

**INTERNATIONAL MONETARY ECONOMICS**  
**Problem Set III**

Due *in class* on Thursday, March 17.  
To be handed directly to your GSI.

1. How does a permanent cut in taxes affect the current account? What about a permanent increase in government spending? Use the DD-AA framework to think this through. Looking at the Case Study on p. 306-7 of the text, is your answer consistent with the US experience in the 1980s?

2. Consider the following comment:

"The current account depends upon income and the real exchange rate. If income rises, consumption of imports is high and the current account worsens. Thus, if monetary policy is the only tool that authorities can respond with quickly, a worsening of the current account due to a rise in income (for example, because of a temporary tax cut) requires a monetary contraction to moderate the rise in income and stop the deterioration of the current account."

a) Use the DD-AA diagram to analyze the effects of a temporary tax cut on income and the current account.

b) Do you find that the CA worsens and that income rises, as suggested in the comment?

c) Now consider a monetary contraction. Use the AA-DD diagram to show its effects on income and the current account.

d) Does this monetary policy response moderate the rise in income? Does it reverse the deterioration of the CA?

3. If you compare low-inflation economies with economies in which inflation is high and very volatile, how might you expect the degree of exchange rate pass-through to domestic prices to differ, and why?

4. The chapter's discussion of "Inflation Bias and Other Problems of Policy Formulation" suggests (paragraph 4) that there may not really be any such thing as a *permanent* fiscal expansion. What do you think? How would these considerations affect the exchange rate and output effects of fiscal policy, and do you see any parallels with the chapter's discussion of the longer-run impact of current account imbalances?

5. (*Thought question.*) Show how you could use a diagram such as Figure 16-6 to *demonstrate* that a permanent money-supply increase shifts the AA schedule by more

than a temporary one. (Hint: look at the differing effects of permanent vs. temporary changes in the upper panel of the figure. To see how far AA shifts, we need to ask how big of an increase in  $Y$  is needed to equilibrate asset markets for a *given*  $E$ . You can answer this by using the lower panel to see how differently sized shifts in  $Y$  shift the  $L(R, Y)$  schedule outward, and asking what size of shift in  $L(R, Y)$  is needed, given a temporary vs. permanent  $M$  increase, to hold the current exchange rate  $E$  constant in the upper panel.)

6. Even when a fiscal expansion is permanent, market actors might expect that, because of the resulting rise in the current account deficit, and the consequent fall in national wealth over time, some part of the initial currency appreciation is temporary.

Consider the U.S. data shown below, where the darker line is the U.S. current account balance. In the early 1980s and again 20 years later, there is a sharp rise in the CA deficit associated with a fiscal expansion that raises the government deficit. At first the dollar appreciates in real terms (the real exchange rate data graphed by the lighter line are defined so that "up" means a real *appreciation* of the U.S. dollar). Then, the dollar falls as the CA deficit widens.

Using the AA-DD model, show how a declining wealth level would shift DD over time and affect the real exchange rate. How would this adjustment process affect your view on the short-run effects of "permanent" fiscal expansion?

