Actuarial Calculations Methods of Pension Funds

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SUMMARY

Taking account of the importance of actuarial calculations in pension funds, in this book attempts have been made to familiarize the readers with different technical terms in actuarial reports as well as the basis of actuarial calculations in pension funds. Therefore, in the first chapter of the book, financing methods in pension funds are introduced, and the goals of actuarial calculations are explained. In the second chapter, common technical terms in actuarial reports and some necessary formula used for actuarial calculations are introduced. In the third chapter, eight common methods were introduced, which are Unit Credit, Entry Age Normal, Individual Level Premium, Aggregate Entry Age Normal, Frozen Initial Liability, Aggregate, Individual Aggregate, Attained Age Normal. Moreover, different methods for calculating various parameters were explained with examples in this chapter. The parameters were Actuarial Liability (AL), Unfunded Actuarial Liability (UAL), Normal Cost (NC), and Actuarial Gain and Loss (AGL). In the fourth chapter, different actuarial calculation methods are compared with one another. Finally in the last chapter, consistency of costs, the extent of flexibility in actuarial calculations, robustness of plans, simplicity of the methods and their eligibility are introduced as criteria for choosing an appropriate method. Besides, the comparison of methods based on the criteria is presented. Finally, the results and conclusion are presented.