

# Assignment 3

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**Part A:** Provide the best answer for each of the following questions and record it on the response sheet on page 3.

1. An increase in disposable income worsens current account because:
  - A. It raises consumption which reduces exports, because now there are fewer goods that can be exported, and more are consumed domestically.
  - B. Consumers demand more of all goods including imported goods while exports are not affected.
  - C. It raises the real exchange rate and therefore worsens the current account.
  - D. It lowers the real exchange rate and therefore worsens the current account.
  - E. None of the above.
  
2. Which of the following changes does NOT shift the DD schedule in the short run?
  - A. An increase in the domestic price level
  - B. An increase in government purchases
  - C. An increase in the foreign price level
  - D. An increase in the exchange rate
  - E. An increase in investment
  
3. If the economy's output is initially above full employment, which of the following policy combinations could restore full employment and keep the exchange rate at the same level?
  - A. Contractionary monetary and fiscal policy
  - B. Contractionary fiscal policy and expansionary monetary policy
  - C. Contractionary monetary policy and expansionary fiscal policy
  - D. Expansionary monetary and fiscal policy
  - E. None of the above.
  
4. For a given Euro interest rate, what is the correct causality chain in the short run?
  - A. The Fed determines the interest rate, which in turn determines the interest rate and the money balances, real balances in turn determine the Euro/dollar exchange rate, given money demand.
  - B. The Fed determines the Euro/dollar exchange rate, which, given interest parity, determines the dollar interest rate, which in turn determines the real balances of the U.S. dollar, given money demand.
  - C. The Fed determines nominal money supply, given the exchange rate, price level adjusts, which determines inflation rate, interest rate and, given interest parity condition, Euro/dollar exchange rate.
  - D. The Fed determines real money balances, which in turn determine the interest rate, given money demand, which, given the interest parity condition, determines the Euro/dollar exchange rate.
  - E. None of the above.

5. If the European Central Bank increases the supply of Euros, other things being equal, in the short run:
  - A. The European interest rate will fall and the dollar will appreciate against the Euro.
  - B. The European interest rate will rise and the dollar will appreciate against the Euro.
  - C. The European interest rate will rise and the dollar will depreciate against the Euro.
  - D. The European interest rate will fall and the dollar will depreciate against the Euro.
  - E. None of the above.
  
6. What is the formal representation of the law of one price, if  $P$  is domestic price for good  $X$ ,  $P^*$  is foreign price for the same good and  $E$  is the exchange rate (units of domestic currency per units of foreign currency)?
  - A.  $P=EP^*$
  - B.  $P^*=EP$
  - C.  $P^*=E/P$
  - D.  $P=E/P^*$
  - E. None of the above.
  
7. What does PPP imply?
  - A. The real exchange rate is equal to 0.
  - B. The Law of One Price holds for all the goods.
  - C. The real exchange rate is equal to 1.
  - D. Inflation rates are equal in both countries.
  - E. None of the above.
  
8. Which of the following is a correct prediction based on the PPP model of the exchange rates?
  - A. An increase in the U.S. output will lead to the proportional increase in inflation rate.
  - B. An increase in the U.S. money supply leads to a long-run appreciation of the dollar.
  - C. An increase in the U.S. output leads to depreciation of the dollar.
  - D. An increase in the U.S. interest rates leads to depreciation of the dollar.
  - E. None of the above.
  
9. Which of the following, all else being equal, could lead to a long-run *real* appreciation of the U.S. dollar?
  - A. Long-run nominal appreciation of the dollar.
  - B. A decline in the rate with which the Fed expands money supply.
  - C. A decline in the growth rate of the U.S. GDP.
  - D. An increase in the price of oil that reduces the world demand for the American cars.
  - E. None of the above.
  
10. Relative PPP states that:
  - A. The difference between the inflation rates should be equal to the percentage change in the exchange rate.
  - B. Relative price levels in two countries should be equal when expressed in the same currency.
  - C. The difference between the inflation rates should be equal to the ratio of interest rates.
  - D. Inflation rates should be equal in two countries.
  - E. Both (A) and (D).

# Assignment 3 Response Sheets

Turn in pages 3-5 only

Names: \_\_\_\_\_

## Part A

1    A    B    C    D    E

2    A    B    C    D    E

3    A    B    C    D    E

4    A    B    C    D    E

5    A    B    C    D    E



6    A    B    C    D    E

7    A    B    C    D    E

8    A    B    C    D    E

9    A    B    C    D    E

10   A    B    C    D    E

**Over for more questions.**

**Part B**

- 1a. Data for the CPI and the nominal exchange rate  $E_{\$/\pounds}$  for 1961-1967 and for 1980-1987 are provided in the table below. Let  $q_{\$/\pounds}$  be the dollar/pound real exchange rate is. Fill in the last two columns of the table below.

Year	US CPI	UK CPI	$E_{\$/\pounds}$	$q_{\$/\pounds}$	$\% \Delta q_{\$/\pounds}$
1961	36.3	19.3	2.80		
1962	36.7	20.1	2.81		
1963	37.2	20.5	2.80		
1964	37.6	21.2	2.79		
1965	38.3	22.2	2.80		
1966	39.4	23.0	2.79		
1967	40.5	23.6	2.75		
1980	100.0	100.0	2.33		
1981	110.4	111.9	2.03		
1982	117.2	121.5	1.75		
1983	120.9	127.1	1.52		
1984	126.1	133.5	1.34		
1985	130.6	141.6	1.30		
1986	133.1	146.4	1.47		
1987	137.9	152.5	1.64		

- b. What does absolute purchasing power parity predict for the percentage change in the real exchange rate  $\{\% \Delta q_{\$/\pounds}\}$  over time?
- c. Use the data above to assess how well absolute purchasing power parity held in the 1960s. And how well did it hold in the 1980s?

2. Many countries impose taxes or controls on holdings of foreign assets. One way to model this is to modify the U.I.P. equation by including a tax term (such as a Tobin tax). Since the after-tax return on foreign bonds is reduced by the amount of the tax, the domestic interest rate now need not be as high as it would have been in the absence of the tax. If the tax per \$ of foreign assets is  $\tau$ , the interest parity relationship could now be written as follows:

$$R = R^* + \frac{E^e - E}{E} - \tau$$

- a. How does this modification of the uncovered interest parity condition affect the DD-AA graph? Why?

- b. Show the effect of an increase in this tax on foreign assets in the graph below and discuss your answer.

