a link between the observed size, in our case, the number of fund members, the average salaries in Serbia and the size of Fondex, and to be used to predict the number of fund members depending on other sizes. Based on the data obtained by approximation function we can estimate number of fund members, in dependence of average salary and size of Fondex.

Keywords: pension system, voluntary pension funds, linear regression

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