Module 2

Lecture 7

Topics

2.4 David Ricardo I

2.4.1 Ricardo's distribution theory: land rent

2.4.2 Is rent price determining or price determined?

2.4 David Ricardo I

- David Ricardo (1772-1823), a stockbroker turned economist made significant contributions in the fields of value theory, methodology of economics, distribution theory and international trade. He began his study of economics sometimes around 1810 and published his first pamphlet in 1810. His major work, Principles of Political Economy and Taxation, was published in 1817.

- Writing after Smith, Ricardo departed significantly from Smith's methodology.

- Smith's writing was based on deductive theory presenting his argument in the context of historical and contemporary institutions.

- Ricardo departed from the contextual framework and adopted a more abstract framework representing reality with algebraic models.

- He however was concerned with the existing problems such as Corn Law and import tariff policy. But he always maintained that for devising correct policies we need to understand reality through the lenses of models.

- In the following lectures we will discuss Ricardo's contribution in the three most important areas: labor theory of value, distribution theory and macroeconomic policies.

- Ricardo's interest in the theory of distribution started because of the Corn Law controversy. The Corn Laws are the regulations which were meant to restrict the import of American corn to Britain. One group of supporters of the Corn Laws argued that Corn Law would increase the return from agriculture which in turn would increase the investment in agriculture. Another group of Supporters of Corn law such as Malthus based their arguments not on the potential investment but on the ground that abolition of the Law would cause redistribution of income from of income from landowners to capitalists and this would reduce aggregate demand as rent was consumed while profit is redistributed. Ricardo did not agree with either of these arguments and went on to show why trade restriction is detrimental for the economy.

- There are three classes of people in Ricardian model: capitalists, laborers and landlords. The capitalists hold a key role in the economy. First, they are the key players in the efficient allocation of resources as they move their capital to the area with the highest return. Second, the capitalists are instrumental in the path of growth by saving and investment. In the Ricardian model the landlords are mere parasites. In his view the supply curve of land is perfectly inelastic and landlords get return for holding land without serving any socially useful function. Classical economists in general were very critical of the landlords as they would engage in conspicuous consumption instead of saving and accumulating capital.

- The major assumptions include labor cost theory, neutral money, fixed coefficient of production, constant return in manufacturing and diminishing returns in agriculture, full employment, perfect competition, economic actors and wage fund doctrine.

- By *labor cost theory* we mean that relative prices over time are explained by changes in labor cost measured in hours.

- *Neutral money* implies that changes in money supply would not change in the relative prices.

- *Fixed coefficient of production* between labor and capital means that only one combination of labor and capital can be used to produce a given output. This means that if additional labor is employed they must be supplied with additional capital in a certain proportion to increase output.

- *Constant return in manufacturing* means that the industrial supply curve is horizontal while *diminishing return in agriculture* means that the supply curve is upward sloping in agriculture.

- *Full employment* means that no resource is involuntarily unemployed in the long run.

- *Perfect competition* implies that there are many buyers and sellers and no one has any market power.

- *Economic actor* assumption implies that individuals are rational, self-seeking individuals.

- Wages fund doctrine implies that capitalist sets a fund aside for wage payment and wage rate = wage fund/labor force.

2.4.1 Ricardo's distribution theory: land rent

- Ricardo was interested to analyze how total payment is distributed between landlords and capitalists. Hence, it was important to distinguish between rent and profit.

- He realized that rent can be analyzed from both product side and cost side. He said the rent exists because of (1) the scarcity of fertile land and (2) the law of diminishing returns.

- **Rent from product side**: Rent is the payment that equalizes the rate of profit. For understanding Ricardo's theory of rent it is critical to understand intensive and extensive margin.

    - ➢ Let us explain this using an example. Suppose there are three grades of land ranging from high to low fertility. The best fertile land produces 200 bushels of wheat when first dose of labor and capital is given to it, produces 190 bushels extra when the second dose is given and produces 180 bushels when the third dose is given. The land does not produce anymore if more than three units of land and capital is given to the land. Movement from 200 to 180 (which are nothing but the marginal productivities) is known as farming at the intensive margin.

- On the other hand, the second grade of land produces 190 units when the first dose of labor and capital and 180 bushels extra when the second dose is given. This land does not produce anything extra when more than two units are applied to the land.

	Extensive margin	→		→
Intensive margin	Units of L K	Plot A	Plot B	Plot C
↓	1	200	190	180
	2	190	180	
↓	3	180		

Table 1: Extensive margin and intensive margin

- The third grade produces 180 units of wheat with one dose and labor and capital and does not produce anything more with greater dose of labor and capital.

- Rent is the payment to the landlord that would equalize rate of profit on different grades of land.

- If three doses of labor and capital are applied to 3 plots of grade C land then total product will be 540 bushels of wheat. On the other hand, three doses of land is applied to grade A land total product would be 570. This implies that that rent is zero for the marginal grade land i.e. grade C land. Also this shows that rent for grade A land is 30 bushels.

- Similarly if one applies two doses of labor and capital on a grade B land total output is 370 while applying two units of land and capital would result in 360 bushels of wheat. This implies rent for grade B is 10 units.

- **Rent from cost side**: A dose of capital and labor sell in the market for 100. The marginal cost of producing 100th bushel of grain on grade A is$Rs\ 100\ \Delta q = 100, \Delta C = 100$
  In grade B, $MC = \frac{\Delta C}{\Delta q} = \frac{100}{90} = 1.11$

In grade C, $MC = \frac{\Delta C}{\Delta q} = \frac{100}{80} = 1.25$

- From cost slide rent is measured in money term
  $\mathrm{P} = \mathrm{Max\,MC} = 1.25$ (because it is competitive price)
- Hence Total Revenue of grade $\mathrm{A} = 270\ \mathrm{bushel} \times 1.25/\mathrm{bushel} = 337.50$

- Rent from grade $\mathrm{A} = 337.5 - 300 = 37.50$

- Rent from grade $\mathrm{B} = (1{:}25 \times 170) - 200$
  $= 212{:}50 - 200 = 12{:}50$

- Rent from grade $\mathrm{C} = (1.25\ \mathrm{X}\ 80) - 100 = 0$

2.4.2 Is rent price determining or is it price determined?

- This is a very important question that acquired a central position in the economic debates of the eighteenth and nineteenth century. This question was not merely a question of economic techniques. This has quite important political economy implication. If rent is price determining then the landlords are responsible for price hike and subsequent low economic growth. If not, then the general price movements would determine land owners income.

- The answer however depends how one looks at the problem. Ricardo was one of the first economists who could clearly analyze the answer.

- For a society as a whole land rent is not a cost of production.

- From society's point of view opportunity cost of land is zero. Any increase in demand for land would induce higher price as total land supply for the society cannot be increased.

- Hence from society's point of view entire payment for land is rent and is fixed. This is price determined and not price determining.

- Ricardo looked at rent from societal perspective. Hence for him rent is not price-determining.

- From individual's perspective
  Opportunity Cost = Revenue from an alternative use.

- Hence opportunity cost of land varies from one type of land use to another. Hence from individual perspective rent is price determining.