

Production side

$y = Y/L \Rightarrow$ output per worker

$k = K/L \Rightarrow$ capital per worker

09/08/2018 (2)

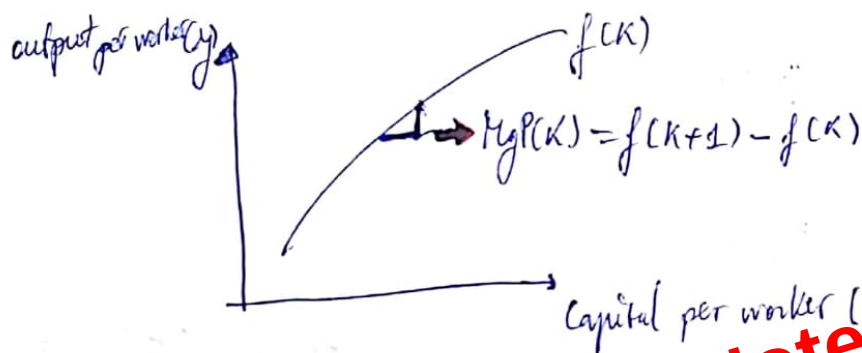
Macroeconomics I

- We're going to assume constant returns to scale:

$$zY = F(zK, zL) \text{ for any } z > 0.$$

- We pick z to be $1/L$. Then:

$$Y/L = F\left(\frac{1}{L}K, \frac{1}{L}L\right) \Rightarrow Y/L = F\left(\frac{K}{L}, 1\right) \Rightarrow y = F(k, 1) \Rightarrow \boxed{y = f(k)}$$



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$Y = C + I$ (remember, no G)

• In "per worker" terms:

$$\boxed{y = c + i}, \quad c = C/L \text{ and } i = I/L$$

the consumption function

• s = the saving rate, the fraction of income that is saved (s is exogenous)

consumption function (per worker): $\boxed{c = (1-s)y}$ $\rightarrow \boxed{(1-s)f(k)}$ (1)

$\uparrow$ comes from $\rightarrow c = y - sy$