

Homework

Econ 7631

November 12, 2002

The following equations represent Klein's model of the U.S. Macroeconomy.

$$C_t = \alpha_0 + \alpha_1 P_t + \alpha_2 P_{t-1} + \alpha_3 (W_t^p + W_t^g) + e_{1t} \quad (1)$$

$$I_t = \beta_0 + \beta_1 P_t + \beta_2 P_{t-1} + \beta_3 K_{t-1} + e_{2t} \quad (2)$$

$$W_t^p = \gamma_0 + \gamma_1 X_t + \gamma_2 X_{t-1} + \gamma_3 A_{t-1} + e_{3t} \quad (3)$$

$$X_t = C_t + I_t + G_t \quad (4)$$

$$P_t = X_t - T_t - W_t^p \quad (5)$$

$$K_t = K_{t-1} + I_t \quad (6)$$

where G=government nonwage spending, A=time trend, T=indirect business taxes + exports, W^g =government wages, K=captital stock, I=investment, C=consumption, W^p =private wages, X=equilibrium demand, and P=private profits.

1. There are 6 endogenous variables (all on the r.h.s.); the remaining variables are exogenous, predetermined or error terms (the e's).
2. Equations 1-3 are behavioral, equation 4 is an equilibrium condition, and the last two equations are identities.
3. Use the rank and order conditions to confirm that the 3 behavioral equations are identified.