



SPRING 2008

Financing and Investing in Pension Vehicles(draft as of10/9/2007)

The Application of Finance Theory and Portfolio Management to Pension Finance

B40.2376

3 Credits

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Tuesday 6:00-9:00 p.m.

February 12 through May 6, 2008

Office Hours: Tuesdays 4:00 – 5:30 p.m., KMC 8-51

Or By Appointment (212) 838-8071

Pre-requirement: B01.2311-Foundations of Finance

Introduction and Purpose

American companies, families and governments are confronted with multiple intractable problems in financing retirement:

- (1) A burgeoning senior population with baby boomers ill prepared financially for retirement.
- (2) Relentlessly rising medical care costs, exacerbated by the higher cost of an older population
- (3) A reluctance of Corporate America to continue either generous or traditional retirement plans or post retirement medical care
- (4) A population generally not prepared to manage a long term financial plan requiring saving and careful provision for distant income and medical needs; and in addition, not educated to manage the investment portfolio needed to finance that plan.

Leading companies' (Ford, GM) very existence is threatened by looming legacy costs of their retirement promises. Others cannot compete in global markets with conventional pension arrangements (IBM, Lucent, AT&T). Accounting standards are focusing immediate attention on unfunded liabilities.

At the government level, it is clear that projected costs of Medicare and Medicaid will swallow up all our tax resources. Cutbacks are inevitable. In a few decades personal "out-of-pocket" medical costs will consume all of a retiree's growth in income. State and local governments have made extraordinary promises to their employees that will require unacceptable future tax burdens.

The purpose of the course is to describe rigorously the role of finance and investments in planning to cope with these major problems. We explore each of the three pillars that support income needs and costs in the future:

- Pillar I. The Government in providing Social Security, Medicare, and Medicaid, welfare as well as backing up employer defined benefit plans through the Public Benefit Guaranty Corporation.
- Pillar II. Employers (including state and local governments), in providing pension benefits through defined benefit and defined contribution plans (401k), managing the asset portfolios underlying those plans, and providing post retirement medical care and nursing home provision.
- Pillar III. The family through personal savings (IRA's, mutual funds, annuities, Keogh plans, HSA's and other means) to cover income needs, and medical care post retirement and long term care.

We will examine the variety of instruments and institutional arrangements that can meet individual and corporate obligations.

We will also explore demographic and economic developments that can be predicted over the next 20 to 50 years.

The course is being designed for those who will be involved in managing the current Sixteen Trillion dollars (growing by 6% to 7% per year) of pension assets in the U.S., future CFO's responsible for corporate retirement plans, research analysts interested in the impact of corporate retirement plans on future earnings, human resources officers, and for those interested in a future professional career in financial planning (actuaries, personal financial planners, compensation experts, etc.) and for anyone planning to have a well financed one-quarter of his or her life lived in retirement.

Books and Readings

Pension Planning, Pension Profit-Sharing and Other Deferred Compensation Plans, Allen, Melone, Rosenbloom and Mahoney, McGraw Hill, 2003

Pension Finance, David Blake, John Wiley and Sons, 2006

Coming Up Short, The Challenge of 401(k) Plans, Munnell and Sundén, Brookings Institution Press, 2004

Restoring Fiscal Sanity, 2005 Meeting the Long Range Challenge, Rivlin and Sawhill, Brookings Institution Press

Restoring Fiscal Sanity, 2007, The Health Spending Challenge, Rivlin and Antos, Brookings Institution Press

Coping with Methusaleh, Brookings Institutions, February 2004

CoursePack available in bookstore.

Notes and links on Blackboard.

Student Tasks

Two brief papers (two pages or less) on an assigned question, due March 11 and April 1. (20% of grade).

Two open book Blackboard tests on technical material completed by February 26 and April 15. (30% of grade).

One medium length (ten-fifteen pages) research paper due on Tuesday, May 6. Paper could be a review of a book or technical paper. To be agreed with instructor. (35% of grade).

Class participation – bring questions on current media coverage of pension items, contribute to discussion, participate in presentation groups. (15% of grade).

Speakers:

Consulting Actuary (Hybrid Pension Plan Design)
Investment Professional on 401(k) Plans.
Investment Banker on current new product developments

Session Outlines:

1. General Scope of Retirement Issues. (February 12)
 - Broad theory of pension plan design
 - Pension assets in the U.S., foreign countries, and changing landscape
 - Broad principles of regulation
 - Significant Historical Events

Assigned Readings (Session 1)

 - AMRM Chapter 1, 2 & 3
 - Poterba: Changing Landscape of Pension Plans, NBER Working Paper (link)
 - Summary of Pension Protection Act – Deloitte and Touche
 - Appendix of Munnell & Sundén
 - Peter Drucker: The Unseen Revolution: How Pension Socialism came to America, Chapter 1 (CoursePack)
2. Demographic Issues (February 19 – release Open Book Test)

Patterns within countries
Longevity risk
Medical research impact on mortality
Pay-go vs pre-funded Social Insurance
Health cost projections

Assigned Readings (Session 2)

Coping with Methuselah: Chapters TBD
Bernanke Speech (Bookstore package)
Rivlin and Sawhill pp 1-17
Rivlin and Antos Overview and Chapter 1, pp 1-28

Test) 3. Types of Employer Pension Plans (February 26-Complete 1st Open Book

Defined Benefit vs Defined Contribution
Hybrid Plans

Assigned Readings (Session 3)

AMRM Chapters 4, 5, 6 and 11
Waring and Siegel Don't Kill the Golden Goose Financial Analysts
Journal, 2007 (CoursePack)
Poterba – Landscape of Private Pension - reprise

4. Personal Finance (March 4 – Assignment of paper due on March 11)

Types of Plans (IRA, Keoghs, HSA's and mutual funds)
Pros and Cons of Deferral, Ross vs Classic, and Projection
Of Tax Rates over 60 years
Problems of 401(k)'s.

Assigned Readings (Session 4)

Munnell & Sundén – chapters 2, 3, 4 and 8
AMRM – (skim) chapters 7, 8, 9, 10, 12/Read Chapter 11
The Best Laid Plans - Elton Gruber and Blake, (CoursePack)

5. Federal Regulation of Pension Plans (March 11 – 1st short paper due)

Broad purpose
Unintended consequences
ERISA and Post-ERISA
Pension Protection Act of 2006

Assigned Readings (Session 5)

Deloitte & Touche Summary of 2006 Pension Protection Act (CoursePack
or Link?)

AMRM (skim) Chapters 4,5,6
Munnell & Sundén – Chapter 1 and Appendix

First Paper Assigned

6. The Defined Contribution Pension Plans (March 25)
(Assignment of 2nd Paper due April 1)
Rapid Growth
Differences from DB Plan
Major problems – and solutions
Investments, Stochastic Projections

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Assigned Readings (Session 6)
Munnell and Sundén Chapters 2, 3, 4, and 8 (Reprise)
Blake, Chapters 4 and 5

7. Further on Defined Contribution Plans (April 1 – 2nd Paper Due)
Behavioral Finance Theory
Pension Protection Act
Implication for National Savings
Longevity risk for individuals
Life Cycle Funds

Speaker – An expert on 401(k) investing.

Assigned Readings (Session 7)
Lessons from Behavioral Finance – Mitchell et al. (Bookstore Package)
Deloitte and Touche – Pension Protection Act
Blake – chapter 5

8. Financial Issues for DB Plans (Part I) (April 8 – Release 2nd Open Book Test)
General description, landscape
Workplace designs. Advantages and Disadvantages
Accounting – Current Arrangements, IRS and FAS changes, future directions

Assigned Readings (Session 8)
AMRM – skim chapters 13, 14, 15, 22, 23
Accounting Issues Paper TBD, Bookstore Package)

9. Financial Issues for DB Plans (Part II) (April 15)
(Second Open Book Test Complete)
History of Financing – from Individual Insurance Policies to full

separation of assets and liabilities.
Financial Economics vs Actuarial Principles
(Modigliani and Miller vs Actual Practice)
Liability Driven Investing (LDI)
Longevity Risk
Governance – corporate failure

Assigned Readings (Session 9)

Pension Actuary's Guide to Financial Economics (CoursePack)
Blake – chapter 3, and 6
Longevity: A Market in the Making (JPMorgan, in CoursePack)
The Case Against Stock in Public Pension Funds – Bader and Gold
(Financial Analysts Journal, in CoursePack)

Speaker – Investment banker discussing market for longevity risk, and other new products.

10. Social Insurance. (April 22)

Why Does it Exist? Market Failure?
Broad descriptions; Social Security, Medicare, Medicaid
Solutions for Social Security (class debate)

Assigned Readings (Session 10)

The Social Security Fix-It Book
Feldstein NBER (Bookstore package)

ABMR – Myer's Appendix
Rivlin and Sawhill (TBD)

11. Medical Care in Retirement. (April 29)

Medicare – Benefits and Limits
Projected future costs
Solutions through DC Plans
Accounting Issues

Assigned Readings (Session 11)

Rivlin and Sawhill, Restoring Fiscal Sanity, Chapter 4
The Train Wreck Coming (JHB; Change Magazine in CoursePack)
Restoring Fiscal Sanity 2007 Chapter 3, 6

12. Summary – The Three Pillars (May 6) Research Paper Due

Family role in financing retirement
Government's Role – Federal and State
Employer's Role
Labor Market Effects

Assigned Readings (Session 12)
Feldstein, NBER paper (CoursePack)
Myron Scholes OP-ED (BlackBoard)

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