

## Introduction to Macroeconomics · M5 · 2014-15

### Problem Set 4 · Multiple choice questions

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- Arbitrage and speculation differ from each other
  - in that arbitrage only takes place in the currency market, whereas speculation only takes place in the liquidity market.
  - there is no difference between them.
  - in that the outcome of speculation is always a sure event for the speculator, while the outcome of arbitrage is always uncertain for the arbitrageur.
  - None of the above
- Depreciation and devaluation differ from each other in
  - absolutely nothing.
  - that depreciation is a government decision, whereas devaluation is determined by the currency market.
  - that depreciation is a reduction of the exchange rate, while devaluation is an increase.
  - None of the above
- In which case could triangular arbitrage be carried out?
  - 1 \$/€ 1 \$/¥ 1 €/¥ (b) 2 \$/€ 4 \$/¥ 2 €/¥
  - 2 \$/€ 2 \$/¥ 1 €/¥ (d) 2 \$/€ 2 \$/¥ 2 €/¥
- The open economy trilemma refers to
  - interest rates, monetary policy, and capital mobility.
  - exchange rates, monetary policy, and monetary base.
  - discount factors, open market operations, and speculation.
  - exchange rates, monetary policy, and capital mobility.
- From which value to which value the dollar depreciates with respect to the euro?
  - From 4 \$/€ to 2 €//\$ (b) From 2 \$/€ to 2 €//\$
  - From 2 €//\$ to 0.5 \$/€ (d) From 2 €//\$ to 4 \$/€
- The denial of which sentence is not true?
  - The real interest rate may be smaller than the real exchange rate.
  - The real interest rate is always higher than the real exchange rate.
  - The real interest rate is always equal to the real exchange rate.
  - The real interest rate is always smaller than the real exchange rate.
- Reus is an independent country with the reuro as home currency. What action by the Central Bank of Reus would not cause an appreciation of the reuro versus the euro?
  - A contractionary open market operation
  - An increase in the reserve ratio
  - The purchase of euros (paid with reuros)
  - The purchase of reuros (paid with euros)
- What is the foreseeable effect on the exchange rate \$/€ of the purchase by the European Central Bank of financial assets?
  - Appreciation of the EUR with respect to the USD
  - Depreciation of the USD with respect to the EUR
  - There is absolutely no connection between the loan market and the currency market
  - None of the above
- What could explain the depreciation of the euro with respect to the dollar?
  - A fall in the Eurozone prices
  - An increase in the Eurozone interest rate
  - A decrease in the US interest rate
  - A fall in the prices of the US
- Let the real exchange rate be expressed as foreign baskets/domestic basket. How does an increase in the foreign CPI affect the real exchange rate, with the rest of variables determining the real exchange rate held fixed?
  - Causes a rise in the real exchange rate
  - Causes a reduction in the real exchange rate
  - Does not affect the real exchange rate
  - None of the above
- What could not explain the depreciation of the euro with respect to the dollar?
  - A fall in the Eurozone prices
  - An increase in the Eurozone interest rate
  - A decrease in the US interest rate
  - None of the above
- If the nominal exchange rate is 2 \$/€, the eurozone CPI is 200, and the US CPI is 100,
  - the euro is overvalued with respect to its purchasing power parity value.
  - the euro is undervalued with respect to its purchasing power parity value.
  - the euro is at its purchasing power parity level.
  - None of the above

13. The Federal Reserve has decided to intervene in the currency market to make the dollar appreciate with respect to the euro. Which measure is appropriate to reach that goal?
- According to the impossible trinity, no such measure exists.
  - The Federal Reserve buys euros in the currency market.
  - The Federal Reserve buys dollars in the currency market.
  - The Federal Reserve sells dollars in the currency market.
14. If  $P = 100$ ,  $P^* = 50$ , and  $e = 1$   $\$/\text{€}$ , then, according to PPP, the euro is
- overvalued.
  - undervalued.
  - at parity level.
  - None of the above
15. Using proper technical terms, the euro appreciates against the dollar if
- the US government time ago set a fixed exchange rate at 2  $\text{€}/\text{\$}$  and now changes that fixed rate to 2  $\text{\$/€}$ .
  - there is a floating exchange rate regime between the two currencies and the equilibrium exchange rate in the currency market goes from 2  $\text{€}/\text{\$}$  to 2  $\text{\$/€}$ .
  - there is a floating exchange rate regime between the two currencies and the equilibrium exchange rate in the currency market goes from 2  $\text{\$/€}$  to 2  $\text{€}/\text{\$}$ .
  - the US government time ago set a fixed exchange rate at 2  $\text{\$/€}$  and now changes that fixed rate to 2  $\text{€}/\text{\$}$ .
16. The euro is likely to depreciate against the dollar in the currency market if
- the US real GDP increases.
  - the US nominal interest rate falls.
  - the Eurozone inflation rate goes up.
  - None of the above
17. Which sentence is not true?
- Triangular arbitrage is not possible when exchange rates are 0.5  $\text{\$/€}$ , 3  $\text{\$/¥}$ , and 6  $\text{€}/\text{¥}$ .
  - There is a tendency for the euro to appreciate against the dollar if the interest rate in the Eurozone goes up.
  - If the real exchange rate differs from 1, then the nominal exchange is not at its purchasing power parity level.
  - Revaluation in a fixed exchange regime is equivalent to depreciation in a floating exchange regime.
18. The competitiveness of the eurozone improves when, other things being equal,
- the euro depreciates against the dollar.
  - the eurozone CPI rises.
  - the US CPI falls.
  - None of the above
19. The impossible trinity
- says that triangular arbitrage causes currency crises.
  - relates the competitiveness of an economy to the purchasing power parity exchange rate.
  - says that spatial arbitrage causes the real appreciation of the exchange rate.
  - implies that a country with an independent monetary policy and no capital control cannot adopt a fixed exchange regime.
20. What is not false about triangular arbitrage?
- It can occur under exchange rates 2  $\text{\$/€}$ , 2  $\text{\$/¥}$ , and 1  $\text{¥}/\text{€}$ .
  - It is a way of unfolding a speculative attack.
  - It can occur under exchange rates 1  $\text{\$/€}$ , 2  $\text{\$/¥}$ , and 1  $\text{¥}/\text{€}$ .
  - It is made impossible by the impossible trinity.
21. The European Central Bank executes a contractionary monetary policy. As a result, it is likely that, in the currency market,
- the euro will appreciate against the dollar.
  - the dollar will appreciate against the euro.
  - the supply of euros will shift to the right.
  - None of the above
22. What cannot explain a depreciation of the euro against the dollar?
- A raise in the US interest rate.
  - A raise in the eurozone inflation rate.
  - A fall in the eurozone GDP.
  - None of the above
23. The competitiveness of an economy improves
- when real GDP rises.
  - when its central bank buys the domestic currency in the currency market.
  - when the real exchange rate falls (a real depreciation occurs).
  - None of the above
24. In which case does the dollar appreciate against the euro?
- In passing from 2  $\text{\$/€}$  to 4  $\text{\$/€}$
  - In passing from 2  $\text{\$/€}$  to 2  $\text{€}/\text{\$}$
  - In passing from 2  $\text{\$/€}$  to  $\frac{1}{2}$   $\text{€}/\text{\$}$
  - None of the above

25. According to the impossible trinity, it is not possible to simultaneously have
- a fixed exchange rate, a sovereign monetary policy, and free capital flows.
  - high unemployment, low inflation, and a revaluation.
  - a currency crisis, spatial arbitrage, and a speculative attack.
  - commercial arbitrage, an undervalued currency, and Okun's law.
26. Letting the real exchange rate represent a measure of the competitiveness of an economy, the eurozone becomes less competitive if
- the eurozone general price level falls.
  - the US general price level raises.
  - the dollar appreciates against the euro.
  - None of the above
27. In passing from 2 \$/€ to 2 €/\$,
- the euro appreciates with respect to the dollar.
  - the dollar appreciates with respect to the euro.
  - the dollar depreciates with respect to the euro.
  - None of the above
28. The euro has depreciated against the dollar. A possible explanation is
- that the US interest rate went down.
  - that the eurozone inflation rate went up.
  - that the US real GDP has grown.
  - None of the above
29. The ECB adopts a fixed exchange rate regime in which the value of the euro is held fixed against the dollar. When a shift to the right in the supply of euros function moves the exchange rate away from its fixed rate, the ECB should
- necessarily increase its demand for dollars.
  - sell dollars thereby raising its dollar reserves.
  - sell dollars thereby lowering its dollar reserves.
  - never intervene in the currency market.
30. The US CPI is  $P^* = 800$ . The eurozone CPI is  $P = 400$ . Then the purchasing power parity exchange rate is
- 2 €/\$. (b) 1 €/\$.  
(c) 1/2 €/\$. (d) 1 \$/€.
31. Identify the option where the two concepts have opposite meanings.
- Real appreciation and nominal depreciation
  - The purchase of dollars in the currency market and the sale of euros in the same market
  - Devaluation and revaluation
  - Triangle arbitrage and spatial arbitrage
32. Under a floating exchange rate regime
- an increase in the value of the home currency against foreign currencies is an appreciation.
  - the government buys the home currency to sustain the exchange rate.
  - an increase in the value of the home currency against foreign currencies is a devaluation.
  - an increase in the value of the home currency against foreign currencies is a revaluation.
33. Assuming a floating (or flexible) exchange rate between the euro and the dollar, the US government places a tax on the sale of dollars by American citizens in the currency market: for each dollar sold by American citizens, they should pay 0.5 dollars to the US government. What is the likely effect of this tax?
- A shift to the left of the supply of dollars function and, accordingly, an appreciation of the euro against the dollar.
  - A shift to the right of the demand for dollars function and, accordingly, a devaluation of the euro with respect to the dollar.
  - A shift to the left of the supply of dollars function and, accordingly, both a shift to the left of the demand for euros function and a depreciation of the euro against the dollar.
  - A shift to the right of the supply of dollars function and, accordingly, both a shift to the left of the demand for euros function and a revaluation of the euro against the dollar.
34. In which case is the euro undervalued (with respect to its purchasing power parity value) against the dollar?
- $e = 1 \text{ } \$/\text{€}, P = 200 \text{ i } P^* = 400$
  - $e = 1/2 \text{ } \text{€}/\text{\$}$  and  $P = P^* = 200$
  - $e = 2 \text{ } \text{€}/\text{\$}$  and  $e_{PPP} = 1/4 \text{ } \$/\text{€}$
  - None of the above
35. The impossible trinity
- refers to monetary policy, fixed exchange rates, and capital controls.
  - states that it is not possible to have an upward sloping supply of euros function, a downward sloping demand for euros function, and an exchange rate equal to its purchasing power parity value.
  - makes it impossible to have a fixed exchange rate, a speculative attack, and commercial arbitrage.
  - asserts that a floating (or flexible) exchange rate implies both capital controls and the impossibility of conducting an independent monetary policy.

36. The dollar has appreciated against the euro. It is not a possible explanation that
- the US GDP has grown and, at the same time, the US interest rate has fallen.
  - the eurozone GDP has grown and, simultaneously, the eurozone inflation rate has decreased.
  - while the eurozone inflation rate went up, the US inflation rate went down.
  - None of the above
37. Triangular arbitrage is impossible when
- 2 \$/€, ½ \$/¥, ¼ €/¥.
  - 1 \$/€, 2 \$/¥, 2 ¥/€.
  - 1 \$/€, ½ \$/¥, 2 €/¥.
  - None of the above
38. The denial of which sentence is not false?
- The dollar tends to depreciate against the euro if the European Central Bank purchases euros in the currency market.
  - In a fixed exchange rate regime the real exchange rate is necessarily equal to 1.
  - A rising real exchange rate (expressed as units of foreign goods divided by units of domestic goods) represents an erosion (worsening) of the domestic economy's competitiveness.
  - If  $e = 2 \text{ €/}\$$ , the euro could be undervalued against the dollar with respect to its purchasing power parity value.
39. What could explain a reduction in the \$/€ exchange rate?
- A fall in the US interest rate
  - A raise in the US inflation rate
  - Neither (a), nor (b), nor (d)
  - A raise in the eurozone interest rate
40. In which units is the real exchange rate expressed?
- Current euros or in the same units as the CPI
  - Current dollars per euros of a base year
  - The real exchange rate does not have any units.
  - None of the above
41. Which variable measures an economy's competitiveness?
- The real exchange rate
  - The money velocity of circulation
  - The unemployment rate minus the inflation rate
  - The real interest rate
42. What intervention by the Federal Reserve in the currency market would tend to appreciate the dollar against the euro?
- The purchase of dollars and the sale of euros
  - The sale of dollars and the purchase of euros
  - An expansionary monetary policy
  - None of the above
43. Letting  $P$  designate the eurozone price index, the competitiveness of the eurozone cannot improve
- when  $P$  remains constant,  $e$  (expressed in \$/€ units) doubles, and  $P^*$  raises.
  - in passing from  $e = ¼ \text{ €/}\$$ ,  $P = 100$ , and  $P^* = 400$  to  $e = 2 \text{ €/}\$$  and  $P = P^* = 400$ .
  - when  $P^*$  remains constant,  $e$  (expressed in \$/€ units) falls, and  $P$  doubles.
  - when  $e$  remains constant,  $P^*$  increases, and  $P$  decreases but less than  $P^*$  increases.
44. Let the exchange rate  $e$  be expressed in dollars per euro. If  $i$  increases, then
- the euro appreciates against the dollar, while the dollar appreciates against the euro.
  - the euro appreciates against the dollar, while the dollar depreciates against the euro.
  - the euro depreciates against the dollar, while the dollar appreciates against the euro.
  - None of the above
45. A real depreciation is a fall in
- the real interest rate.
  - the GDP deflator or in real GDP.
  - the real exchange rate.
  - the unemployment rate or the interest parity.
46. The euro depreciates with respect to the dollar but appreciates against the Bolivian boliviano if
- the Central Bank of Bolivia purchases bolivianos in exchange for euros and the Federal Reserve purchases dollars in exchange for euros.
  - the Central Bank of Bolivia purchases bolivianos in exchange for dollars and the Federal Reserve purchases dollars in exchange for bolivianos.
  - the European Central Bank purchases dollars in exchange for euros and the Central Bank of Bolivia purchases euros in exchange for bolivianos.
  - the European Central Bank purchases euros in exchange for dollars and, at the same time, purchases bolivianos in exchange for euros.