The IS Curve
ECON 4673
Dr. Keen

Problems

1. Why is inventory investment counted as part of gross domestic product if the goods are not yet sold to the final end user?

2. If households and firms begin to believe the economy will enter in a recession in the near future, will this change in expectations cause a recession or have an impact on output?

3. Why does an increase in the real interest rate lead to a decrease in net exports?

4. In each of the cases, determine how equilibrium output changes and whether the IS curve shifts to the right or left, moves up or down along the curve, or does change at all.

   a. The real interest rate rises.

   b. Financial frictions increase.

   c. Autonomous consumption decreases.

   d. Taxes decrease.

   e. The sensitivity of net exports to changes in the real interest rate decreases.

   f. The government provides tax incentives for firms to increase their amount of research and development.

5. Assume that autonomous consumption is \$1,625 billion and disposable income is \$11,500 billion. Calculate the level of consumption if an increase of \$1,000 in disposable income leads to an increase of \$750 in consumption expenditure.

6. Consider an economy described by the following data: $\bar{C}$ = \$3.25 trillion, $\bar{I}$ = \$1.3 trillion, $\bar{G}$ = \$3.5 trillion, $\bar{T}$ = \$3.0 trillion, $\overline{NX}$ = – \$1.0 trillion, MPC = 0.75, d = 30, x = 10, and $\bar{f}$ = 0.01.

   a. Derive expressions for the consumption function, the investment function, and the net export function.

   b. Derive an expression for the IS curve.

   c. If the real interest rate is r = 0.02, what is equilibrium output? If r = 0.05, what is equilibrium output?