Econ 371: Answer Key for Problem Set 3  
(Chapter 15)

Instructor: Kanda Naknoi

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Note that the key words are underlined.

1. Suppose the U.S. is expected to maintain much lower inflation than Japan for years to come. The purchasing power parity suggests that the U.S. dollar will depreciate against the Yen.
   ANSWER: False
   CORRECT STATEMENT: Suppose the U.S. is expected to maintain much lower inflation than Japan for years to come. The purchasing power parity suggests that the U.S. dollar will appreciate against the yen.
   REASON: The absolute purchasing power parity (PPP) states that exchange rate is the ratio of price levels of two countries.
   \[ E_{\$/¥} = \frac{P_\$}{P_¥} \]
   Or, the relative PPP states that exchange rate depreciation is equal to the U.S.-Japan inflation differentials.
   \[ \frac{E_t - E_{t-1}}{E_t} = \pi_t,\$ - \pi_t,¥ \]
   When \( \pi_t,\$ < \pi_t,¥ \), \( E_t < E_{t-1} \) or the U.S. dollar must appreciate.

2. The difference between the U.S. and Japan’s expected inflation in Question 1 also implies that the nominal interest rate in Japan is expected to rise.
   ANSWER: True.
   REASON: This is based on the Fisher effect. It says that nominal interest rate differentials are the same as expected inflation differentials. Since Question 1 says Japan has higher expected inflation, its nominal interest rate must be higher too.

3. The relative purchasing power parity assumes that real exchange rate is unity.
   ANSWER: False
CORRECT STATEMENT: The relative purchasing power parity assumes that real exchange rate is constant.
REASON: We define the U.S.-E.U. real exchange rate as follows.

\[ q = \frac{E_{\$/AC}}{P_e / P_s} \]

$q$ is constant as long as exchange rate depreciation is the same as the U.S.-E.U. inflation differentials. This is the case with the relative PPP. Note that the relative PPP is more general than the absolute PPP which strictly predicts that $q = 1$.

4. The monetary approach of long run exchange rate determination predicts that the time path of exchange rate is the same as that of domestic inflation.
ANSWER: False
CORRECT STATEMENT: The monetary approach of long run exchange rate determination predicts that the time path of exchange rate is the same as that of domestic-foreign inflation differentials.
REASON: See the relative PPP equation in Question 1.

5. The monetary approach says that exchange rate is determined in the money market depending on interest rate. Therefore, it implies that monetary policy is relevant but fiscal policy is not.
ANSWER: False
CORRECT STATEMENT: The monetary approach says that exchange rate is determined in the money market depending on interest rate. Therefore, it implies that monetary policy is relevant and so is fiscal policy.
REASON: Fiscal policy such as tax on interest earnings can also affect exchange rate by changing the rate of return on assets.

6. According to the monetary approach, we cannot predict that a decrease of demand for the U.S. goods will reduce the U.S. price level and the dollar will appreciate.
ANSWER: False
CORRECT STATEMENT: According to the monetary approach, we cannot predict that a decrease of demand for the U.S. goods will reduce the U.S. price level and the dollar will appreciate.
REASON: Although the monetary approach predicts that output expansion affects exchange rate through money demand, it has no say about the effect of demand for goods on exchange rate.

7. Balassa-Samuelson hypothesis suggests that a pair of two countries may experience deviations from the purchasing power parity if the economic growth in one of the economies is concentrated in the service sector.
ANSWER: False
CORRECT STATEMENT: Balassa-Samuelson hypothesis suggests that a pair of two countries may experience deviations from the purchasing power parity if the economic growth in one of the economies is concentrated in the tradable sector.

8. According to the general theory of long run exchange rate determination, real exchange rate appreciates when nominal exchange rate appreciates.  
   ANSWER: False  
   CORRECT STATEMENT: According to the general theory of long run exchange rate determination, nominal exchange rate appreciates when real exchange rate appreciates. 
   REASON: According to the general theory, real exchange rate drives nominal exchange rate, not the other way around.

9. The general theory of long run exchange rate determination predicts that output expansion makes nominal exchange rate depreciate.  
   ANSWER: False  
   CORRECT STATEMENT: The general theory of long run exchange rate determination predicts that output expansion may or may not make nominal exchange rate depreciate. 
   REASON: Output expansion has the opposite effect on real exchange rate and price level. So, its effect on nominal exchange rate is ambiguous.

10. The general theory of long run exchange rate determination does not give a clear prediction about nominal exchange rate when we expect inflation to rise.  
    ANSWER: False  
    CORRECT STATEMENT: The general theory of long run exchange rate determination does give a clear prediction about nominal exchange rate when we expect inflation to rise. 
    REASON: In this case, exchange rate is influenced by only monetary factor which is future inflation. In this case, the general theory prediction follows the monetary approach.