

Written Assignment for EC4010 (Macroeconomics)

This assignment is due in class at the end of the lecture on Friday, January 18. It will count for 10% of your total grade for the course. Assignments handed in after January 18 will receive a grade of zero unless you have a medical certificate.

Part 1: The Solow Model

Consider a Solow-model economy with a production function given by

$$Y_t = A_t K_t^\alpha L_t^{1-\alpha}$$

and with $\alpha = 1/2$, $s = 0.2$, $n = 0.01$, $\delta = 0.05$, $g = 0.02$.

- (a) What is the long-run growth rate of output-per-worker for this economy?
- (b) What is the steady-state capital-output ratio?
- (c) Now suppose $A_t = 100$ and $\frac{Y_t}{L_t} = 15000$. Is this economy above or below its steady-state path for output per worker?
- (d) What is the current value of the capital-output ratio for this economy?
- (e) How fast is this economy growing?

Part 2: Paper Reviews

I want you to pick two of the papers listed below, write a short summary of their main points, and then discuss them. Examples of things you can discuss are

- What do you think of the paper? Do you agree with its points?
- Did you find the model or evidence presented to be useful or interesting?
- What further research could be done to expand on its main points?

Specifically, I want you to pick one paper from

- Gregory Mankiw, David Romer and David Weil, “A Contribution to the Empirics of Economic Growth,” *Quarterly Journal of Economics*, May 1992 (Available on JSTOR).
- William Easterly and Ross Levine. “It’s Not Factor Accumulation: Stylized Facts and Growth Models,” *World Bank Economic Review*, 2001. Available at www.nyu.edu/fas/institute/dri/Easterly/Research.html
- Charles Jones. “The Shape of Production Functions and the Direction of Technical Change,” *Quarterly Journal of Economics*, May 2005. Available online at elsa.berkeley.edu/~chad/jonesqje2005.pdf.

and then another paper from

- Olaf Weken. “Asset Prices and the Housing Market,” *Bank of England Quarterly Bulletin*, Spring 2004. Available at www.bankofengland.co.uk/publications/quarterlybulletin/f04qbcon.htm
- Thomas Sargent. “Rational Expectations and the Reconstruction of Macroeconomics” *Federal Reserve Bank of Minneapolis Quarterly Review*, Summer 1980. Available at <http://www.minneapolisfed.org/research/qr>
- Jordi Galí and Mark Gertler. Macroeconomic Modeling for Monetary Policy Evaluation. Forthcoming *Journal of Economic Perspectives*. Available online at <http://www.crei.cat/people/gali/papers.html>