Economics 113: Spring 2005: Problem Set 3

Due at start of lecture on March 17

1. Suppose that we have our standard simple Keynesian model for aggregate demand:

$$Y = C + I + G$$

Where Y is the level of production, I of investment, and G of government purchases. Suppose further that:

$$C = C_0 + C_y Y$$

Solve for Y as a function of C_0, C_y, I, and G.

2. In the same setup as in question 1, suppose that $C_y = 2/3$. Holding G constant, by how much does a $1 reduction in investment I reduce Y?

3. In the same setup as in question 1, suppose that $C_y = 2/3$ and that Herbert Hoover's desire to run a balanced budget makes G equal to taxes, which are equal to 1/6 of Y. Now by how much does a $1 reduction in investment I reduce Y?

4. Suppose that we have our simplest possible monetarist model in which the money stock M is the product of the banking sector's decisions about the money multiplier m and the Federal Reserve-determined supply of currency and reserves H. Suppose (to keep thing simple) that the price level is proportional to the money stoc:

$$M = mH \qquad P = M$$

Suppose further that the money multiplier depends on baseline banker confidence m_0 and on the price level—the higher the price level, the higher the money multiplier:

$$m = m_0 P^{0.7}$$

In this model, assuming that the Federal Reserve is frozen and keeps H constant, by how much will a 10% decline in baseline banker confidence m_0 decrease the price level P?