ACTEX Learning

Study Manual for Retirement Benefits Design & Accounting CANADA Exam

2nd Edition

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An SOA Exam

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RETIREMENT PLANS (12TH EDITION) BY ALLEN ET AL

Chapter 2

I. ENVIRONMENTAL CONSIDERATIONS

1. Tax Equity and Fiscal Responsibility Act TERFA (1982)
   a) Before: ER legal tax status (e.g. sole proprietorship, partnership, corporations) influenced plan design
   b) After: Eliminated most distinctions in tax laws
2. Section 501(c) (3) organizations
   a) Contributions not tax deductible
   b) Higher cost for EE benefits than profit-making corporations
   c) DC concepts more common (Section 403(b) tax-deferred annuity can be used)
3. Background for designing EE benefit program
   a) Characteristics of ER, Industry and Workforce
   b) Local communities
      i) More important if ER is a dominant ER (type of image ER wants to project)
   c) Presence of collective bargaining units
   d) For ER with diversified operations, also consider
      i) Is the same benefit program is appropriate for all?
      ii) ER attitude towards EE transfer

II. EMPLOYER PHILOSOPHY AND ATTITUDES

1. ER basic compensation philosophy (Compensation strategy)
   a) Cost and benefit structure of benefit plans reflect attitude towards other compensation elements
      i) ER with policy of high wages, also have liberal benefit programs
   b) Keep total compensation at acceptable level but stress more on certain element
      i) High wages but only modest benefit
      ii) Affect turnover; attract certain EE
   c) Reverse compensation strategy (Common in public sector)
      i) Liberal benefits but only modest wages
2. ER basic attitude towards providing EE benefits (2 basic approaches)
   a) #1: Income maintenance approach (in event of economic insecurity)
      i) E.g. DB plan integrated to maximum extent with Social Security
      ii) E.g. Death benefit provides income only to survivors of EE immediate family
   b) #2: Compensation oriented approach (E.g. DC plans)
3. Does ER believe EE should share the cost?
   a) If yes, common form is EE contributions or lower benefits
   b) From perspective of total EE benefit program, can be a mix of contributory / non-contributory plans, as long as over EE contribution level is reasonable
4. ER attitude towards who (ER / EE) should bear inflation and investment risk in long-term, advance-funded retirement program
   a) Affect choice of DB or DC plans
5. ER attitude towards retirement pattern through selection of specific provisions
   a) Retirement ages (Normal / Early) and subsidies
   b) Deferred retirement
   c) Postretirement life and medical expense insurance

6. ER attitude towards providing EE choice and control over plan participation
   a) If yes: Flexible / cafeteria benefits (before tax credits) or layers of after-tax contributory coverage
   b) If no: due to paternalistic nature or associated high cost for offering flexibility
7. ER position towards cost commitment (both current and future cost level)
   a) Affect benefit levels and ancillary benefits
8. ER attitude towards co-ordination with Social Security benefits
   a) If yes: More equitable balancing of costs and benefits for all pay levels
   b) If no: due to communication and administration difficulties
9. ER attitude towards different benefits program for executives from rank-and-file
   a) If yes: due to executive needs not met by plans which satisfied non-discrimination requirement
   b) If yes, ER also provide additional death and disability benefits
10. ER willingness to assume plan termination obligations
    a) Can affect company's net worth, credit ratings and capital raising, also pay insurance premium
    b) If no: DC plans

III. EMPLOYER OBJECTIVES

1. Attract and retain EE
   a) Some benefit plans may have greater impact than others on EE
      i) E.g. EE may find Employer A's generous profit sharing plan more attractive than Employer B's more conventional pension
2. Meet competitive standards
   a) Reflect ER attitudes about own standing in industry and communities
   b) EE benefit plans highly visible and readily subject to external comparison
   c) Step 1: Must establish comparison standards
      i) Vs. industry standards (if EE skills are less transferable)
      ii) Vs. local companies (if EE skills are more transferable)
   d) Step 2: Decide upon the desirable level of competitiveness (e.g. leader, average)
   e) Step 3: How to establish the desired relative standing of different plans
      i) Compare actual benefits payable to representative EE under different situations
         ➔ Caution 1: Do not give true relative cost of plans
         ➔ Caution 2: Do not account for other benefits in the same plan
         ➔ Caution 3: Sensitive to assumptions used for illustrations
      ii) Compare actual ER costs for different benefit plans
         ➔ Caution 1: Inconsistent reporting among different ERs
         ➔ Caution 2: Actual contribution pattern may not be indicative of real cost
      iii) Focus on relative value of different benefits by establishing value of specific plans, specific benefits within plan and aggregate value (use uniform actuarial methods and assumptions)
      ➔ Caution 1: Does not establish actual costs or cost patterns
3. Cost considerations
   a) Position on ultimate real cost and estimated annual costs (e.g. benefit levels)
   b) Need for contribution flexibility
   c) Position on expected cost from future inflation (e.g. career-pay formula, DC/DB)
   d) Need for cost-efficient retirement program
      i) Co-ordinate benefits from all sources
   e) Use retirement plan as tax shelter for key personnel
      i) Max. benefits and contribution within federal tax law

4. Legal compliance (ER has choice over how compliance is achieved)
   a) Age Discrimination in Employment Act (ADEA)
      i) Prevents discrimination against EE 40+
      ii) Does not require all benefits plans to treat all EE alike regardless of age
   b) Federal tax law allows DB plan to exclude EE < age 21 or < 1 year of service
      i) ER may include all EEs or exclude maximum number possible
   c) Nondiscrimination requirement
      i) ER desires different pay definition for executives and rank & file in DB plan
      ii) Fail nondiscrimination requirement – No qualified status
      iii) ER can have a qualified plan with nondiscriminatory pay definition and a SERP that applies base plan formula to incentive pay
   d) SEC requires only registered savings plan can invest EE contribution in ER securities
      i) Avoided if ER securities only purchased with ER contributions
5. Achieving optimum tax benefits
   a) May affect other benefits and how they are funded
6. Efficiency of design
   a) Recognize some plans are primary and some are secondary
      i) E.g. ER pension plan is primary retirement plan, SS is an additional source
   b) Co-ordinate benefits from all sources to ensure overall in line with ER objectives
7. Income replacement ratio
   a) Critical in design of disability income and retirement plan (specific benefit formula)
   b) To set income replacement objectives
      i) Factor in EE own Social Security benefits
      ii) Higher objectives for lower paid EE
      iii) Use year(s) of salary closest to retirement years
      iv) Full income objectives only for EEs who completed a “career” of employment with ER (Reduced for EE with less service)
8. Other objectives
   a) Social obligations
   b) EE incentives (absence of benefit plans is negative influence)
   c) Corporate identification
   d) Administration ease

Retirement Plans 12th Edition (By Allen et al)

Chapter 11 Behavioral Finance Impact on DC Plan Designs

I. KEY THEMES

1. Hueristics
   a) Decisions often made with approximate rules of thumb (Economic models often assume decision based on strict rational analysis)
2. Framing - Decisions often affected by depiction of choice and susceptible to manipulation
3. Market inefficiencies

II. BEHAVIORISTS AND INVESTMENT DECISION MAKING

1. Factors resulting in Inactivity
   a) Loss-adverse investors – Difficult to forgo present consumption for future payment
   b) Hyperbolic discounting - human tendency, in uncertainty, to reduce importance of the future in decision making process
   c) Procrastination and Inertia
   d) Status quo bias – individual proclivity to prefer prevailing conditions
   e) Complexity – retirement investment decisions are often too complex – need professional assistance
   f) Choice Overload – results in paralysis of analysis
2. Factors resulting in Suboptimal Active Choices
   a) Bounded rationality – constraints on human intelligence and problem-solving ability
   b) Overweigh past performance – not guarantee of future performance
   c) Effects of savings anchors – Appropriate savings level (savings anchor vary with age- older people anchor savings to the max.
   d) Investor overconfidence
   e) Peer Influence (effects at odds that economic agents are rational)
   f) Inappropriate risk discounting – under-estimate risk of certain investments
   g) Disposition effect – Bias against selling at loss

III. REMEDIAL BENEFIT DESIGN WITH BEHAVIORAL FINANCIAL FINDING

1. Life cycle funds (static allocation funds and targeted maturity funds)
2. Progressive increase in savings rate
   a) Commit to higher savings rate in advance of pay raise
3. Automatic enrollment & default investments – require individuals to decline first

IV. LEGISLATION AND REGULATION ENCOURAGING BEHAVIORAL FINANCIAL PLAN DESIGN (6 CONDITIONS TO QUALIFY FOR FIDUCIARY RELIEF)

1. Assets must be in a qualified default investment alternative
   a) Cannot hold or acquire ER securities
   b) Cannot restrict individual to transfer between qualified default investment alternatives under the plan
   c) Managed by qualified investment manager or company

d) Diversified to minimize risk of large losses - Use any one of products or services designed to provide long-term appreciation with a mix based on
    i) Participant age, target DOR or life expectancy
    ii) Target risk level for plan as whole
    iii) Through investment alternatives available under plan (e.g. managed a/c services)

2. Participants has option to decide assets investment directly
3. Provide participant notice before each subsequent plan year
4. Must provide participation any material relating to qualified default investment alternative
5. Cannot restrict individual to transfer between qualified default investment alternatives under the plan
6. Can invest in board range of investment alternatives (section 404(c))

V. GROWTH OF TARGET DATE FUND OFFERINGS AND CHARACTERISTICS

1. Not all funds with same target date has same risk exposure
2. Glide path – gradual reduction in stock exposure until and beyond target date
3. No guarantee sufficient retirement income at target date or no investment losses
4. DOL demands greater disclosure as participants has misconstrued related risk

Retirement Plans 11th Edition (By Allen et al)

Chapter 14 Executive Retirement Arrangement

I. ERISA REQUIREMENTS

1. 2 types of executive retirement plans
   a) Excess benefits plans
      i) Solely in excess of Section 415 limits on benefits and contributions
   b) Top hats plans (must be unfunded)
      i) Provide deferred compensation for a select group of management or highly compensated EE
      ii) ERISA Title 1 pension plan
2. Non-exempt plan
   a) If plan becomes funded or extends beyond the select group, then comply: with
      i) Reporting and disclosure
      ii) Participation requirements
      iii) Vesting
      iv) Joint and survivor requirements
      v) Funding
      vi) Fiduciary responsibility
      vii) Accrual rules

II. OBJECTIVE OF EXECUTIVE RETIREMENT ARRANGEMENTS

1. Restoring base plan benefits (lost under Section 415 limit)
2. Providing more benefits
3. Mid-career recruiting
4. Recognizing incentive pay
5. Executive transfers
   a) Set up umbrella plan which makes up any difference between it and the benefits actually provided at the specific locations
6. Recognizing deferred compensation
7. Golden handcuffs
   a) Terminating EE will forfeit accruals unless meet certain criteria (e.g. age 62)
8. Non-compete provisions
9. Golden handshakes
   a) Incentives to EE to retire early
10. Uniform treatment
    a) Used to standardize arrangements (e.g. after M&A)
    b) Avoid need for special contracts and disclosure

III. GENERAL DESIGN CONSIDERATIONS

1. Internal equity (e.g. long service v short service EE)
2. Cost and accounting considerations
3. Consider from both cash flow and financial statement perspectives
4. Actuarial assumption selection
5. Tax considerations
   a) ER tax deduction only when benefits are paid or become taxable to EE
   b) Subject to ordinary tax for EE (but no penalty tax for early withdrawals or failures to meet minimum distribution requirements)
   c) Must have no formal funding instrument and EE must not have access to benefits if to avoid current taxation

IV. DEFINED BENEFIT VERSUS DEFINED CONTRIBUTION

1. Attractiveness of DC
   a) EE used to deal with capital accumulation plan
   b) More readily coordinates with use of equity
   c) Imputed ROR tied to company performance
   d) Several design issues more easily dealt with (e.g. additional ER contributions)
2. Hybrid plan (e.g. target benefit plan)
3. Cash balance plans

V. CO-ORDINATION WITH BROAD BASED PLANS

1. Consistency with broad based plans is desirable:
   a) Distribution form and manner
   b) Right to make and change beneficiary designation / facility payment authority
   c) Administration and communications

VI. GENERAL PLAN FEATURES

1. Eligibility for Participation
   a) Position
   b) Minimum salary requirement if tied to price or wage index
   c) Decision by compensation committee
      i) If too board a group, can become Title 1 plan and subject to ERISA requirements
2. Definition of Compensation
   a) Elements of compensation (e.g. base salary, bonus)
   b) Compensation averaging period
      i) Can adopt to smooth out bonus volatility
   c) Service (e.g. for eligibility)
   d) Retirement Ages (normal / early / late)
3. DC Plan Benefit Structures
   a) ROR on credits / contributions important
4. DB Plan Benefit Structures
   a) DB plan formula

   i) Accrual rate
   ii) % of pay to be continued in retirement
   iii) Should the % vary by income levels
  b) Definition of pay (elements and averaging period)
  c) Length of required service
  d) Retirement age
   i) Other sources of replacement income (e.g. social security)
  e) Vesting
  f) Disability
  g) Death

VII. BENEFIT SECURITY ARRANGEMENT

1. Incentives to assure EE that their benefits are secured to a certain extent
2. Rabbi Trust (irrevocable trust for benefits of EE but subject to general creditors claim)
3. Corporate-owned life insurance (COLI)
4. Secular trusts (plan would become Title 1 ERISA plan and subject to its requirements)

VIII. DEFERRED COMPENSATION ARRANGEMENTS

1. Reasons:
   a) Extending income into retirement years
   b) Spreading bonus out over longer time
   c) Tying executives to ER
   d) Adding to retirement income
2. To avoid current taxation, deferral must be
   a) Irrevocable taxation
   b) Agreed to before compensation is earned
   c) Specified length of time

IX. EFFECTS OF SECTION 409A

1. Applies to nonqualified deferred compensation arrangements
2. Section 409A raises several issues
3. Generally mandates income from such arrangements may not be deferred beyond the year of earning the compensation unless made certain qualifying deferral elections.
   a) Except for performance based compensation
4. If do not conform to stipulated exception, an additional 20% tax on the amount of deferred compensation that would be imposed on EE
5. Exception from current inclusion if
   a) substantial risk of forfeiture,
   b) short term deferrals,
   c) service performer uses the accrual method of accounting
6. Changes in election made must delay the EE's receipt of payment for 5 years (i.e. no accelerated payments) except:
   a) Separation from service
   b) Death, disability,

   c) Change in control of business
   d) Unforeseeable emergencies
7. Equity-based compensation also subject to Section 409A
   a) If not "in-the-money" at grant time, exempted from certain Section 409A provisions

RETIREMENT PLANS (12TH EDITION) BY ALLEN ET AL

Chapter 17: Defined Benefit Plan Features

1. Employee contributions (Contributory / Non-contributory)
2. Retirement ages (Normal / Early / Late)
3. Retirement benefits
   a) Determination of compensation
      i) Final pay provision
      ii) Career pay plan
   b) Defined benefit formula
      i) Flat amount formula
      ii) Flat percentage of earnings formula
      iii) Flat amount per year of service formula
      iv) Percentage of earnings per year of service formula
      v) Variable Benefit formula reflecting changes in value of a specific asset portfolio or COLA
   c) Integration with Social Security (Excess / Offset)
4. Minimum benefits
5. Death benefits
6. Disability benefits
7. Impact of Inflation on Pensioner Income
   a) Pre-retirement indexation
   b) Automatic post-retirement indexation
      i) Equity pension (variable annuity)
      ii) Cost of living formula
      iii) Wage-related formula
      iv) Specified percentage formula
   c) Non-automatic post-retirement indexation
      i) Fixed percentage increase
      ii) Flat-dollar increase

RETIREMENT PLANS (12TH EDITION) BY ALLEN ET AL

Chapter 29: Facilitating Investment of Defined Contribution Assets

I. INTRODUCTION

1. this chapter looks at investment issues that are particularly relevant for DC plans
2. recall that EEs bear the investment risk in these plans
3. nevertheless, ER also has vital interest in the investment provisions of a DC plan
4. ER is responsible for
   a) structuring appropriate investment programs
   b) selecting suitable investment managers
   c) monitoring investment performance
   d) communicating provisions to the EEs
5. EEs responsible for deciding on investments for their account balances
6. for ER, successful program results in
   a) low cost fees
   b) ease of administration
   c) flexibility in investment arrangements
   d) improved recognition from EEs for providing a valuable benefit
7. for EEs, successful program results in
   a) maximized capital accumulation via higher participation, improved returns and lower costs
8. note that most of the material in Chapter 20 is equally applicable to DC plans

II. HISTORICAL DEVELOPMENT

1. in early days, ease of administration was key – often dictating investment choices available
2. some plans provided no choice, or perhaps 2 choices, e.g.
   a) a fixed-income fund such as a GIC for EE cont'ns, and employer stock fund for ER cont'ns
   b) a fixed-income fund and an equity fund
3. another reason for limiting investment options was ERs' fear of legal liability for giving any kind of financial advice
4. main reason - few ERs established any kind of investment objectives for their DC plans
   a) these plans were often thought of as just a supplemental type of arrangement
   b) little thought was given to them
5. ERs did very little in the way of providing useful investment information to EEs
   a) both with respect to the investment choices and with respect to general investment education
6. last 15 years has seen big changes – driven by many factors
   a) increasing public awareness of DC plans' role in overall savings and investment plan
   b) increased recognition by ERs of need to give flexibility of choice and investment education
   c) improved administrative capabilities
   d) aggressive marketing by leading mutual funds
7. in a survey, 96% of plans provide 3 or more choices for investing EE cont'ns,
   a) options for investing ER cont'ns not as great, many times automatically invested in ER stock, with only about 55% providing 3 or more choices
8. Table 21-2 on p. 402 shows a wide variety of investment options available
9. highlights the need for better education for EEs
   a) more investment choices does not mean EEs are taking advantage of them

10. a large portion of DC assets are still invested very conservatively with little diversification
11. ERs too are realizing that more effective plan management can lead to better results without additional ER cont'ns

III. PLAN DESIGN CONSIDERATIONS

1. investment provisions should be compatible with sponsor's objectives
2. consider 3 major factors: fiduciary responsibilities, role of ER stock, and administrative issues

A. Fiduciary Considerations

1. recall that a fiduciary must discharge its duties solely in the interests of plan participants
    a) for exclusive purpose of providing plan benefits and meeting administrative expenses
2. held to a prudent expert standard
3. fairly common to structure plans so that trustees and external investment managers are responsible for the investment of plan assets
    a) instead of the ER
4. sponsor has effectively delegated certain investment authority to outside professionals
    a) limiting its own fiduciary liabilities
5. however, delegation does not relieve ER of all fiduciary responsibilities
6. ER retains responsibility for proper selection and retention of external fiduciaries
7. can further limit fiduciary liability by
    a) allowing EEs to make their own investment decisions, provided
        i) a minimum number of options are offered covering range of asset classes
        ii) EEs allowed to change their allocations at least on a quarterly basis
8. ER must also provide EEs with information sufficient for them to make informed investment decisions
9. Section 404(c) safe harbor provisions:
    a) offer at least 3 diversified categories of investment with materially different risk/return characteristics

B. Employer Stock as an Investment Option

1. the Section 404(c) safe harbor provisions permit a company to offer ER stock as one of the investment options if it trades publicly on a recognized market
    a) still need the other 3 required options
    b) all stock-related activities must be implemented on a confidential basis
2. ER stock is a common investment option in DC plans
    a) many believe it helps align EE and corporate interests
    b) also can be of use to deter hostile takeover attempts
3. there are potential disadvantages to using ER stock as an investment option]
    a) undiversified investment – may be inappropriate from a financial perspective
    b) ER cont'ns invested in ER stock at ER's discretion does not qualify for safe harbor treatment
    c) if EE cont'ns can be invested in company stock, then must comply with SEC req'mts
    d) EE relations problem may arise if ER stock depreciates in value
    e) EEs may end up having both their livelihood and a significant portion of their savings tied to the fortunes of the company
    f) an investment in company stock must be shown to satisfy req'mt that plan assets be "expended for the exclusive benefit of employees" and must satisfy the fiduciary req'mt of prudence

4. ER needs to consider what options will be offered to EEs to diversify out of company stock as retirement approaches
5. if the plan is an employee stock ownership plan (ESOP) or if the ER stock fund is an ESOP, then must decide if dividends will be passed through to EEs
   a) how frequently?
   b) paying dividends in cash appeals to some ERs since they are tax-deductible
   c) however, may be inconsistent with objective of providing retirement savings vehicle

C. Administrative Issues

1. Frequency of Valuation

- how frequently value assets for processing loans, dist'ns, withdrawals, and investment changes?
- additional expense of more frequent valuation?
- processing time for transactions after a valuation date?

2. Frequency of Change

- how often will EEs be permitted to change their investment elections?
- safe harbor provisions requires at least quarterly
- most plans allow changes on a quarterly, monthly or daily basis
- may differentiate between elections in respect of new cont'ns and in respect of existing balances
- sometimes place limits on number of changes in a year
  - may inadvertently violate the safe harbor requirements
- permitting frequent changes may be inconsistent with efforts to educate EEs to focus on long-term goals

3. Default Provisions

- must have some sort of default option for investments if EE fails to make an election
- may opt to use the most conservative option or to invest in proportion to EE's existing account balances
- be cognizant of tradeoff between fiduciary liability and investment responsibility

4. Employee Communication

- this is a critical element in the long-term success of DC plans (indeed of almost any type of plan)
- the Department of Labor (DOL) requires that ERs provide sufficient information to EEs to make sound investment decisions
- this information should include:
  - investment basics (e.g. diversification, risk/return tradeoff, time horizon, etc.)
- DOL also provided some guidance in distinguishing between investment education and investment advice
- many ERs are expected to go beyond the minimum req'mts regarding investment education

5. Special Rights

- in plans with automatic investment of cont'ns in certain funds, should consider whether to give EEs **special rights of diversification** as retirement approaches
- recall this issue arises in ESOPs also
- if decide to give these special rights, then need to establish eligibility requirements
  - typically tied to early retirement provisions

IV. DESIGN, IMPLEMENTATION AND MONITORING OF PLAN INVESTMENTS

A. Design

1. ER must make a series of decisions about plan assets
2. what asset classes will be offered?
3. influenced by administrative costs, risk/return characteristics, plan objectives, and participant needs
4. range of asset classes to be offered have been discussed earlier
   a) can offer almost anything, but may exclude assets without a significant secondary market b) – due to liquidity constraints
5. should these asset classes be offered as distinct investment options from which EEs can choose, or
   a) should they be combined into predetermined sets of diversified portfolios reflecting different risk/return characteristics
6. each asset class can be further diversified in many ways by combining
   a) different management styles
   b) long-term and short-term fixed income strategies
   c) a stable of GIC providers in a GIC portfolio

B. Combining Asset Classes into Predetermined Portfolios

1. different EEs have different degrees of risk tolerance
2. ERs need to provide substantial guidance if an intelligent decision is to be rendered
3. one approach is to create different portfolios using different asset mixes such that they lie on the efficient frontier, and
   a) they range in terms of their risk/return characteristics
4. idea is that there will be a diversified portfolio with risk/return characteristics that will appeal to or be suitable for each EE
   a) EEs then simply choose one of these diversified portfolios in accordance with their risk profile
5. within this approach, can still offer a portfolio whose asset mix is completely specified by the EE

C. Implementation

1. after choosing the asset classes or portfolios to be offered, need to establish the investment objectives of each asset class
   a) essential in order to choose an appropriate investment manager
2. objectives should clearly articulate
   a) ER's expectations as to risk and return
   b) preferences as to investment style
   c) time horizon
3. within each asset class, ER must decide whether to use an active or passive investment strategy
4. a discussion of active and passive investment strategies is covered in Chapter 20
5. may be appropriate to combine both an active and a passive strategy, either within or across asset classes

1. Selection of Investment Managers

- may choose a single provider for both the investment and administrative services
  – attempt to simplify administration and communication
- single provider approach results in less flexibility in structuring investment options
  – increases potential for suboptimal performance
  – may not result in lower fees
  – may also give perception that the provider, rather than the ER, is the source of the benefits

- the section in Chapter 20 on "Selection of Investment Managers" is equally applicable to DC plans – student should review
- in general, essential to understand what factors have led to the manager's historical investment performance
  - then assess whether these factors will be relevant in the future

2. Structuring Compensation of Investment Advisors

- performance fees based on the capital appreciation of assets are generally prohibited under the Investment Advisors Act of 1940 and ERISA
  - certain exceptions exist
- fees may be based on a percentage of assets under management

3. Performance Evaluation

- again, student should refer to the Chapter 20 discussion on this topic
- not just a simple comparison of the past 1, 3, or 5 years against a market index
- need to evaluate both long-term and short-term performance over market cycles against
  - universe of other managers with similar investment objectives
  - appropriate market benchmarks
- commonly recognized that certain investment styles go into and out of favor unpredictably
- to assess how well a manager has fulfilled his mandate; one should compare his/her performance against both
  - a passive portfolio similar in style to the manager's
  - a universe of managers with comparable investment styles and objectives
- also important to know the risks that the manager assumed to generate his/her performance record
- it is the **risk-adjusted return** that really distinguishes good management

D. Monitoring Performance

1. need to monitor not only the performance of the investment managers, but also the structure of plan investments
2. refer to the objectives established at the outset
3. key items to be reviewed include
   a) returns for the last quarter and the last 1-year and 2-year periods
   b) comparison against agreed upon benchmarks and objectives
   c) comparison against other managers with similar objectives
   d) analysis of whether returns are meeting expectations over the long run
   e) analysis of any trends of inconsistent underperformance
   f) review of whether manager's investment policy is still sound
   g) review of whether there have been substantive changes in the manager's investment policies, procedures, or personnel
4. questions to ask to assess overall structure of the plan investments include
   a) have original goals and objectives changed?
   b) are number and types of investment options offered sufficient and appropriate?
   c) is EE usage of available options appropriate given their demographics?
   d) are investment and administrative expenses at an acceptable level?

E. An Investment Manager Checklist

1. Design

- do investment choices cover a suitable spectrum of risk and return characteristics, given the plan's objectives and the EE demographics?
- are ER cont'ns and undirected EE cont'ns invested appropriately?
- is ability to change asset mix appropriate given choices available, plan objectives, and EE demographics?
- does the plan take advantage of the Section 404(c) safe harbor provisions?
- is each investment option prudently diversified?
- how frequently will plan assets be valued?
- how often and when will EEs be able to change investment choices?
- is clear, complete, and relevant investment information provided to EEs
  - for each investment option
  - regarding investment objectives
  - frequent, consistent and understandable investment reports
- do EEs have sufficient information in order to make informed allocation choices?
- will EEs be given educational materials to permit them to become more proficient investors?

2. Implementation

- has explicit active/passive investment decision been made for each investment option?
- has a prudent manager selection process been established and applied to each chosen manager?
- is there a written statement of investment policies and objectives for each manager?

3. Monitoring

- is performance reviewed quarterly? with more formal in-depth review at least annually?
- has clear criteria been established to assist in determining whether to retain or replace an investment manager?
- are plan investment policies, procedures, and objectives formally reviewed and verified at least annually?
- are the investment options offered evaluated at least annually?

V. QUESTIONS FOR REVIEW

1. the student should read the end of the chapter which contains some questions for review and questions for discussion
2. the answers should all be available from this manual

FUNDAMENTALS OF PRIVATE PENSIONS (9TH EDITION) BY MCGILL ET AL

Chapter 5: Human Resource Incentives in Employer-Sponsored Retirement Plans

I. INTRODUCTION

1. one theory behind the early development of employer-sponsored pensions is that human capital, like its physical capital counterpart, depreciates over time and that employers should set aside resources during the period over which workers' human capital is exhausted so retirees will have a means of sustenance at the end of their industrial life
2. alternative theory is pension is deferred compensation and that the cost of the retirement program is paid for through the reduction in cash wages during the working career
3. another theory is that pensions represent an attempt by employers to provide for the economic security of the older citizens in an economy dominated by private enterprise
4. one of the earliest motivations for establishing a pension was to provide a mechanism to retire superannuated workers
5. plan sponsors eventually realized that pension plans could be instrumental in attracting workers and encouraging them to remain with a firm

II. THE ROLE OF RETIREMENT PLANS IN ATTRACTING & KEEPING WORKERS

1. important to keep in mind that both workers and employers have created the environment in which these plans are established and maintained

A. WORKERS' PERSPECTIVES ON RETIREMENT PLANS

1. Tax Incentive Plans
    a) in the period which a contribution is made to the plan a dollar of tax-qualified savings is cheaper for the saver than a dollar of nonqualified savings
    b) the forgone taxes on original contributions are ultimately collected from individuals who have the same marginal tax rate in retirement as they had during their working careers
    c) many workers face reduced tax rates in retirement, which yield significant tax savings over one's lifetime because of participation in these plans
    d) the after-tax returns on retirement plan savings are greater than nonqualified savings for the majority of people who participate in these plans
    e) economic theory suggests that the marginal utility of additional consumption declines as income rises, leading higher-income individuals to have a greater propensity to save
2. Pensions as Retirement Income Insurance
    a) five types of risk that threatens the retirement income security of workers:
        i) replacement rate inadequacy
        ii) social security retrenchment
        iii) longevity
        iv) investment risk
        v) inflation
    b) Zvi Bodie argues that individual workers face a great deal of uncertainty, and that by sponsoring retirement plans employers can use the law of large numbers to do things that each worker covered by the plans cannot

Retirement Rate Inadequacy	▪ arises because of the complexity of estimating the level of income that is required in retirement to maintain pre-retirement living standards ▪ employer-sponsored retirement plans can help to ameliorate the risk
Social Security Risk	▪ employer-sponsored plans can help ameliorate the risk that the basic underpinning of social security might be changed in ways that are not anticipated ▪ increasing skepticism that Social Security will provide the benefits that are embedded in current law as implied promises to current workers
Concerns About Longevity	▪ if people live longer than they anticipate, they will deplete their retirement savings before dying if the regularly scheduled payments from their accumulated wealth reflect their own assumptions as to future longevity ▪ individuals can purchase annuities to deal with this problem
Investment Risk	▪ represents the financial risk that individuals face in investing their own liquid assets ▪ in the case of defined contribution plans, all plans offer participant-directed investment the option of at least one relatively risk-free investment choice
Exposure to Inflation	▪ Bodie suggests that pensions can also provide insurance against the risk of eroding income levels because of the effects of inflation on nominal annuities ▪ the federal government indexes the retirement benefits for many of its former EEs by the CPI ▪ many state and local governments provide regular cost-of-living adjustments for retirement annuities ▪ virtually no private sector plans provide for automatic increases in retirement benefits to cover the erosive effects of inflation

B. OTHER EFFICIENCY CONSIDERATIONS

1. the process of sorting out the risk characteristics of various classes of investments, accumulating market information on specific investment options, and actually investing assets is expensive in time costs
2. as a plan sponsor, an employer can sort out many of the issues relevant to covered workers so as to yield significant economies of scale to participants
3. when retirement assets for investments are placed in large pools, administrative and management fees are generally lower
4. the expertise that professional managers bring to the investment of retirement assets usually means greater risk-adjusted returns over the long term

C. EMPLOYER'S PERSPECTIVE ON RETIREMENT PLANS

1. Defined Benefit Plans

- often characterized as creating "golden handcuffs" that restrain workers' job mobility
- the reason that employers might want to restrict workers' mobility relates to investment that they make in their workers and the desire to minimize labor costs over time
- majority of defined benefit plans today base retirement benefits on average pay levels in the 3-5 years immediately prior to employment termination
- consult Table 18-1 to view an example of a worker's perspective on the pension plan that her initial employer offers
- the plan imposes significant penalties on workers who terminate their jobs prior to retirement eligibility
- one theory about the incentives in defined benefit plans is that the differential in the value of the accumulated and projected benefits under the plans is the equivalent of a bond that a worker accepts from the employer as a condition of employment
- bonding theory suggests that workers covered by defined benefit plans would less likely shirk on the job and would require less supervision
- studies have noted that pension coverage is strongly correlated with lower worker turnover

2. Automatic Enrollment in 401(k) Plans

- 401(k) tax code prescribes that EE's participation in the plan is voluntary.
- Low-pay workers had little disposable income to save and max tax incentives → unfair to low-income EE → non-discrimination standards rectify the problem → ER match comes out, because it is a subsidy to workers to participate in the plan, it's "free" money to entice more people to save. The ER-match is still unable to help low-pay EE save enough for retirement.
- Behavioral psychologists studied how EE participated in pension plans, and discovered loss aversion and reflection.
- Loss aversion – people had to be offered $40 on a coin flip to entice them to risk losing $20.
- Reflection (framing of sentence) – investors prefer an assured gain of $900 over a 90% chance of gaining $1,000, but people preferred a 90% chance of losing 1,000 over an assured loss of $900.
- Richard Thaler also discovered that a wine-maker who sold a bottle for $200 but would not pay $200 to replace it.
- Men trade assets more frequently than women, single people more than the married, implying that men usually pay a substantial price in the way of lower return.
- Behavioral finance knowledge is used to increase participation and contribution rates.
- Automatic enrollment – EE automatically contribute except opt out – can increase participation rate. Automatic enrollment also extends to investment allocation.
- Quick enrollment – suggested contribution rates and asset allocation – increases participation rate.
- ER match increases participation rate.
- Behavioral economics reveals that people are sensitive to administrative structure, more than the financial incentives. An ER who wants to increase the participation and contribute rate is advised to simplify the admin. procedures as well as to offer economic incentives.

III. RETIREMENT BENEFITS AND CURRENT COMPENSATION

1. economic theory suggests EE with equal productivity will receive equal compensation
2. economic theory also suggests that in a competitive environment employers will be willing to pay workers up to their marginal contribution to the productivity of the firm
3. to determine a worker's worth to the organization, all elements of the compensation package must be examined
4. the theory of "equalizing differences" suggests that workers will trade cash wages for non-cash elements of the total compensation package
5. workers can be thought of as paying for their own retirement benefits through reduced wages during their employment years
6. this model of competitive wages and equalizing differences led Jeremy Bulow to challenge the concept of the "stay value" or projected benefit value of defined benefit plans as a meaningful concept in workers' valuation of their pension accruals
7. he assumed that wages were being set at each of the renegotiations as though labor was being bought and sold in a spot market
8. In a spot labor market is accurate, provision of a pension should lower payment of cash wages by the amount of the accruing quit value of pension in each year
9. the alternative measure of pension accruals, the stay value, implies that employers compensate workers for their marginal product over their working lives
10. ERISA only requires that an ER pay an EE the PV of accrued benefits at termination
11. see Figure 18-2 for an illustration of average change in quit values and stay values as a multiple of salary

A. EVIDENCE OF A WAGE-PENSION TRADEOFF

1. a number of economic studies conducted during the 1980s attempted to determine whether workers with pensions paid for their benefits through reduced wages
2. generally, there is weak evidence that workers with pensions pay for benefit improvements in the form of reduced wages
3. in fact, the empirical evidence supports the proposition that EE covered by employer-sponsored retirement plans receive a cash wage premium in addition to retirement benefits when compared with EE not covered by such retirement plans

B. PENSIONS AS A COMPENSATION PREMIUM

1. the implicit contract theory leaves unresolved two important questions:
    a) if EE perceive value of their benefit on a projected basis and ER on a quit basis, would employers not be motivated to implement policies that allow them to realize the difference between the two when they reach their maximum?
    b) if pensions are part of compensation, why do cash wages for workers covered by them appear to be too high in relation to workers without pension coverage?
2. question 'a' applies primarily to defined benefit plans and is raised because employers can terminate workers prior to their retirement eligibility
3. referring to Figure 18-1, assume that the hypothetical worker has concluded that she is being compensated on the basis of her projected pension accrual but her employer can terminate her prior to retirement eligibility and only legally pay the accumulated benefit
4. at age 50, the difference in the implicit contract value of the benefit and the legal obligation of the employer would be about ¾ of the worker's annual cash wage
5. in other words, an employer could reduce the defined benefit obligation to the worker by terminating her before the significant narrowing of difference in the two benefit obligations at the point of early retirement eligibility

6. however, empirical evidence suggests that employers do not take advantage of their workers through this systematic cheating on implied contracts as this form of exploitation would damage the companies' reputations in which they operate
7. being covered by a pension plan does not increase the risk for older workers
8. responding to question 'b' one theory asserts that certain employers pay "efficiency wages" or premium wages above what the market would normally dictate because workers are more productive when they receive such a premium
9. although the efficiency wage theory offers a credible explanation for relatively high wages, the strong correlation between wage premiums and the prevalence of employer-sponsored retirement programs suggests the employers are offering a double premium in many cases
10. it was discovered that turnover among workers with defined benefit plans was as high as that among workers with defined contribution plans
11. an analysis indicated that the wage premium was the predominant factor in explaining lower turnover among pensioned workers
12. the results have lead people to question why many employers would offer both a wage premium and a retirement plan
13. Richard Ippolito has attempted to theoretically reconcile this widely observed phenomenon by beginning with the assumption that some firms are more productive if they can establish enduring relationships with their workers
14. the task is to design a compensation scheme that pays the worker his/her lifetime expected wage, but in a manner that discourages premature employment termination
15. to accomplish this, certain conditions must be met:
    a) lifetime compensation offered by the firm has to at least equal the expected lifetime pay a worker can receive outside the firm
    b) the cash wage the firm pays a worker early in his/her career will be less than total compensation, or workers covered by defined benefit plans would not face a capital loss for leaving the firm
    c) once EE has some tenure in a job, the combination of expected future cash wages plus expected pension benefits has to equal or exceed alternative compensation offers
16. once a worker is covered by a defined benefit plan, the plan can deter some workers from exploring other employment offers where marginal increases in lifetime compensation would be minimal
17. however, Gustman and Steinmeier found that many workers can overcome their pension loss by realizing a 2 or 3 percent increase in their lifetime wage levels through a job change
18. therefore, even firms with DB plans that wish to maintain long-tenure relationships with workers are forced to pay efficiency cash wages in addition to the indenture premiums embodied in their pension systems
19. this theory of pensions and wages has not been tested empirically but it does conceptually reconcile a few inconsistencies that have been identified:
    a) it suggests that a combination of premium wages and retirement benefits is compatible, which is wholly consistent with the broad body of empirical research that finds little evidence of compensating reductions in cash wages among employers offering retirement plans in comparison with those not offering them
    b) it suggests that the seemingly inconsistent findings of Montgomery and his associates make sense because they limited their analysis to firms offering only defined benefit plans
    c) it offers a rationale for why different firms might offer DB versus DC plans and why observed turnover under them might be comparable

IV. ER RETIREMENT PROGRAMS & RETIREMENT OF OLDER WORKERS

1. these programs are generally perceived to contain more effective retirement incentives than defined contribution programs
2. most defined benefit plans today include incentives that encourage workers to retire before they reach the normal retirement ages specified in the plans
3. the value of benefits paid on a lifetime basis by the majority of defined benefit plans will be higher for many workers who retire prior to the normal retirement age specified in their plan than if they were to retire at the normal retirement age or later

A. RETIREMENT INCENTIVES IN TYPICAL RETIREMENT PLANS

1. Laurence Kotlikoff and David Wise used the 1979 *Level of Benefits Survey* done by the U.S. Department of Labor to develop an analytical presentation showing how defined benefit accruals late in the career can provide strong incentives for workers to retire
2. they postulated that the annual accrual in the pension at age *a, I(a),* is equal to the difference between the pension wealth based on the accrued vested benefit at age *a+1, Pw(a+1)* and pension wealth at age *a*, *Pw(a)*, accumulated to age *a+1* at the normal interest rate *r*.
3. expressed in a formula as:

$$I(a) = Pw(a+1) - Pw(a)(1+r)$$

4. see Figure 18-4 for the average accrual pattern under 513 defined benefit plans
5. defined benefit plans do not exactly operate as Kotlikoff and Wise analyzed them
6. most plans do not pass on early retirement supplements to workers terminating prior to early retirement eligibility
7. in addition, most plans do not provide terminating worker a lump-sum distribution prior to retirement eligibility unless it is a nominal amount
8. consult Table 18-2 for an illustration of accrual rate as a fraction of earnings for three defined benefit plans in 1993, with decreasing pay increases after age 55
9. Table 18-3 is developed on similar grounds as Table 18-2 except that we assumed our hypothetical worker would continue to receive 5.5% per year pay increases beyond age 55 up to age 70
10. in providing an incentive to retire, the defined benefit plan has the advantage that each year a benefit is forgone is a year's worth of benefits that will not be paid
11. in case of a DC plan, a year in which a benefit is not paid out of the plan means that the accumulated benefit accrues interest for another year, and the larger accumulation will be paid out over a shorter remaining life expectancy at retirement

B. VARYING RETIREMENT INCENTIVES OVER TIME

1. Early retirement subsidy were made available to EE from 30% to 57% between 1960 and 1980 in order to retire old workers and promote young, reduce the mandatory retirement age of social security program (produce cliff retirement), and respond to EE demand.
2. Mandatory retirement age, from the social security perspective, is to decide when the public pension is paid out. From this age, actuarial equivalent principle can be used to adjust pensions for people who retire prior to or after the mandatory retirement age. However, the public views that the mandatory retirement age is the legal retirement age. The actuarial equivalent principle upholds the justice that no one is benefited from retiring early and no one is worse off if retiring late.
3. Study shows that more than 50% of people retire prior to 65.

C. RETIREMENT PLAN INCENTIVES AND RETIREMENT BEHAVIOR

1. retirement patterns under the two kinds of plans are different
2. Gregory Lozier and Michael Dooris provide evidence that higher education faculty retirement patterns are affected by the basic structure of the retirement program offered by academic employers
3. faculty retirement ages in institutions with a defined benefit plan are two to two-and-one-half years younger than at institutions with only a defined contribution program
4. Reasons EE who have strong financial incentives to continue working might retire:
   a) even many prestigious jobs include some amount of disutility
   b) participants can accumulate sufficient resources to maintain or increase their standards of living while being able to enjoy increased leisure
   c) Social Security includes its own set of retirement incentives which offers an income stream that is itself conditional on work reductions for most people who might work between 62 and 70
5. Social Security has not equally rewarded delayed retirement before the stipulated age
6. on January 1, 1994, the special provisions that allowed academic institutions to mandate faculty retirements at age 70 expired
7. in response, employers implemented early retirement incentive programs to encourage older faculty members to retire voluntarily
8. these plans offer to continue to pay for some period of time a share of the salary of faculty members meeting the age and service eligibility requirements
9. early retirement incentives strengthened during the late 1960s and throughout the 1970s which have sparked several theories as to why this was the case:
   a) one is that baby boomers entering work force provided ER with ample labor supply who generally were paid less than older workers but who could often easily be substituted for them
   b) another theory is that it became difficult to retire older EEs and retirement incentives became a substitute for the outlawed retirement requirements that many employers had utilized
10. when an employer provides a subsidy to a worker for retiring, it implies that the worker will suffer a penalty for working beyond that point in time
11. empirical studies of the behavioral responses to retirement incentives embedded in pension programs have been generally consistent in finding that these incentives are effective in encouraging retirement
12. in a model developed by Robin Lumsdaine, James Stock, and David Wise, they postulate that an EE compares the expected present value of retiring currently with the value of retiring at future ages
13. they call the maximum of the expected values of retirement at future ages minus the expected value of retiring currently the *option value* of delaying retirement
14. if the option value is positive, the worker does not retire; if it is negative, he/she does
15. evidence suggests that the structure and generosity of employer-sponsored retirement programs are imperative in determining the retirement patterns of plan participants
16. the desirability of any retirement pattern depends on the nature of the activities in which the plan sponsor engages
17. a carefully crafted retirement program can help to meet the needs of both the employer and workers participating in it

D. MATURING RETIREMENT SYSTEM POSES ECONOMIC CHALLENGES

1. As the population ages, and the social security system is partially funded, it poses a higher cost to the society. The cost implication also drives the private plan away from DB plans.
2. After 2010s, the society is projected to have 1/3 of what the labor force would have entered the market between 1960 and 1980 because of retirement of baby bombers as well as non-growth female participation rate.
3. As a result, early retirement subsidy will be removed due to the shortage of labor.

4. As the social security pension can be actuarially reduced, ER provides early retirement subsidy, these make the pension expensive. Medical advance also increases the life expectancy, and this further pushes up the pension cost.
5. The social security system was established on a pay-as-you-go basis. At the early stage of the system, it created a windfall to those who retired between 1960 and 1970; their benefits were financed by the baby boomers. It created an inter-generational transfer of wealth from one generation to another.
6. "Free lunch" won't exist infinitely, for those who will retire after 2010; there is no windfall benefit anymore.
7. Equity market was booming between 1978 and 1999. History doesn't guarantee that future equity return would be as good as those in the past. Coupled with aging population, and slowing labor growth, it is likely a decline in returns on capital compared with earlier generation.

E. RECENT RETIREMENT TRENDS AND MOTIVATIONS

1. Early retirement has come to an end in 1990s.
2. Social security system enriched the pension benefits between 1950 and 1970, and it led to a significant growth in the retirement. 50% of men aged 70 were in the work force in 1970s, and only 30% of men were in the work force in 1980s. In 1990s, DBs were converted to DC, or early retirement subsidy was scaled back, and it encouraged more people to work past 65 => participation rate increases.
3. Between 1950 and 1985, men and women participation age declined across the age, especially after age 60, because of enriched social security.
4. Between 1985 and 1993, the trend for men continued but it had slowed greatly. Female participation rate increased across the board, even at the most advanced ages.
5. Between 1994 and 2007, the men and female participation rate greatly increased after age 60.
6. In 2000s, men and female experienced a similar retirement age.
7. Though social security program affects the retirement pattern, the force is modest. The greatest force comes from the education distribution, Blau and Goodstein revealed in a study.
8. Factors affecting the participation rate
    a. People with higher education participate in the labor market more than those with less education.
    b. The policy that allows people to draw social security and continue to work beyond the full retirement benefit age simulates participation rates.
    c. The ER-sponsored plan that provides early retirement benefit will help.
    d. Increasing the age of the earliest eligibility of social security benefit will increase.
    e. The shift from DB to DC will.

FUNDAMENTALS OF PRIVATE PENSION – 9TH EDITION – CHAPTER 9: DEALING WITH RISKS OF OUTLIVING RESOURCES IN RETIREMENT

I. ANNUITIES AND RETICENT PLANS

1. Trending away from annuitization (coincide with shift to DC / Hybrid)
2. Amount people willing to pay for annuities depends on risk aversion and decreased with the ROR they can make
   a) Known vs. uncertain inflation environment not a significant factor
3. Why the low annuitization rate
   a) Social Security (already an annuity but alone not enough to sustain living standards)
   b) Tapping home equity
      i) Tend to sell when heath declines (moving into nursing home) or widowed
      ii) Use proceeds to pay for institutional services (e.g. nursing homes) vs. buy annuity
   c) Pricing of individual annuities – Expensive (various loads), timing risks
      i) Variable immediate annuity – also state prem. tax, annual investment a/c charges
      ii) Inflation indexed annuity
      iii) Life annuity with long term care insurance – PPA (2006) gives small tax advantage, though unavailable for qualified plans
   d) Legal and institutional considerations for annuity pricing under pension plans
      i) Plan must offer QJSA for annuity options
      ii) PPA (2006) mandated use of corporate bonds to calculate lump sum option
   e) Desire for felicity – most like combo of lump sum and annuity (security and spending flexibly)
   f) Bequest motives
   g) Self insurance and couples – higher ROR from alternative investments than annuitization

HANDBOOK OF CANADIAN PENSION & BENEFIT PLANS (17TH EDITION) BY MORNEAU SHEPELL

Chapter 1: Overview of Retirement Income Arrangements

I. PRESENT POSITION (3 SOURCES/PILLARS)

1. Government Pension Programs
   a) OAS is a basic benefit to all 65 and up with sufficient residency
   b) GIS and Spouse's benefits are needs based supplements
   c) Canada and Quebec Pension Plans are work related arrangements with earnings related benefits
2. Employer Sponsored Pension Plans
3. Personal Savings
   a) Tax advantaged savings for individuals: RRSPs, TFSAs, and profit sharing plans
   b) Other forms of savings such as home ownership
4. All 3 aforementioned sources are needed
   a) Influence beyond individual control i.e., government cutbacks (E.g. clawback, increased age eligibility) and employer's desire to reduce pension costs and risks
   b) increasing responsibility placed on individuals to save for their own retirement.

II. ESTABLISHING PENSION PLANS

1. 2 main features of formal pension plans
   a) Clearly state how benefits are determined, terms and conditions for payment
   b) Financial arrangements to provide the funds needed
2. Employer not legally mandated to set up a pension plan nor for an established plan to cover all employees. But all employees within a similar class must be eligible to join the plan.
3. For pensions provided outside an registered plan, employer can tailor the benefit structure to suit its needs
4. Employer can terminate the plan if sufficient notice is provided to its employees

III. LEGISLATIVE ENVIRONMENT

1. To obtain tax advantages, must register under the Income Tax Act is
   a) Immediate deductibility of contributions
   b) Tax free investment income while in the trust fund
2. To obtain registered status, must register with either provincial or federal government (e.g. companies in industries under federal jurisdiction)
3. If a plan covers employees in multiple provinces
   a) only register in the province with the greatest number of active employees.
   b) But must comply with the pension legislation of each province for plan members who work in that province
4. Pension standards legislation for registered pension plan governs the terms and conditions, minimum funding requirements, and the plan asset investment.
5. Registered plans must be funded by advance payments under an accepted method. (No pay-as-you-go and terminal funding)

IV. ARGUMENTS FOR AND AGAINST PRIVATE PENSION PLANS

1. Government View
   a) fostering independence and self reliance
   b) Funding contributes to aggregate savings and capital formation and reduces pressure on government plans to increase benefits
2. Employer's View
   a) Pros of Private (employer) Plans
      i) Immediate deductibility of contributions and tax free investment return
      ii) Prefunding allows matching cost to benefit accrual (accurate cost recognition)
      iii) Workforce management - easier to retire employees beyond their most productive years and help attract quality employee
      iv) If benefits linked to company profits, may increase employee interest in the company (e.g. deferred profit sharing plan)
   b) Cons of Private (employer) plans
      i) Pre-funding diverts capital from possible internal uses with higher return
      ii) Complex compliance rules (high administrative costs)
      iii) Private benefits may reduce one's right to certain public benefits
      iv) Belief that employees are responsible for their own retirement
   c) Employee's View
      i) Long service employee can accrue an adequate income from the first 2 pillars (I.e. only minimal reliance on the 3rd pillar personal savings)
      ii) Funding allows benefit security to be independent of the firm
      iii) Tax sheltered savings through employer plan more convenient than individual RRSP (more self discipline)
      iv) The mandated year's maximum pensionable earnings have been decreasing, leading to relative reductions in registered plan benefits. This has led to increased employee expectations for employers to provide top-up arrangements

V. TYPES OF EMPLOYER-SPONSORED RETIREMENT INCOME PLANS

1. Defined Benefit Plans
   a) Flat Benefit Plans
      i) benefit depends on years of service only (most common among union negotiated plans)
   b) Career Average Earnings Pension Plan
      i) yearly benefit is a % of earnings made in that year
   c) Final Average Earnings Pension Plan
      i) yearly benefit is a % of the final average or best average earnings
   d) Flexible Pension Plans
      i) Employees make optional contributions to pay for additional ancillary benefits (E.g. shorter final average earnings period, survivor benefits, enhanced early retirement benefits and indexing)
      ii) Not common - administrative complexity
2. Defined Benefit Plans
   a) Money Purchase
      i) Employer contribution is a fixed % of earnings. Pension is what the accumulated contributions can buy
   b) Profit sharing
      i) Employer contributions linked to corporate profits subject to a minimum 1% of earnings. Pension is what the accumulated contributions can buy
3. DB and DC Combinations

a) Hybrid Plans
   i) Pension of one type is subject to a minimum of the other type or is the sum of the 2 different types
b) Cash balance
   i) Credits based on DB principles are allocated to members' accounts and covert to annuities at specific rates
c) Multi-employer
   i) Benefits and contributions levels are set by collective agreements. May reduce benefits if contribution are insufficient to maintain current benefit levels
d) Target Benefit Plans
   i) Like DB: pool longevity and investment risks
   ii) Like DC: contributions are fixed or variable within a narrow range.
   iii) Similar to Multi-employer except set up by a single employer (deliver targeted benefit while flexible to adjust benefits responding to funded position)

4. Other arrangements: RRSP, DPSP and employee profit sharing plans

VI. PLAN DESIGN CONSIDERATIONS

1. Adequacy
   a) Measures employee's retirement income to just before retirement income, after tax (Retirement Replacement Ratio)
   b) Need to re-examine if there are changes in public benefits
   c) A relative (not absolute) concept - employers measure adequacy of their plan against some accepted norm, industry standards and competitors' plans
2. Tax-Effectiveness
   a) Current savings limits on pension accruals accounts for all types of plans
   b) To maximize tax effectiveness the sponsor can
      i) reduces the benefit but add ancillary benefits
      ii) introduce a defined contribution credit
      iii) introduce a flexible plan where employees can buy ancillary benefits
      iv) allow employees to opt out
3. Changing Demographics
   a) Pension cost increases with the age of workforce (baby boomers retiring)
   b) Also diversity in composition of workforce is increasing (more 2-income families and part-timers, frequent job change) - more difficult to define plan objectives
4. Equity
   a) equitable among members with different employment histories and to employees in varying circumstances.
   b) Different concepts of equity exist
      i) Legislation require DB plans to provide equal pension amount to males and females for the same work history (even though the value to female workers tend to be higher due to longer lives
      ii) DC benefit amount of 2 individuals of different ages retiring now with identical work histories will be different but the same DC pension value
   c) Ancillary benefits makes achieving equity complicated. E.g.
      i) death benefits to spouse raise the question of equity between single and married employees
      ii) Integration with Canada/Quebec Pension Plan raises questions about equity between participants with different levels of earnings
5. Cost and Cost Sharing
   a) Cost stability is as important and level of cost

   i) DC plans has greatest cost stability (% of pay), DB allows for some funding flexibility
  b) Level of cost sharing depends on
   i) employer's philosophy on who has responsibility for the delivery of retirement income.
   ii) employee contributions help reduce employer cost (may allow employer to offer a better plan
   iii) Pension legislation limits on how much benefits can be funded with employee contributions.
6. Coordination with Government Pension Programs
  a) Not accounting government benefits can lead to excessive benefits payable
  b) Can integrate DB benefits with C/QPP in different ways
   i) Step rate formulas provide differential benefits on annual earnings above and below the legislated year's maximum pensionable earnings
   ii) Direct offset
   iii) Ineligible earnings - Provide no benefits for earnings below a given level
7. Human Resource Planning
  a) attract and retain employees, encourage retirement, facilitate transfer between locations, strategic element in the union negotiation process
8. Compensation Philosophy
  a) A form of fixed compensation or deferred wage (rewards for long service and provide employees with security)
  b) A reward for individual performance (e.g. emphasize savings through RRSPs
  c) Some combination of the aforementioned 2 philosophies (depends on cultures and objectives)
9. Variations in Design for Different Groups
  a) For rank-and-file, provide a target level of retirement income after a full working career
  b) For executives (shorter tenure, benefit limits by the tax agency, more significant relationship of pension to other compensation components), the objectives can be quite different
10. Legislation
  a) Must comply with applicable benefits standards legislation and the Income Tax Act
  b) Other legislation: human rights, employment standards, family property and workers compensation
11. Location
  a) A uniform plan for employees in different provinces (I.e. a plan that meets the most of the requirements of all of the provinces)
   i) May perceive as more equitable as all employees are treated the same
12. Setting Objectives - Must tailor design to the special circumstances of various employee groups