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

*The firm buys more **capital***

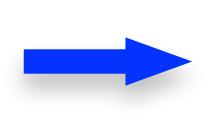$$\frac{MRP_L}{P_L}$$

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

The firm hires more labor

$$\frac{MRP_L}{P_L}$$

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

If

If

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

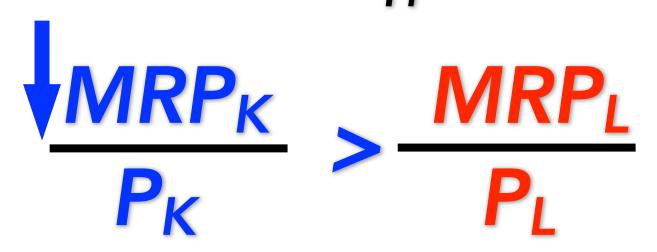*As long as the revenue per dollar spent on labor is **larger**, the firm will increase the use of labor, the MP_L drops and the MRP_L drops until:*

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

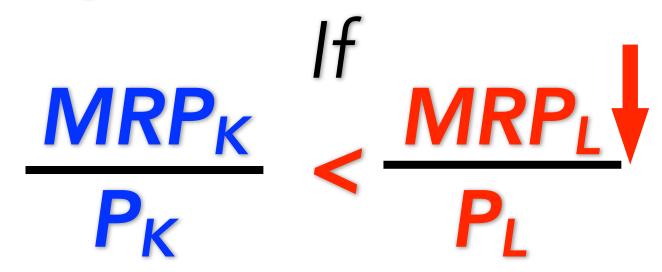$$\downarrow \frac{MRP_K}{P_K} > \frac{MRP_L}{P_L}$$

→ *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:

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

If

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

→ *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:

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