Social Insurance
(Chapter-12)
Part-2
Social Insurance

Social Insurance vs. Self-Insurance

• **Self insurance:** The private means of smoothing consumption over adverse events, such as through one’s own savings, labor supply of family members or borrowing from friends.
Social Insurance

Social Insurance vs. Self-Insurance

• **Example: Unemployment insurance**
  – Social insurance: Provides income to workers who have lost their jobs.
  – Self-insurance alternatives:
    • Use their savings
    • Borrow: either in collateralized forms (borrowing against equity) or in uncollateralized forms (credit cards).
    • Other family members can increase their labor earnings.
    • Receive transfers from extended family.
Social Insurance
Social Insurance vs. Self-Insurance

• **Example: Unemployment insurance**
  – **Issue:** What happens when we introduce social insurance to a situation where everyone is already self-insured?
  – Similar problem to public goods, public intervention (social insurance) **crowds-out** private insurance (self-insurance).
Social Insurance
Social Insurance vs. Self-Insurance

• **Example: Unemployment insurance**
  – **Unemployment insurance rate**: The ratio of unemployment insurance benefits to pre-unemployment earnings.
  – If the unemployment insurance rate is 0%, the worker will not be compensated at all for her losses. If it is 100%, she will be covered for the entire loss associated with unemployment.
Social Insurance

Social Insurance vs. Self-Insurance

% Drop in consumption vs. UI replacement rate

(a) No self-insurance; full consumption smoothing by UI

(b) Partial self-insurance; partial consumption smoothing and partial crowding out by UI

(c) Full self-insurance; full crowding out by UI

(d) UI consumption smoothing and crowding-out effects depend on the availability of self-insurance
Social Insurance

Social Insurance vs. Self-Insurance

• **Example: Unemployment insurance**
  - If no self-insurance, UI plays a 100% consumption smoothing role and there is no crowding-out.
  - If 50% self-insurance, UI plays a 50% consumption smoothing role and there is 50% crowding-out.
  - If full self-insurance, UI plays a 0% consumption smoothing role and there is 100% crowding-out.
Social Insurance

Social Insurance vs. Self-Insurance

• Example: Unemployment insurance

  – The availability of self-insurance determines the value of social insurance to individuals suffering adverse effects.
Social Insurance

Social Insurance vs. Self-Insurance

• Social insurance may still be valuable in the presence of extreme crowding-out
  – Social insurance may be more efficient than self-insurance.
  – Social insurance, by pooling risk across many individuals, allows individuals to smooth consumption efficiently.
Social Insurance
Moral Hazard

• One of the most important problems with insurance is moral hazard.
  – **Moral hazard**: Adverse actions taken by individuals or producers in response to insurance against adverse outcomes
  – Example: workers’ compensation insurance
Social Insurance
Moral Hazard

• Example: Workers’ compensation insurance.
  – Two issues: Hard to determine
    • Whether individuals are really injured
    • Whether individuals are injured while working
  – Moral hazard problem: some workers can pretend to be injured on-the-job to take advantage of the insurance.
Social Insurance
Moral Hazard

• Real-life examples:
  – Thirty-five-year old Ricci DeGaetano had been a guard in a Massachusetts prison until he slipped and fell on the job. He returned to work the next year, but soon after claimed he was injured while fighting with an inmate. He collected $82,500 in workers’ compensation claims for the next three years. The problem? DeGaetano was operating a karate school the entire time.
Social Insurance
Moral Hazard

• Real-life examples:
  – New Orleans police officer David Dotson started getting workers’ compensation after an April 2001 claim that he received a shoulder injury while on patrol. His story began to unravel when his supervisors saw him give an emotional television interview upon his return from the 9/11 World Trade Center attacks. They wondered how Dotson’s shoulder injury allowed him to work with a bucket brigade at Ground Zero.
Social Insurance
Moral Hazard

• Real-life examples:
  – Two on-the-job traffic accidents had given Los Angeles police detective Rocky Sherwood constant pain in his spine and right knee, rendering him unable to work. The LAPD suspected deception and made a videotape of him coaching his Little League team. The tape showed Sherwood hitting, pitching, fielding, and demonstrating for the kids how to slide into a base.
Social Insurance
Moral Hazard

• The incidence of moral hazard depends on two factors:
  – How easy it is to monitor whether the adverse event has happened.
  – How easy it is to change behavior in order to establish the adverse event.
Social Insurance
Moral Hazard

• There are four main types of moral hazard:
  – Reduced precaution against entering the adverse state
    • Since you have medical insurance that covers illness, you reduce preventive measures not to get sick.
    • Since you have workers’ compensation insurance, you are not as careful at work.
Social Insurance
Moral Hazard

• There are four main types of moral hazard:
  – **Increased odds of entering the adverse state**
    • Since you have unemployment insurance, you are more likely to get unemployed, since the cost of unemployment is lower.
  – **Increased expenditures when in adverse state**
    • Since you have medical insurance, you use more medical care than you would have if you had to pay for it.
Social Insurance
Moral Hazard

• There are four main types of moral hazard:
  – **Supplier responses to insurance against the adverse state**
    • Since you have medical insurance, physicians provide too much care for you.
    • Since you have workers’ compensation insurance, your employer does not invest as much in workplace safety.
Social Insurance
The Consequences of Moral Hazard

• Moral hazard is costly for two reasons:
  – Workers’ compensation example:
    • Will result in reduction in labor supply, since the value of leisure increases.
    • With workers’ compensation, each hour of leisure not only provides one hour time spent with family but also the compensation payment.
    • Will lead to an inefficiently low level of labor supply.
Social Insurance
The Consequences of Moral Hazard

• Moral hazard is costly for two reasons:
  – When the social insurance encourages adverse events, which raise the cost of the social insurance program, it increases taxes and lowers social efficiency further due to the inefficiencies created by taxation (will discuss in later chapters).
Social Security (Chapter-13) Part-1
Social Security
Background

• The costliest social insurance program for the federal government in the U.S.

• **Social security:** A federal program that taxes workers to provide income support to the elderly.
Social Security
Background

• The main issue (baby-boomers)
  – The significant increase in the birth rates before World War II leads to a significant increase in the social security payments now.
  – Over the next 75 years, the program has promised $4.6 trillion more in benefit payments than it plans to collect in taxes from payments.
Social Security
How does social security work?

• How is the program financed?
  – Almost all workers pay Federal Insurance Contributions Act (FICA) tax on their earnings. (6.2% in 2006).
  – Furthermore, employers pay a 6.2% tax on these same earnings, for a total tax burden of 12.4%.
  – The tax is levied on the first $94,200 of earnings.

• Who is eligible?
  – To be eligible, a person must have worked and paid this payroll tax for at least 10 years.
Social Security
How does social security work?

• **How are social security benefits calculated?**
  
  – When eligible, the Social Security claimant receives an annuity payment, which last until the recipient’s death.
  
  – This payment is calculated based on the recipient’s average lifetime earnings calculated in today’s dollars (adjusted for inflation).
Social Security
How does social security work?

• How are social security benefits calculated?
  – The government averages a person’s earnings over the person’s 35 highest earning years.
  – If the individual had not worked for 35 years, the missing years are calculated as zero-earning years.
  – This 35-year average of real monthly earnings is called **Average Indexed Monthly Earnings (AIME)**.
Social Security
How does social security work?

• **How are social security benefits calculated?**
  – Benefits (*Primary Insurance Amount*) are then calculated as a redistributive function of earnings: low-earnings are more strongly translated to higher benefits than are higher earnings.
Social Security
How does social security work?

- How are social security benefits calculated?
Social Security
How does social security work?

• **How are social security benefits calculated?**
  – **Replacement rate:** The ratio of benefits received prior to earnings prior to the entitling event.
  – The entitling even in social security is either death or retirement.
  – Replacement rate is closer to 60% for low-income, whereas it is roughly 20% for high-income workers.
Social Security
How does social security work?

• **How are social security benefits paid out?**
  
  – Individuals can receive their PIA starting at age 65, which is the **Full Benefits Age**.
  
  – It is possible to receive benefits as early as age 62, the **Early Entitlement Age**, however there will be a reduction in benefits of %6.67 percent per year of early entitlement.
  
  – Similarly, if you decide to retire later, you get higher benefits due to delayed retirement credit.
Social Security
How does social security work?

• Can you work and receive social security?
  – **Earnings test:** Reduces the benefits of 62 to 64 year olds by $0.50 for each dollar of earnings above $12,480.

• Are there benefits for family members?
  – Spouses can either receive half of their spouse’s benefit or receive theirs
  – Children of deceased workers are entitled to a share of benefits as well.
  – Spouses who survive a Social Security recipient receive whichever is higher: their own benefit or the deceased’s benefit.