

1. Using data from 1901-2000 (n=100) on money growth (GM) and inflation (Inf) can you use the following equations to infer anything about the causal relationship between these variables? What can you test? What are your results using the .05 level?

$$a. \text{Inf}_t = B_0 + B_1 \text{Inf}_{t-1} + B_2 \text{Inf}_{t-2} + C_1 \text{GM}_{t-1} + C_2 \text{GM}_{t-2} + E1_t$$

$$R^2 = .57 \quad \text{SSR} = 160$$

$$b. \text{GM}_t = B_0 + B_1 \text{Inf}_{t-1} + B_2 \text{Inf}_{t-2} + C_1 \text{GM}_{t-1} + C_2 \text{GM}_{t-2} + E1_t$$

$$R^2 = .57 \quad \text{SSR} = 200$$

$$c. \text{Inf}_t = B_0 + B_1 \text{Inf}_{t-1} + B_2 \text{Inf}_{t-2} + E2_t$$

$$R^2 = .41 \quad \text{SSR} = 220$$

$$d. \text{GM}_t = B_0 + C_1 \text{GM}_{t-1} + C_2 \text{GM}_{t-2} + E2_t$$

$$R^2 = .32 \quad \text{SSR} = 210$$