On the Electoral Demand for Both Private and Social Insurance

I. Introduction: Some Basic Properties of the Demand for Insurance

A. Insurance tends to be a pure private good in that its excludable and, in a sense, not shareable. Only the subscriber gets the benefits from his or her policy and only when some unfortunate event occurs.

B. However, there is a sense in which risks can be shared and this implies that all insurance, whether provided by private insurers or government, have some characteristics that are normally attributed to pure public goods.

   In addition, risk sharing implies that significant economies of scale exist in the provision of insurance. The more people (of equal risk) that subscribe to an insurance policy the better the insurance company can compute the risk and so the better a company can price their insurance service and the less likely an insurance company is to go bankrupt.

C. Insurance companies count on the individual risks (for each class of risks) being independent of one another. That is they assume that the risk of a bad outcome is similar to that of people rolling dice.

   When the risks are correlated—e.g. when the risks tend to happen all at once—it is difficult, although not impossible for insurance companies to provide insurance for those risks. Much higher reserves have to be kept in order compensate subscribers for their risks. This requires higher prices for insurance that provides a given level of coverage.

   One way to make insurance less expensive for consumers and less risky for insurance companies it to exclude correlated risks from coverage and other high loss risks—or to cover them only partly. Examples of such risks include property damage from a war, revolution, or hurricane. Income risks associated with business cycles (recessions and depressions) also tend to be correlated.

   Most private insurers exclude those types of risk from the coverage provided or cover only part of the losses sustained by their subscribers.

D. Some risks turn out to be more correlated than expected by the insurance companies, and in those cases, too little is set aside in reserves, and the companies go bankrupt when the insured event occur in a great wave.

   Many mortgage insurers, for example, when bankrupt during the great recession of 2008-10, because a great many persons defaulted on their mortgages all at once—many more than anticipated or planned for by the insurance companies.

E. In general, the greater the loss associated with a "bad event" and the more likely the loss is to occur, the more an insurance company has to charge for coverage and the more a consumer is willing to pay for insurance.

   Nonetheless, many risks in our daily lives go uninsured. The insurance is too expensive given our perception of the risks at stake

   For small risks, we often simply self-insure by maintaining a "rainy day" fund or reserves of our own in a checking or savings account.

II. Some "Problems" (normative issues) with Private Insurance

A. Some kinds of private insurance are unlikely to be provided by markets.

This is partly because many of the types of losses that individuals might confront—such as unemployment insurance—tend to have correlated risks and so are difficult for private insurance companies to provide.

B. There are also cases in which individuals would tend to "under-insure," either because they underestimate the risks faced or have too little income to be able pay for an "adequate" amount of insurance.

(Where the meaning of the terms "under insure" and "adequate" tend to change through time and vary among persons.)

C. In earlier times, families were generally expected to provide "safety nets" for their families during tough times—and did so. But this belief changed during the first half of the twentieth century.

D. As a consequence of changes in norms and associated ideas about who "should" bear the losses associated with various subcategories of risks, various kinds of risk came to be covered by tax-financed insurance in the twentieth century.

Such tax-financed insurance is often called "social insurance."

Social insurance gradually became a major responsibility of national governments, whereas it had not been in previous centuries. Indeed, by the end of the 20th century, it arguably became the main (most costly) service provided by national governments in the developed parts of the world.

E. (This was arguably partly because of industrialization and its associated business cycles, partly because of ideological shifts in beliefs about the good society, and partly because of increased democratization.)

III. Subsidies for "Important" forms of Private Insurance

A. The problem of "under insurance" can be addressed in many ways, no all of which involve tax financed governmental supply.

B. Consider the case in which a risk is "under insured"—that is, suppose that it is widely believed that many persons are purchasing too little insurance of for risk "R".

C. There are **two natural solutions** to this problem.

D. The first is to "mandate" minimum insurance coverage for risk "R," as is done for auto insurance and required by many banks that provide mortgages to purchasers of houses. "Adequate" in some cases may have to do with actuarial risk assessments (in the case of a bank) or with the median voter's assessment (in the case in which the definition of "adequate" is determined through electoral pressures).

E. In cases, in which low income is the source of the problem and the insurance is relatively expensive, mandates will not work for all persons.

In such cases, the median voter may favor subsidies for specific types of insurance for people whose income is "insufficient" for them to purchase "adequate" insurance—where both the terms "sufficient" and "adequate" tend to be the median voter's assessment if the policies are determined by electoral pressures.

F. The subsidies for persons of a particular income level will resemble a Pigovian subsidy, except that the subsidy is not addressing an externality problem but rather what might be called an "adequacy problem" in the eyes of the median voter.

G. The program most like this in the US is the so called "Obama-care" program that subsidizes several standardized health insurance for middle class (and lower) adults and their families.

H. There are two types of market settings for subsidy programs.

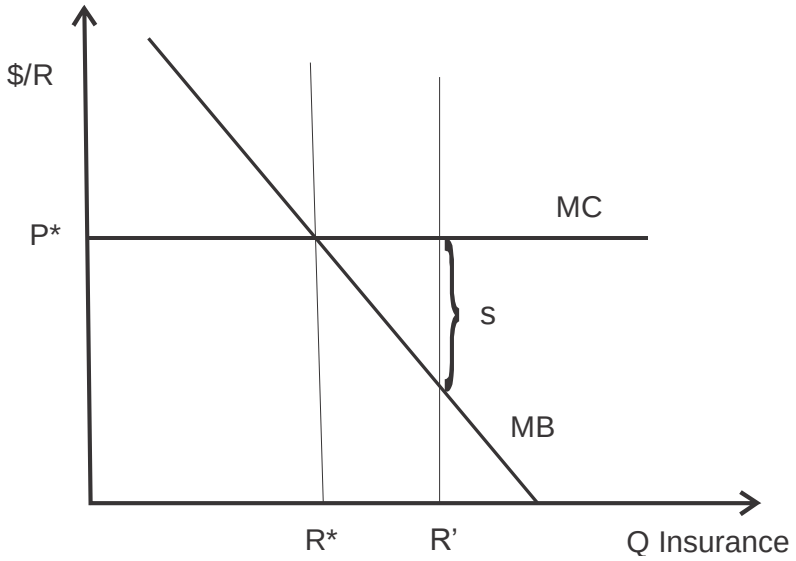
One in which the (conditional) subsidies affect only a very small subset of the persons purchasing insurance (shown in the first figure)

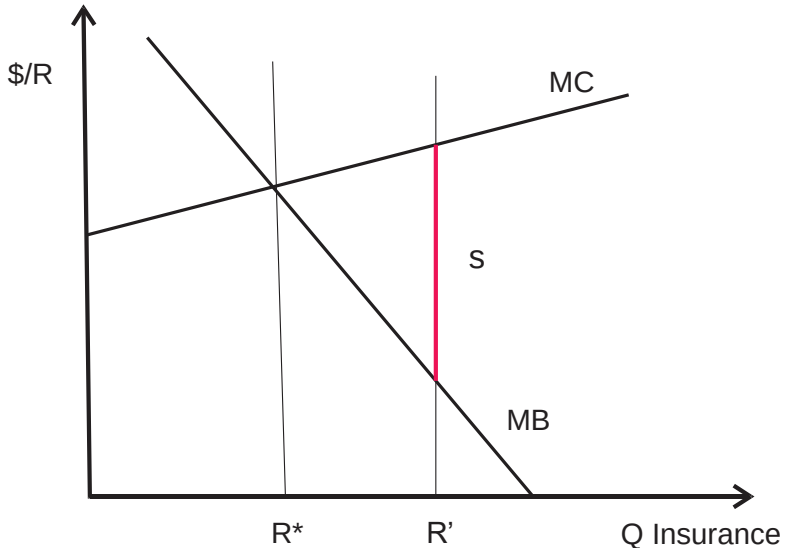
And another in which the subsidy affects a significant number of insurance purchasers and therefore affects the prevailing market price for insurance and also the market prices for healthcare services and inputs (shown in the second figure). In this case the prices of healthcare services rise as the extent of the subsidy rises, both for those subsidized and for those not subsidized.

In both cases, the "adequate" level of insurance is labelled R' in the diagram and the pre-subsidy private purchase R*.

In both cases, it is assumed that "other things are equal," meaning in this case that the individuals in the two diagrams have similar incomes and health risks and so costs for insurance.

I. Notice that such programs use a targeted subsidy, because the aim is to increase the quantity of insurance purchased rather than to increase the recipient's perceived welfare in other ways. (Such programs are sometimes referred to as **paternalistic programs**.)





IV. Tax Financed and Government Provided Social Insurance and/or Healthcare Services

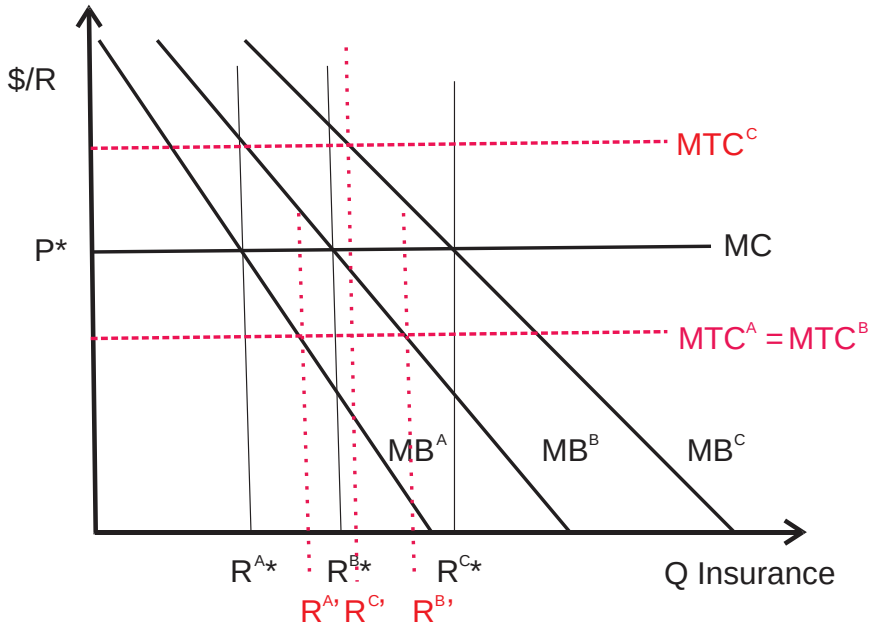
A. In an earlier lecture, we showed how electoral pressures can cause private services to be provided by government when a majority of taxpayers believe that they can obtain a service—such as insurance—at a tax price that is lower than the market price for the service. Such can easily be the case under a progressive income or wealth tax.

B. Such possibilities are normally generated by the tax systems rather than more efficient production by the government—which normally is less efficient since it does not face competitive pressures (the risk of losing customers to more efficient suppliers) and does not have profits at stake.

C. A case in which "governmentalization" of a private services has majority support is illustrated below.

The black letters characterize the quantity of insurance purchased by the three individuals from a private market, where insurance coverage costs P* per unit of coverage.

The red letters characterize the results when a good deal of the cost of governmental insurance is shifted to "C". There is majority support because both A and B have a lower price and, in the end, get a bit more coverage.



In the case illustrated, "C" is the median voter and $R^{C,}$ is the coverage that will be provided. C's ideal point under the tax scheme in place is in the middle of the voter ideal points (the red ones). Note that both A's and B's coverage is a bit higher than it would have been under private supply.

D. If the service level is determined by electoral pressures, then it will tend to be that preferred by the median voter, which is to say the service level or insurance coverage where the median voter's marginal tax cost equal his or her marginal benefits from the service.

For example, state unemployment insurance normally replaces only part of the income a person had been earning. The replacement rate for unemployment insurance would be

determined by the median voter's assessment of "adequate" as in the cases above.

Similarly, in the case of health insurance, there may be copayments and some health problems may not be covered because they are deemed too expensive and too uncommon by the median voter.

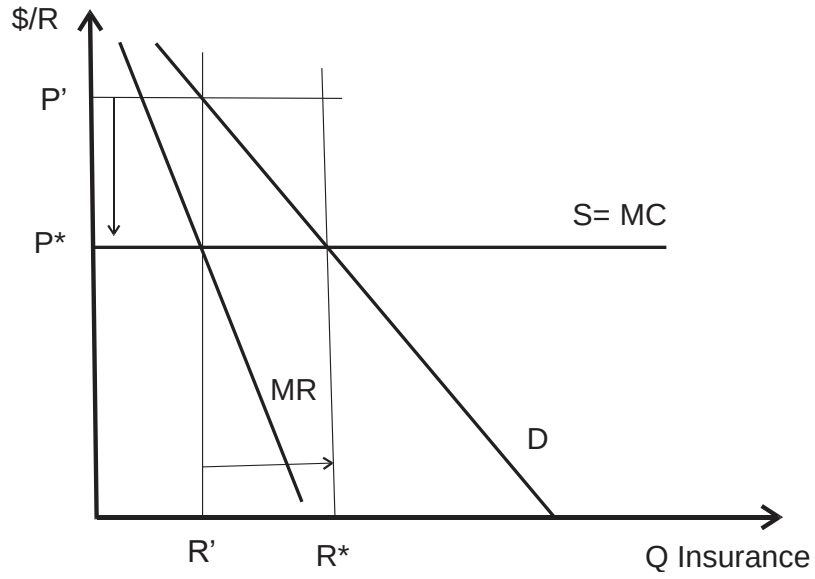
The coverage provided by government provided health insurance or health services would be "adequate" by the median voter, both with respect to the illnesses and other health conditions covered and the extent to which a person would have "copayments" for the medical services received. However, the median voter may change his or her mind through time as new information becomes available or his or her income increases.

V. Are There Any Cases in which Government Provision Is Less Costly Overall than Private Provision?

A. The short answer is yes, partly because of the political economy of healthcare in private markets.

Ignoring for now the main problem with government supply—the lack competitive pressure to be efficient or innovate—government supply can be less costly not just for the median voter but for an entire country under certain conditions.

B. First, if the private market being replaced was not competitive, governments may replace monopoly pricing of some services and inputs with competitive pricing reducing both production costs and final prices for the healthcare services.



Pricing for emergency conditions by hospitals and doctors, for example, tend to resemble monopoly prices in that patients cannot very easily shop around for the best price when they are extremely ill or incapacitated.

(Besides which, prices are often treated as "industry" secrets in such settings.)

Note that this reduction in cost **is not** because of "price controls," per se, which tend to distort incentives for the service and input providers and reduce efficiency, but the replacement of monopoly prices with competitive ones.

C. Second, governments can change preexisting regulations that had previously increased costs (and incomes). Such policies were most likely adopted because of past interest group pressures that reduced competition for a subset of inputs or services.

(Of course, such reforms do not require the nationalization of healthcare services to be undertaken, but it may be easier to undertake such reforms as part of a major change in the organization of healthcare services.)

For example, some of the accrediting features of the US healthcare system seem to be ones that unnecessarily reduce the supply of doctors, as with the relatively long training period of doctors. Training for doctors is about 25% shorter in Europe than in the US without reducing patient longevity.

As a consequence, there are more doctors per capita in Europe than in the US. And with a larger supply, doctor salaries are lower. (Yes, supply and demand models work even for medical services.)

D. In some cases, there are economies of scale that can be realized by nationwide production that cannot easily be accomplished by non-governmental providers. This is especially true in less populous countries and states, and it tends to be true of many insurance products.

   Insurance rates can be reduced with a service is provided for everyone. (For example, best estimates of risks are more precises and there is less year-to-year variation in them. Data on best practices may similarly be more complete and conclusion about them more accurate—although disagreements may still exist, even given excellent data.

E. However, there are costs generated by reduction in competition. Prices tend to become less connected with production costs. And rates of innovation tend to diminish, which means that countries become more dependent on innovations undertaken in other countries.

   In the long run, these tend to offset many of the above potential efficiency gains.

F. Moreover, **rent-seeking** by healthcare providers can generate policies within national healthcare systems that are the opposite of the ones that potentially can reduce the cost of government services relative to markets. The cost of healthcare services can easily rise rather than fall as a consequence of the "nationalization" of most of the healthcare sector of the economy.

   (However, longevity numbers and the relative cost of national systems of healthcare services relative to the US indicate that this has not yet been a major problem in European or similar systems.)

G. For more on differences between European and US healthcare, see the links to the OECD data set for medical services and the link to a short article on the cost of doctors in North America relative to Europe that are provided on the class website after this set of lecture notes.

H. For a more complete model land statistical analysis of the evolution of contemporary health care systems, see Congleton et al (2017)