

**Problem Set #7**

1. Consider the following version of Model 4.

(1) IS Curve  $AD = \frac{a + e + G - d*r}{1 - b*(1-t)}$

(2) LM Curve  $r = (k/h)*AD - (M - P)/h$

(3) Production  $Y = s1*Ld + s2*K$

(4) Labor Supply  $Ls = g0 + g1*(W/Pe) - g2*t$

(5) Labor Demand  $Ld = d0 - d1*(W/P) + d2*K$

(6) Goods Market Equilibrium  $Y = AD$

All of the s's, g's, and d's positive constants

Exogenous

a,e,G,t,M,K,W,Pe

Endogenous

AD,r,P,Y,Ld,Ls

- Derive the Aggregate Demand Curve.
- Derive the Aggregate Supply Curve.
- How do changes in income tax rates affect each curve as well as the resulting levels of Y, W/P, Ld, and r?

Use Model 4 to address questions 2-5.

- How would an increase in defense expenditures affect Y, W/P, P and r? (Changes in which other variables would have similar effects?)
- If OPEC were to completely lose control of the price of oil -- say it fell to \$50 per barrel, what would we expect to happen to Y, W/P, P, Ld, and r in the United States?
- If the Federal Reserve reduced the stock of money, how would Y, Ld, P, W/P, and r be affected?
- How well would monetary and fiscal policy work if workers have their money wages fully indexed to the cost of living?