

Economic Returns to Land Resources

- **Introduction**
- **Nature of land rent**
- **Rent theories**
- **Use capacity and rent paying ability**
- **Other views concerning rent**
- **Significance of land rent**
- **Relationship with intensity of use**

Introduction

- **The payment for the use of real estate resources is referred to as rental payments or economic return.**
- **This return is described as the net return or surplus of total value product (tvp) above the total factor cost (tfc)**
- **This also referred to as land rent. It is a key concept in land economics. It provides the theoretical base for explaining the value we place on real estate resource and the incentive we have for their ownership.**
- **It influence the allocation between competing uses.**

Nature of Land Rent

- ❁ **The term rent is much used in every day language. It is another term, which requires careful definition in terms of land economics. It is important to distinguish between contract rent and land rent**

Contract rent

- ⦿ **This refers to the actual payments tenants pay for the use of property of others. Usually this amount is agreed between the landlord and tenant before the tenant commences to use the property. The payment of this rent is a legal contractual obligation on the tenant.**

Land Rent

- ⦿ **This represents the theoretical earnings of land resource. It may be defined as the economic return that accrues, or should accrue, to land for its use in production. It applies to combined earnings of land plus any improvements on that land.**

Economic Rent

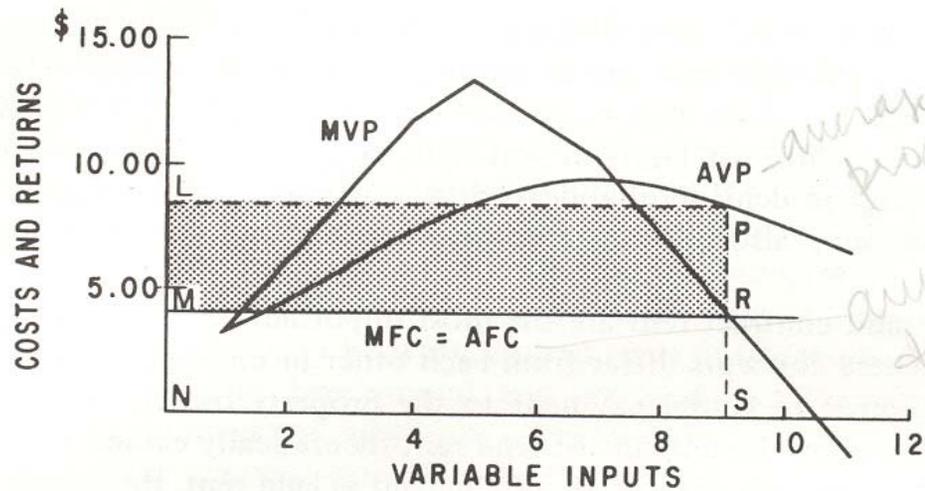
- **This had a meaning more or less synonymous with the present concept of land rent. With the refinements in economic thinking the term is now defined as the surplus of income above minimum supply price it takes to bring a factor into production. It is a short run economic surplus that a productive factor or an operator can earn because of unexpected demand and supply conditions. Over longer time periods, the supply and demand conditions affecting the factor are expected to come into balance and the economic rent disappears**

Bid Rent

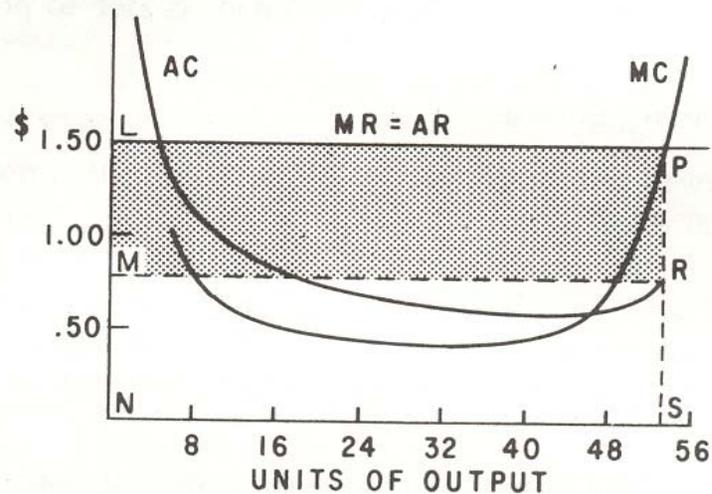
- ⦿ **This is the maximum amount someone is willing to bid for a land at various locations, representing the maximum amount that the bidder is willing to pay to obtain the land.**

Land Rent as Economic Surplus

- **Land rent = Total Value Product - Costs of Variable Inputs**



A



B

FIGURE 6-1. Use of value product and cost curve diagrams to illustrate the concept of land rent as a residual economic surplus that remains after the payment of production costs.

Rent theories

- **Ricardo's rent theory**
- **Von Thunen location theory**
- **Henry George-Progress and Poverty**
- **Marx and rent**
- **Modern theories of rent**

Ricardo's rent theory

- **Ricardo was concerned with the problem of agriculture rent.**
- **He started his analysis by assuming a new settled country with an abundance of rich fertile land, a very small proportion of which is required to be cultivated to support the actual population. He then argued that only the most fertile land would be brought into cultivation and that no payment of rent would be associated with its use. Rent arise on this land only when increases in demand justifying the bringing of less fertile lands into use.**

Ricardo's explanation of land rent

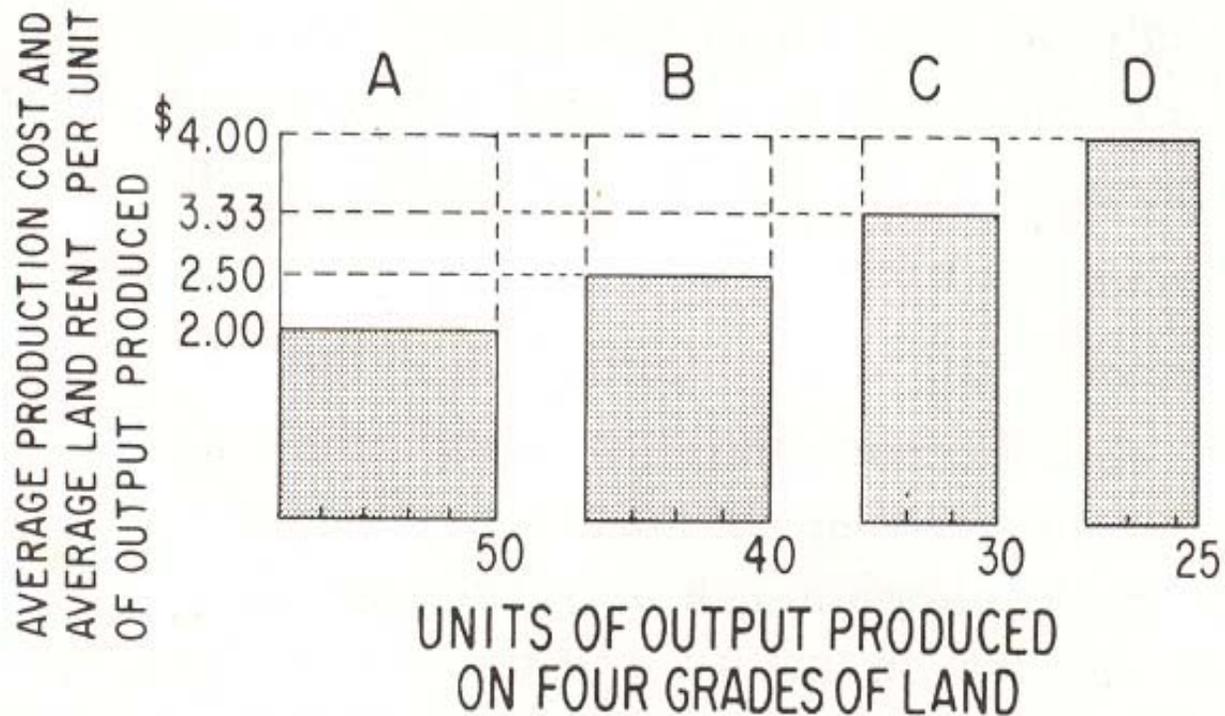


FIGURE 6-4. Ricardo's explanation of land rent.

Von Thunen location theory

- **In contrast to Ricardo's emphasis on difference in land quality, VonThunen stressed the fact that rent also arises because of differences in location. He observed that when crops produced for a central city markets are grown on lands of like fertility, the land located near the city enjoy a definite rent advantage over those located at greater distance. The extent of advantage corresponds with differences in transportation costs**

Diagram showing Von Thunen Location theory

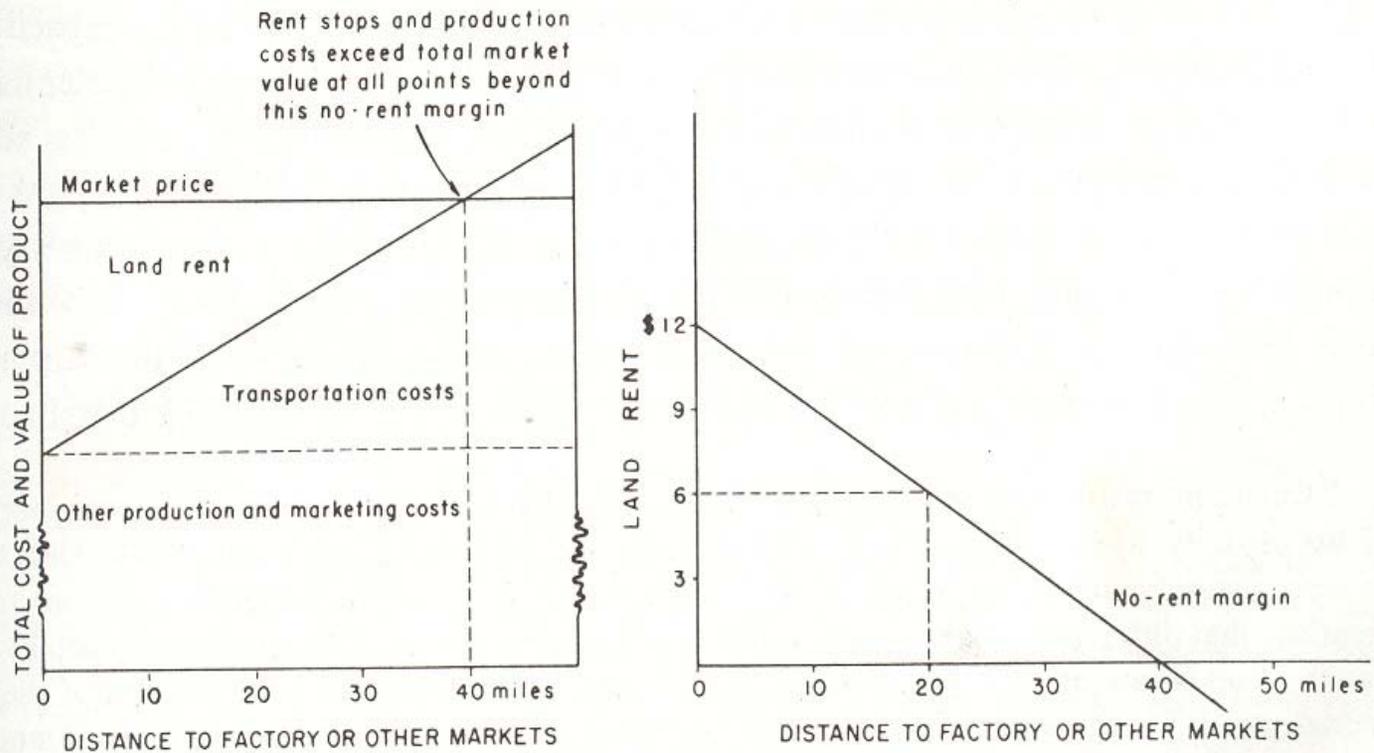


FIGURE 6-6. Effects of transportation costs associated with shipment of products from various locations to market on land rent.

Henry George Theory of Rent- Progress and Poverty

- **Introduction**
- **Nature of Rent**
- **Theory of Rent**
- **Conclusions**
- **Remedies**

Introduction

- **Henry George published Progress and Poverty in America in 1880. His ideas were adopted by many Americans and by Australians but did not find favour in Western Europe. His theories, particularly as to land are important in that much of today's legislation regarding rents and land taxes in the South Pacific are based on his ideas.**

The Nature of Rent

- **George distinguishes between interest on capital invested in land and the rent of the land itself. This is to say he postulated the concept of the rent of unimproved land. His predecessors did not so distinguish, probably because of the essential difference in land in England and the U.S.A. By 1880 land in the UK was, to all intents and purposes improved to some extent, and those improvements had long since ceased to be indistinguishable from the land itself. In America, on the other hand, much of the land was so relatively newly developed that it was possible to separate the improvements from the land.**

Nature of Rent (contd)

- **George also pointed out that it did not matter whether the owner and occupier were the same or not , rent existed.**
- **His definition of rent is that it a share in the wealth produced which the exclusive right to the use of the natural capabilities gives the owner. Land will, not yield rent until someone is willing to give labour, or the results of labour, for the privilege of using it and what anyone will give does not depend upon the capacity of the land, but upon its capacity compared with that of land that can be held for nothing**
- **He also postulated that rent is the price of monopoly arising from the reduction to individual ownership of the natural elements which human exertion can neither produce nor increase.**

Theory of Rent

- **George did not consider it necessary to discuss the theory of rent since in his view this coincided with common sense. He assumed that the accepted theory was that of Ricardo.**
- **What George did was to examine the corollaries of Ricardo's theory.**
- **He stated that the ownership of natural agent of production (land) will give the power of appropriating so much of the wealth produced by the exertion of labour and capital upon it as exceeds the return which the same application of labour and capital could secure in the least productive occupation in which they freely engage**

Theory of Rent (contd)

- Ricardo related rent to the fertility of the land, George extend the concepts to any land and this statement is related to one use of land to another. If for example the value of produce in industry falls below the value of produce in agriculture then labour and capital will be attracted to agriculture at the expense of industry until equilibrium is again reached. George argued quite logically that:

- $\text{Produce} = \text{rent} + \text{wages} + \text{interest}$

- $\text{Therefore Produce} - \text{rent} = \text{wages} + \text{interest}$

Theory of rent (contd)

- From this he deduce that wages and interest do not depend upon the produce of labour and interest but upon what is left after taking out rent, or the produce they could obtain without the the payment of rent
- Hence no matter what the increase in productive power if the increase in rent keep pace then neither wages nor interest can increase

Item	Old rent	New Rent
Gross Income	7000	7000
less rent	280	1183
interest and wages	6720	5817
less interest	3500	3500
wages	3220	2317

Theory of rent (contd)

- **Wages is considered to be the farmers remuneration, which will fluctuate according to the price of the cane. The effect of the rent review is to reduce the wages, since it is assumed in this instance that interest remains the same**

Conclusion

- ❁ **If this is the case then it follows, as George argued, that as long as property remains in private ownership, and that ownership is in the nature of monopoly, then labour would become enslaved by the landowners and wages and interest would remain low whilst rents would rise to absorb the surplus.**

Remedies

- **George, however rejected the idea of expropriation of private property as being the answer, but instead advanced the idea of expropriating the rent, by means of a tax upon the rent.**

Marx and Rent

- **Marx deals with rent in Capital Book 111. In general he agrees with Ricardo and, for much of his dissertation he used the Ricardian model of soil fertility and corn as the base of his arguments. Marx defines rent as differential rent.**
- **Underlying his argument is an assumption that all land is held on lease from a small, and possibly monopolistic group of landowners. He does not consider the situation in the colonies, but that is somewhat secondary to his main line of thought.**
- **His main contribution to the development of the theory of rent is analysis of absolute rent. He develops his argument that the poorest land will attract rent even though the cost of production equals production since the landowner will not release his land unless rent is paid.**

Marx and Rent (contd)

- **“If the worst soil cannot be cultivated- although its cultivation would yield the price of production- until it produces something in excess of the price of production, rent, then landed property is the creative cause of the rise in price. Landed property itself has created rent.”**
- **In this respect Marx logically argues that rent caused the the price of corn to rise.**
- **He goes on to explain even though a farmer may be paying contract rent that may not be the land rent since it may be paid out of the farmers profit or the wages of the labour. This argument he supported by referring to the depressed state of agricultural wages at that time**
- **But land in UK was brought in production of corn by change of use- it previously needed rent for old use.**

Marx and Rent (contd)

- **If then Marx argument that landed property caused rent is correct and that rent raised the price of the produce, how can this be avoided?**
- **If the price of the product equals the cost of production on the poorest land then there must be a surplus on the better land. But farmer A will not sell his product for the cost of production. George argues that the rent should be taxed, Marx expropriates the land. Either way surplus still exists. If the state takes produce at cost state takes rent.**
- **If the price is subsidized rent still exists.**

Modern Concepts of Rent

- **The modern definition of rent**
- **Agricultural rents**
- **Urban rents**

The modern definition of rent

- **The classical economists identified land rent as surplus, is the difference between the cost of production and the price of the produce. Most used model based on the fertility of land and took into account one influencing factor only.**
- **Modern land economists view land rent as a residual surplus i.e. that portion of the total value product remaining after the total factor costs are deducted.**
- **Land rent is used as a tool of analysis**
- **Furthermore agricultural land rents and urban land rents are distinguished, since they arise through different processes.**

Agricultural rents

- **Rent of agricultural land are determined from the demand for produce and realized in the sale of output.**
- **In this case rent is directly related to the produce**
- **Factors which influence rent are;**
- **fertility-this can be increased by the input of capital, and may influence the type of produce.**
- **Location-primarily related to the market**
- **market-the essence of demand**
- **externalities**

Urban rents

- **In urban areas the demand for land is the demand for space**
- **Space is produced by the production of buildings- a single as opposed to a recurrent operation. Whilst the use of space can be varied, there are severe limitations on such change without the input of substantial capital, which is again a single operation.**
- **Such a development is long term, and the developer will seek the most economical scheme, in the long term.**
- **Rent is realized in the use of space created by developments.**
- **Thus rent arises directly from the demand for goods and services, which create demand for space in urban areas**
- **The principal factor affecting rent in urban areas is location**

Urban rents (contd)

- **It is possible, particularly in urban areas to capitalise land rent in order to use it as a decision making tool**
- **The decision to develop land for a particular function is based on two stage process:**
- **Initially the demand for good and services must be identified, and quantified- this will determine the demand for space and the level of rent.**
- **Secondly the expected land rent can be capitalise and regarded as Total Value Product of the building. The total factor cost of producing the building is deducted leaving a residue which is capitalise land rent pertaining to the allocation of the land for that particular use**

Land Use Capacity and Rent Paying Ability

- **Differences in rent paying capacity are often explained in terms of variation in either soil fertility or location.**
- **By themselves, neither of these factors provides completely satisfactory explanation of the ability of land to pay rent; and even when the two are considered together, they can leave significant aspects of rent paying unexplained**

contd

- **land rent levels can reflect levels of property improvement or amenity considerations such as a desirable neighbourhood, a pleasing view, ready access to water supply or nearness to educational and recreational facilities.**
- **Convenience of access and possible savings in time distance of travel can also influence the rent potential of various sites.**

contd

- ❁ **The cumulative impact of the various factors including soil fertility that affect land quality and of the items including location that affect accessibility is measured by the concept of land use capacity.**
- ❁ **This concept has particular value because it permits relatively complete comparison of the income producing potential of various sites.**

contd

- **Those areas with highest use use- capacity ordinarily have the highest value, the greatest production potential, and yield the most rent.**
- **The relationship between land use- capacity and the and the appearance of land rent is shown below.**

Land Rent as a Return on Investment

- ⊗ **Most landowners, investors tend to regard land rent as a return on investment rather than as the economic return to land resources as factor of production. To such operators, land resources a type of capital and land rent is viewed as a return on the capital investment made in land resources by way of time, effort and money.**
- ⊗ **Most tenants see their contract payment as an operating cost not as economic surplus due to land owners as a result of the part time income producing advantages of the property.**
- ⊗ **Owners tend to think of their contract rental returns as return on capital invested and compare these returns with those they could receive in alternative investments.**

Land Rent as Unearned increment

- **We have so far regarded land rent as economic surplus over and above that necessary to keep the land in production. It is to conclude from this that land rent is an unearned increment for which the land owner does nothing but receives income because of his monopoly. However, in the economic sense other owners holding similar property under similar property rights prevent the existence of the monopoly. Frequently a landowner has some advantage over a particular individuals through perhaps by virtue of the location or quality of his land.**

contd

- ☉ **Rent can be regarded as an unearned increment any time it arises from the mere holding of land e.g. when a landowner enjoys an increase in his land rent through the action of others in the economy . Unearned increments like this are very difficult to identify and are complicated in the case of land by the fact owners tend to improve their properties in which case the landowner has a claim to part of the increase in rent as a return on his expenditure.**

Significance of land Rent

- **Any rental arrangement must include an agreement between landlord and tenant as to the amount of rent to be paid for the use of property. As mentioned above tenants tend to view rental payments as a fixed factor of production costs rather than an economic surplus accruing to land. As such they see it as an income or profit to the landlord. If the tenant pays a contract rent which is less than the land rent then he benefits and pockets the difference. However, he view this as part of his own profit or income.**

contd

- **Under perfect conditions both landlord and tenant will have prior knowledge and will both know the amount of the land attributable to the piece of land in question. In these circumstances the landlord would try to demand as contract rent the full rent plus any additional rent get. The tenant, on the other hand, knows the amount of actual land rent and if he agrees to pay a higher amount, the difference will have to be paid from the returns that should normally be paid to his labour and management.**

contd

- **However, in practice this ideal situation seldom exists. Often landlords and tenants do have a good idea of the fair economic return that should be paid for the land in question and in such circumstances the contract rent agreed will often approximate the amount required to cover land rent (at the time of agreement). Much depends on the relative bargaining position of the two groups though and often this will depend on the conditions of supply and demand.**

contd

- **Landlords often raise their rents in periods of increasing demand. Competition between tenants in such periods may help raise through the bidding process. At times like this landlords enjoy a superior bargaining position.**
- **In periods when demand is low relative to supply, landlords may have to offer rent concessions and other incentives to try and obtain tenants.**
- **The rental bargaining process in Fiji is restricted in many areas by statutory provisions**

Relation to Land Value

- **The productive life of various land resources will differ. Some such farms can be regarded as having almost unlimited productive lives while others such as buildings have limited lives. However, in both cases it is possible to foresee a trend of land rents in the future. As well as seeing the land rent attributable to the present use of the land, owners can often visualise the land rent that could accrue from some different use of the land in the future.**

Relation to Land Value (contd)

- **The future land use may be a “higher” use, the rent from which would be greater than at present. Owners are usually fairly optimistic about the future but whether the future land rent actually lives up to their expectations is usually uncertain. Knowledge of the future highly imperfect and owners or prospective buyers rely on their skill and experience market trends when estimating future land rents.**

Relation to Land Values (contd)

- **Theoretically, the current market value of a land resource is equal to the present value of the expected future land rents. (You should recognise this as the Capitalisation method of valuation). Determination of current market value therefore calls for an estimate of the expected annual levels of the present value of future rentals returns.**
- **In the hands of a good valuer this method can be modified to take account of various factors such as productive life of a resource and anticipated variations in annual income.**

Relation to Land Values (contd)

- **Attention must always be given to the impact of changing supply and demand conditions and as to with whom the advantage lies in rent bargaining (i.e. the landlord or the tenant).**
- **The demand for the value of land depends upon its use capacity to earn a net reward over and above the cost of the factors of production used in conjunction with the land. Theoretically high land values perform a useful function in ensuring that scarce land is put to its “highest and best use”.**

Effects on Land Use Allocation

- **Generally areas of high use capacity usually produce high land rents. Those uses which produce the highest land rents are able to compete for and claim areas of highest use capacity. Uses having lower rent producing capacity find it impossible to compete with successful with more productive uses for these areas and consequently are pushed to the outskirts (say of a town. At any one location some use can always return a higher land rent than any alternative use.**

Effects on Land Use Allocation (contd)

- **The concept of land rent can be used to explain the competition between land uses and the resulting allocation of land resources between uses. We will consider urban land then rural land.**
- **Urban land uses- Use capacity of urban land and hence its ability to earn land rent is influenced most by the location of land. “Quality” as measured by fertility is obviously of no relevance.**

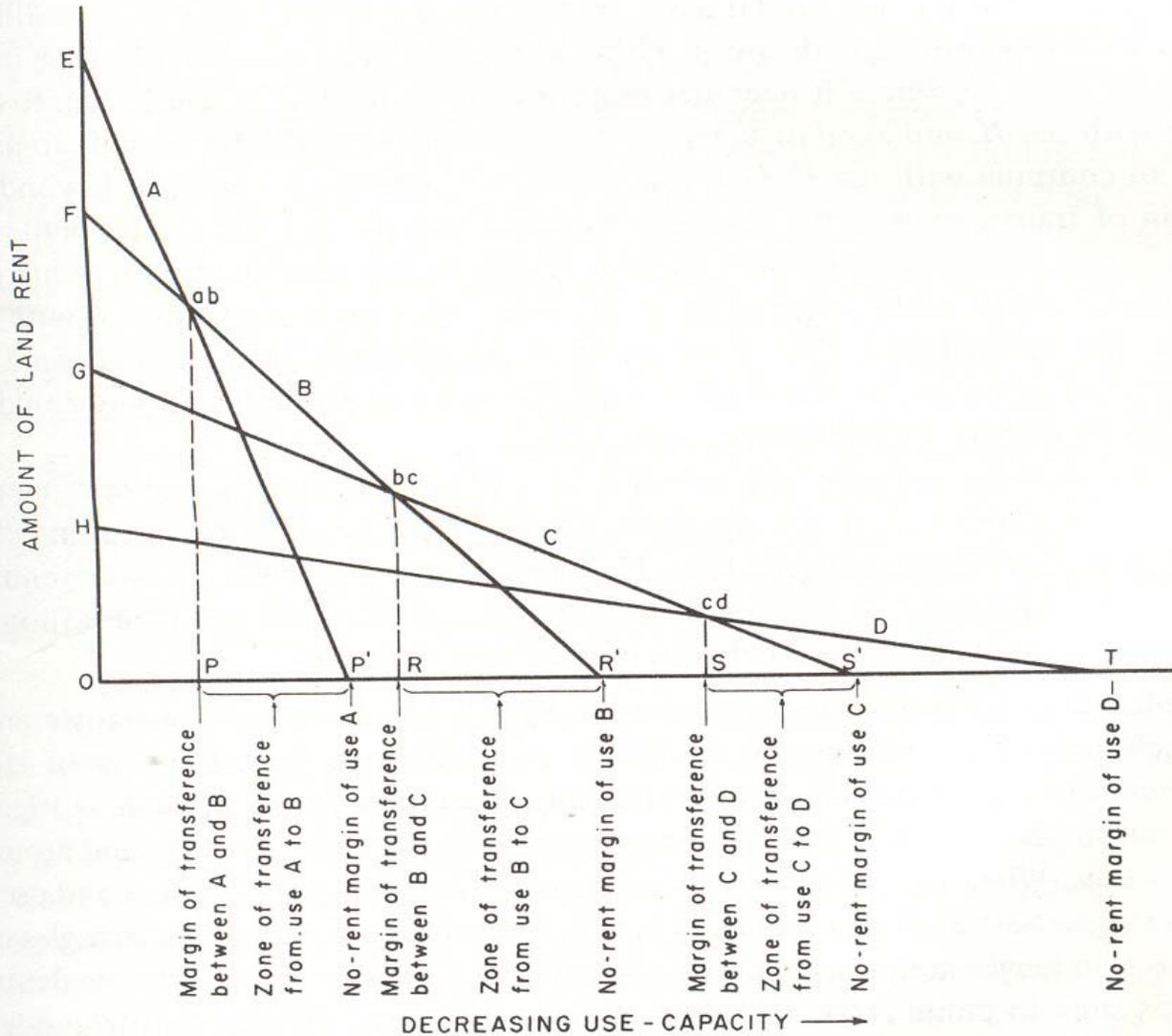


FIGURE 6-11. Illustration of relationship between land rent and allocation of land resources between competing uses.

Urban land uses (contd)

- **However the quality of urban land uses can be thought of in terms of its “accessibility”(or nearness). Accessibility will affect the productive capacity or the ability of land in urban areas to produce a net return. (Again accessibility is a function of the location of land within the urban setting i.e. in relation to the urban structure of transport networks,etc)**
- **The most accessible land i.e. that land which has the greatest capacity to produce a net return tend to be located in the city or town centre. Land in the centre is very limited in supply and is suitable for a great variety of uses. There is therefore strong competition amongst potential users to gain control of this land. How much potential users will be prepared to pay depends on his estimation of the future returns from the land. The person who anticipates his use to be most profitable will therefore be prepared to pay the highest price.**

Urban land uses (contd)

- Assuming that land will go to the highest bidder, the price mechanism will therefore ensure that the land goes to the most profitable uses (i.e. tends towards its highest and best use).
- Moving out from the centre the supply of land increases but at the same time land is generally less accessible the further it is from the city centre. As mentioned above the use capacity of and depends on accessibility. Less accessible land therefore has lower use capacity. Again there will be competition among potential users and the price mechanism ensure that land goes to the highest bidder. There will be pockets of great accessibility at major road junctions for example, and the use capacity will be greater at such locations. Competitions will therefore be stronger and such land will tend to higher uses.

Urban Land Uses (contd)

- So the urban pattern (very generally) tends to be with the most profitable uses such as commercial uses taking up the most accessible land, followed by apartment type luxury residential uses, industrial use, lower density residential and recreation space, with pockets of secondary commercial activities at major junctions etc. where accessibility is greater.

Rural Land

- **Use capacity and therefore rent capacity of rural land is influenced by aspects of both location and quality. Location from transport angle i.e. distance from and accessibility to, the market and by the quality of land in terms of fertility and ease of management. Both factors affect the ability of land to produce a net return over the full production costs.**
- **Again land will tend to be used for the type of production in which it will gain the highest return and competition between potential users will ensure that the land is put to its highest and best use.**

Application of the margin-of-transference approach

- **The margin-of-transference approach provides a meaningful technique for explaining the allocation of land areas between uses with different rent-paying capacities.**

Relationship between Land Rent and Intensity of Uses

- Land rents are often correlated with relative intensity with which land is used. In practice, however, these two concepts are quite different. Land rent represents the economic return land receives for its use in production, and intensity of use refers to the relative amounts of human and capital resources used in association with a given unit of land resources. These two concepts parallel each other because intensive use practices are often associated with high land rents; but it would be a mistake to assume that this situation always holds. Intensive use practices can be used to overcome the inherent deficiencies of low rent sites. Business people with poorly located sites sometimes use costly advertising programs to attract customers to their places of business. Farmers with soil of low natural fertility often use large inputs of fertilizer to increase the productivity of their

Land Rent and Intensity of Land Uses (contd)

- **In similar fashion, peasant operators and workers in cottage industries often find that lavish inputs of family labour are needed if they to eke out of livelihood from their limited resources.**
- **Similarly, the fact that a site commands a high land rent does not necessarily mean that it is subject to intensive use. Low rent housing facilities are usually subject to more intensive human use than high rent luxury apartments. Low rent commercial and industrial sites are sometimes used just as intensively as high rent locations found in downtown areas. And small family farms in low rent areas are frequently used more intensively on an acre to acre basis than the larger commercial units found in areas of higher productive potential.**