

Problem Set

The New Keynesian Model

1. How is the LM curve affected by an increase in expected inflation?
2. This question explores the shapes of the IS, LM, and AD curves on a deeper level.
 - a) Suppose the demand side of the economy is as discussed in class. Graphically derive the AD curve.
 - b) Which exogenous variables cause the AD curve to shift?
 - c) Now, suppose the consumption function is replaced with

$$C_t = C(Y_t - G_t, Y_{t+1} - G_{t+1}).$$

Every other equation remains the same. Derive the new AD curve.

- d) Does an increase in the money supply shift the AD curve by more in part a or part c?
3. How are New Keynesian models different from the Neoclassical model?
4. The algebraic equations characterizing the supply side of the economy in the sticky price model are:

$$N_t = N^s(w_t, \theta_t)$$

$$P_t = \bar{P}_t$$

$$Y_t = A_t F(K_t, N_t)$$

- a) Explain how these equations differ relative to the Neoclassical model.
- b) Derive the AS curve.
- c) What variables cause the sticky-price AS curve to shift?