PAI 897
Lecture 12
Correcting Market and Government Failure – Generic Policies

Of course, each situation has specific characteristics, so that a generic policy may not be appropriate.

However, these are the fundamental tools we have to use in policy, so we should be familiar with how they work.

We should reach for them first, and make sure they fit the context of the policy question we confront.

Some we have seen before, so we are gathering them up while presenting variations on them as well.

1) Freeing, facilitating, and simulating markets.
   Freeing (getting out of the way and allowing)
   Facilitating (supporting or creating)
   Simulating (creating by stepping back one level)

   Chart 10.1 on page 211.

Table 10.1 *Freeing, Facilitating, and Simulating Markets*

Generic Policies	Perceived Market Failure (MF), Government Failure (GF), Distributional Issue (DI), Limitation of Competitive Framework (LCF)	Typical Limitations and Collateral Consequences
Freeing Markets		
Deregulate	GF: Allocative inefficiency from rent seeking LCF: Technological changes	Distributional effects: windfall losses and gains, bankruptcies
Legalize	LCF: Preference changes	Transitional instability
Privatize	GF: Bureaucratic supply	
Facilitating Markets		
Allocate through property rights	MF: Negative externalities	Distributional effects: windfall gains and losses
Create new marketable goods	MF: Public goods, especially open access	Thin Markets
Simulating Markets		
Auctions	MF: Natural monopolies MF: Public goods DI: Transfer of scarcity rents	Collusion by bidders, opportunistic behavior by winning bidder, political pressure to change rules ex post

- Freeing by deregulation. Removal of barriers to entry, putting in place regulatory oversight.
    - A common story is that the technology has changed since the original regulation has passed.

        - Land line phone systems giving way to cell phones.
        - Broadcast networks giving way to cable television giving way to satellite TV.
        - In the US, experience with trucking, banking, railroads, airlines…

    Note deregulation is not necessarily moving from regulation to no regulation, it is often a reduction in regulation.

- Freeing by Legalization.
    - Removing criminal sanctions.
    - Decriminalization, removing criminal penalties and replacing with civil penalties such as fines.

    Why should we legalize marijuana? Why should we not?
    Why should we legalize gambling? Why should we not?
    Why should we legalize prostitution? Why should we not?

- Privatization as a way of freeing markets.
  1) Switching from subsidized provision by an agency to provision through user fees.
  2) Contracting out provision previously produced by a government agency
  3) Denationalization, selling state owned enterprises to the private sector
  4) Demonopolization (or monopsonization) that allows private firms to compete in a market that was filled by a government entity.

  The nature of a natural monopoly: Regulating a natural monopoly.

  First, a natural monopoly has average cost decreasing over the whole range of feasible demand.

  Illustrate what happens when we try to regulate through MC based price regulation.

  Illustrate what happens when we try to regulate through AC based price regulation.

  Illustrate what happens if we subsidize.

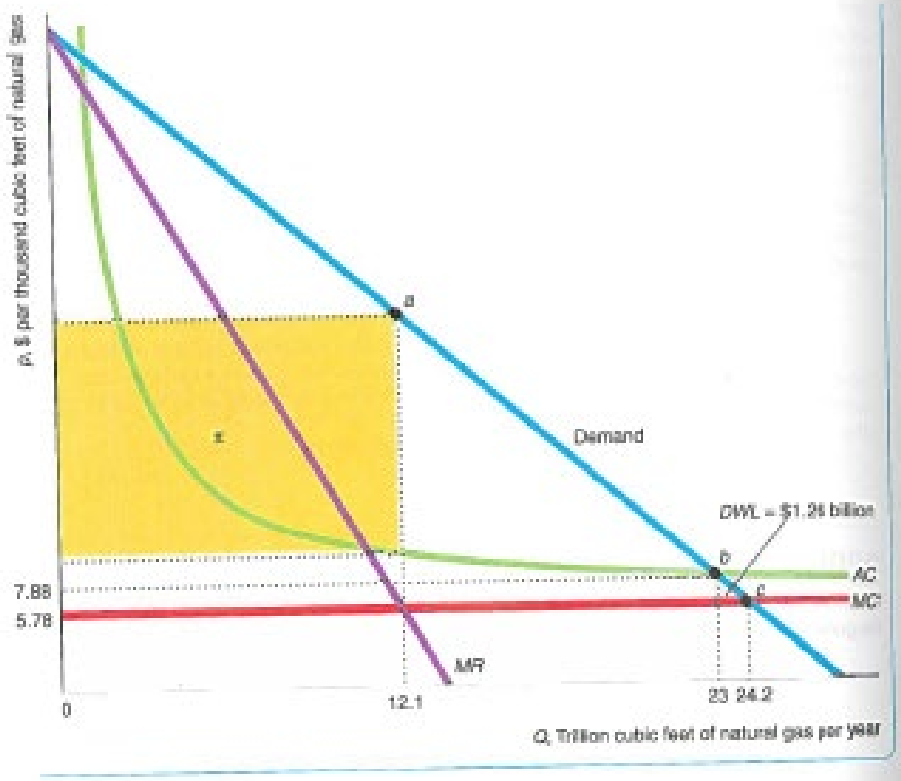
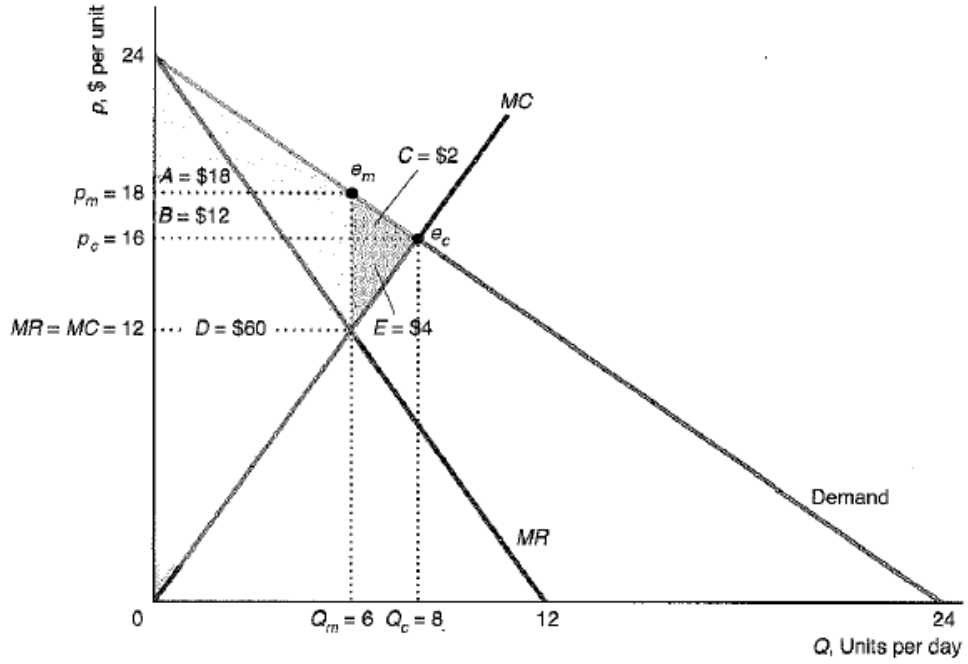

P, $ per thousand cubic feet of natural gas
a
Demand
DWL = $1.26 billion
b
c
AC
MC
7.88
5.78
MR
0
12.1
23
24.2
Q, Trillion cubic feet of natural gas per year

Figure 11.5 Deadweight Loss of Monopoly

A competitive market would produce $Q_c = 8$ at $p_c = \$16$, where the demand curve intersects the marginal cost (supply) curve. A monopoly produces only $Q_m = 6$ at $p_m = \$18$, where the marginal revenue curve intersects the marginal cost curve. Under monopoly, consumer surplus is A, producer surplus is $B + D$, and the lost welfare or deadweigh: loss of monopoly is $-C - E$.

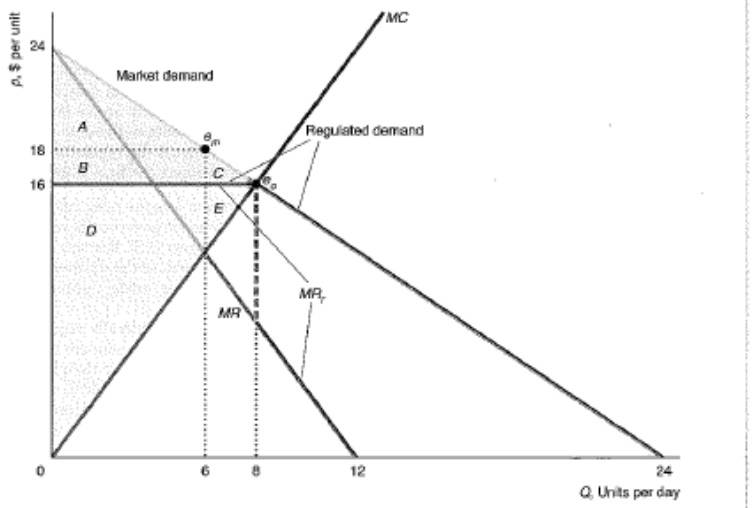


	Competition	Monopoly	Change
Consumer Surplus, *CS*	$A + B + C$	A	$-B - C = \Delta CS$
Producer Surplus, *PS*	$D + E$	$B + D$	$B - E = \Delta PS$
Welfare, $W = CS + PS$	$A + B + C + D + E$	$A + B + D$	$-C - E = \Delta W = DWL$

Perloff, 6th edition Microeconomics, page 369

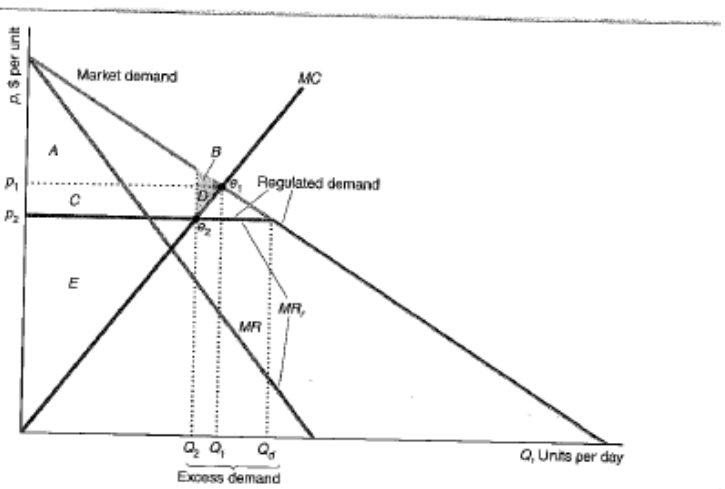
Figure 11.7 Optimal Price Regulation

If the government sets a price ceiling at $16, where the monopoly's marginal cost curve hits the demand curve, the new demand curve the monopoly faces has a kink at 8 units, and the corresponding marginal revenue curve, MR_r, "jumps" at that quantity. The regulated monopoly sets its output where $MR_r = MC$, selling the same quantity, 8 units, at the same price, $16, as a competitive industry would. The regulation eliminates the monopoly deadweight loss, $C + E$. Consumer surplus, $A + B + C$, and producer surplus, $D + E$, are the same as under competition.



	Monopoly Without Regulation	Monopoly with Optimal Regulation	Change
Consumer Surplus, *CS*	*A*	*A + B + C*	*B + C = ΔCS*
Producer Surplus, *PS*	*B + D*	*D + E*	*E − B = ΔPS*
Welfare, *W = CS + PS*	*A + B + D*	*A + B + C + D + E*	*C + E = ΔW*
Deadweight Loss, *DWL*	*−C − E*	0	*C + E = ΔDWL*

Perloff, Microeconomics, 6th edition, page 379



	Monopoly with Optimal Regulation	Monopoly with a Low Regulated Price	Change
Consumer Surplus, *CS*	*A + B*	*A + C*	*C − B = ΔCS*
Producer Surplus, *PS*	*C + D + E*	*E*	*−C − D = ΔPS*
Welfare, *W = CS + PS*	*A + B + C + D + E*	*A + C + E*	*−B − D = ΔW = DWL*

Perloff, Microeconomics, 6th edition, page 381

- Facilitating markets.
    - Creating a market by establishing property rights (remember Coase example) or creating new marketable goods.
        - Allocate rights to existing goods. Use power of the state to create rights to resources. Fishing areas, grazing permits, water use permits….
        - Create market for the right to use existing goods. A common example is tradable permits for use of the good, like emissions.
            - This creates a market so that the firms have an incentive to reduce use when the cost of abatement is less than the cost of the permit to use.

- Simulate markets. If it is not feasible to have competition within a market, use an auction to create competition for the market.
    - Right to provide a monopoly good is allocated by an auction procedure. Right to drill, right to mine,…
        - Does government have people who can accurately assess the value of the resources?
        - Do we know the extent and value of the externalities?
        - Are the bidders really competitive?
        - Is the decision making based on the best bid for society?
        - Is it clear ex ante by what elements is the competition being judged?
        - Is government ‘powerful’ in relation to bidders?

Summary on table 10.2 on page 220.

Table 10.2 *Using Subsidies and Taxes to Alter Incentives*

Generic Policies	Perceived Market Failure (MF), Government Failure (GF), Distributional Issue (DI), Limitation of Competitive Framework (LCF)	Typical Limitations and Collateral Consequences
Supply-Side Taxes		
Output taxes	MF: Negative externalities DI: Transfer of scarcity rent	Frequent adjustment of tax levels required
Tariffs	LCF: Market power of foreign exporters	Deadweight losses for consumers; rent seeking by producers
Supply-Side Subsidies		
Matching grants	MF: Positive externalities MF: Public goods DI: Increase equity	Diversion to general revenue by reduction in effort
Tax expenditures (business deductions and credits)	MF: Positive externalities MF: Public goods	Misallocation of resources across industries; horizontal tax inequity
Demand-Side Taxes		
Commodity taxes and user fees	MF: Negative externalities MF: Information asymmetries MF: Public goods, especially open access	Deadweight losses and black markets
Demand-Side Subsidies		
In-kind subsidies	MF: Positive externalities LCF: Utility interdependence DI: Floors on consumption	Restricts consumer choice; bureaucratic supply failure; lumpiness leads to inequitable distribution
Vouchers	MF: Positive externalities DI: Increase equity GF: Bureaucratic supply failure	Informational asymmetries; short-run supply inelasticities; institutional resistance
Tax expenditures (personal deductions and credits)	MF: Positive externalities DI: Increase equity	Poor targeting of subsidies; vertical and horizontal tax inequities

Establishing Rules.

Not using incentives to influence choices, but the coercive power of the state. Can be civil or criminal sanctions that punish behavior.

Frameworks that govern behavior.

Can markets exist without rules in the background?

What rules do we need to make markets function?

What set of rules do we need to allow government to make rules that influence markets?

Regulations.

Command and control. Directive is given, compliance is monitored, noncompliance is punished.

Price regulation.

Recall examples of price floors and price ceilings.

Recall example of regulating a monopoly.

Price Discrimination:

10 College Students each WTP $10 per ticket,

20 Senior Citizens each WTP $5 per ticket

Table 12.1 A Theater's Profit Based on the Pricing Method Used

(a) No Extra Customers from Price Discrimination

Pricing	Profit from 10 College Students	Profit from 20 Senior Citizens	Total Profit
Uniform, $5	$50	$100	$150
Uniform, $10	$100	$0	$100
Price discrimination*	$100	$100	$200

Perloff, Microeconomics, page 397

Table 10.3 *Establishing Rules*

Generic Policies	Perceived Market Failure (MF), Government Failure (GF), Distributional Issue (DI), Limitation of Competitive Framework (LCF)	Typical Limitations and Collateral Consequences
Frameworks		
Civil laws (especially liability rules)	MF: Negative externalities MF: Information asymmetries MF: Public goods DI: Equal opportunity LCF: Thin markets	Bureaucratic supply failure; opportunistic behavior; imbalance between compensation and appropriate deterrence
Criminal laws	MF: Negative externalities MF: Public goods LCF: Illegitimate preferences	Costly and imperfect enforcement
Regulations		
Price regulation	MF: Natural monopolies DI: Equity in distribution of scarcity rent DI: Equity in good distribution	Allocative inefficiency; X-inefficiency
Quantity regulation	MF: Negative externalities MF: Public goods, especially open access	Rent seeking; distorted investment; black markets
Direct information provision (disclosure and labeling)	MF: Information asymmetries MF: Negative externalities	Cognitive limitations of consumers
Indirect information provision (registration, certification, and licensing)	MF: Information asymmetries MF: Negative externalities GF: Bureaucratic supply failure	Rent seeking; cartelization
Regulation of the circumstances of choice	LCF: Cognitive limitations to rationality	Few applications discovered so far beyond opt-out versus opt-in

Outright ban. Why is it illegal to buy or sell human organs in the US?

Control of externality directly.

Marginal cost of abatement, marginal cost of permit comparison.

Standards in production.

Labor laws, occupational health and safety oversight.

Food and Drug administration.

Lead testing.

Direct information provision. Ad campaigns, putting warning labels on products, calorie counts in restaurants, cereal boxes…Country of origin labels, efficiency ratings, all trying to deal with information asymmetry issues.

Organization report cards, Maxwell and US News and World Report…Public school report cards, provision of information, graduation rates, spending per student,…

Indirect information provision. Licensure – you have to have official authorization to provide a good or service. Less stringent, you have to meet certain standards to be in an association and they signal you have standards that meet the group's expectations.

Supply by non-market mechanisms.

Table 10.4 *Supplying Goods Through Nonmarket Mechanisms*

Generic Policies	Perceived Market Failure (MF), Government Failure (GF), Distributional Issue (DI), Limitation of Competitive Framework (LCF;	Typical Limitations and Collateral Consequences
Direct Supply		
Bureaus	MF: Public goods MF: Positive externalities MF: Natural monopolies DI: Equity in distribution	Rigidity; dynamic inefficiency; and X-inefficiency
Independent Agencies		
Government corporations	MF: Natural monopolies MF: Positive externalities DI: Equity in distribution GF: Bureaucratic supply failures	Agency loss
Special districts	MF: Natural monopolies MF: Local public goods MF: Negative externalities DI: Universal provision	Agency loss; insensitivity to minorities with intense preferences
Contracting Out		
Direct contracting	MF: Public goods, especially local public goods GF: Bureaucratic supply failures	Opportunistic behavior by suppliers; lock-in and low-balling
Indirect contracting (nonprofits)	MF: Positive externalities GF: Bureaucratic supply failures DI: Diversity of preferences LCF: Endogenous preferences (behavior modification)	Weak coordination of services

Direct government provision (national defense for example to minimize moral hazard / opportunistic behavior).

Note Blackwater kinds of counterexamples.

Double market failure: First, evidence that markets have failed, then evidence that other generic policies discussed previously will lead to an inferior outcome.

Direct supply, see the list from Leman on 249.
Independent agencies: government corporations (TVA, Port Authority of NY-NJ,…); and special districts (watershed management, school districts,…)

Contracting out.

Insurance and cushions.
Table 10.5

Table 10.5 *Providing Insurance and Cushions*

Generic Policies	Perceived Market Failure (MF), Government Failure (GF), Distributional Issue (DI), Limitation of Competitive Framework (LCF)	Typical Limitations and Collateral Consequences
Insurance		
Mandatory insurance	LCF: Adverse selection	Moral hazard
Subsidized insurance	MF: Information asymmetries DI: Equity in access LCF: Myopia LCF: Misperception of risk	
Cushions		
Stockpiling	LCF: Adjustment costs GF: Price controls	Rent seeking by suppliers and consumers
Transitional assistance (buy-outs, grandfathering)	LCF: Adjustment costs LCF: Macroeconomic dynamics	Inequity in availability
Cash grants	DI: Equality of outcome LCF: Utility interdependence	Reduction in work effort, dependency

Table 10.6 *Searching for Generic Policy Solutions*

	Market Mechanism	Incentives	Rules	Nonmarket Supply	Insurance and Cushions
Traditional Market Failures					
Public goods	S	S	S	P	
Externalities	S	P	P	S	
Natural monopolies	S	S	P	P	
Information asymmetries			P	S	S
Other Limitations of the Competitive Framework					
Thin markets			P		
Preference-related problems	S	S	P		
Uncertainty problems			P		S
Intertemporal problems			S		P
Adjustment costs					P
Macroeconomic dynamics		P			S
Distributional Concerns					
Equity of opportunity		S	P		S
Equality of outcomes			S	S	P
Government Failures					
Direct democracy			P		
Representative government	P		S		
Bureaucratic supply	P	S	S	S	
Decentralization	S	P		S	

Sources for solutions (though not necessarily most often used!): P—primary, S—secondary.