ECG 507
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I. When markets fail
   A. Certain public goods, including property rights, enforcement of law & contracts
   B. Incomplete or asymmetric information
   C. Monopoly
   D. Externalities
II. Social responsibility of business
III. Discussion of midterm

I. When markets fail

Under perfect competition, we have efficient outcomes in the sense that

- Firms are producing at lowest cost (min LAC)
- No shortages or surpluses (supply=demand); customers get what they want based on income, prices and preferences
- Firms maximizing profits (economic profits=0)

As long as this is true, there is not any economic argument to justify attempts to intervene in market outcomes. But in practice, the competitive model we developed last week does not always work. There are four cases where private firms, left to their own devices, will not provide the most efficient resource allocation:

A. Certain public goods, including property rights, enforcement of law & contracts

Public goods have two characteristics: (1) they are nonrival, which means that my consumption of the good does not reduce the amount available to others. Most goods are rival goods, e.g., all physical goods, most services (you and I cannot get our teeth cleaned by the same dentist at the same time). Examples of nonrival goods include television and radio programs, national defense, software, etc. (2) they are nonexclusive, which means that you cannot prevent someone from enjoying them. Examples of nonexclusive goods include national defense (again), lighthouses, and public health programs. An example of an exclusive good is fire protection; in some less heavily populated areas, you must pay for your fire protection and if you don't pay, you don't get protected (the assumption being that your fire will not spread elsewhere).

The market will not produce enough public goods because everyone can enjoy them without having to pay for them. No one will volunteer how much such goods are worth to them, so there is no way to match revenues and costs. Examples: national defense, court system. (What about education? the Post Office?)

B. Incomplete or asymmetric information

Consider the market for health insurance for individuals not covered by employer or government policies. Some of these individuals will choose not to buy insurance because they believe they are healthy and they are willing to take a risk. Others will want to buy this insurance either because they are risk averse or because they think the

odds they will need the insurance are high. Knowing this, insurers face what is called an adverse selection problem and will be unwilling to provide such policies at rates that most people can afford. (Aside: think about the market for insurance against getting fired; is this similar?)

A similar informational problem comes up with used cars. Some are on the market because the owner simply wanted new wheels; others are on the market because they weren't that great a car. As the buyer, you want some type of protection, either in terms of a price concession or legal protection (which is why many states have Lemon Laws).

C. Monopoly

We will study this is great detail after the midterm. Most markets that we will study are dominated by a few large firms. Often there are entry barriers. The result (details to be explained later) is that monopolistic firms do not produce as much as they would if the industry structure were competitive; also consumers end up paying higher prices.

D. Externalities

External costs result when the actions of one party impose costs on another party but not upon itself. Classic case is pollution, which we will focus on. Essence of problem is that a firm (or farm) can produce pollution but, without some outside interference, is not held accountable. From an economic perspective, these extra costs are not priced out and billed. Firm's MC curve underestimates true cost of production; in effect it is getting a subsidy by being able to pollute without penalty. This creates a situation where we overproduce goods produced by polluters.

Possible approaches:
1) Ban pollution: Obvious problem – this means banning lots of important industries and lots of jobs, doing without a lot of things we like (electricity, pork, paper)
2) Shrug our shoulders: Obvious problem – shorter life expectancy, more illness, harm to other species
3) Manage the tradeoff between desirable economic activity and pollution: This means creating the right incentives for firms (and other polluters)

Target:
Get firms to set output where the marginal social cost of production (MSC) equals the marginal benefit as measured by willingness to pay. MSC = MC + MEC, where MEC = marginal external cost of pollution, can be constant or upward sloping.
Policy options:
1) Fees charged per unit of pollution. These create incentives for reducing pollution and create the right incentives for firms. Firms invest in pollution abatement until fee = marginal cost of abatement (MCA). All units of pollution where fee>MCA get eliminated. Firms that are low-cost eliminators of their own pollution (low MCA) have an incentive to really cut back a lot. Firms that find it hard to cut back (e.g., old plant and equipment) get stuck with high fees. Sticking point: what fee gets us to social optimum? What if we pick the wrong one?
2) Standards. A legal limit on how much each firm can produce has the advantage of getting us to the social optimum. The downside is that all polluters are not alike and the same reduction in pollution could be achieved at lower cost if low MCA firms were allowed to overachieve.

3) Tradable permits. Set pollution limits for each firm based on criteria such as size or market share so that in the aggregate we meet the desired target. Then let firms buy and sell the right to pollute. This gives us the certainty of meeting the desired level of pollution while also giving us the economic flexibility to meet that target in the most cost-effective way.

The *Fortune* article "Hog Wild for Pollution Trading" gives specific examples of pollution markets, especially the market for sulfur dioxide. Since 1990, each large power plant gets the right to emit a given number of tons of SO2 and technology is installed to measure their emissions. On an annual cycle, the EPA settles up with each plant and punishes (via fines or reduced allowances in the future) those who exceed their limit. The ceiling on emissions is reduced each year.

Under this system, when a plant faces unexpectedly high demand and runs the risk of using up its allocation, it can either (1) install pollution-limiting technology (scrubbers), (2) switch to fuels that burn cleaner, or (3) buy allowances from a plant that has quota to sell. Whatever it selects, there is a market-based penalty for excess pollution. With an active market, firms have an incentive to reduce their emissions below their allowance so they can sell quota to others – creating an incentive to pollute less. Similar approaches are being considered for hog waste and greenhouse gases.

Discussion: Why are some businesses taking steps now to prepare for the prospect of a warmer planet? What are the consequences of being proactive in this area vs. the consequences of not being proactive? Scan the *Business Week* article for some background.

II. Social responsibility of business

In all of the above cases, the marketplace produces suboptimal results. This begs the question of what should be done. One option is to allow government to play a role in the production and allocation of economic goods. For certain types of public goods, such as national defense and the protection of property rights, this is taken for granted in most circles (keen believers in privatization might say you could pay Don Corleone or his modern Soprano equivalent for protection). However, it is just as easy to talk about government failure as it is to talk about market failure. Governments will never blindly pursue economic efficiency; they will always put a premium on political objectives. For instance, reasonable persons can disagree about how much national defense spending we need, but politicians view their positions on defense not just from the standpoint of what is good for the country, but also from the standpoint of what is good for their re-election (e.g., we all know this bomber is antiquated, but the factory that produces it is in my district, so we need to keep it open).

I want all of us to think a little bit harder about what role business can play in addressing some of these issues we have raised. Let's begin with the classic article by Milton Friedman in the New York Times Sunday Magazine with the provocative title "The Social Responsibility of Business Is to Increase its Profits." If all you read is the title, you might think this Nobel-prize-winning economist was nothing more than the pre-cursor of Gordon Gekko's "Greed Is Good" motto. But there are some important points to be gleaned from Friedman:

- Recall that when firms maximize their profits, the result is that goods are produced at minimum average cost, stockholders get the greatest return on their investment, and consumers get the goods they want at a reasonable price. All of these are good for society.
- Social responsibility is in the eye of the beholder. One person may think a commitment to reduce emissions of greenhouse gases and thereby hopefully reduce global warming represents a prudent step to improve the environment; another may see it as a naïve bit of political correctness (not to mention a waste of shareholders' money, see the next point). One should not expect widespread agreement about what activities would truly be socially responsible. One example Friedman uses: should businesses hire the hard-core unemployed even though that would mean fewer positions for those with the proper training and experience?
- Friedman emphasizes principal-agent concerns: what gives management the right to give the shareholders' money away for a variety of "good causes"? If the managers want to help those causes, why don't they use their own money instead of spending the resources of the shareholders? If shareholders want to support these causes, they can do so on their own and choose their causes; why would they want management making these decisions for them?
- Also if these are such great causes, why haven't politicians already built a consensus to deal with them? We have a great political system with well-designed checks and balances. Why do they need any help from big business for truly pressing public needs? Why should businesses do what elected officials have chosen not to do.
- Friedman does not believe in unbridled, ruthless profiteering. He makes a point of qualifying his position in the last sentence: "increase its profits so long as it *stays within the rules of the game, which is to say, engages in open and free competition without deception and fraud*."
- Friedman briefly notes that some activities that one might call socially responsible also are in the firm's self interest. He cites steps companies might take to improve the communities in which they are located.

Michael Porter and Mark Kramer in their December 2002 article in *Harvard Business Review* "The Competitive Advantage of Corporate Philanthropy" criticize the bulk of the corporate philanthropy we observe today on the same grounds. They argue that most programs are "diffuse and unfocused." Handouts to local civic organizations or support to universities and national charities create goodwill with employees and customers, but how do they help the firm?

Porter and Kramer's main thesis is that corporations should use philanthropy to improve what they call the corporation's *competitive context*, which is the "quality of the business environment in the location or locations where they operate."

Porter and Kramer accept Friedman's basic framework, but extend it in two ways: (1) Friedman maintains that social and economic objectives are separate and distinct. But in practice, they can overlap if the social objectives are chosen strategically. When the firm does this, social spending can enhance profitability. Examples: Cisco's Networking Academies which is a targeted effort to improve the skills of tomorrow's work force (as opposed to generic support for public schools or universities); "Sustainable Racine," a campaign by SC Johnson to reduce pollution that makes the area a less pleasant place

to live and to revitalize the schools and the downtown district (all of which makes Racine more attractive to employees); Exxon Mobil improving roads in developing countries.

(2) When corporate philanthropy is done strategically, it simultaneously makes the company and society better off. This is likely to produce social benefits that exceed those arriving from gifts of equal dollar amounts from individuals, foundations, or governments because:

- Corporations are better positioned in terms of resources and better motivated in terms of incentives to do the research necessary to find the best grantees
- Corporations can network to encourage other companies in the same cluster to cooperate in their philanthropic efforts; when successful, this can either make the pot bigger or reduce the obligation of each firm
- Corporations can share specialized assets and expertise with grantees and make long-term commitments (Ex. Dreamworks academy; Cisco again); sometimes this can help the grantee come up with solutions that it could never have been able to do on its own

Other arguments for actions that may in the short term subtract from the bottom line, but may still be in the firm's overall best interest:

1) Reputation with employees and customers. Are you committed to fair dealing with both groups? Do you want them to be loyal to your company? (Example: health insurance claims; refund policies)
2) Take steps now on your own to (perhaps) avoid more onerous regulations later (Example: mutual funds)

The other *Fortune* article "Tree Huggers, Soy Lovers, and Profits" deals with the broader theme of social responsibility of business. It focuses mainly on how DuPont, McDonalds, and HP have dealt with environmental pressures. There is a certain amount of self-interest in being environmentally savvy. But firms that go down that path are still being criticized from both sides – environmentalists claiming that the firms are not doing enough and advocates of stockholders' interests being concerned for the opposite reason.

Challenges for firms:

1) Combine social objectives into business plan
2) Create proper incentives for employees
3) Make sure employees know the "right thing to do" via education