

797N - Macro 3

Fall 2015

Problem set 7

1. What's the purpose of Dutt's model? What questions is it meant to answer? What is the intended domain of applicability? How are the purpose and domain of applicability reflected in the assumptions of the model?
2. How would you modify Dutt's model if the economy reaches a state of full employment?
3. Some technicalities:
 - (a) Why does Dutt impose the condition (16)?
 - (b) Analyze the effects in Dutt's model of (i) an increase in the saving rate out of profits, (ii) an increase in worker militancy, and (iii) an increase in animal spirits.
4. Modify the baseline Dutt model by introducing saving out of wage income; that is, replace Dutt's eq. (10) by

$$\frac{S}{K} = s_w(1 - \pi)u + s_p\pi u$$

where π is the profit share and $u = \frac{Q}{K}$ is the output capital ratio. Retaining the investment function (Dutt's eq. (6)), show that this modified model need not be stagnationist ($\frac{du}{d\pi} < 0$) and wage led ($\frac{dq}{d\pi} < 0$).

5. Using the Harrod-model on the handout, prove instability of the warranted growth path if the reaction of investment to short-run deviations from the desired level can be formalized as $d\hat{K}/dt = \lambda(u - u^*)$.
6. "It is a fundamental Keynesian insight that investment is independent of saving, with saving adjusting via changes in output to bring about the equilibrium between saving and investment."

Discuss the validity of this statement for the short and the long run.