SOA真题November2001Course8V PDF转换可能丢失图片或格式，建议阅读原文

https://www.100test.com/kao_ti2020/84/2021_2022_SOA_E7_9C_9F_E9_A2_98N_c50_84025.htm COURSE 8: Investment - 1 - GO ON TO NEXT PAGENovember 2000Morning SessionNovember 2000Course 8VSociety of ActuariesCOURSE 8: Investment - 2 - GO ON TO NEXT PAGENovember 2000Morning Session** BEGINNING OF EXAMINATION **MORNING SESSIONQuestions 1 3 pertain to the Case Study.Each question should be answered independently.1. (10 points) The Board of Directors of LifeCo was recently given a presentation on thepaper by Robert van der Meer and Meye Smink, Strategies and Techniques for Asset-Liability Management: An Overview. As the newly appointed Chief Risk Officer forLifeCo, the Board has asked you to give a presentation.(a) Categorize and describe the ALM strategies and techniques employed by LifeCowithin the framework provided by van der Meer and Smink.(b) Assess the relative merits or return-driven versus value-driven strategies forLifeCo.(c) Formulate an ALM strategy for LifeCo (from the framework provided byvan der Meer and Smink) that reduces the total company exposure to interest raterisk and provides an opportunity to increase company surplus.(d) Evaluate your proposed strategy using the criteria set out in the paper byvan der Meer and Smink.COURSE 8: Investment - 3 - GO ON TO NEXT PAGENovember 2000Morning SessionQuestions 1 3 pertain to the Case Study.Each question should be answered independently.2. (9 points) LifeCo management wants to segment the Group line of business forasset/liability management purposes into:(i) Long Term Disability (LTD), and(ii) Other Aamp.H is the same as for LTD. The RelativeVolatility of liabilities for Other Aamp.H allocated balance sheet.(b) Assess the limitations of only using the above measures in managing interest raterisk.(c) Contrast the use of Adjusted Duration with the measures used by LifeCo tomanage its exposure to interest rate risk.(d) The portfolio manager for the Group line of business argues that Franchise Valueshould be considered in the liability target duration calculation. Define FranchiseValue.(e) Explain the implications of using Franchise Value for determining targetdurations.COURSE 8: Investment - 4 - GO ON TO NEXT PAGENovember 2000Morning SessionQuestions 1 3 pertain to the Case Study.Each question should be answered independently.3. (22 points) LifeCo wants to establish a delta/gamma/vega/rho hedge on the equityexposure of their variable annuity business, using positions in some or all of thefollowing assets.Asset Price Delta Gamma Vega RhoSamp.P 500 index.Vegas are per 1% change in volatilityRhos are per 1% change in interest ratesCurrent value of the S&amp.P 500 is 1300(a) (6 points) Construct a hedge position using the above assets that minimizes thecost of the hedge without regard to the operational guidelines.(b) (1 point)(i) Assess whether the hedge determined in part (a) would be in violation of theoperational guidelines for use of derivatives.(ii) Recommend any necessary changes to the guidelines.COURSE 8: Investment - 5 - GO ON TO NEXT PAGENovember 2000Morning Session 100Test 下载频道开通，