Markup notes

Cobb-Douglass PF

F.O.C

Since

Assume MP = MC (can show with lagrangian)

Wage share (solve for alpha)

In the perfect competition steady state, the wage share is constant. Assume, that the there is (potentially time varying) mark-up over marginal cost

Solving for this

Or (as in paper)

Taking logs

CES production function

MPL

Note that

mW/P = MPL (F.O.C)

The labour income share is then

Inversely related to the mark-up and related to average product of labour depending on the elasticity of substitution – note that when EOS is > 1 this is a negative relationship, when it is < 1 it is a positive relationship and when = 1 we have the CD case.

It is more intuitive to express this as a function of capital deepening. To do so note that the average product of labour is also equal to.