Module 3
Neoclassical Economic Theories

(Lectures 16, 17, 18, 19, 20, 21, 22, 23, 24, 25 and 26)

Topics

3.1 The Marginalist Revolution

3.1.1 Weakness of Jevons, Menger and Walras

3.2 The Marginalist Revolution II

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Module 3

Lecture 16

Topics

3.1 The Marginalist Revolution

3.1.1 Weakness of Jevons, Menger and Walras

3.1 The Marginalist Revolution

- Ricardo freed the classical economics from contextual analysis and made it abstract. The next big jump in economic theory came in the form of *Marginal Revolution.*

- There were some methodological and theoretical issues with the classical system which could not be fully resolved by the labor theory of value. From the second half of nineteenth century, people started critiquing the labor theory of value and started forwarding theories which are based on marginal principles.

- Samuel Mountifort Long field's Lectures on Political Economy (1834), W.F. Lloyd's Lecture of the Notion of Value (1837), Herman Heinrich Gossen's Development of the Laws of Human Relationships (1854) and Richard Jennings's Natural Elements of Political Economy (1854) showed some understandings of the usefulness of the concept of marginal analysis.

- However, the idea of using marginal analysis was full blown into a rigorous theory by first and second generations of marginalists whose works were published second half of the nineteenth century and the first half of the twentieth century.

- The first generations of marginalists were Jevons, Menger and Walras whose books were published between 1871 and 1874.

- Working independently they came up with theories which were quite similar in the scope of analysis.

- All these first generation marginalists were not satisfied with the classical labor theory of value and how it explained determination of prices.

- The classical theorists proposed a supply side theory of price where prices are determined by factors of production. The marginalists inverted the price theory and tried to come with a theory where prices of goods are determined by how much utility they yield. However, according to the marginalists it is not the total or average utility that matters but the marginal utility. The conceptualization of marginal utility helped solving the diamond water paradox.

- According to marginalists, price is equated with the marginal utility of the last unit consumed. Because the marginal utility of the last unit of water consumed is much lower than the marginal utility of the last unit of diamond consumed.

- Menger used a table to elaborate on the concept of marginal utility. The Roman numerals represents the type of commodity, the lower the number the higher is the necessity of the good. For example, good I can be some necessary good such as water and good IV can be some luxury good such as diamond. good III can be something in between such as electricity.

- Suppose the consumer has already consumed four units of water and no diamond yet. One more unit of water would give him 1 unit of utility while 1 more (i.e. the first) unit of diamond consumption would give him/her 2 units of utility.

- The total utility from consuming 5 units of water (15 units of utility) would be more than the total utility from consuming 1 unit of diamond (2 units). But according to the marginalists what matters in making the consumption is the utility one gets at the margin. This explains the diamond-water paradox { why diamonds are more costly even though water has much higher use value.

	Classes of Commodities				
	I	II	III	IV	V
	5	4	3	2	1
	4	3	2	1	0
Marginal Utility	3	2	1	0	
	2	1	0		
	1	0			
	0				

Table 1: Menger's Table

- What is utility?

- Loosely speaking utility means satisfaction which one gets by consuming commodities. But none of the early marginalists clearly explained what precisely the word utility means. Menger even did not use the word utility.

- Nevertheless, all of them assumed the rule of diminishing marginal utility. Jevons and Walras used mathematical techniques to derive their results, while Menger used verbal arguments to reach at a similar conclusion. The rule for consumption should be as follows:

$$\frac{MU_A}{P_A} = \frac{MU_B}{P_B} = \frac{MU_C}{P_C} \qquad\qquad (1)$$

- Condition 1 shows that one rupee spent on different goods must yield same marginal utility in order to reach equilibrium. Let us elaborate this condition. By spending Rs. P_i one gets one unit of good *I* which yields marginal utility MU_i. Hence, spending Re.1 on good *i* one gets marginal utility of MU_i/P_i. This ratio should be same for all *i* s. If for example, $MU_A/P_A < MU_B/P_B$, the consumer will spend more on good B. As he consumes more of good B, because of diminishing marginal utility principle, MU_B will go down till the ratios become equal.

- Even though the first generation marginalists did talk about utility, none of them looked into the properties of utility function. Walras and Jevons however mentioned utility function of the additive form:
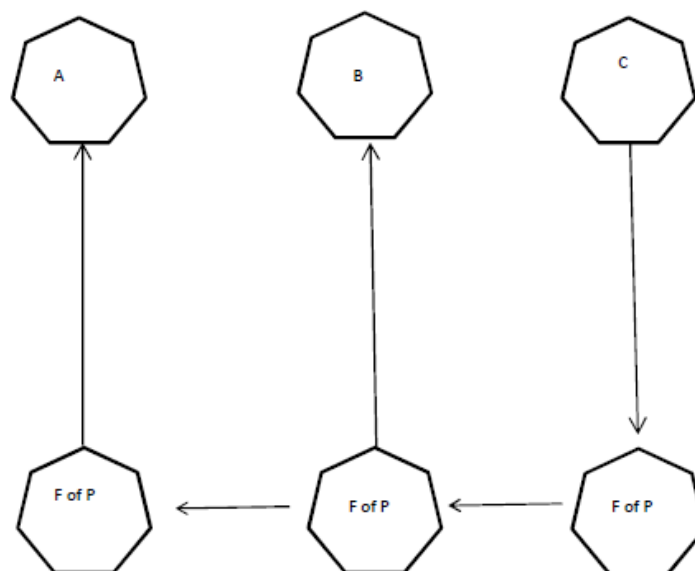
$$U = f^1(X_A) + f^2(X_B) + f^3(X_c) + \cdots \qquad\qquad (2)$$

- The second generation marginalists from the Austrian school include Wieser (1851-1926) and Bohm-Bawerk (1851-1914). Both them were of same age and the students of Menger. They are often referred to as the second generation Austrians.

- Wieser maintained that marginal utility in turn determines the prices of the factors of production.

- He would illustrate the point using an example of Apple(A), Banana(B) and Carrot (C).

- Assume that the quantities of the goods are consumed in such a way that $MU_A > MU_B > MU_c$

- Wieser mentioned that C is the marginal good. A and B are intra marginal.

- The Austrians school asserted that the marginal utility of C determines the price of C. Then the price of C determines the price for factor of production used for the production of C. Given that the factor markets are competitive this would determine the factor prices for A and B. This in turn will determine the prices of A and B. The next diagram explains the mechanism.

3.1.1 Weakness of Jevons, Menger and Walras

- They applied marginal analysis almost exclusively to the theory of demand and almost ignored the theory of supply.

- Assumed that resource allocation problem was one of allocating a fixed supply among alternative user.

- Hence no explanation of the forces that determined the prices of factors of production when the supply of these factors was not fixed, no explanation of the forces determining the distribution of income, no analysis of firm, no theories to explain wages, rents, profits and interest.

Figure 1: Distribution