UNIVERSITY OF CALIFORNIA
DEPARTMENT OF ECONOMICS

Economics 134
Spring 2018
Professor David Romer

PROBLEM SET 3

DUE AT THE *BEGINNING* OF LECTURE ON WEDNESDAY, APRIL 4TH

You may work together on the problems, but your answers must be ***in your own words*** and ***handwritten***. You also must ***list the other students with whom you worked***.

Unless noted otherwise, be sure to explain your answers and to use graphs whenever appropriate.

1. Suppose the government changes from a policy of not changing its purchases in response to economic conditions to automatically increasing purchases when output falls and automatically decreasing purchases when output rises. That is, it switches from $G = \bar{G}$ to $G = G(Y)$, where the function *G(Y)* is decreasing. For simplicity, assume that the economy is initially in long-run equilibrium (that is, $Y = \bar{Y}$) and that the government's new rule for its purchases causes it to purchase the same amount as it had been purchasing before when the economy is in long-run equilibrium (that is, $G(\bar{Y}) = \bar{G}$).

- **a.** How, if at all, will this policy change affect the IS-MP diagram?
- **b.** How, if at all, will it affect the AD-IA diagram?
- **c.** Do you think this change in policy would be desirable? (Note: In answering this question, you should—of course—focus on economic issues and try to use our tools to shed light on them. For example, you might consider whether the change will alter the economy's response to disturbances, or policymakers' ability to influence the economy.)

2. Because of the random timing of the stimulus payments, Parker, Souleles, Johnson, and McClelland have a compelling natural experiment, and their estimates suggest that the stimulus payments had large effects on households' spending on automobiles (see especially their Table 7, which indicates that roughly one-third of the stimulus payments were spent on new vehicle purchases). It is natural to interpret this evidence as implying that the stimulus payments raised ***aggregate*** spending on new cars relative to what it would have been otherwise by roughly one-third times the total amount of the stimulus payments, or about $66 billion. Suggest ***two*** reasons that the true effect could have been much smaller. (Note: There is no "right" answer to this question. Don't be shy about proposing something creative.)

3. Label each of the following statements as True, False, or Uncertain, and explain your answer briefly.

- **a.** Expansionary fiscal policy failed to end the Great Depression in the 1930s not because it does not work, but because it was not tried.
- **b.** If the fiscal policy multiplier is less than 1, then fiscal policy cannot help to end a recession.

4. Both Iceland and Ireland suffered major banking crises starting around September 2008.[1] One potentially important difference between the two countries is that Ireland is a member of the eurozone while Iceland has its own currency.

- **a.** By how much did the Icelandic króna depreciate against the euro from August 2008 to its low point? How much lower was the króna against the euro five years after the start of its crisis (September 2013) than it was in August 2008?
- **b.** By how much did the unemployment rate rise, in percentage points, in Iceland from its pre-crisis level to its peak? By how much did it rise in Ireland?
- **c.** If the exchange rate was important to the different performances of the two countries, we would expect that to be reflected in the behavior of net exports. Is the behavior of net exports in the two

[1] Ireland's banking crisis actually came slightly after Iceland's. A joke among policymakers and economists at the time went, "What's the difference between Iceland and Ireland? One letter and six months.")

countries consistent with the hypothesis that exchange rate depreciation helped to cushion the effects of the banking crisis in Iceland?

Pick the ***best*** answer to each of questions 5–7. No explanations of your answers are needed.

5. In the long run, a government must:

- **a.** Pay off its debt.
- **b.** Balance its budget.
- **c.** Keep the ratio of its debt to the economy's GDP from getting too large.
- **d.** All of the above.
- **e.** None of the above.

6. ***All*** of the following were created in the 1930s ***except***:

- **a.** The Federal Deposit Insurance Corporation (FDIC).
- **b.** The Federal Reserve.
- **c.** The National Recovery Administration (NRA), created by the National Industrial Recovery Act (NIRA).
- **d.** Social Security.

7. In the interest-rate rule $i = \pi + gy + h(\pi - \pi^*) + r^f$, a value of g of 0.5 would mean that:

- **a.** When real GDP is higher by $1 billion, the Federal Reserve raises its target for the federal funds rate by ½ percentage point.
- **b.** When real GDP is higher by $1 billion, the Federal Reserve raises its target for the federal funds rate by ½ basis point.
- **c.** When real GDP is higher by 1 percent, the Federal Reserve raises its target for the federal funds rate by ½ percentage point.
- **d.** When real GDP is higher by 1 percent, the increased demand for loans raises prevailing interest rates in the economy by ½ percentage point.