Lecture Notes 3: Insurance

1. The Conditions for efficiency of markets imply easy solutions on the part of government:
    a. Perfect competition implies that nobody—neither buyer nor seller—can influence the price.
        i. If some actor has power, the government can intervene to curtail that power.
            (1) It can crush sellers with market power (such as Standard Oil or Microsoft) or buyers with market power (such as Walmart) with regulations to restrict their pricing, their size or whatever.
    b. Complete markets implies that there is a price for everything. (Lives, slums, futures contracts on shrimp dumplings, everything.)
        i. If some market is missing, governments can intervene to fill it in.
            (1) For example, there is no private market for health insurance for terminally ill people. Governments can insure them.
    c. No externalities implies that all the agents affected by a goods consumption either pay or collect the price.
        i. If the market price does not capture all the costs and benefits of all people, governments can intervene to change the price with taxes.
            (1) We tax gasoline and cigarettes a lot—they make other people worse off.
    d. No Public Goods implies that if I consume a good, then someone else cannot. If they could, then they would consume it without paying any price.
        i. Public goods can be financed by government. Or produced by government, or both.
        ii. Note that roads, bridges and air quality need not be produced by government—government can simply hire private firms to produce or manage them.
    e. No increasing returns implies that there are no natural monopolies that exert power on the price.
        i. Increasing returns imply that monopolists can be more productive than competitive producers.
        ii. Government could either regulate a monopolist or be a monopolist.
    f. Perfect information implies that everyone knows every price, and every actor knows everything about the commodity being traded.
        i. This is harder for government to solve via regulation.
        ii. For example, if I want to buy life insurance, but cannot commit to telling the truth about my life expectancy to the insurer, then the insurer will just tell me to go away. There may be no market for life insurance for me.
        iii. The government cannot fix this with financing or taxing.
        iv. The intervention typically must involve production.

2. Information and Insurance
    a. Information problems are typically connected to problems with risk where the desired commodity is insurance.
    b. Information problems can be grouped under two main headings:
        i. *Hidden Action (aka Moral Hazard)*
        ii. *Hidden Knowledge (aka Selection)*
3. Hidden Action: buyers and sellers can do things without the knowledge of the other party that affect the value of the transaction.
        i. If I sell you a pile of steel, there is pretty much nothing I can do to affect your enjoyment of it.
        ii. However, if I sell you my economics instruction, I can choose to work hard or to slack off, which will affect your enjoyment of it and your learning.
            (1) Between us, then, there is a hidden action problem.
    a. Hidden Action problems can be thought of as an ability to contract over certain things. I can promise to come to work, but can I really credibly promise to work hard?
4. The relevance of hidden action to economics is great. Labour time is a widely transacted commodity, but what about labour effort?
    a. The relevance of hidden action to government is great, too.
        i. pensions insure you against dying in poverty. But, they might make you very expensive to insure because you'll want to live longer.
        ii. health insurance might encourage smoking or skiing.
        iii. fire insurance might encourage the disconnection of annoying fire alarms.
        iv. you might take actions that change the *probability* that the bad thing happens, and the *severity* of the bad thing.
        v. what are the psychic costs of the things being insured. Health insurance might cover things that we actually want, eg, hair implants and children.
    b. Now ask yourself, how many of those things are provided privately? Not many. The reason is that private insurers have to raise the premium to protect themselves from costly hidden actions taken by buyers.
    c. What can government do that private providers cannot do?
        i. Government can punish bad hidden actions through its coercive power.
        ii. We have public health insurance. Government can tax cigarettes (which raise health costs). A private insurer could not do that.
        iii. We have public employment insurance. Government can punish fraudulent claims with jail. A private insurer could not do that.
        iv. These are arguments for government to either produce the insurance directly, or for it to be very tightly involved in its production, so that it can punish hidden actions that are bad.
5. Hidden Knowledge: buyers and sellers know things about themselves or the commodity being traded that matter to the other party. However, no player has the incentive to tell the truth.
    a. If I sell you a pile of steel, there is nothing about me that will affect how much

you like the steel. If I were a lousy steel producer, you would have noticed that the steel was lousy and not bought it.

b. However, if I sell you my economics instructor, I may or may not be a smart or learned person. You cannot tell whether or not I am, and so you have to worry all the time that I am teaching you falsehoods.

c. If I try to sell you a used car, should you really believe me when I say that it is a great car?

i. How can a really great used car ever get sold? (Akerlof got a Nobel prize for this.)

6. The relevence of hidden knowledge to economics is great. What commodity is truly 'pure' in the sense that you know everything you need to know about it before you buy it?

a. The relevance of hidden knowledge to government is great, too.

i. Say some people are 'low-risk' and some people are 'high-risk'. The insurer wants to sell insurance to all the 'low-risk' people, but the 'high-risk' people will all pretend to be low-risk.

ii. There will be no market for insurance for low-risk people.

b. Now ask yourself, how much insurance do we see in the public sector?

i. Pensions: Insurance against dying in poverty.

ii. Employment Insurance: Insurance against income loss due to job loss.

iii. Health Insurance: insurance against expenditures due to health surprises.

iv. Auto Insurance (in BC), Progressive taxation (higher tax rates for rich than poor) can be thought of insurance against low income, farm output insurance (wheat board), counter-cyclical government spending (insurance against economy-wide surprises).

c. What can the government do that a private insurer could not do?

i. Government can force everyone to buy into the insurance contract.

ii. Single-policy tax-funded health insurance is a bad deal for the young. You pay a lot, and don't use much health care on average.

(1) If you were seeking private insurance, you wouldn't buy much.

(a) In private insurance systems, however, the insurer would be very suspicious of you if you came knocking on their door looking for insurance. They would think you had hidden information that made you a bad risk. On the other hand, they would think that all the people who did NOT come knocking on their doors were good risks, and they would try to find these people instead. The whole market would collapse under this inability to match buyers with sellers.

(2) But, in public systems, you don't have the option to buy less.

7. So, what of the theorem?

a. It lays out conditions under which competitive markets deliver efficiency.

i. Efficiency does NOT imply goodness; it says nothing of equity.

b. The conditions give us a framework for thinking about the reasons for market failure (to deliver efficiency) AND the possible government interventions to correct the failure.

i. This is the toolbox we will use for the rest of the course.