



The **more** an input is used, the **lower** the Marginal Product of that input



*The firm buys more capital*

***MRP<sub>L</sub>***



***P<sub>L</sub>***

$$\frac{MRP_K}{P_K} >$$



*The firm hires more labor*



***MRP<sub>L</sub>***

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***P<sub>L</sub>***

$$\frac{MRP_K}{P_K} <$$

***1f***

***1 f***



*Marginal Product of  
capital drops*



*Marginal Product of*  
*labor drops*





$$\frac{MRP_K}{P_K} = \frac{MRP_L}{P_L}$$

As long as the revenue per dollar spent on *capital* is **larger**, the firm will increase the use of capital, the  $MP_k$  drops and the  $MRP_k$  drops *until*:



The **more** an input is used, the **lower** the Marginal Product of that input

As long as the revenue per dollar spent on *labor* is **larger**, the firm will increase the use of *labor*, the  $MP_L$  drops and the  $MRP_L$  drops *until*:



*Marginal Revenue Product  
of **capital** drops*



*Marginal Revenue Product  
of **labor** drops*



$$\frac{MRP_K}{P_K} = \frac{MRP_L}{P_L}$$

The **more** an input is used, the **lower** the Marginal Product of that input  
If

$$\downarrow \frac{MRP_K}{P_K} > \frac{MRP_L}{P_L}$$

→ The firm buys more **capital**

→ Marginal Product of **capital** drops

→ Marginal **Revenue** Product of **capital** drops

As long as the revenue per dollar spent on **capital** is **larger**, the firm will increase the use of capital, the  $MP_K$  drops and the  $MRP_K$  drops **until**:

$$\frac{MRP_K}{P_K} = \frac{MRP_L}{P_L}$$

$$\frac{MRP_K}{P_K} < \frac{MRP_L}{P_L} \downarrow$$

→ The firm hires more **labor**

→ Marginal Product of **labor** drops

→ Marginal **Revenue** Product of **labor** drops

As long as the revenue per dollar spent on **labor** is **larger**, the firm will increase the use of **labor**, the  $MP_L$  drops and the  $MRP_L$  drops **until**:

$$\frac{MRP_K}{P_K} = \frac{MRP_L}{P_L}$$