Types of Government Policies

- Markets are not always efficient; market failures.
- There is the need for intervention when the market fails.
- So Government intervention?
- Not yet!

- [https://www.youtube.com/watch?v=ByXM47Ri1Kc](https://www.youtube.com/watch?v=ByXM47Ri1Kc)

- Government intervention is costly and generate unintended consequences that make matters even worse.
- Coarse
Coase Theorem/Creating Property Rights

Coase theorem states that private bargaining will overcome negative externalities without the need for government intervention, regardless of how property rights are allocated.

Creating property rights are effective in dealing with common resource problems. But have limitations:

A crucial assumption underlying Coase theorem is that transaction cost is negligible.

Negligible transaction cost means that:

1. Bargaining is easy and inexpensive
2. Deals are easy to enforce. Etc.

But is that really the case in reality?

Transaction costs are typically high when:

a. a large number of people suffer the damages from externality.

b. large numbers of firms contribute to the problem.

c. when causation is difficult to establish
Types of Government Policies

Still needs government!

- We will discuss three main types of Government policies:
  - A. Prescriptive Regulation/ Command and Control
  - B. Market-Based Policies
  - C. Information-Based Approaches
Prescriptive Regulation/Command and Control

• This set of policies focus on regulating the behavior or the performance of firms.

• A technology standard requires firms to use a particular pollution abatement technology. Eg. The Clean Air Act Amendments in 1977 required new electric power plants to install large scrubbers to remove sulfur dioxide from their flue gases.

• Performance standard involves regulators imposing a ceiling on the emissions an individual firm can release. This approach allows polluters a leeway to determine how they meet the emission ceiling.

• Real world regulation are often a hybrid of technology and performance standards. They are often called technology based performance standard.
Market Based/ Incentive-Based Policies

- These policies incorporate market principles into government policies.
- There are two main categories:
  1. Priced Based: This involves the use of taxes and subsidies to put a price on pollution; forcing firms to recognize the social damages from production.
  2. Allowance Trading/ Cap and Trade: Government establishes total allowable quantity of pollution for a group of firms (firms in a particular industry). It then allocate allowances (tradable permits) corresponding to some unit of pollution. At the end of each year (determined period) firms must retire an allowance for each unit of pollution they have emitted during the year.

Under cap-and-trade system, firms can trade allowance among themselves. Thus, if a firm finds it relatively expensive to reduce pollution, they can buy allowance from other firms that can.
Information Based Approach

This approach works by providing information to the public about pollution associated with the goods and services they consume. The aim is to influence consumer and firm behaviors through information availability. There are two main approaches here:

1. **The right-to-know laws**: Here, a law is passed that requires firms to provide information on pollution related to their production. Eg Toxics Release Inventory (1988) requires manufacturing facilities in the US to report their annual releases of toxic chemicals(300 specified toxic chemicals). The EPA makes the data publicly available. You can check the pollution problems in your neighborhood by visiting [www.scorecard.org](http://www.scorecard.org).

2. **Eco-labeling and Certification Programs**: This provides consumers with information about how a product was manufactured. Through Ecolabeling and certification programs, consumers are informed about eco-friendliness of goods and services they consume.
How Market-Based Policies Overcome Market Failure

\[ \text{Pigouvian tax} = MD(Q^*) \]

This distance is also equal to the efficient Pigouvian tax.
How much should the tax be?

Arthur Pigou: A tax on pollution equal to the marginal damage at the socially efficient level of pollution will achieve the socially efficient outcome. Pigouvian tax, which is set equal to marginal damage at the socially efficient level of pollution forces producers and consumers of polluting goods to internalize the externality.

That is, it will force producers and consumers to fully incorporate the costs of their actions into their output and consumption decisions.

Pigouvian Tax eliminates dead weight loss