

Macroeconomics  
Temple University  
Econ 506 Fall 1997  
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Ass. 3

1. The growth model of last assignment had the parameterization:

Production function:  $Y_t = F(K_t, N_t, A_t) = A_t K_t^a N_t^{1-a}$ ,

Marginal product of capital:  $R_t = F_k(t) = aA_t(N_t / K_t)^{1-a}$

Real wage:  $w_t = F_N(t) = (1-a)A_t(K_t / N_t)^a$ .

Capital accumulation:  $K_{t+1} = K_t(1-d) + I_t$ .

Uses of output:  $Y_t = C_t + I_t + G_t + NX_t$ .

Labor input is  $N_t = 208$  and initial capital  $K_0 = 15,204.89$ . The parameters are depreciation:  $d = 0.08$ , productivity,  $A_0 = 12$ , and capital share  $a = 0.25$ . Also, the current value for  $C_t + G_t + NX_t$  is 5777.86. Compute the values for

A. Suppose  $A_1 = 12.48$ , a 4% increase. Suppose  $R_1$  is back to its original level, which is 12. What is  $K_1$ ? (Be sure to show your work. Try lots of things. Then give the explanation in an orderly fashion, omitting most of your missteps. Hint. The answer is 16,021.178, but the important thing is how you get it.)

B. Originally,  $C_0 + G_0 + NX_0$  is 5777.86. Suppose government spending, consumption and output in period 0 do not change. What happens to period 0 net exports? Give the number, and make sure to say whether it is positive or negative. (Note. This question is simple, once you locate the right equation to use.)

C. Suppose  $C_0 + G_0 + NX_0$  does not change. (This means that if investment increases, output must increase also, and likewise for decreases.) What happens in period 0 to (a) output, (b) labor input, (c) the capital rental rate, (d) the real wage?

2. Describe what Asia's little Tigers should have done. (Discuss float vs. fix, interest rate increases, decreases, exchange rate depreciations, appreciations.)

3. Read Keynes's 1933 suggestion. (pp. 220-232)

A. What does he propose? (2 sentences)

B. What is the immediate effect? (3 sentences)

C. What is the long-run intended effect? (4 sentences)

D. What is wrong with the alternative policies?