#### **Semester Notes**

### Chapter 1: The Problem of Risk

- Common Elements in Definitions of Risk
  - Indeterminacy at least two possible outcomes are possible (and thus there is uncertainty)
  - o Adversity at least one of the outcomes is undesirable and results in a loss
- The Text's Definition of Risk: "A condition in which there is a possibility of an adverse deviation from a desired outcome that is expected or hoped for"
  - A state of the real world where the probability of an adverse event is between 0 and 1
  - o The probability of an adverse event may not be measurable, but it still exists
  - Risk can exist whether it is perceived or not
- Ex. in the standard home, insurance doesn't cover floods
- Vocabulary:
  - o Peril the cause of loss
    - Ex. fire, hurricane, earthquake
  - Hazard a condition that creates or increases the chance of loss
    - Ex. bad wiring in a home that is a fire hazard, oily rags in a garage that are a fire hazard
- Types of Hazards: Physical, Moral, Morale (2008 crash, lack of incentive to guard against risk), Legal (see this in homeownership)
- Types of Risk:
  - Static and Dynamic
    - Dynamic result from changes in the economy (e.g. changes in price levels, consumer taste, income, output)
      - Benefit society in the long run, by adjusting misallocations of resources
      - Part of the free market system
    - Static would exist even in the absence of economic change (from perils of nature and human dishonesty)
      - Not a source of gain to society
  - Fundamental and Particular
    - Fundamental are impersonal in origin and consequences. They are societal risks.
      - Society (rather than the individual) should deal or not deal with them.
    - Particular involve losses that arise out of individual events and are felt by individuals rather than the entire group
      - Considered the individuals own responsibility that are properly addressed by the individual
    - Ex. a fire burns someone's home. Should putting it out be the individuals responsibility because they own the property? Or should it be society's responsibility because they live in society?

- The property and liability insurance industry is highly cyclical and goes through periods of underwriting profit followed by periods of loss
- The market is characterized as "hard" or soft", depending on which phase of the cycle
  - When insurers are earning profits, the market is soft, as insurers engage in price competition
  - When price cutting produces excessive underwriting losses, the market becomes hard and prices increase
- Cash Flow Underwriting
  - For the past 30 years, property and liability insurers have broken even or lost money on underwriting, but made a profit from investment income
    - Companies relying more on investments so can charge lower premiums
    - Dependence on premiums for investable funds led to a phenomenon called cash-flow-underwriting
    - In cash-flow underwriting, insurers price insurance to compete for investable funds
    - Cash-flow underwriting is a form of leveraged investment that has benefited insurers.

## Chapter 10: Managing Personal Risks

- Managing Personal Risks:
  - Death: lost future income, cost of death (medical and funeral expenses). Also, passing along wealth after death
    - Warren buffet / bill gates likely don't have life insurance
  - o Disability: lost future income, covering cost of care and regular living e
  - o Retirement: having sufficient income after retiring
  - Superannuation: outliving savings in retirement
  - Unemployment: lost future income, covering regular living expenses, covering retirement expenses
- How much life insurance should you purchase? Two methods:
  - Human Life Value Concept (HLV): estimate of future income using a discount rate
    - May not indicate needed coverage, e.g., if no dependents or if dependents are self-sufficient -> is it needed?
    - Also, adjust for HLV for other income sources such as Soc. Sec. and the fact that insurance payouts are not taxed.
  - Needs analysis:
    - Identify the needs that would arise or continue following the death of the individual.
      - Short term: pay funeral expenses, debts, etc.
      - Long-term: living expenses, children's education, etc.
    - Identify resources that would be available, e.g., Social security, employer-provided benefits, savings
    - The difference between these measures is the need.
- Needs by Lifestyle and Type:

- Life income option
  - Payments to the beneficiary for life (life annuity)
- To begin payment, submit a death certificate
  - Company can review up to 30 days
  - Most pay within 30-60 days
- Tax considerations
  - o Payouts to beneficiaries are not included in taxable income
  - Income earned on the cash surrender value is not taxed until the policy is terminated and the gain is received
    - Also, the cost (premiums paid) of life insurance is deductible as part of the basis in computing taxable gain
  - Variable-life policies allow owner to withdraw some of the investment portion as an annuity
    - Taxes paid only on amount greater than premiums paid in

# <u>Chapter 13 Life insurance Premium Computation</u> (in excel)

## Permanent/Universal Life

- Permanent Insurance: Life Insurance and investment
  - o Life insurance expenses and tax-deferred cash value account
    - Two things money goes toward
  - o "Buyers insurance"

### **Articles**

- Happy 100th Birthday Article
  - Insurance companies set age limits to policy, but people lived longer than insurance expected