

Proactively understanding the logic of the “Rybczynski” line.

Increase the stock of labour by say, 10%. This labour must be absorbed at constant factor proportions. Why? [By assumption, commodity prices are fixed. Therefore factor prices are fixed. Therefore factor-proportions are fixed.] This means that only outputs can be altered to absorb the additional labour. Which output will increase?

- (a) *Suppose output of the capital-intensive good were to be increased.* We would need more capital with each unit of labour. This capital could only come from the labour-intensive sector. To move a unit of capital from the labour-intensive industry to the capital-intensive industry means that relatively more *labour* than capital would move to the capital-intensive industry. This would change factor proportions in the capital-intensive industry since relatively more labour is being added to each unit of capital. *But this cannot happen at fixed commodity prices.* Therefore expanding output of the capital-intensive industry will not succeed in absorbing the 10% additional labour in the economy.
- (b) *Suppose output of the labour-intensive good were to be increased.* We would need more capital to work with each new unit of labour (which has risen by 10%). This capital could only come from the capital-intensive sector. To move a unit of capital from the capital-intensive industry to the labour-intensive industry means that a fixed bundle containing relatively more capital than labour would move to the labour-intensive industry. [*Why a fixed bundle?* By assumption, commodity prices are fixed. **Therefore** factor prices are fixed. **Therefore** factor proportions are fixed.] Each “extra” unit of capital arriving from the capital-intensive industry to the labour-intensive industry absorbs some of the “new” labour. Capital and labour will flow so that factor *proportions* (in both industries) will be held constant as the higher capital-labour ratio flowing-in to the labour-intensive industry serves to absorb the 10% overall increase in labour assumed to be located in the labour-intensive industry. Output will expand in the labour-intensive industry and contract in the capital-intensive industry until all the additional labour is absorbed at constant factor proportions. This corresponds to our picture of expanding along a capital constraint line along which factor proportions are fixed.