

Subject: Microeconomic Theory I

Instructor Name: Muhammad Nouman Shafiq

Semester: Fall

Class: BS 4th

Session: 2018-22

Lecture Notes: 1st

Introduction

What is Economy?

The state of a country or region in terms of the production and consumption of goods and services and the supply of money

How Economy Work

The economy is the movement of goods and services throughout the many different entities that want to sell and buy them. This is called supply and demand. The actors of supply and demand are called rational actors because economists think that people transact goods and services in a rational manner.

Basic Problems of Economy and how these problems can be solved

Several **fundamental** types of **economic** systems exist to answer **the three** questions of what, how, and for whom to produce: traditional, command, market, and mixed.

Scope of microeconomics and area of its concern

Economics is divided into two main branches: microeconomics and macroeconomics. Microeconomics deals with the behavior of individual economic units. These units include consumers, workers, investors, owners of land, business firms—in fact, any individual or entity that plays a role in the functioning of our economy.

Microeconomics explains how and why these units make economic decisions. For example, it explains how consumers make purchasing decisions and how their choices are affected by changing prices and incomes. It also explains how firms decide how many workers to hire and how workers decide where to work and how much work to do.

Themes of microeconomics, why we study microeconomics

Much of microeconomics is about limits—the limited incomes that consumers can spend on goods and services, the limited budgets and technical know-how that firms can use to produce things, and the limited number of hours in a week that workers can allocate to labor or leisure. But microeconomics is also about ways to make the most of these limits. More precisely, it is about the allocation of scarce resources. For example, microeconomics explains how consumers can best allocate their limited incomes to the various goods and services available for purchase. It explains how workers can best allocate their time to labor instead of leisure, or to one job instead of another. And it explains how firms can best allocate limited financial resources to hiring additional workers versus buying new machinery, and to producing one set of products versus another.

Microeconomic

Microeconomics is a branch of economics that studies the behaviour of individuals and firms in making decisions regarding the allocation of scarce resources and the interactions among these individuals and firms.

What are factors of productions?

Factors of production are the inputs needed for the creation of a good or service. The factors of production include land, labor, entrepreneurship, and capital.

Land

In its simplest form, land is the physical place where economic activity takes place land also includes all the natural resources found on it.

Labor

It seems obvious, but things can't be produced unless someone makes them. Labor represents all of the people that are available to transform resources into goods or services that can be purchased.

Capital

capital can be the money that companies use to buy resources, as well as the physical assets companies use when producing goods or services, such as factories and machinery.

Entrepreneurship as a Factor

Entrepreneurship is the secret sauce that combines all the other factors of production into a product or service for the consumer market.

Cost Minimization

Cost minimization is a basic rule used by producers to determine what mix of labor and capital produces output at the lowest cost. In other words, what the most cost-effective method of delivering goods and services would be while maintaining a desired level of quality.

Cost Minimization Problem

The only decision the firm controls at this point is how much of inputs it uses.

So the most efficient way in this context refers to what is the "right" combination of (L,K) so achieve q_0 .

The right combination is the one that minimize the cost of producing the given target level of output q_0 .

Suppose wages are denoted by w and rental price of capital is denoted by r .

So the firm wants to:

minimize: $\text{cost} = wL + rK$, subject to: $f(L,K) = q_0$

Profit Maximization

The Profit Maximization Rule states that if a firm chooses to maximize its profits, it must choose that level of output where Marginal Cost (MC) is equal to Marginal Revenue (MR) and the Marginal Cost curve is rising. In other words, it must produce at a level where $MC = MR$.

Profit Maximization Formula

The profit maximization rule formula is

$$MC = MR$$

Marginal Cost is the increase in cost by producing one more unit of the good.

Marginal Revenue is the change in total revenue as a result of changing the rate of sales by one unit. Marginal Revenue is also the slope of Total Revenue.

$$\text{Profit} = \text{Total Revenue} - \text{Total Costs}$$

Therefore, profit maximization occurs at the most significant gap or the biggest difference between the total revenue and the total cost.

Why is the output chosen at $MC = MR$?

Profit Maximization Graph

At A, $\text{Marginal Cost} < \text{Marginal Revenue}$, then for each additional unit produced, revenue will be higher than the cost so that you will generate more.

At B, $\text{Marginal Cost} > \text{Marginal Revenue}$, then for each extra unit produced, the cost will be higher than revenue so that you will create less.

Thus, optimal quantity produced should be at $MC = MR$

Application of Marginal Cost = Marginal Revenue

The $MC = MR$ rule is quite versatile so that firms can apply the rule to many other decisions.

For example, you can apply it to hours of operation. You decide to stay open as long as the added revenue from the additional hour exceeds the cost of remaining open another hour.

Or it can be applied to advertising. You should increase the number of times you run your TV commercial as long as the added revenue from running it one more time outweighs the added cost of running it one more time.

Books

1. Chapter 1 from Pindyck and Rubinfeld with Mehta (2005), Microeconomics- latest available Edition in market.
2. Chapter 2 from D.N Dwivedi (2016), Microeconomics Theory and Application-- latest available Edition in market.