Chapter 3: Core Economic Concepts (English)

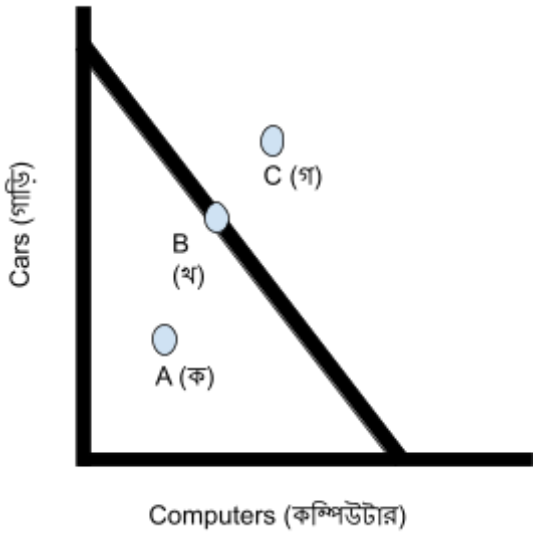
Section 1.1: Opportunity Cost

Opportunity cost, as stated in economics, refers to the expected benefits an individual, an investor or a company has to forego when any one alternative course of action is chosen over the other. Since all resources (time, money, people, etc.) have multiple potential applications, any course of action implies sacrifice. For example, if a firm decides to set aside resources for the design and development of a product, the opportunity cost of that same resource is the company's earnings which could have been made by undertaking that investment in the marketing. For a person, devoting two hours of time to watching a film, comes at an opportunity cost of two hours, which could have been used for reading, working or learning a new skill.

So this idea is helpful in appreciating the true costs of decisions made in the most optimal manner as not only in terms of cash spent or resources expended but what was given up in the process. It is especially important in the personal investing context in evaluating the investment opportunities. An investor has to take into account the other securities which he is not investing into, once he commits to a particular investment. This helps them in shaping their business strategies because they are forced to select between several profitable projects and in turn, focus on the one with the most net profit. Therefore, the understanding of the concepts of opportunity cost is very important for decision making which will yield the greatest possible slice of returns.

Section 1.2: Production Possibilities Frontier / Curve

The PPF or Production Possibilities Frontier is also referred to as a graph showing the production potential of an economy or an economy's production capacity. PPF provides choices in terms of outputs of a set number of goods.



For example, PPF would show the number of computers a country is able to produce while at the same time knowing that if it is to produce cars, the number of cars that would be produced under that set output level of goods. The curve also indicates and helps us comprehend the area of production expansion, and opportunities cost.

As long as the country lies on the PPF curve (Point A), the optimal use of all resources occurs: if one equal good is produced in higher amounts then the output of another enjoys a depressed status quota because resources will have to be transferred to another. If an economy lies below the PPF (Point B) that means that not all the resources are being used effectively and more production can be generated, this is usually caused by high unemployment or factories functioning below capacity. And if the point lies beyond the PPF, that is simply unattainable, as we don't have enough resources to produce at the level.

The PPF curve can shift outwards though it is not stationary or fixed. Advancements in Labor or Technology are the main causes of why shifts in the PPF occur even when an economy tries to maximize its output. This curve provides in depth visual aid on how and why opportunity cost comes into the picture while aiming to maximize economic potential through growth or initiation of new technological adventures.

Section 1.3: Marginal Analysis

Marginal analysis is a cost-benefit assessment that is mainly concerned with the ‘next measure’. It is utilized in economic choices to establish the desired production or consumption level of certain goods or services. In a nutshell, it outlines the additional benefit of doing an activity against the additional cost incurred in doing such an activity. That’s why, for Marginal cost equals marginal revenue businesses including bakeries determine the quantity of units to be made and when to stop until the profit is no longer worth the incurred cost.

Economics including this concept is also applicable in people’s daily life including budgeting and expenditure purposes. For instance, let us consider a cookie-specialized bakery. The particular bakery has to determine the daily quantity of cookies to be produced. Since other aspects such as overtime wages and more power are service charges, these have the potential to push the price of each cookie higher than the actual ingredients that were put to use in making the cookie. Revenue prices for every batch produced are way higher than the actual cost needed to bake it, and at the point where the revenue and the cost meet, that’s the point the producer has reached to produce a subsequent batch of cookies.

The first 100 batches consume $2 in the form of ingredients, utilities, and labor as expenses, while one batch is sold at a rate of $5 resulting in a total profit of $3 in the simplest of cases. It is plausible for the bakery to be producing 101 batches, however, they might incur overtime wages and expenses that justifiably estimate the cost to reach $3.50. Taking into account the previously established figure, if moving forward the batch is resold for a price of $5, taking away $3.50 in wage payments would leave them with an additional income of $1.50. The only question that lingers – or rather becomes the basis of their strategy, is just how far can they go in producing additional batches, in other words – how far can costs be in absolute value before selling any additional production would peg either them at breaking even or making a loss.

In practice, marginal analysis helps in achieving maximum efficiency within given constraints, ensuring that resources are used most effectively. Its umbrella is not limited to economics only, it is also widespread among such areas In environmental policy, for instance, it can be used to evaluate the

costs of extra pollution controls against their benefits to industry. Therefore, this is a very important concept to understand.

Section 1.4: Fun Facts

- Did you know the first used by Austrian economist Friedrich von Wieser, who coined the term "alternative cost" to describe the cost of foregone alternatives when a particular decision is made. This foundational concept has since become crucial in both economics and everyday decision-making.

- Did you know that the PPF curve is used in video games to teach strategy? Games like "Civilization" use a similar concept to the Production Possibilities Frontier to help players decide between different development paths, such as investing in technology or building armies, mirroring real-life economic trade-offs.

- Did you know that marginal analysis is a favorite in the sports world? Coaches and sports analysts often use a form of marginal analysis to decide on player line-ups, game strategies, and during drafts, where the benefits of one player are weighed against the potential cost of not selecting another.

- Did you know that some of the earliest examples of marginal analysis come from medieval farmers? They would use basic versions of this economic principle to decide how much land to cultivate based on the expected yield versus the effort and resources required.