

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



The firm buys more capital

MRP_L



P_L

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



The firm hires more labor

MRP_L

P_L

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

1 f

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**:

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