Economics 304 Fall 2013

Homework Set #4 Due: 9am, Friday, November 8

Part A.

Exercises 2, 3, 4 (+ the first two sentences under 5), 6, and 8 from B&W, Chapter 10, pp. 261–262.

Part B.

B-1. The table below documents changes in monetary variables during the early years of the Great Depression (quantities in billions of dollars):

	August 1929	March 1933
Currency held by public	3.9	5.5
Demand deposits	22.6	13.5
Reserves	3.2	2.9

a. What was the money supply in each period? What was the monetary base in each period?
b. Calculate the money-supply multiplier in each period as the ratio of the money supply to the base.
c. Calculate the money-supply multiplier in each period using the formula presented in class:

$$\frac{M}{M0} = \frac{C/D + 1}{C/D + R/D}.$$

Do you get the same answer?
d. This period was famous for "bank runs" in which panicked depositors raced to their banks to get in line to withdraw their funds before the feared bank closure occurred. How would you expect the currency-deposit ratio and reserve-deposit ratio to change during such a time? Is this reflected in the data? What was the relative importance of each of these changes in the change in the money-supply multiplier? (In other words, what would the multiplier have been if one ratio changed and the other did not, or if the other ratio changed and the first did not?)
e. How could the Federal Reserve have used open-market operations offset the effect of changes in the multiplier on the money supply? Did they do so?
f. Ben Bernanke is a renowned scholar of the Great Depression. Based on what you know about the Federal Reserve response to the financial crisis in 2008, did he put into practice the lessons of the 1929–1933 period?

B-2. How (if at all) would each of the following shift the *IS,* and/or *TR* curves? Explain your answers and show the effect that the change would have on equilibrium output and the interest rate.

a. An increase in income taxes (assuming that Ricardian equivalence does not hold perfectly).
b. An increase in income taxes (assuming that Ricardian equivalence does hold perfectly).
c. An increase in inflation.
d. A decrease in people's desire to hold money due to the spread of ATMs, *i.e.*, a decrease in k in the formula $M = kPY$. (Tricky.)
e. A rise in the expected profitability of future capital.
f. A fall in the nominal exchange rate (assuming foreign and domestic prices are fixed).
g. A decline in consumers' expected future income due to forecasts of a recession.
h. Recovery of foreign economies from a recession.
i. The appointment of an "inflation hawk" as Fed chair. (Inflation hawks may have a lower desired inflation rate $\bar{\pi}$ and/or a higher sensitivity of the policy interest rate to changes in inflation—a high a.)

B-3. The Solow model and the *IS*/*TR* model both discuss the determination of real GDP. They are very different. Does it make sense to have two completely different theories explaining the same variable? Discuss.