

LAND:

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② Land Rental Contractual Forms:

2 main Contractual forms

Fixed Rent Contract

↳ where the landlord charges a fixed sum of money for the rental of the land.

Sharecropping

↳ which involves sharing of tenant's output in some preassigned proportion between the tenant and the landlord.

- The class of Rental Contracts can be simply expressed as follows:

$$R = \alpha Y + F,$$

where. R = total rent, Y = agricultural output on the rented land.

α = share to the landlord, so $1-\alpha$ will be share to the tenant.

So, if $\alpha=0$ and $F > 0$, this is a fixed rent contract.

If $F=0$ and $0 < \alpha < 1$, this is a sharecropping contract.

If $\alpha=0$, and $F < 0$, can be interpreted as "pure wage contract."

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* Economists such as Adam Smith and Alfred Marshall have argued for the superiority of fixed rent tenancy on incentive grounds. The idea here is that fixed rent allows the tenant to retain the full marginal product of his efforts and hence does not distort the tenant's choice of inputs. In contrast, sharecropping lowers the marginal product of effort, or at least that part of it that accrues to the tenant, and thus sharecropping should be associated with lower land productivity i.e. it should display "Marshallian Inefficiency". This efficiency is depicted below using the diagrammatic demonstration.

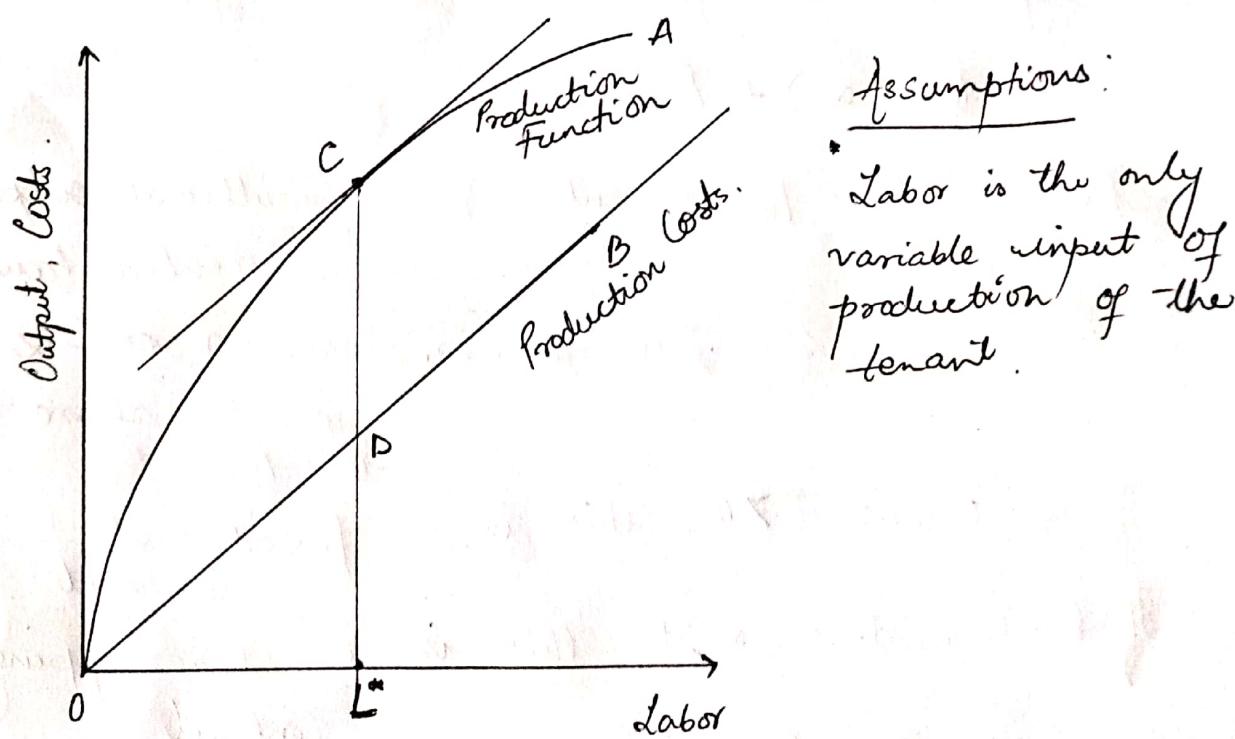


fig. 1

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The efficient labor input level is that which yields the maximum possible economic surplus i.e. the level that maximizes the gap between the curves OA and OB. In fig. 1, this is attained at L^* , where the value of marginal product of labor equals the ~~value of~~ unit opportunity cost of labor. Surplus here is CD.

In Case of Share Cropping:

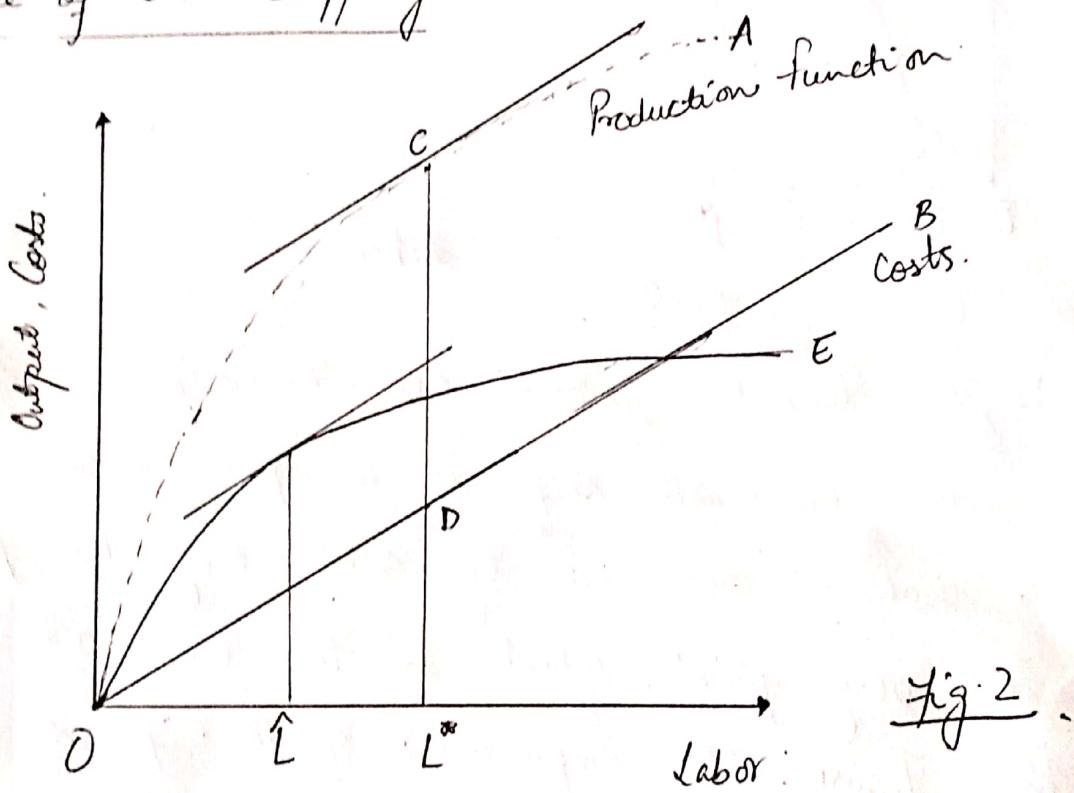


Fig. 2.

Now in Sharecropping Contract, the tenant receives a fraction of the total production. So the effective return to the tenant is now OE and not OA. So, now the tenant will only try to maximize the gap between this effective return and the opportunity costs, which in this case is obtained

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at \hat{L} , which is less than L^* .

In a Fixed Rent Contract:

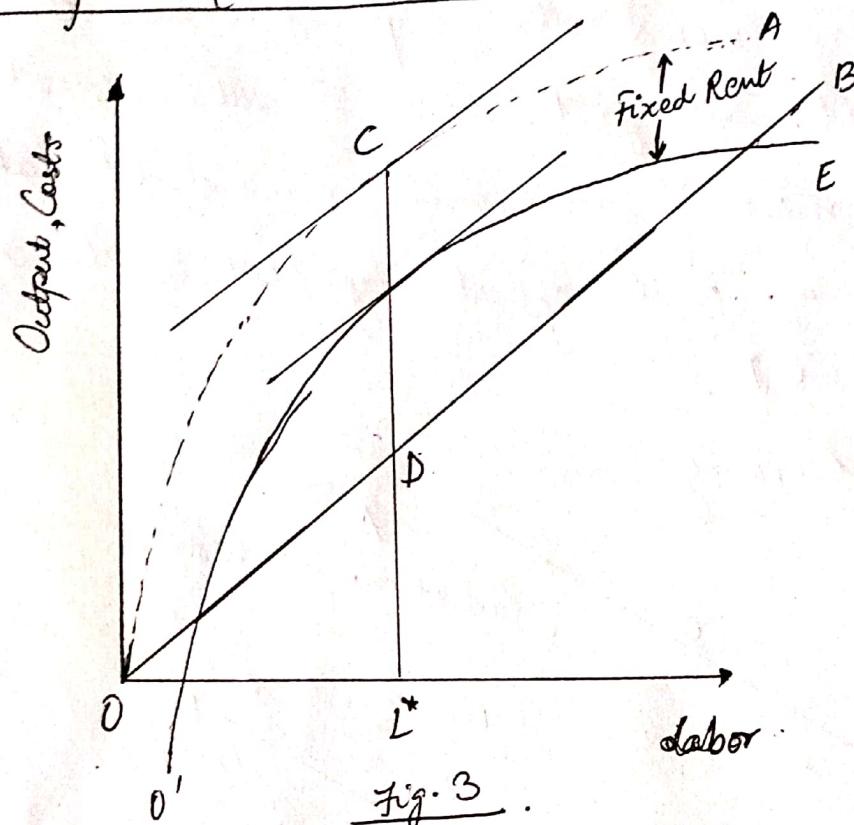


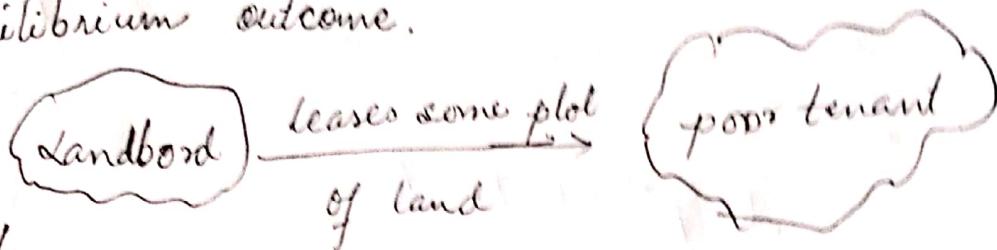
Fig. 3.

Now, the tenant's return can be depicted simply by a parallel downward shift of the production function that is obtained by subtracting the fixed rent at every point, which is the line $O'E$ in the above figure. The imposition of the fixed rent has no effect at all on tenant incentives at the margin, although of course, if the fixed rent is too high, the tenancy may not be accepted in the first place. Fig. 3 captures this perfectly by showing that the difference between $O'E$ and OB , and OA and OB is maximized at the same L^* .

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level of labor input L^* .

Marshallian Inefficiency is observed empirically and this suggests that the preponderance of sharecropping in Asia is unproductive. Now, we will show how sharecropping, despite this inefficiency, can be an equilibrium outcome.



L is less risk averse, as far as the return from this particular plot of land is concerned. So, we simplify by assuming that the landlord is risk neutral whereas the tenant is risk averse.

First, let's consider a fixed rent contract in which the tenant is required to pay a rent of R to the landlord, irrespective of the output. In this case, the tenant receives {only two levels of output are possible}

$G - R$; if things go well [with probability p]
 $B - R$; otherwise [with probability $1-p$]
where, $G > B$.

and the landlord receives a sure payment of R .

Now, let's imagine replacing Fixed rent contract with a sharecropping contract, where the share is purposely chosen to provide exactly the same expected return to the landlord as before i.e. R . Suppose, s is the share of crop accruing to the landlord, then the expected return to the landlord is,

$$psG + (1-p)sB$$

If this is equated to ' R ', we see that the share of the landlord under sharecropping contract must be given by,

$$psG + (1-p)sB = R$$

$$\text{i.e. } s = \frac{R}{psG + (1-p)sB} \quad \text{--- (1)}$$

We also observe that the expected return to the tenant is also same under the two contracts, however she is not risk neutral, so he will choose the contract with a narrower spread of returns. So, ^{Comparing} Return to the tenant under Good state: with fixed rent, it is $G - R$, with Sharecropping it is $(1-s)G$.

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Using ①, we may conclude that,

$$(1-s)g - (g-R) = R - sg = R - \frac{GR}{pg + (1-p)B} < 0$$

$$\therefore g > B$$

So, the sharecropping contract lowers the return to the tenant in good state, but since the share has been chosen so that expected monetary values are the same to either party under the two contracts, we may conclude that sharecropping contract increases the return to the tenant under the bad state.

It follows that he should prefer the sharecropping contract over the fixed rent contract. The landlord can play on this preference by cutting the tenant's share a bit more, but not too much, so that the tenant still prefers the sharecropping contract. Now, the landlord should switch from fixed rent to sharecropping, as he enjoys a larger expected payoff. Thus, Sharecropping emerges as a way to share, not just the output of production but the risk that is associated with it as well.