

Growth and Distribution

Assignment 1 — LECO 3045

You will have to answer all the following questions. In your responses, you will need to use equations, graphs AND narratives. You can decide to type your responses or to write by hand and scan them.

1. (10 points) **Labor income share, real wage and productivity**

Show that, by definition, the labor income share will rise (fall) whenever the rate of growth of real wages exceeds (falls short of) labor productivity growth. Discuss this relationship between the functional distribution of income, real wage and productivity growth in light of the development of the US economy since the 1970s.

2. (10 points) **Growth rates and logarithmic approximation (equations and narratives only)**

a Prove that if $y = xz$, then $\hat{y} = \hat{x} + \hat{z}$

b Prove that if $y = \frac{x}{z}$, then $\hat{y} = \hat{x} - \hat{z}$.

3. (20 points) **The Classical-Marxian model**

a What assumptions give rise to the idea of an inevitable inverse relationship or trade-off between wages and profits in Classical-Marxian theory? What does this relationship imply for the relationship between income distribution and long-run growth, and why?

b Describe the alternative closures of the Classical-Marxian model. Discuss the effects that redistribution of income and change in capitalists' propensity to save have in the model when one of the following closures is assumed: i) a fixed real wage; ii) a fixed wage share; iii) an exogenously given profit rate.

c In the 1960s, Nicholas Kaldor proposed a set of stylized facts describing the capitalist growth process, which included (among other things) long-run constancy of the profit share and the capital-output ratio. Which versions of a Classical-Marxian model, in terms of assumptions about income distribution and technological change, most resemble these stylized facts? Does empirical evidence from the late twentieth and early twenty-first centuries still support such a view?