## **Important Exam Information:**

Exam Date and Time A 15 minute read-through time will be given prior to the start of the exam.

Exam Registration Candidates may register online or with an application.

Order Study Notes Study notes are part of the required syllabus and are not available

electronically but may be purchased through the online store.

Introductory Study Note The Introductory Study Note has a complete listing of all study notes as

well as errata and other important information.

Case Study - Feb. 16, 2012 A copy of the case study will be provided with the examinations.

Candidates will not be allowed to bring their copy of the case study into

the examination room.

Past Exams from 2000-present are available on SOA web site.

Updates Candidates should be sure to check the Updates page on the exam home

page periodically for additional corrections or notices.

### Exam

### Learning Objectives

## 1. The candidate will be able to evaluate sponsor's goals for the retirement plan

### Context:

Sponsor is the entity establishing the plan and operates in private sector, public sector, tax-exempt, and multiemployer environment

Retirement plans include qualified/registered, supplemental, deferred compensation retirement plans and retiree health plans

### Learning Outcomes

The candidate will be able to:

- a) Describe the agency relationship between management of the sponsor and its shareholders or taxpayers.
- b) Compare the, sometimes conflicting, interests of management, employees, shareholders or taxpayers (in the case of public sector).
- c) Describe ways to identify and prioritize the sponsor's goals related to the design of the retirement plan.
- d) Given a context, assess the feasibility of achieving the sponsor's goals for their retirement plan.
- e) Given a context, assess the tradeoffs between different goals and prioritize them.
- f) State relationship or recognize contradictions between management's and shareholders' goals and the retirement risks faced by retirees.
- g) Assess the appropriateness of the retirement plan features in relation to the sponsor's total compensation structure.
- h) Assess how retirement plans features create shareholder value

## Syllabus Resources

Allen, Retirement Plans - 401(k)s, IRAs and Other Deferred Compensation Approaches, Tenth Edition 2008, Ch.1, pp 9-10, Ch. 2, pp. 28-45, Ch. 3

McGill, Fundamentals of Private Pensions, Ninth Edition, 2010, Ch. 1, 4, 5

Morneau Sobeco, Handbook of Canadian Pension and Benefit Plans, Fourteenth Edition, 2008, Chapter 1

R-C102-07: Turner & Watanabe, chap 5, "Pension Risk and Insurance," pp 65-81

R-C105-07: "Pension Actuary's Guide to Financial Economics

 $and\ Pension\ Arbitrage\ Example\ Worksheet\ \underline{http://www.soa.org/professional-interests/pension/research-thinking-ahead/pen-finance-resources.aspx}$ 

R-C123-07, Funding Risks for Multi-Employer Pension Plans

R-C151-12Guaranteed Trouble: The Economic Effects of the Pension Benefit Guaranty Corporation, Journal of Economic Perspectives

R-C152-12: Risk Management and Public Plan Retirement Systems, AAA, Appendix A and B only

R-C153-12: State and Local Pensions Are Different From Private Plans, Center for Research

Retirement Benefits, Economics and Accounting: Moral Hazard and Frail Benefit Designs by Jeremy Gold, NAAJ 1/05 <a href="http://www.soa.org/library/journals/north-american-actuarial-journal/2005/january/naaj0501-6.pdf">http://www.soa.org/library/journals/north-american-actuarial-journal/2005/january/naaj0501-6.pdf</a>

Exam Retirement CSP

## Learning Objectives

2. The candidate will be able to analyze the risks faced by retirees and the participants of a defined benefit or defined contribution retirement plan, as well as retiree health plans

## Learning Outcomes

The candidate will be able to:

- a) Identify risks faced by retirees and the elderly
- b) Propose ways in which retirement plans can manage the range of risks faced by retirees
- c) Describe the risks faced by participants of a government sponsored retirement plan
- d) Describe the risks faced by participants of single employer sponsored retirement plans
- e) Describe the risks faced by participants of a multiemployer retirement plan
- f) Evaluate benefit adequacy for members of a particular plan given other sources of retirement income.
- g) Construct a model for measuring replacement income adequacy under different scenarios.

## McGill, Fundamentals of Private Pensions, Ninth Edition, 2010, Ch. 9

R-C102-07: Turner & Watanabe, chap 5, "Pension Risk and Insurance," pp 65-81

R-C104-09: Replacement Ratio Study – A Measurement Tool for Retirement Planning

R-C152-12: Risk Management and Public Plan Retirement Systems, AAA,

R-C153-12: State and Local Pensions Are Different From Private Plans, Center for Research

R-C154-12: What is the Distribution of Lifetime Health Care Cost From Age 65? Center for Retirement Research, Brief No. 10-4 2010

R-C155-12: How Much Risk is Acceptable? Center for Research, 2008

R-C156-12: Are Retirement Savings Too Exposed to Market Risk? Center for Research 2008

Key Findings and Issues: Understanding and Managing the Risk of Retirement 2009 http://www.soa.org/files/pdf/research-key-findings.pdf

Managing Post Retirement Risks Chart, SOA <a href="http://www.soa.org/files/pdf/post-retirement-charts.pdf">http://www.soa.org/files/pdf/post-retirement-charts.pdf</a>

New Retirement Plan Designs for the 21<sup>st</sup> Century, Pension Forum, December 2008 pp. 41-56 – use Pension Forum version with commentary and authors' responses

http://www.soa.org/library/newsletters/the-pension-forum/2008/pfn-2008-iss01.pdf

### Exam

### Learning Objectives

### 3. The candidate will be able to evaluate risks faced by sponsors of retirement plans

### **Context:**

Sponsor is the entity establishing the plan and operates in private sector, public sector, tax-exempt, and multiemployer environment.

Retirement plans include qualified/registered, supplemental and deferred compensation retirement plans as well as retiree health plans

### Learning Outcomes

The candidate will be able to:

- a) Identify how plan features, temporary or permanent, can adversely affect the plan sponsor. For example -An early retirement window offering or a lump sum payout option
- b) Recommend ways to mitigate the risks identified with particular plan feature [e.g., cap an open-ended COLA]
- c) Analyze the issues related to plan provisions that cannot be removed.
- d) Describe plan design features to handle the changes in the demographics of the labor force.
- e) Compare the economic value of different plan designs for different stakeholders.
- f) In a given context, assess the effect that changes in plan design might have on collective bargained agreements
- g) Assess the impact of possible changes in plan design legislation

### **Syllabus Resources**

Allen, Retirement Plans - 401(k)s, IRAs and Other Deferred Compensation Approaches, Tenth edition, 2008, Chapter 3, pp 53-57, "Legislative Factors" and "Other [Legislative] Factors", Ch. 17, pp. 313-319

McGill, Fundamentals of Private Pensions, Ninth Edition, 2010, Ch. 5

Morneau, Handbook of Canadian Pension and Benefit Plans, Thirteenth Edition, 2005, Chapters 1, 2, 13, 17 and (13 for background only)

R-C102-07: Turner & Watanabe, Private Pension Policies in Industrialized Countries, chap 5, "Pension Risk and Insurance," pp 65-81

R-C107-07: Cassidy, "Equities in DB Plans – Is the Traditional 60/40 Mix a Dinosaur?", Employee Benefit Plan Review, Sep 2005,

R-C108-07: Center for Retirement Research at Boston College – March 2006 Bulletin – Why are Healthy Employers Freezing their Pensions?

R-C123-07, Funding Risks for Multi-Employer Pension Plans

R-C143-10: Constructing New Retirement Systems: Choosing between Insurance and investment, Choice and Default, Kessler, **Appendices 1 and 2** are background only

R-C157-12: Phased Retirement: Problems and Prospects

R-C158-12: An Annuity that People Might Actually Buy, CRR

R-C159-12: Increasing Annuitization in 401(k) Plans with Automatic Trial Income, Hamilton Project Policy Brief

R-C806-09: IRS Issues Final Regulations Relating to Phased Retirement,

RSA 1995, Vol. 21 No. 3A "Downsizing and Plan Design" <a href="http://www.soa.org/library/proceedings/record-of-the-society-of-actuaries/1990-99/1995/january/rsa95v21n3a13.pdf">http://www.soa.org/library/proceedings/record-of-the-society-of-actuaries/1990-99/1995/january/rsa95v21n3a13.pdf</a>

*Pension Forum*, Dec. 1, 2000 – SOA Cash Balance Study (sections 1,2,3,5, plus Appendix A for background only) <a href="http://www.soa.org/library/newsletters/pension-forum/2000/december/pfn0012.pdf">http://www.soa.org/library/newsletters/pension-forum/2000/december/pfn0012.pdf</a>

### Exam

### Learning Objectives

## 4. The candidate will be able to evaluate and recommend a plan design appropriate for the sponsor's goals.

### Context:

These recommendations will be appropriate for the sponsor's business and financial environment, workforce objectives and other HR programs. This would incorporate, for example, application of the sponsor's general industry, philosophy, labor force objectives, financial situation/objectives and total compensation objectives.

These recommendations will be appropriate for a particular employee group including, salaried, hourly, unionized and executive employees.

## Learning Outcomes

The candidate will be able to:

- a) Given a context, design retirement programs that manage retirement risk and are consistent with sponsor objectives.
- b) Given a context, design retirement programs that promote employee behavior consistent with sponsor objectives.
- c) Given a context and sponsor objectives, recommend an appropriate plan type for providing retirement benefits and defend the recommendations.
- d) Given a context and sponsor objectives, evaluate the pros and cons from both a sponsor and employee perspective of introducing options allowing for flexible retirement such as phased retirement, DROPs and flexible pension plans.
- e) Given a context and plan type, recommend appropriate plan design/features and defend the recommendations.
- Identify the ways that regulation impacts the sponsor's plan design goals
- g) Recommend a method to integrate government-provided benefits with retirement plan designs in order to meet the plan sponsor's particular goals and defend the recommendation
- h) Given a context and sponsor objectives, advise a plan sponsor regarding the choice of design elements for their retiree health program

## Syllabus Resources

Allen, Retirement Plans - 401(k)s, IRAs and Other Deferred Compensation Approaches, Tenth Edition, Chapters 2 and 3

McGill, et. at., Fundamentals of Private Pensions, Ninth Edition, 2010, Ch. 4

Morneau Sobeco, Handbook of Canadian Pension and Benefit Plans, Fourteenth Edition, Chapters 1 and 2

Yamamoto, Fundamentals of Retiree Group Benefits, 2006, Chapter 4, (excluding 68-89)

R-C101-07: Slater, "Seven Steps Toward Creating a Standout Retirement Savings Plan," Employee Benefit Plan Review, Sep 2005, pp 13-16

R-C108-07: Boston College "Why are Healthy Employers Freeze Their Pension Plans

R-C109-07: Integration With Social Security

R-C123-07: Funding Risks for Multi-Employer Pension Plans

R-C157-12: Phased Retirement: Problems and Prospects

R-C807-09: The Long and Short of the Pension Protection Act of 2006, Watson-Wyatt, pp.10-24 excluding p.13 (pp. 1-9 and Appendices for background only)

New Retirement Plan Designs for the 21<sup>st</sup> Century, Pension Forum, December 2008 pp. 41-57 –including commentary and authors' responses http://www.soa.org/library/newsletters/the-pension-forum/2008/pfn-2008-iss01.pdf

### Exam

## Learning Objectives

### 5. The candidate will be able to evaluate the sponsors financial goals and risk management with respect to their plan

## Learning Outcomes

The candidate will be able to:

- a) Describe ways to work with the sponsor on identifying and prioritizing the goals of management and shareholders related to the financial management of their retirement plan.
- b) Compare the, sometimes conflicting, interests of management, employees, shareholders or taxpayers (in the case of public sector).
- c) Define the retirement plan risks (financial and design) in a way that integrates with the sponsor's risk management strategy
- d) Analyze how the retirement plan integrates into the sponsor's overall financial position.
- e) Describe how retirement plan accounting impacts the sponsor's overall financial results
- f) Demonstrate how the retirement plan's inflows and outflows can affect the plan sponsor
- g) Recommend an appropriate funding policy in line with sponsor goals and professional standards. The candidate will be able to defend the recommendations.
- h) Describe how a plan's funded status can impact union negotiations and multiemployer plans.

### Syllabus Resources

Allen, Retirement Plans - 401(k)s, IRAs and Other Deferred Compensation Approaches, Ch 24 and 29

Morneau Sobeco, Handbook of Canadian Pension and Benefit Plans, Fourteenth Edition, 2008, Ch. 5 and 6

R-C105-07: Pension Actuary's Guide to Financial Economics and Pension Arbitrage Example Worksheet, <a href="http://www.soa.org/professional-interests/pension/research-thinking-ahead/pen-finance-resources.aspx">http://www.soa.org/professional-interests/pension/research-thinking-ahead/pen-finance-resources.aspx</a>

R-C106-07: The Case against Stock in public pension plans (Bader, Gold), Working Paper, 2004

R-C108-07: Why are Healthy Employers are Freezing Their Pension Plans

R-C112-07: Pension Investment and Corporate Risk Management

R-C117-07: Bader "Pension Deficits – Unnecessary Evil" April 2005 Pension Forum pp. 1-18, <a href="http://www.soa.org/library/newsletters/the-pension-forum/2005/april/pfn0504.pdf">http://www.soa.org/library/newsletters/the-pension-forum/2005/april/pfn0504.pdf</a>

R-C123-07: Funding Risks for Multi-Employer Pension Plans

R-C126-07: Bank of Canada Review – Summer 2005 – Recent Trend in Canadian DB Pension Sector Investment and Risk Management

R-C138-09: The Case for Stock in Pension Funds, Contingencies, Jan/Feb 08, http://www.contingencies.org/janfeb08/trade.pdf

R-C142-10: Bader and Gold's Rebuttal to The Case for Stock in Pension Funds, Contingencies March/April, 2008, pp. 12 & 14

R-C152-12: Risk Management and Public Plan Retirement Systems

R-C160-12: Mitchell and Hustead, Pensions in the Public Sector, Ch. 9

R-C161-12: Intricately Linked: Pensions and Corporate Financial Performance, Towers Watson

R-C162-12: The Pension Bomb," by Joshua Rauh, The Milken Institute Review

R-C163-12: Funding Regulations and Risk Sharing, pp. 15-24, OECD

R-C164-12: Accounting for Pension Buy-In Arrangements, PWC

Comments on "Pension Deficits: An Unnecessary Evil", Klieber, Pension Forum, April 2005 <a href="http://www.soa.org/library/newsletters/the-pension-forum/2005/april/pfn0504.pdf">http://www.soa.org/library/newsletters/the-pension-forum/2005/april/pfn0504.pdf</a>

A Critique of "Pension Deficits: An Unnecessary Evil", Mindlin, Pension Forum, April 2005

http://www.soa.org/library/newsletters/the-pension-forum/2005/april/pfn0504.pdf

Author's Response to Mr. Klieber's and Mr. Mindlin's Comments, Bader, Pension Forum, April 2005 <a href="http://www.soa.org/library/newsletters/the-pension-forum/2005/april/pfn0504.pdf">http://www.soa.org/library/newsletters/the-pension-forum/2005/april/pfn0504.pdf</a>

Financial Economics and Actuarial Practice", Tony Day, NAAJ Jul 01, 2004 (Vol. 8, No. 3) <a href="http://www.soa.org/library/journals/north-american-actuarial-journal/2004/july/naaj0403-6.pdf">http://www.soa.org/library/journals/north-american-actuarial-journal/2004/july/naaj0403-6.pdf</a>

Pension Funds: Company Manager's View", Exley & Mehta <a href="http://www.soa.org/library/unclassified/m-rs04-1-01.pdf">http://www.soa.org/library/unclassified/m-rs04-1-01.pdf</a>

Can Pensions be Valued as Marketed Securities, , Pension Section News, June 2009

http://newsletters.soa.org/soap/issues/2009-06-05/email.html

### Exam

## Learning Objectives

6. The candidate will be able to recommend and advise on the financial effects of funding policy and accounting in line with the sponsors goals, given constraints

Context:

Private, industry, multiemployer, public, multinational companies

### Learning Outcomes -

The candidate will be able to:

- a) Compare the financial economics perspective to the traditional perspective on funding and accounting for retirement plans.
- b) Recommend an appropriate funding method and asset valuation method in line with the sponsor's investment policy and funding goals. The candidate will be able to defend the recommendation.
- c). Advise retirement plan sponsors on funding costs including tax deductibility, required contributions and other alternatives to meet the sponsor's goals. This would be consistent with government regulation.
- d) Advise plan sponsors on accounting costs and disclosures for their retirement plans. This would include restrictions imposed by applicable accounting authorities (FASB/ASC 715, CICA, IASC, FRS17)
- e) From a financial economics perspective, describe differences in economic value on the basis of the financial strength of the sponsoring company.
- f) Perform valuations for the following special purposes, and advise plan sponsors on their financial implications :
  - i. Plan Mergers and Acquisitions
  - ii. Spin-offs
  - iii. Conversions from one plan type to another
- g) Provide advice and analysis to plan sponsors regarding the actuarial assumptions used in valuation of their retirement plans, including:
  - i. The appropriateness of assumptions, given the purpose of the valuation
  - ii. The financial risks associated with a particular set of valuation assumptions
  - iii. Adherence of assumptions to applicable accounting standards
- h) Perform and interpret the results of projections for short and long range planning including the effect of proposed plan changes

## Syllabus Resources

Allen, Retirement Plans - 401(k)s, IRAs and Other Deferred Compensation Approaches, Chapter 19, Budgeting Pension Costs, pp. 335-341

McGill, Fundamentals of Private Pensions Ninth Edition, 2010, Ch.17, Ch. 18, pp.520-526, Ch. 22, pp. 608-615

Morneau Sobeco, Handbook of Canadian Pension and Benefit Plans, Fourteenth Edition, 2008, Ch. 5

Yamamoto, Fundamentals of Retiree Group Benefits, 2006, Chapter 7 and Chapter 8, pp. 211-230

R-C30-12: SOA Webcast IAS 19 - Changes to Pension Accounting under IFRS, SOA webcast materials with CD

R-C105-07: Pension Actuary's Guide to Financial Economics and Pension Arbitrage Example Worksheet, <a href="http://www.soa.org/professional-interests/pension/research-thinking-ahead/pen-finance-resources.aspx">http://www.soa.org/professional-interests/pension/research-thinking-ahead/pen-finance-resources.aspx</a>

R-C117-07: Bader "Pension Deficits - Unnecessary Evil" Pension Forum, 2005, pp. 1-18, <a href="http://www.soa.org/library/newsletters/the-pension-forum/2005/april/pfn0504.pdf">http://www.soa.org/library/newsletters/the-pension-forum/2005/april/pfn0504.pdf</a>

R-C118-07:, Paterson "Pension Issues in Corporate Sales, Mergers

R-C121-07: Converting Pension Plans From a Defined Benefit to a Defined Contribution design – Issues to Consider in Canada, Gibson/Genno – **U.S.** skip section on Federal tax legislation

R-C130-07: Bader/Gold "Reinventing Pension Actuarial Science" with discussion

R-C137-08: Pension Projections, sections I, II, V (Sections III, IV, VI and Appendix - background only)

R-C138-09: The Case for Stock in Pension Funds, Contingencies, Jan/Feb

R-C140-10: Acquiring a U.S. Operation, Watson Wyatt

R-C142-10: Bader and Gold's Rebuttal to The Case for Stock in Pension Funds, Contingencies March/April 2008, pp.12 &14

R-C144-10: Mergers and Acquisitions: Due Diligence of Retirement Plans, Watson Wyatt

R-C145-10: Challenges for users of Actuarial Information Arising from Current Market Conditions, Dec. 2008, Financial Reporting Council

R-C165-12: Comparison of IAS 19, Rev. 2011 with FASB ASC 715 Summary of Provisions Affecting Accounting for Postretirement Benefits, Towers Watson

R-C616-11: International Accounting Standard 19 Employee Benefits (IAS)

Pension Forum, Adequate Funding for a Pension Plan, Sze

http://www.soa.org/library/newsletters/pension-forum/1996/june/pfn9606.pdf

Actuarial Aspects of Cash Balance Plans" by Lowman, Pension Forum, Dec. 2000 (excl. appendices)

http://www.soa.org/files/pdf/actuarial\_aspects.pdf

Comments on "Pension Deficits: An Unnecessary Evil", Kllieber, Pension Forum, April 2005

http://www.soa.org/library/newsletters/the-pension-forum/2005/april/pfn0504.pdf

A Critique of "Pension Deficits: An Unnecessary Evil", Mindlin, Pension Forum, April 2005

http://www.soa.org/library/newsletters/the-pension- forum/2005/april/pfn0504.pdf

Author's Response to Mr. Klieber's and mr. Mindlin's Comments, Bader, Pension Forum, April 2005 <a href="http://www.soa.org/library/newsletters/the-pension-forum/2005/april/pfn0504.pdf">http://www.soa.org/library/newsletters/the-pension-forum/2005/april/pfn0504.pdf</a>

"Financial Economics and Actuarial Practice", Tony Day, NAAJ Jul 01, 2004 (Vol. 8, Nr. 3) <a href="http://www.soa.org/library/journals/north-american-actuarial-journal/2004/july/naaj0403-6.pdf">http://www.soa.org/library/journals/north-american-actuarial-journal/2004/july/naaj0403-6.pdf</a>

ASOP 27, http://www.actuarialstandardsboard.org/pdf/asops/asop027 109.pdf

Pension Forum January 2005 -, "A Reevaluation of ASOP 27, Post-Enron: Is It an Adequate Standard of Professionalism?" by Todisco – Discussions of above article by North and Turpin plus author's response <a href="http://www.soa.org/library/newsletters/the-pension-forum/2005/january/pfn0501.pdf">http://www.soa.org/library/newsletters/the-pension-forum/2005/january/pfn0501.pdf</a>

What's Wrong with ASOP 27? Bad Measures, Bad Decisions by Bader and Gold <a href="http://www.soa.org/library/newsletters/the-pension-forum/2005/january/pfn0501.pdf">http://www.soa.org/library/newsletters/the-pension-forum/2005/january/pfn0501.pdf</a>

Can pensions Be Valued as Marketed Securities, Bader, *Pension Section News*, June, 2009 <a href="http://newsletters.soa.org/soap/issues/2009-06-05/email.html">http://newsletters.soa.org/soap/issues/2009-06-05/email.html</a>

FAS 87 (exclude paragraphs 54, 57-62, 76-77, appendix A, appendix B illlustration 2 and 6, appendix C,) Appendix D is for background only <a href="http://www.fasb.org/pdf/fas87.pdf">http://www.fasb.org/pdf/fas87.pdf</a>

FAS 88 (exclude paragraphs 19-21, Appendix A, Appendix B illustration 6) <a href="http://www.fasb.org/pdf/fas88.pdf">http://www.fasb.org/pdf/fas88.pdf</a>

FAS 132 (excluding paragraphs 12-13, Appendices A,B, and D) Appendix E for background <a href="http://www.fasb.org/pdf/fas132.pdf">http://www.fasb.org/pdf/fas132.pdf</a>

FAS 106 (exclude paragraphs 74, 79-84, 86-89, 108-115, appendix A, appendix C illustrations 3 and 7, appendix D) http://www.fasb.org/pdf/fas106.pdf

FASB 158 through Appendix A – (note that FASB references are also found in Accounting Standards Codification (ASC) 715 – Compensation – Retirement Benefits) <a href="http://www.fasb.org/pdf/fas158.pdf">http://www.fasb.org/pdf/fas158.pdf</a>

## Learning Objectives

## 7. The candidate will be able to synthesize plan design and funding/accounting/economic value

### Learning Outcomes

The candidate will be able to:

- a) Explain the interplay between plan design and plan funding/accounting/economic value
- b) Given the sponsor's goals, recommend an integrated plan (design and funding/accounting/economic value) and defend the recommendation
- c) Demonstrate the sensitivity of cost and economic value to given changes in plan design

Allen, Retirement Plans - 401(k)s, IRAs and Other Deferred Compensation Approaches, Ch. 18

R-C108-07: "Why are Healthy Employers Freezing their Pensions..."

R-C105-07: Pension Actuary's Guide to Financial Economics and Pension Arbitrage Example Worksheet, <a href="http://www.soa.org/professional-interests/pension/research-thinking-ahead/pen-finance-resources.aspx">http://www.soa.org/professional-interests/pension/research-thinking-ahead/pen-finance-resources.aspx</a>

Gold "Ret. Benefits, Economics and Accounting" January 2005 NAAJ http://www.soa.org/library/journals/north-american-actuarial-journal/2005/january/naaj0501-6.pdf

NAAJ July 2001, Macroeconomic Aspects of Private Pensions Programs, Krzysztof M. Ostaszewski <a href="http://www.soa.org/library/journals/north-american-actuarial-journal/2001/july/naaj0107-4.pdf">http://www.soa.org/library/journals/north-american-actuarial-journal/2001/july/naaj0107-4.pdf</a>

Pension Forum, April 2005 http://www.soa.org/library/newsletters/the-pension-forum/2005/april/pfn0504.pdf

### Exam

### Learning Objectives

8.The candidate will be able to analyze the regulatory environment as it effects retirement plans

Learning Outcomes

### The candidate will be able to:

- a) Evaluate the effect of regulatory policies and restrictions, for all retirement plans, associated with:
  - Plan design
  - Plan establishment
  - Plan amendment
  - Plan termination/windup
  - Plan merger or spin-off
  - Reporting requirements
  - Members' rights
  - Plan funding
  - Contributions and benefits
  - Individual savings plans
  - Coordination of individual and employer sponsored retirement plans.
  - Economic value to shareholders
- b) Evaluate the tax implications of retirement plan designs and funding alternatives for the plan sponsor, shareholders and the participants.
- c) Where regulations for tax-assisted retirement plans conflict with sponsor's and shareholders' goals, the candidate will be able to describe and recommend alternatives.
- d) Explain the moral hazard that arises from the existence of outside (government) guarantees on the plan benefits.
- e) Describe and recommend proper plan governance practices and the sponsor's fiduciary responsibility

### Syllabus Resources

Allen, Retirement Plans - 401(k)s, IRAs and Other Deferred Compensation Approaches, Ch. 3 pp 53-55, Ch. 14

McGill, Fundamentals of Private Pensions, Ninth Edition, 2010, Ch. 15,17

Morneau Sobeco, Handbook of Canadian Pension and Benefit Plans, Fourteenth Edition, 2008, Ch. 2, 4, 7

R-C102-07: Turner/Watanabe, Private Pension Policies in Industrialized Countries, Ch. 5 pp 81-91

R-C119-07: Fiduciary Liability Issues for Selection of Investments

R-C126-07: Recent Trends in Canadian Defined-Benefit Pension Sector Investment and Risk Management

R-C132-07: 20 Questions Directors Should Ask About Their Role in Pension Governance

R-C151-12: Guaranteed Trouble: The Economic Effects of the Pension Benefit Guaranty Corporation, Journal of Economic Perspectives

### Exam

### Learning Objectives

9.The candidate will be able to analyze the issues facing retirement plan sponsors regarding investment of fund assets and make recommendations on the actuarial issues\*

\*Note: the candidate is not expected to provide advice on investment of plan assets

## Learning Outcomes

## The candidate will be able to:

- a) Assess the different types and combinations of investment vehicles for providing retirement benefits given the particulars of the sponsor's financial circumstances, philosophy, industry, workforce and benefit package.
- b) Distinguish the various ways that retirement fund assets are managed.
- c) Given a context, evaluate a Statement Of Investment Policy.
- d) Assess the potential effects of various investments and investment policies on plan funding (short and long-range), accounting, design and administration.
- e) Assess the potential effects of various investments and investment policies on all of the stakeholders, including tax implications.
- f) Model the effect on setting investment strategy of factors including, cash flow requirements, various plan designs and various economic environments.
- g) Describe the regulatory restrictions on retirement plan assets.
- h) Identify the sources of investment risk and assess risk facing retirement funds.
- i) Evaluate immunization strategies and other hedging techniques for asset/liability management.

### Syllabus Resources

Allen, Retirement Plans - 401 (k) s, IRAs and Other Deferred Compensation Approaches., Chapter 24, 29

Litterman, Modern Investment Management, 2003, Ch. 2, 3, 9, 21, 22, 23, 24, 27 (pp. 501-505 only), Ch. 28 (pp. 516-520 only)

McGill, Fundamentals of Private Pensions, Ninth Edition, 2010, Ch.26 and 27

R-C105-07: Actuary's Guide to Financial Economics and Pension Arbitrage Example Worksheet, <a href="http://www.soa.org/professional-interests/pension/research-thinking-ahead/pen-finance-resources.aspx">http://www.soa.org/professional-interests/pension/research-thinking-ahead/pen-finance-resources.aspx</a>

R-C133-07: Back to the Future

R-C139-09: The Place for Lifestyle Funds in a 401(K) Plan, Farley

R-C148-10: Jim Moore Discusses Liability Driven Investment Strategies and Concepts, *Product Focus*, May 2007

R-C149-10: Plan Sponsor Guide to Liability –Driven Investing, BNY Mellon, Asset Management

R-C150-10: Mind the Gap: Using Derivatives Overlays to hedge pension Duration, Financial Analysts Journal, Volume 65, Number 4, 2009

R-C166-12: Reflections on the Efficient Market Hypotheses: 30 Years Later, The Financial Review 40 (2005) pp. 1-9

Full Circle, Purchasing Annuities in DB Plans", Ruloff <a href="http://www.soa.org/library/monographs/retirement-systems/managing-retirement-assets-symposium/2004/march/m-rs04-2-05.pdf">http://www.soa.org/library/monographs/retirement-systems/managing-retirement-assets-symposium/2004/march/m-rs04-2-05.pdf</a>

Pension Forum: April, 2005, entire issue. http://www.soa.org/library/newsletters/the-pension-forum/2005/april/pfn0504.pdf

### Exam

### Learning Objectives

10. The candidate will be able to synthesize and evaluate deferred compensation and supplemental retirement plans for the highly paid in a given context.

### Learning Outcomes

The candidate will be able to, for a deferred compensation or supplemental executive retirement plan:

- a) Differentiate between situation where management and shareholders objectives for executive plans coincide and where they differ.
- b) Given a context, recommend a plan to meet the sponsor's objectives and defend the recommendation.
- c) Given a context, assess the plan from an executive's perspective.
- d) Analyze the options for securing the benefit promise.
- e) Assess the taxation issues.
- f) Identify and assess the impact of regulatory constraints.
- g). Describe accounting for these plans and the options available.

### Syllabus Resources

Allen, Retirement Plans - 401(k)s, IRAs and Other Deferred Compensation Approaches, chap 14, pp 245-247, 250-251, 260-262

R-C801-07Clary and Hauptman, "Evaluating Financing Options for Nonqualified Benefit Plans," Employee Benefit Plan Review, Jan 2004

R-C808-09: IRS Issues Final 409A Regulations, Deloitte

R-C809-09: IRS Issues Final 409A Regulations – Part II, Deloitte

R-C810-09: IRS Issues Final 409A Regulations – Part III, Deloitte

### Exam

## Learning Objectives

## 11. The candidate will be able to understand the general applicability and design of long-term incentive plans

## **Learning Outcomes**

- a) The candidate will be able to identify and describe the design of long-term incentive plans, including:
  - Bonus/performance plans
  - Stock options
- b) The candidate will be able to summarize the accounting treatment of these plans

### Syllabus Resources

Allen, Retirement Plans - 401(k)s, IRAs and Other Deferred Compensation Approaches, chapters 14 and 15,

R-C110-07: Towers Perrin, The Handbook of Executive Benefits, Chapter 15 (Golden Parachutes) pp. 238-244 only

R-C124-07: "Recent Issues in Corporate Financial Reporting", PWC Financial Reporting Release, Feb. 2005 – pp.11-14

R-C803-07: Poerio & Keller, "Executive Compensation 2005: Many Forces, One Direction," Compensation & Benefits Review, May/June 2005, pp. 34-49

R-C805-07: Bowen & Perry, "Taking Stock of Option Expensing," Contingencies, Jan/Feb 06, pp 40-42

R-C808-09: IRS Issues Final 409A Regulations, Deloitte

R-C809-09: IRS Issues Final 409A Regulations – Part II, Deloitte

R-C810-09: IRS Issues Final 409A Regulation – Part III, Deloitte

### Exam

### **Learning Objectives**

## 12. The candidate will be able to apply the standards of practice and guides to professional conduct

## Learning Outcomes

In general or given a context, the candidate will be able to:

- a) Apply the standards related to communications to plan sponsors and others with an interest in an actuary's results (i.e., participants, auditors, etc.).
- b) Explain and apply the Guides to Professional Conduct.
- c) Explain and apply relevant qualification standards
- d) Demonstrate compliance with legal requirements regarding the actuaries responsibilities to the participants, plan sponsors, etc. (EA-2B in the U.S.)
- e) Explain and apply all of the applicable standards of practice related to valuing retirement obligations.
- f) Recognize situations and actions that violate or compromise Standards or the Guides to Professional Conduct.
- g) Recommend a course of action to repair a violation of the Standards or the Guides to Professional Conduct

### Syllabus Materials

Yamamoto, Fundamentals of Retiree Group Benefits, 2006, Appendix F pp. 1-27 only

R-C119-07: Fiduciary Liability Issues for Selection of Investments

 $ASOPs\ 2,\ 4,\ 23,\ 41-\underline{http://www.actuarialstandardsboard.org/pdf/asops/asop002\_004.pdf,}$ 

http://www.actuarialstandardsboard.org/pdf/asops/asop004\_107.pd f

 $\underline{http://www.actuarialstandardsboard.org/pdf/asops/asop023\_097.pdf}$ 

 $\underline{http://www.actuarialstandardsboard.org/pdf/asops/asop041\_086.pdf}$ 

ASOP 21, 27, 35

http://www.actuarialstandardsboard.org/pdf/asops/asop021\_139.pdf

http://www.actuarialstandardsboard.org/pdf/asops/asop027\_109.pdf

http://www.actuarialstandardsboard.org/pdf/asops/asop035 110.pdf

Pension Forum January 2005 - "A Reevaluation of ASOP 27, Post-Enron: Is It an Adequate Standard of Professionalism?" by Todisco and Discussions of above article by North and Turpin plus author's response <a href="http://www.soa.org/library/newsletters/the-pension-">http://www.soa.org/library/newsletters/the-pension-</a>

forum/2005/january/pfn0501.pdf

What's Wrong with ASOP 27? Bad Measures, Bad Decisions by Bader and Gold <a href="http://www.soa.org/library/newsletters/the-pension-forum/2005/january/pfn0501.pdf">http://www.soa.org/library/newsletters/the-pension-forum/2005/january/pfn0501.pdf</a>

AAA Code of professional Conduct <a href="http://www.actuary.org/pdf/prof/code">http://www.actuary.org/pdf/prof/code</a> of conduct.pdf

SOA Code of Professional Conduct http://www.soa.org/about/membership/about-code-of-professional-conduct.aspx

AAA Qualification Standards <a href="http://www.actuary.org/pdf/prof/qualif\_stnds.pdf">http://www.actuary.org/pdf/prof/qualif\_stnds.pdf</a>

SOA Qualification Standards http://www.soa.org/about/membership/about-req-admission.aspx