Chapter 7

Market Failures

Flow of study in this chapter

› Definition of market failures

Imagine that if we human only rely on market as a resource allocation tool, market alone cannot sort out some specific types of good or service.

› Externalities

Many economic activities generate external effects. If they are not accounted for both cost and benefit, market price cannot signal the true cost and benefit which leads to inefficient price and quantity.

› Public goods

Some products or services cannot be allocated through pure market because they will not generate any profit due to their attributes.

› Asymmetric information

Information in the real world are limited for all agents. This may lead to inefficiency price set up and negotiation.

Further reading can be found in Pindyck and Rubinfeld (2018) Part 3, Chapter 10-11, and Part 4, Chapter 17-18.

Introduction

Oftentimes, price cannot act as a signal that represents true cost or benefit in our societies. Or if it can, it might not be an efficient tool to do so.

In this chapter, we should get to know the basic concept market failures, understand how it affects parties in the market system, and learn what and how our current policies have handled with the problems and what problems still persist in our economy today.

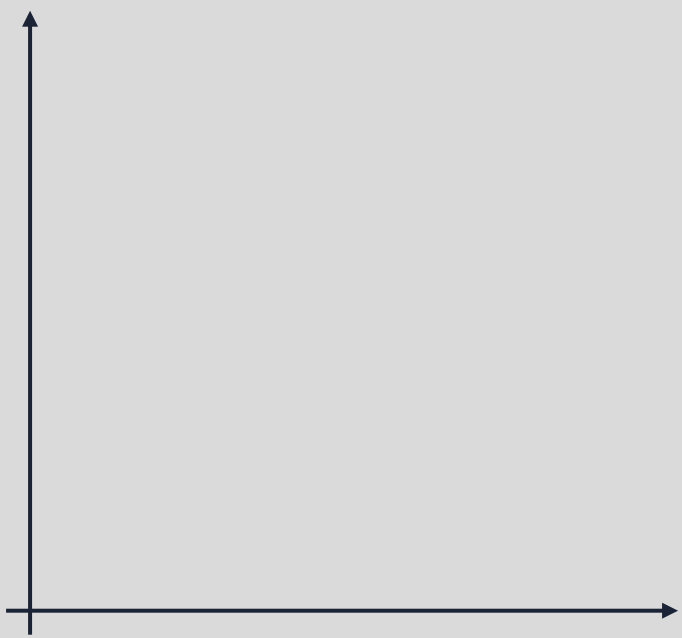
Moreover, is there any problem that market failures do not cover? In other words, what kind of failures exist in our society, stemmed for the market system.

Since we already discussed the market power and how to measure it in Chapter 5, we are going to start with externalities.

(1) Definition

Definition 7.1

Externalities *is the cost or benefit that affects a party who did not choose to incur that cost or benefit. Externalities often occur when a product or service's price equilibrium cannot reflect the true costs and benefits of that product or service.*

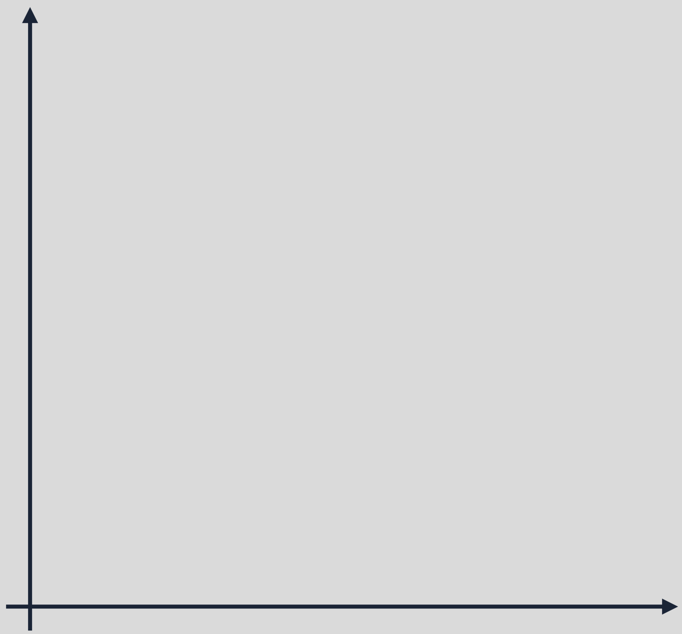


First of all, if a market is perfectly competitive, and there is no external effect, demand and supply can represent marginal social benefit (MSB) and marginal social cost (MSC) respectively.

When private benefit (cost) is not equivalent to social benefit (cost), there exist an externality.

(2) Negative externalities

Negative externalities: a negative effect or cost incurred to a third-party irrelevant to a trade. The cost can be generated through either production or consumption process.



Draw some examples and illustrate deadweight loss in the graph.

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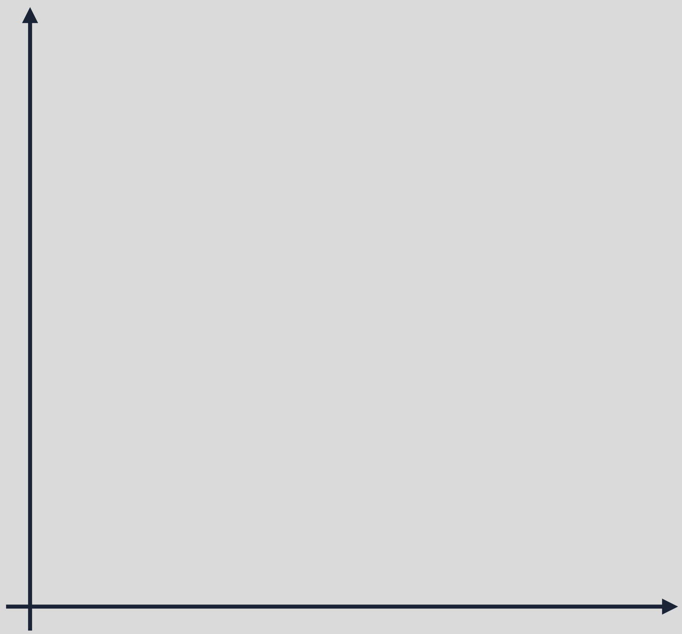
(3) Positive externalities

Positive externalities: a “fringe” benefit incurred to a third-party, again irrelevant to a trade. The benefit can be generated through either production or consumption process.



Draw some examples and illustrate deadweight loss in the graph.

(4) Remedial measures

How can we tackle these externalities, both negative and positive?

(1) Definition

Definition 7.2

Public goods *is a product that is both non-excludable and non-rivalrous, that individuals cannot be excluded from use or could be enjoyed without paying for it, and where use by one individual does not reduce availability to others or the goods can be consumed simultaneously by more than one person.*

To depict a clearer picture, excludability and rivalry in consumption must ne defined.

Excludability is a characteristic of a product or service whether it can be excluded for those who pay for it.

Rivalry in consumption is also another characteristic that defines if a product or service can be simultaneously consumed by more than one person, or strictly speaking consumption does not induce marginal cost.

(2) Examples

If we divide types of goods by these characteristics, it can be sorted into 2 x 2 table on the below.

		Rivalrous	
		✓	✗
Excludable	✓	**Private goods** › Ice-cream › Clothes › Congested toll	**Club goods** › Local facilities › Netflix › Non-congested toll
	✗	**Common resources** › Fishing › Lumbering › Congested road	**Public Goods** › Lighthouse › Public defense › Non-congested road

(3) Problems and remedial measures

› No private firm would invest in any public good since they cannot return any profit.

› Consumers can enjoy utilizing public goods without paying a price, which we call them as **‘Free Rider’**.

So how can we tackle this problem?

(1) Definition

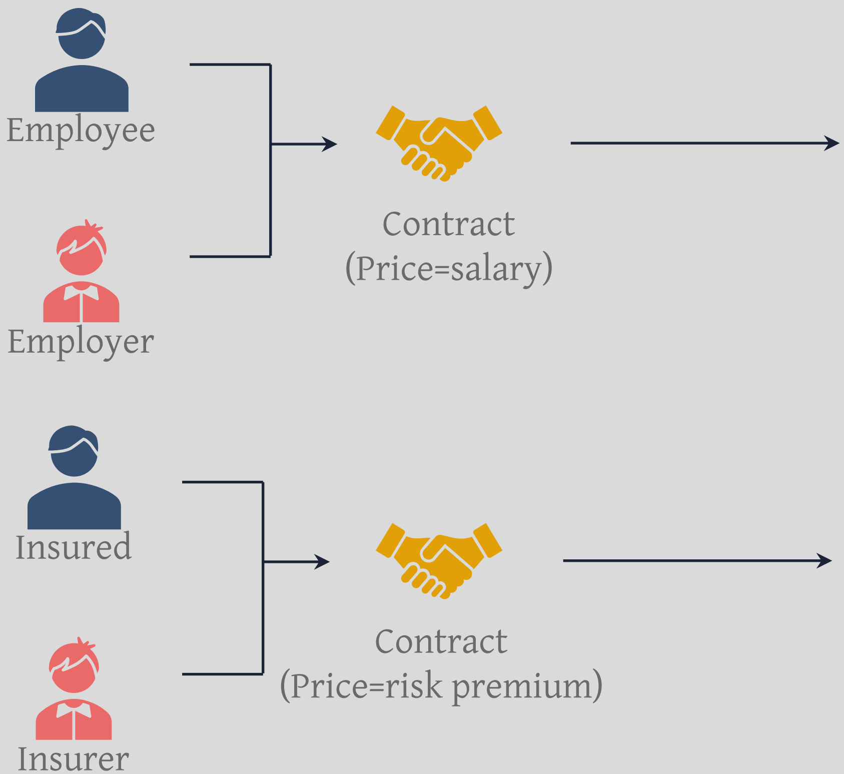
Definition 7.3

Asymmetric information *deals with a situation when making decisions in transactions where one party has more or better information than the other. This asymmetry creates an imbalance of power in a transaction.*

Two basic problems arise with asymmetric information which are **moral hazard** and **adverse selection.**

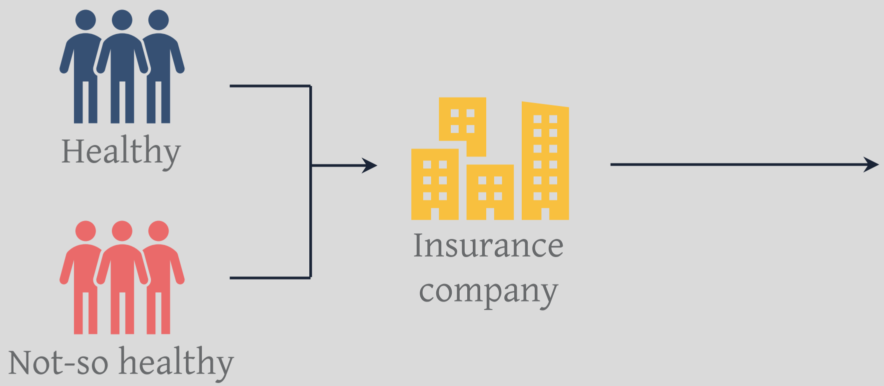
(2) Moral Hazard

Moral Hazard occurs when someone increases their exposure to risk when insured, especially when a person takes more risks because someone else bears the cost of those risks. Furthermore, it can be a situation when behavior changes after a contract is signed since another party cannot keeps monitoring.



(3) Adverse Selection

Adverse Selection is when traders with better private information about the quality of a product selectively participate in trades which benefit them the most, at the expense of the other trader.



(4) Remedial measures

What kind of measures can remedy the asymmetric information?

Concluding remarks