Chapter 12:

1. Questions For Review numbers 1,4 (p. 359).

2. Problems and Applications number 3c–g, 6–8 (p. 360–61).

3. More on Monetary and Fiscal Policy: Suppose that the demand for real money balances was completely insensitive to interest rates, and had the form

$$(\frac{M}{P})^d = 0.8\,Y$$

Then notice that LM would be vertical, and so equilibrium output (but not interest rates) in the IS-LM model would be independent of IS. Suppose further (recalling Ch. 4) that $B = 1200$, $rr = .25$, $cr = .5$, and $P = 1$.

a. Solve for the equilibrium level of output in the IS-LM model.

b. If the Fed buys \$100 worth of bonds in an *open market operation*, what will be the effect on equilibrium output? Explain the mechanism by which output is affected and show the change on a graph.

c. Ignore part **b**. Suppose that the Keynesian Cross multiplier is 5. Suppose that the government raises its purchases G by 100 without raising taxes (i.e., using deficit financing). Suppose further that the Fed *monetizes* the resulting addition to the government debt by buying the \$100 of newly issued Treasury bonds from the Treasury. Will interest rates rise or fall as a result of this joint monetary and fiscal policy action? Use a graph to illustrate your answer.

Chapter 12, and Appendix to Ch. 13:

4. Suppose that we generalize our IS-LM model in the following way.[1] Suppose that consumption depends positively on disposable income and negatively on interest rates, investment spending depends positively on national income and negatively on interest rates, and net exports depends negatively on both national income and interest rates. The rationale is as follows.

For each extra dollar of income and production Y in the economy, consumption and investment spending increase by the marginal propensity to consume (MPC) and invest (MPI) respectively (consumers spend some of their extra income and businesses buy equipment in order to sustain high production levels), and net exports falls by the marginal propensity to import (MPIM). The MPIM is the part of the extra consumption and investment spending that is on imports rather than on domestically produced goods, so we will assume that MPIM $<$ MPC $+$ MPI, i.e., that not all of our extra spending is on imports.

As interest rates rise, consumers and businesses reduce their spending. Further, assume that there is (imperfect) international capital mobility, so that, as domestic interest rates increase, net capital outflow (CF) decreases, driving the exchange rate up and thus net exports down.

a. Hold interest rates constant. What is the slope of the planned expenditure line in the Keynesian Cross model? If the MPC, MPI, and MPIM are .8, .1, and .15 respectively, what is the value of the multiplier in the Keynesian Cross model?

[1] This is the large open economy model in the Appendix to Ch. 13 with a few additional generalizations.

b. Now let interest rates be flexible. Use the Keynesian Cross diagram to show that the IS curve is still downward sloping in this model.

c. Suppose that the economy starts in long run equilibrium. Suppose that Congress passes a tax cut. In what directions do the components of spending (C,I,G,NX) move in short run equilibrium? In long run equilibrium?