

MARKET EQUILIBRIUM AND FACTOR PRICE DETERMINATION

Price of factors is determined by the demand and supply curves of factors.

The demand for factors of production is called **derived demand**. It is derived from the demand for the product they help to produce. Thus, the demand for a factor ultimately depends upon the demands for goods it helps to produce.

The greater the demand for goods a factor helps to make, the greater the demand for that type of factor. The demand for a factor depends upon the marginal revenue productivity of the factor. **The marginal revenue curve of the factor is the demand curve for that factor and is downward sloping. The supply curve of a factor shows the amounts of factor offered by the owners of the factor at different factor prices and it upward sloping.**

Determination of a Factor Price:

The price of a factor is determined by the intersection of these demand and supply curves of the factor.

This is shown in fig. 32.12, where DD is the demand curve and SS is the supply curve of the factor. Only at price OP, quantity demanded is equal to the quantity supplied.

The price OP is thus determined. If the price is OP' , the quantity supplied ($P'H$) of the factor is greater than the quantity demanded ($P'S$) of it.

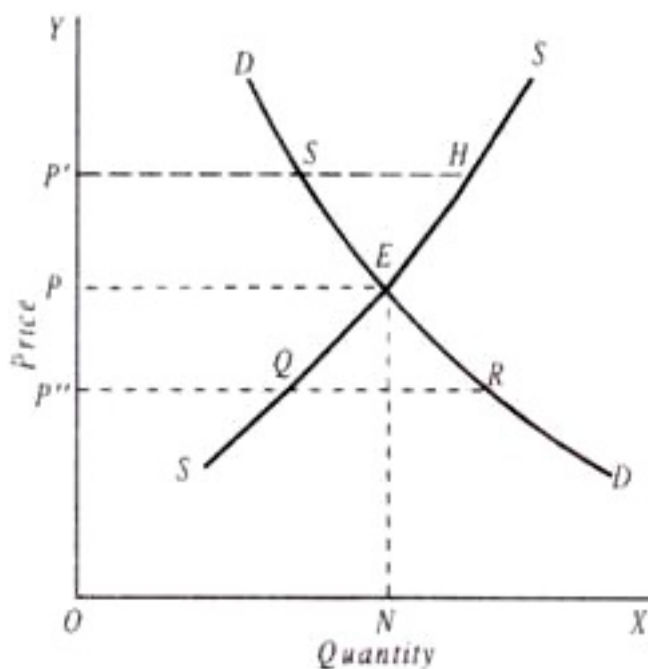


Fig. 32.12. *Equilibrium between demand for and supply of a factor determines its price.*

As a result, the competition between the owners of the factor will force down the price to the level OP where the quantity supplied is equal to the quantity demanded. If the price of the factor is OP'' , the quantity demanded of the factor is greater than the quantity supplied. So the competition among the producers demanding the factor of production will push up the price to the level OP . Though price of a factor is determined by demand for and supply of the factor, it is equal to the marginal revenue product of the factor.

Rent- It is the payment made to a factor whose supply is fixed.

The earnings of a factor of production can be divided into two parts. The size of these two elements depends on the elasticity of supply of that factor.

1. Transfer earnings are what a factor must earn to prevent it from moving to an alternative use. In the case of labour, it is the amount people must be paid to persuade them to stay in their present job.

2. Economic rent is anything earned over and above transfer earnings.

Economic rent = Total earnings - transfer earnings.

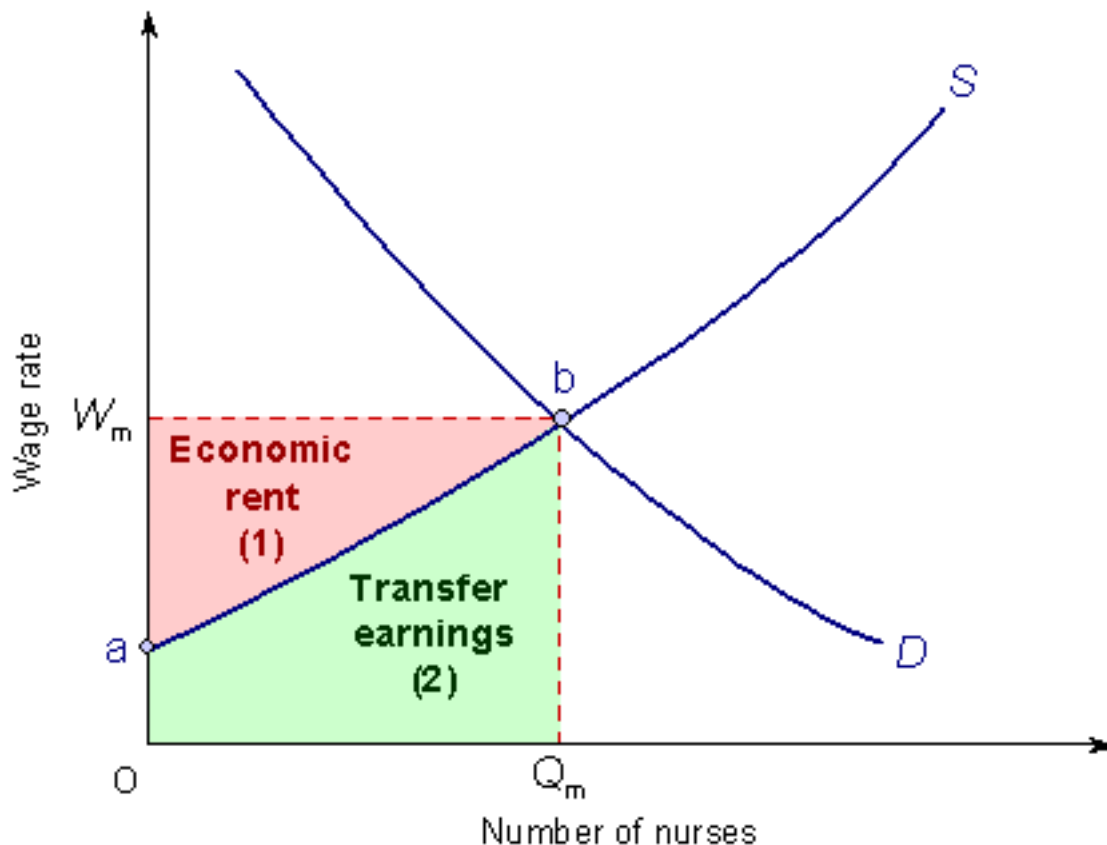


Figure 1 The market for nurses

Now take the case of a market supply curve – say, the market for nurses. This is illustrated in Figure 1. The supply curve is upward sloping ie. at each higher wage,

the *new* nurses enter into the profession. This shows the minimum necessary amount to keep them in the profession. So area below the supply curve is transfer earning.

Workers' economic rent is thus the difference between the actual wage rate and the point on the supply curve at which they entered the market.

Thus at the market wage rate W_m in Figure 1, the total economic rent of all those employed is shown by area 1 – the area above the supply curve. Area 2 shows transfer earnings.

Economic rent would depend on the slope of supply curve. The less elastic the supply curve, the greater will be the proportion that is economic rent.

1. In case of a perfectly inelastic supply curve of labour. Will workers receive any economic rent?

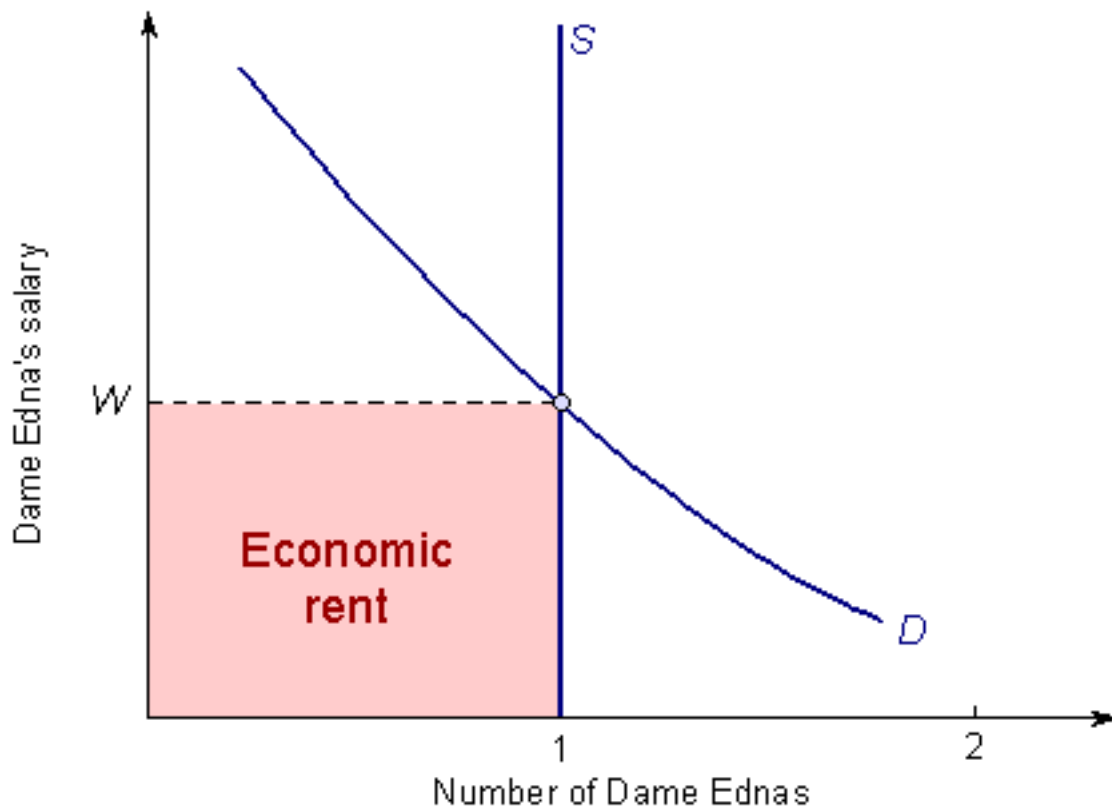


Figure 2 The market for Dame Edna Everage

Now take the extreme position of a totally inelastic supply curve. The simplest example is that of a person with a **unique talent, like a famous film star or playback singer, the supply is completely inelastic.** As a result, her income is determined entirely by demand, and is entirely economic rent. The more popular she is, the higher the demand for her performances and the higher the income she can command. Thus megastars can earn very high incomes.

2. Case when the supply of a factor is perfectly elastic- It means at a given price, the firm can employ any number of factor. It is clear that when the factor units are available at a minimum price or transfer earning, At this minimum price actual earnings are equal to the transfer earnings. Hence there will be no rent or surplus earnings. This means no factor unit in such a situation will be able to earn more than its transfer earnings. The condition of no rent can be explained with the following figure.

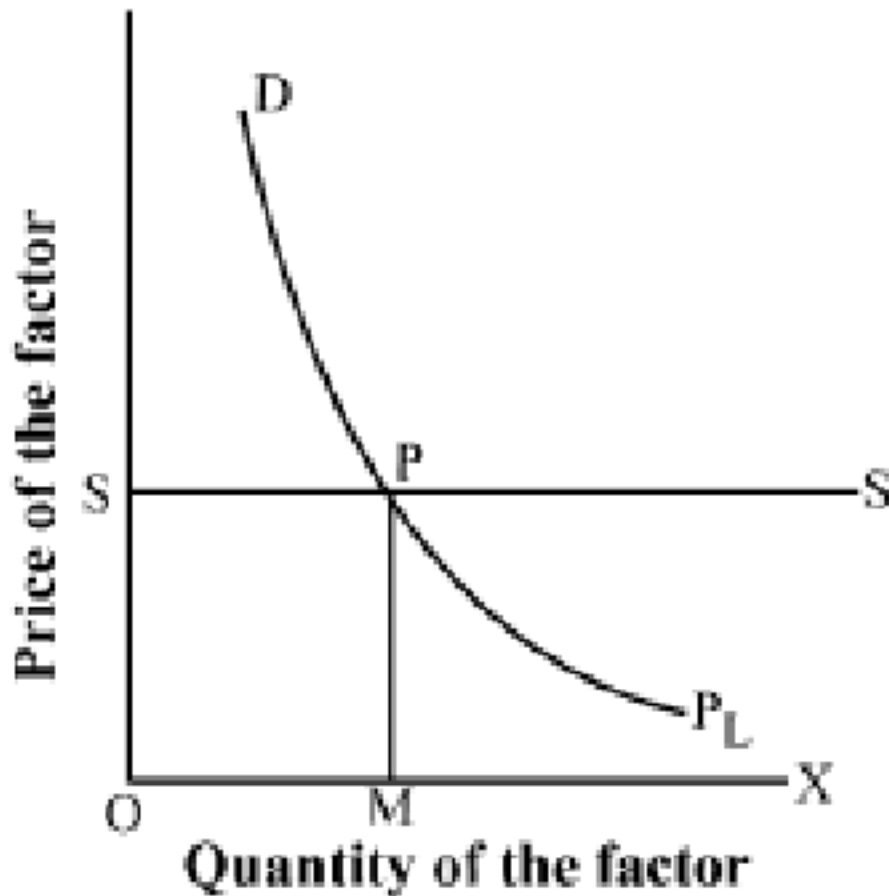


Fig. 7.4

If the units of an input are equally efficient in their present use as also in their alternative uses, then all of them would receive the same amount of money in their next best alternative use, and, therefore, all the units would have the same supply price in their present use.

Under the circumstances, at the price equal to their minimum supply price, the supply of the input is infinitely large, because all the units of the input are willing to supply their services at this price.

Therefore, it is a case of perfectly elastic supply ($e = \infty$) of the input. On the other hand, if they are offered a price which is less than their minimum supply price, then no unit of the input would be willing to supply their service in the present use; in that case, the supply of the input would be equal to zero

Minimum Wage-

When the government imposes a minimum wage, firms cannot pay less than the amount that the government fixes. Suppose that the market equilibrium wage is Rs40 per hour, but the government now passes a law stating that all firms must pay at least Rs50 per hour. At this wage, supply does not equal demand. We can see that in the following figure.

With a minimum wage of Rs50, the labor market is not in equilibrium.

—Firms want to hire *less* workers . Demand for workers will go down. But workers are willing to supply more number of hours. As a result, the equilibrium quantity of labor traded in the market will be determined by how much the firms wish to buy, not how much workers want to sell.

The effects of imposing a minimum wage-

Two things happen when the government imposes a minimum wage:

1. The amount of labor hired in the market decreases.
So those who have jobs earn a higher wage, but there are some individuals who no longer have jobs.
Employment has decreased.
2. At the government-imposed wage, there are more people who want to work than are able to find jobs.
Thus the minimum wage has created unemployment.

