

# Introduction to Macroeconomics · M4 · 2016-17

## Problem Set 3 · Multiple choice questions

- What may leave the money multiplier unchanged, where  $l$  is the liquidity ratio and  $r$  is the reserve ratio?
  - $l$  falls and  $r$  remains constant
  - $l$  falls and  $r$  rises
  - $l$  and  $r$  both fall
  - $l$  and  $r$  both duplicate
- Which sequence represents the bank money creation process in the textbook model?
  - $\uparrow$  deposits  $\Rightarrow$   $\downarrow$  loans  $\Rightarrow$   $\uparrow$  reserves  $\Rightarrow$   $\uparrow$  deposits
  - $\uparrow$  deposits  $\Rightarrow$   $\uparrow$  loans  $\Rightarrow$   $\downarrow$  expenditures  $\Rightarrow$   $\downarrow$  revenues  $\Rightarrow$   $\uparrow$  deposits
  - $\uparrow$  deposits  $\Rightarrow$   $\uparrow$  liquidity ratio  $\Rightarrow$   $\uparrow$  money multiplier  $\Rightarrow$   $\uparrow$  deposits
  - None of the above
- What is not a monetary aggregate?
  - M1**
  - The monetary base
  - M2**
  - The money multiplier
- M0** is defined as
  - currency held by the public minus bank reserves.
  - currency held by the public plus sight bank deposits.
  - sight bank deposits minus bank reserves.
  - currency held by the public plus bank reserves.
- If **M0** remains constant and the cash held by the public diminishes, then
  - bank reserves must have been increased.
  - M1** also remains constant if the money multiplier has fallen.
  - M1** is twice **M0**.
  - It is impossible for **M0** to remain constant.
- Suppose financial assets  $A$  and  $B$  differ only in two properties. Which one of the following sentences is more likely to be true?
  - If  $A$  is riskier than  $B$ , then  $B$ 's rate of return should be higher than  $A$ 's.
  - If  $A$  is less liquid than  $B$ , then  $A$  should be riskier than  $B$ .
  - If  $A$ 's rate of return is higher than  $B$ 's, then  $A$  should be more liquid than  $B$ .
  - None of the above
- Identify the sentence that is not false.
  - The money multiplier may be negative.
  - M2** is always smaller than **M1**.
  - M0** is always greater than **M1**.
  - None of the above
- Which event does not reduce the money multiplier?
  - An increase in the liquidity ratio
  - An increase in the reserve ratio
  - An increase in the liquidity ratio combined with a decrease in the reserve ratio
  - None of the above
- Which of the following concepts represents currency?
  - The CPI or nominal GDP
  - The bank deposits
  - The liquidity ratio
  - None of the above
- The money multiplier directly relates
  - the difference **M0** – **M3** to the reserve ratio.
  - M1** to **M0**.
  - currency held by the public to loan default.
  - nominal GDP to real GDP.
- The money multiplier process is a process involving
  - real GDP, the inflation rate, and the output gap.
  - the GDP deflator, the CPI, and the monetary base.
  - neither (a), nor (b), nor (d).
  - loans, deposits, expenditures, and revenues.
- If the monetary base is 100, **M1** = 1,000 and the liquidity ratio is 0.1,
  - the money multiplier cannot be calculated.
  - the reserve ratio must be zero.
  - the money multiplier is 10.
  - None of the above
- The money multiplier (as presented in the notes) relates
  - the inflation rate to either currency or the GDP growth rate.
  - expenditures and revenues to the inflation rate.
  - the growth rate of real GDP per capita to the monetary base.
  - the money stock **M1** to the monetary base **M0**.

14. Which variables are linked by the money multiplier?
- The monetary base and the nominal interest rate
  - The money stock and the bank reserves
  - The liquidity ratio and the volume of sight deposits
  - None of the above
15. Which claim about the money multiplier process is not true?
- More deposits give rise to more loans.
  - More loans give rise to more expenditure.
  - More expenditures give rise to more revenues.
  - More revenues give rise to fewer deposits.
16. With  $l$  being the liquidity ratio and  $r$  the reserve ratio, the money multiplier may remain constant if
- both  $l$  and  $r$  fall.
  - both  $l$  and  $r$  rise.
  - $l$  declines and  $r$  does not change.
  - $l$  goes down and  $r$  goes up.
17. The money multiplier has decreased. A possible explanation is that
- the liquidity ratio  $l$  has decreased.
  - the reserve ratio  $r$  has decreased.
  - liquidity and reserve ratios have not changed.
  - the liquidity ratio  $l$  has increased and the reserve ratio  $r$  has decreased.
18. The money creation process
- is a process that establishes the relationship between the CPI and the GDP deflator, or between real GDP and nominal GDP per capita.
  - is a technique to compute the inflation rate and guarantees the role of money as a means of payment.
  - is an example of the fallacy of composition.
  - is based on the creation of deposits.
19. What variable is not a monetary aggregate?
- M0**
  - The money multiplier
  - M1**
  - All of the above
20. Which of the following concepts is a better measure of the amount of money in an economy?
- The amount of coins and bank notes
  - The foreign currency
  - The money stock
  - All of the above
21. Which sentence is not false?
- The liquidity ratio is a monetary aggregate only when money is a not a unit of account.
  - The monetary base is the sum of **M1** and the money multiplier.
  - The inflation rate cannot be smaller than the growth rate of **M2**.
  - Sweden or Latvia or Lithuania is not a member of the eurozone but Estonia is.
22. Which variable does not directly affect the money multiplier?
- the liquidity ratio  $l$ .
  - the reserve ratio  $r$ .
  - the rate of growth of **M0**.
  - None of the above
23. An individual has a constant liquidity ratio  $l$ . Specifically, he has €1,000 in cash and deposits worth €2,000. While wandering around the streets, he finds a €20 banknote and a €1 coin. According to  $l$  which part of the €21 is held in cash and which part is deposited in a bank?
- Cannot be determined
  - €10.5 are held in cash and €10.5 are deposited in a bank.
  - €14 are held in cash and €7 are deposited in a bank.
  - €7 are held in cash and €14 are deposited in a bank.
24. Financial assets  $A$  and  $B$  differ only in two properties. Which of the following sentences is more likely to be true?
- If  $A$  is as liquid as  $B$ , then  $B$  should be more profitable than  $A$ .
  - If  $A$  is riskier than  $B$ , then  $B$ 's rate of return should be higher than  $A$ 's.
  - If  $A$  is more liquid than  $B$ , then  $B$  should be riskier than  $A$ .
  - If  $A$ 's rate of return is smaller than  $B$ 's, then  $B$  should be less liquid than  $A$ .
25. Financial assets  $A$  and  $B$  differ only in two properties. Which one of the following sentences is more likely to be true?
- If  $A$  is more liquid than  $B$ , then  $B$  should be more profitable than  $A$ .
  - If  $A$  is less risky than  $B$ , then  $B$ 's rate of return should be same as  $A$ 's.
  - If  $A$  is less liquid than  $B$ , then  $A$  should be riskier than  $B$ .
  - If  $A$ 's rate of return is higher than  $B$ 's, then  $A$  should be more liquid than  $B$ .

26. Which of the following countries is not a member of the eurozone (officially known as “euro area”)?
- Estonia
  - Malta
  - Slovenia o Latvia
  - None of the above
27. What cannot be considered a financial asset?
- A bank deposit
  - A government bond
  - A loan
  - None of the above
28. It is to be expected from a financial asset that, other things being equal,
- the higher its liquidity, the smaller its risk.
  - the smaller its rate of return, the higher its liquidity.
  - the higher its risk, the smaller its rate of return.
  - None of the above
29. Financial assets  $A$  and  $B$ , traded in a secondary market, differ only in three properties: liquidity, rate of return, and risk. If  $A$  is more liquid than  $B$
- and  $B$  is more risky than  $A$ , then  $A$ 's rate of return should be smaller than  $B$ 's.
  - and  $B$  is less risky than  $A$ , then necessarily  $A$  and  $B$  should have the same rate of return.
  - and both  $A$  and  $B$  are equally risky, then  $A$ 's rate of return should be higher than  $B$ 's.
  - None of the above
30. Sight deposits are  $D = 100$ . The bank reserves are  $R = 20$ . The money multiplier is 3. Then the cash  $E$  held by the public
- is smaller than 30.
  - is larger than 40.
  - is such that the liquidity ratio is smaller than 0.1.
  - cannot be determined.
31. The money multiplier relates
- the nominal interest rate to the discount factor.
  - the interest rate to the inflation rate.
  - the trade balance to the monetary base.
  - the money stock  $M1$  to the monetary base  $M0$ .
32. Using the discount factor, if the one year interest rate is 10%, the price at the issue date of T-bill with face value €1,000 is
- $1,000 \cdot (1 + 0.1)$
  - $\frac{1+10}{1,000}$
  - $\frac{1,000}{1+10}$
  - $\frac{1,000}{1+0.1}$
33. The liquidity ratio is four times the reserve ratio. The money multiplier is 2. It is then false that
- $M0 = 5 \cdot R$ , where  $R$  designates the banks' reserves.
  - the amount  $R$  of the banks' reserves can be determined.
  - the liquidity ratio is  $2/3$ .
  - cash in the hands of the public is four times  $R$ .
34. The unit of account function of money
- is emphasized by the credit (or debt) theory of money.
  - is the same as the medium of exchange function of money.
  - asserts that  $M3$  is larger than  $M2$  or that securitization is a measure of financial depth.
  - holds that the higher the liquidity of a financial asset, the larger its rate of return.
35. Which sentence is highly unlikely?
- A highly liquid financial asset with a high rate of return will be very risky
  - An almost riskless financial asset with a high rate of return will be highly illiquid
  - A highly liquid financial asset with a high rate of return will be almost riskless
  - None of the above
36. Two financial assets differ in just two properties. It is then to be expected that
- the less profitable asset will be the less liquid.
  - the more liquid asset will be the less risky.
  - the riskier asset will be the less profitable.
  - the more profitable asset will be the riskier.
37. The difference  $M1 - M0$
- is known as the amount of bank reserves,  $R$ .
  - is equal to the total volume of deposits,  $D$ .
  - does not exist or has no meaning.
  - None of the above
38. The discount factor associated with interest rate  $i = 50\%$
- cannot be calculated.
  - is also 50%.
  - is smaller than 1.
  - is greater than 1.
39. The concept of discount factor is directly related to
- real GDP per capita.
  - the reserve ratio or the liquidity ratio.
  - the monetary aggregate  $M3$ .
  - None of the above

40. Which of the following sentences is not true?
- Nominal interest rate and price of financial assets tend to be inversely correlated.
  - When the central bank executes an open market operation, the nominal interest rate tends to be inversely correlated with M1.
  - The discount rate is inversely correlated with the nominal interest rate.
  - None of the above
41. Firms cannot obtain from banks the amount of desired credit. As a result, firms have decided to sell all the government bonds they own. What measure by the central bank can offset the effect on the nominal interest rate typically caused by the sale of bonds?
- An increase in the reserve requirements
  - A rise in the central bank's discount rate
  - An expansionary open market operation
  - None of the above
42. The discount factor is directly related to
- the CPI inflation rate.
  - the money multiplier.
  - the nominal interest rate.
  - None of the above
43. The money multiplier directly relates
- the nominal interest rate to the reserve ratio.
  - M1 to M0.
  - the currency held by the public to the face value of T-bills.
  - the open market operations to the bank reserves.
44. If the nominal interest rate falls, then, necessarily,
- the associated discount factor also falls.
  - the price of financial assets also falls.
  - the real interest rate rises.
  - None of the above
45. Which one is a monetary policy instrument of central banks?
- The money multiplier
  - The reserve ratio
  - The GDP deflator
  - The inflation rate
46. A contractionary open market operation
- consists in reducing reserve requirements.
  - consists in purchasing financial assets.
  - consists in purchasing foreign firms.
  - None of the above
47. The nominal interest rate on a one-year loan is 5%. Assuming arbitrage, find the likely initial price of a T-bill with the same time to maturity as the loan and with face value equal to 100.
- There is not enough information to determine the answer.
  - The price is the discounted value of 5%.
  - The price is  $100 \cdot (1 + 0.05) = 105$ .
  - None of the above
48. At the issue date, the price of a T-bill to mature in one year and with face value €1,000 is €400. By arbitrage, which must be interest rate for loans maturing in one year?
- There is no relationship between the price of the T-bill and the interest rate
  - Exactly 40%
  - Smaller than 40%
  - Greater than 40%
49. What is not true about an expansionary open market operation?
- It is executed by the central bank.
  - In the liquidity market model, it is represented by a shift of the supply of liquidity function to the right.
  - It tends to cause an increase in the price of financial assets.
  - It causes an increase in the interest rate.
50. An expansionary monetary policy aims at rising
- the money stock.
  - the government budget deficit.
  - foreign real GDP.
  - None of the above
51. If the central bank sells financial assets,
- a rise in the interest rate is to be expected.
  - a fall in the interest rate is to be expected.
  - the money stock increases.
  - the money multiplier automatically puts up because both the liquidity ratio and the reserve ratio rise.
52. If the real interest rate remains constant, then, assuming the Fisher effect, a 3-point increase in the inflation rate
- will be accompanied by a 3-point reduction in the nominal interest rate.
  - will cause no effect on the nominal interest rate.
  - is simply impossible.
  - None of the above

53. In the liquidity market model (with upward-sloping supply function), what could not explain a rise in the interest rate?
- An increase in the budget deficit
  - An open market operation
  - A reduction of the number of banks combined with a rise in unemployment
  - An increase in the number of banks combined with a fall in the number of firms
54. The interest rate has dropped. A possible explanation is that
- there are more banks and fewer firms.
  - there are fewer banks and fewer firms.
  - there are fewer banks and more firms.
  - None of the above
55. What could explain a rise in both the interest rate and the amount of liquidity?
- An open market operation by the central bank
  - An increase in unemployment
  - Neither (a) nor (d)
  - A rise in the budget deficit combined with an increase in the number of banks
56. The sale of financial assets implemented by the central bank
- tends to reduce the interest rate.
  - tends to reduce the money supply.
  - increases the money multiplier because it necessarily causes a fall in the liquidity ratio.
  - tends to raise the interest rate.
57. Which of the following is not a monetary policy instrument of a central bank?
- Open market operations
  - Reserve requirements
  - Interest rates set by the central bank
  - None of the above
58. A negative real interest rate
- is impossible.
  - is not impossible.
  - is the consequence of having a nominal interest rate equal to the inflation rate.
  - None of the above.
59. When the central bank sells financial assets
- the interest rate tends to rise.
  - the interest rate tends to fall.
  - liquidity tends to grow.
  - the money multiplier increases because the sale of financial assets causes a rise in the reserve and liquidity ratios.
60. A negative real interest rate
- necessarily implies a negative inflation rate.
  - arises when the nominal interest rate is greater than the inflation rate.
  - occurs when the inflation rate is greater than the nominal interest rate.
  - is a plain impossibility.
61. What decision by the central bank could offset the effect on the interest rate of a worsening in the expectations concerning the short-term evolution of the economic activity?
- The reduction in the reserve ratio
  - The reduction in the interest rate at which the central bank furnishes loans to the banks
  - The purchase of financial assets
  - None of the above
62. According to the Fisher equation, if real interest rate is 4% and nominal interest rate is 6%, then the inflation rate is, roughly,
- 10%.
  - 2%.
  - 2%.
  - None of the above
63. Which concept is unrelated to the nominal interest rate?
- The Fisher effect
  - The price of T-bills
  - The fundamental macroeconomic identity
  - None of the above
64. If the number of banks increases and the number of firms decreases, it is likely that the nominal interest rate
- none of the following.
  - will necessarily remain constant.
  - will rise.
  - will fall.
65. According to the Fisher effect, a surge in the inflation rate causes
- a reduction in the unemployment rate.
  - an increase in real GDP.
  - a reduction in the nominal interest rate.
  - an increase in the nominal interest rate.
66. Identify a monetary policy instrument of central banks.
- The money multiplier
  - The GDP deflator inflation rate
  - The rate of growth of the real GDP
  - None of the above

67. The government budget deficit has increased. In the liquidity market model with increasing supply function, what could neutralize the effect on the interest rate of that increase?
- A contractionary open market operation
  - That the most important banks go bankrupt.
  - That firms sell financial assets they own to finance new investment projects.
  - An increase in unemployment combined with the closure of 20% of all the factories.
68. The Fisher effect relates the
- GDP growth rate and the nominal interest rate.
  - economy growth rate and the inflation rate.
  - trade balance or the government budget deficit and the nominal interest rate .
  - inflation rate and the nominal interest rate.
69. If the central bank executes an expansionary open market operation and, simultaneously, the government issues bonds to finance an increase in the government expenditure, the interest rate in the liquidity market with increasing supply function necessarily
- rises.
  - falls.
  - remains constant.
  - None of the above
70. A shift to the right of the (upward-sloping) supply of liquidity function combined with a shift to the right of the demand for liquidity function necessarily causes
- a fall in the equilibrium amount of liquidity.
  - a rise in the equilibrium interest rate.
  - a fall in the equilibrium interest rate.
  - a rise in the equilibrium amount of liquidity.
71. How can a central bank increase the economy's liquidity (the money supply)?
- By selling financial assets in an OMO
  - By increasing the reserve ratio
  - By reducing the liquidity ratio
  - By purchasing financial assets in an OMO
72. With increasing supply, the interest rate has fallen. What could not explain this result?
- That both the supply of liquidity and the demand for liquidity have shifted.
  - That only the supply of liquidity has shifted.
  - That only the demand for liquidity has shifted.
  - That the supply of liquidity has shifted to the left and the demand for liquidity to the right.
73. The nominal interest rate has fallen. A possible explanation is that
- one of every three firms has closed down.
  - the central bank has sold government bonds.
  - the government budget deficit has risen.
  - None of the above
74. Which sentence is not false?
- The General Council is the main decision-making body of the European Central Bank.
  - The Eurosystem is exactly the same institution as the European Central Bank.
  - The European System of Central Banks is the monetary authority of the eurozone.
  - The Executive Board of the European Central Bank implements the monetary policy decided by the Governing Council.
75. The real interest rate
- links **M1** with **M2**.
  - is, in general, equal to the real GDP.
  - coincides with the discount factor.
  - depends on the nominal interest rate and the inflation rate.
76. The interest rate is never affected by changes
- in the inflation rate.
  - in the government budget.
  - in the monetary policy.
  - None of the above
77. The central bank can provide liquidity by
- conducting an open market operation in which the central bank sells financial assets.
  - raising the reserve requirements.
  - raising the people's liquidity ratio.
  - conducting an open market operation in which the central bank purchases financial assets.
78. When the central bank sells financial assets,
- the nominal interest rate tends to decline.
  - liquidity tends to rise.
  - the money multiplier goes up because the sale causes a rise in both the reserve ratio and the liquidity ratio.
  - the nominal interest rate tends to increase.
79. What sentence is not true?
- The central bank affects directly  $M_0$ .
  - The money multiplier links  $M_0$  with  $M_1$ .
  - An increase in the reserve ratio lowers the money multiplier.
  - The ECB sets the value of the Euribor by means of a tender procedure.

80. The main refinancing operations (MROs)
- are the interest rates set by the European Central Bank.
  - is the marginal lending facility.
  - are a particular case of the *cum hoc* fallacy.
  - constitute a tool of monetary policy.
81. The main refinancing operations (MROs) of the European Central Bank are
- open markets operations.
  - standing facilities.
  - reserve requirements.
  - an absorbing liquidity procedure under the direct control of the General Council of the European Central Bank.
82. With increasing supply, which event could cause a fall in the interest rate but not a rise?
- Having fewer banks and fewer firms
  - Having fewer banks but more firms
  - Neither (a), nor (b), nor (d)
  - Having more banks but fewer firms
83. Which one is a monetary policy instrument of central banks?
- The money multiplier
  - The reserve ratio
  - The GDP deflator
  - The inflation rate
84. Which rate is not set by the European Central Bank?
- The interest rate on the marginal lending facility.
  - The interest rate of the main refinancing operations when they are executed in the form of a fixed rate tender.
  - The Euribor
  - None of the above
85. Which option lists two monetary policy instruments of the central bank?
- GDP deflator and open market operations
  - Real interest rate and inflation rate
  - Reserve requirements and nominal GDP
  - None of the above
86. According to the Fisher effect,
- the nominal interest rate is always constant.
  - the nominal interest rate reacts to changes in the inflation rate.
  - the nominal GDP reacts to changes in the GDP deflator.
  - the real interest rate can never be negative.
87. Suppose that the rate of return of loans and T-bills is the same and that both assets have the same maturity. If the face value of T-bills is 1,090 and the interest rate of the loans is 9%, then the price of T-bills when they are issued must be
- negative.
  - higher than 1,000.
  - lower than 1,000 but positive.
  - 1,000.
88. Select the sentence that is not true.
- The interest rate could be interpreted as a measure of the borrowers' patience (or impatience).
  - A rise in the liquidity ratio lowers the money multiplier.
  - The discount factor transforms future monetary values into present monetary values.
  - The money multiplier links the money stock with the interest rate and the price of financial assets.
89. The real interest rate is, initially, positive and is given by the Fisher equation. If both the nominal interest rate and the inflation rate are cut by half, then the real interest rate
- is also cut by half.
  - does not change.
  - falls.
  - becomes zero.
90. With an increasing supply of liquidity, when the domestic interest rate could stay unaltered?
- A tax previously levied on loans and paid by borrowers is now removed and, simultaneously, the central bank executes a contractionary open market operation.
  - 50% of the domestic firms go bankrupt and unemployment surges.
  - Foreign banks settle new offices in the domestic economy while the government budget deficit doubles.
  - None of the above
91. With an upward-sloping supply function, what could not explain a fall in the interest rate?
- Having fewer banks when more firms are created.
  - An expansionary open market operation executed when unemployment increases.
  - An increase in reserve requirements when the central bank buys financial assets.
  - Having more banks when reserve requirements are increased.

92. The discount factor is directly related to
- the reserve ratio.
  - the money creation process.
  - the unit of account property of money.
  - the interest rate of the economy.
93. In the liquidity market model with increasing supply function, what could not in general explain an increase in the interest rate?
- A contractionary open market operation
  - A lowering of the reserve ratio
  - An increase in the government budget deficit
  - The bankruptcy of most banks
94. In the liquidity market model with increasing supply function, what follows necessarily from a contractionary open market operation and the issuing of financial assets by firms to fund investment projects?
- A fall in the interest rate and a rise in the amount of liquidity
  - A rise in both the interest rate and the amount of liquidity
  - A fall in the amount of liquidity
  - None of the above
95. In which case at least one of the terms is not directly related to the European Central Bank?
- Eurosystem and marginal interest rate of a variable interest rate tender main refinancing operation.
  - Governing Council and marginal lending facility.
  - Interest rate on the main refinancing operations and government budget deficit.
  - Deposit facility and European System of Central Banks.
96. A contractionary open market operation
- consists of buying or selling financial assets.
  - is typically carried out by firms that need funds to finance investment projects.
  - tends to rise the interest rate.
  - None of the above
97. A fixed rate tender with full allotment is
- an example of the Fisher effect.
  - sometimes an instance of the phenomenon called "securitization" and sometimes a government purchase.
  - a way of conducting open market operations.
  - an illustration of the fallacy of composition when there are arbitrage opportunities in the presence of a negative discount factor.
98. If the interest rate between  $t$  and  $t + 1$  is  $i = 10\%$ , then
- the price in  $t$  of a T-bill issued in  $t$  that promises to pay €1,000 in  $t + 1$  is also 10%.
  - the discount factor is equal to 10%.
  - by arbitrage the nominal (or face) value of a T-bill is 10%.
  - None of the above
99. Which sentence is not true?
- If the Fisher equation holds, having always a constant real interest rate justifies the Fisher effect.
  - An expansionary open market operation does not shift the demand for liquidity function to the left.
  - The purchase of (interest-bearing) financial assets can be considered an indirect demand for liquidity.
  - The Fisher equation does not relate the nominal interest rate with the nominal GDP, with the unemployment rate, or with the net private savings of the economy.
100. Banks have suddenly decided to sell securities they own. What policy by the central bank neutralizes the effect on the interest rate of the securities sale (assuming an upward sloping supply of liquidity function)?
- A contractionary open market operation.
  - An increase in the reserve requirements.
  - An increase in the interest rate at which the central bank lends to banks.
  - None of the above
101. What event does not tend to raise the equilibrium interest rate in the liquidity market model with an upward sloping supply of liquidity function?
- A contractionary open market operation
  - An increase in the amount of financial assets that households would like to sell.
  - An increase in the amount of reserves that banks are legally required to hold at the central bank.
  - None of the above
102. The central bank purchases T-bills from banks. What is the effect on  $M_0$ ,  $M_1$ , and the interest rate  $i$ ?
- $M_1$  and  $i$  go down, while  $M_0$  goes up.
  - $M_1$  and  $M_0$  go down, while  $i$  goes up.
  - $M_1$  and  $M_0$  go up, while  $i$  goes down.
  - None of the above

103. Which sentence is not false?

- (a) If the real interest rate equals the inflation rate, then the nominal interest rate is zero.
- (b) If the government budget runs a surplus and there is a trade deficit, then investment  $I$  equals savings  $S$ .
- (c) With a positive nominal interest rate, the present discounted value of  $x > 0$  euros is smaller than  $x$ .
- (d) If the money multiplier increases, then the bank reserves also increase.

104. When a central bank purchases financial assets,

- (a) a contractionary open market operation is conducted.
- (b) the monetary base diminishes.
- (c) downward pressure is exerted on the interest rate.
- (d) None of the above

105. Which sentence is not false?

- (a) The Fisher effect links the inflation rate with the real GDP growth rate.
- (b) The savings identity links the money multiplier with deposits.
- (c) The money multiplier links the money stock with the monetary base.
- (d) The real interest rate links the GDP deflator with nominal GDP.

106. Which two concepts are not inversely related? (They are inversely related if, in general, one increases when the other decreases and vice versa.)

- (a) Discount factor and nominal interest rate
- (b) Prices of financial assets and the interest rate
- (c) **M1 and M0**
- (d) Real GDP and GDP deflator when nominal GDP is held fixed.

107. What combination of events could not explain a fall in the equilibrium interest rate in the liquidity market model with an upward sloping supply of liquidity function?

- (a) Several important banks go bankrupt and the central bank conducts an expansionary open market operation.
- (b) The government budget deficit grows and the central bank reduces the reserve requirements.
- (c) Firms increase the amount of financial assets they would like to buy whereas households reduce the amount of financial assets they would like to sell.
- (d) None of the above

108. According to the Fisher equation,

- (a) the nominal exchange rate is the real exchange rate plus the inflation rate.
- (b) the unemployment rate is inversely related to the inflation rate.
- (c) by subtracting the inflation rate from the nominal interest rate the real interest rate is obtained.
- (d) None of the above

109. The interest rate is likely to diminish when

- (a) the central bank increases the amount of reserves that banks must deposit in the central bank.
- (b) the government substantially increases the issuance of government bonds and T-bills.
- (c) families reduce their liquidity ratio.
- (d) None of the above

110. A fall in the interest rate is not to be expected if

- (a) the central bank drops to zero the amount of reserves banks must hold at the central bank.
- (b) the government issues financial assets to finance a rise in the government budget deficit.
- (c) households increase their purchases of financial assets.
- (d) None of the above

111. In the liquidity market model, what could not explain, in principle, a fall in the interest rate?

- (a) An expansionary open market operation
- (b) A reduction in the reserve ratio
- (c) A massive selling of financial assets
- (d) Foreign banks enter the domestic banking system

112. Banks decide to lend more money. What measure could neutralize the effect on the interest rate of the banks' decision to expand lending?

- (a) A contractionary open market operation
- (b) Cutting the interest rates set by the central bank
- (c) Lowering the amount of legal (or minimum) reserves
- (d) None of the above

113. The Fisher equation

- (a) mentions neither the interest rate nor the inflation rate.
- (b) involves the unemployment rate and the inflation rate.
- (c) does not relate GDP with the exchange rate.
- (d) None of the above

114. The inflation rate rises while the nominal interest rate falls. This would contradict
- the macroeconomic savings identity.
  - the money multiplier formula.
  - the Fisher effect.
  - None of the above
115. The price of T-bills when issued is 800. The nominal value of T-bills is 1,000. Assume that the inverse relationship between the price of T-bills and the nominal interest rate holds. If the inflation rate (between the issuance of T-bills and their maturity time) is 30%, then
- the real interest rate is positive but not higher than the nominal interest rate.
  - the real interest rate is equal to the nominal interest rate.
  - the real interest rate is negative.
  - None of the above
116. 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.
117. What could not explain a rise in the nominal interest rate?
- A contractionary open market operation conducted at the same time as households sell T-bills.
  - A contractionary open market operation conducted at the same time as banks buy T-bills.
  - A contractionary open market operation implemented when the government, due to a fall in its budget deficit, reduces the amount of T-bills issued.
  - None of the above
118. 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
119. In the liquidity market model, what could explain, in principle, a drop in the interest rate?
- A contractionary open market operation
  - A decrease in the reserve ratio
  - Financial assets are massively sold
  - 25% of all the banks go bankrupt
120. 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
121. In which case could triangular arbitrage be carried out?
- 1 \$/€ 1 \$/¥ 1 €/¥
  - 2 \$/€ 4 \$/¥ 2 €/¥
  - 2 \$/€ 2 \$/¥ 1 €/¥
  - 2 \$/€ 2 \$/¥ 2 €/¥
122. 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.
123. From which value to which value the dollar depreciates with respect to the euro?
- From 4 \$/€ to 2 €//\$
  - From 2 \$/€ to 2 €//\$
  - From 2 €//\$ to 0.5 \$/€
  - From 2 €//\$ to 4 \$/€
124. Which sentence is not true?
- Triangular arbitrage is not possible when exchange rates are 0.5 \$/€, 3 \$/¥, and 6 €/¥.
  - 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.

125. 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) A contractionary open market operation
- (b) An increase in the reserve ratio
- (c) The purchase of euros (paid with reuros)
- (d) The purchase of reuros (paid with euros)

126. What is the foreseeable effect on the exchange rate  $\$/\epsilon$  of the purchase by the European Central Bank of financial assets?

- (a) Appreciation of the EUR with respect to the USD
- (b) Depreciation of the USD with respect to the EUR
- (c) There is absolutely no connection between the loan market and the currency market
- (d) None of the above

127. What could explain the depreciation of the euro with respect to the dollar?

- (a) A fall in the Eurozone prices
- (b) An increase in the Eurozone interest rate
- (c) A decrease in the US interest rate
- (d) A fall in the prices of the US

128. 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?

- (a) Causes a rise in the real exchange rate
- (b) Causes a reduction in the real exchange rate
- (c) Does not affect the real exchange rate
- (d) None of the above

129. What could not explain the depreciation of the euro with respect to the dollar?

- (a) A fall in the Eurozone prices
- (b) An increase in the Eurozone interest rate
- (c) A decrease in the US interest rate
- (d) None of the above

130. If the nominal exchange rate is 2  $\$/\epsilon$ , the eurozone CPI is 200, and the US CPI is 100,

- (a) the euro is overvalued with respect to its purchasing power parity value.
- (b) the euro is undervalued with respect to its purchasing power parity value.
- (c) the euro is at its purchasing power parity level.
- (d) None of the above

131. 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?

- (a) According to the impossible trinity, no such measure exists.
- (b) The Federal Reserve buys euros in the currency market.
- (c) The Federal Reserve buys dollars in the currency market.
- (d) The Federal Reserve sells dollars in the currency market.

132. If  $P = 100$ ,  $P^* = 50$ , and  $e = 1 \$/\epsilon$ , then, according to PPP, the euro is

- (a) overvalued.
- (b) undervalued.
- (c) at parity level.
- (d) None of the above

133. Using proper technical terms, the euro appreciates against the dollar if

- (a) the US government time ago set a fixed exchange rate at 2  $\epsilon/\$$  and now changes that fixed rate to 2  $\$/\epsilon$ .
- (b) there is a floating exchange rate regime between the two currencies and the equilibrium exchange rate in the currency market goes from 2  $\epsilon/\$$  to 2  $\$/\epsilon$ .
- (c) there is a floating exchange rate regime between the two currencies and the equilibrium exchange rate in the currency market goes from 2  $\$/\epsilon$  to 2  $\epsilon/\$$ .
- (d) the US government time ago set a fixed exchange rate at 2  $\$/\epsilon$  and now changes that fixed rate to 2  $\epsilon/\$$ .

134. The euro is likely to depreciate against the dollar in the currency market if

- (a) the US real GDP increases.
- (b) the US nominal interest rate falls.
- (c) the Eurozone inflation rate goes up.
- (d) None of the above

135. An example of an expansionary open market operation

- (a) is given by the deposit facility offered by central banks.
- (b) has people buying T-bills from the government.
- (c) is given by the central bank purchasing T-bills from banks.
- (d) has the government selling T-bills to banks.

136. 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
137. 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.
138. What is not false about triangular arbitrage?
- It can occur under exchange rates 2 \$/€, 2 \$/¥, and 1 ¥/€.
  - It is a way of unfolding a speculative attack.
  - It can occur under exchange rates 1 \$/€, 2 \$/¥, and 1 ¥/€.
  - It is made impossible by the impossible trinity.
139. 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
140. What cannot explain a depreciation of the euro against the dollar?
- A rise in the US interest rate.
  - A rise in the eurozone inflation rate.
  - A fall in the eurozone GDP.
  - None of the above
141. 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
142. In which case does the dollar appreciate against the euro?
- In passing from 2 \$/€ to 4 \$/€
  - In passing from 2 \$/€ to 2 €/€
  - In passing from 2 \$/€ to ½ €/€
  - None of the above
143. 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.
144. 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 rises.
  - the dollar appreciates against the euro.
  - None of the above
145. 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
146. 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
147. 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.
148. 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.

149. The US CPI is  $P^* = 800$ . The eurozone CPI is  $P = 400$ . Then the purchasing power parity exchange rate is

- (a) 2 €/.\$
- (b) 1 €/.\$
- (c)  $\frac{1}{2}$  €/.\$
- (d) 1 \$/€.

150. Identify the option where the two concepts have opposite meanings.

- (a) Real appreciation and nominal depreciation
- (b) The purchase of dollars in the currency market and the sale of euros in the same market
- (c) Devaluation and revaluation
- (d) Triangle arbitrage and spatial arbitrage

151. Assuming a floating (or flexible) exchange rate between euro and 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) A shift to the left of the supply of dollars function and, accordingly, an appreciation of the euro against the dollar.
- (b) A shift to the right of the demand for dollars function and, accordingly, a devaluation of the euro with respect to the dollar.
- (c) 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.
- (d) 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.

152. In which case is the euro undervalued (with respect to its purchasing power parity value) against the dollar?

- (a)  $e = 1$  \$/€,  $P = 200$  i  $P^* = 400$
- (b)  $e = \frac{1}{2}$  €/.\$ and  $P = P^* = 200$
- (c)  $e = 2$  €/.\$ and  $e_{PPP} = \frac{1}{4}$  \$/€
- (d) None of the above

153. What intervention by the Federal Reserve in the currency market would tend to appreciate the dollar against the euro?

- (a) The purchase of dollars and the sale of euros
- (b) The sale of dollars and the purchase of euros
- (c) An expansionary monetary policy
- (d) None of the above

154. The dollar has appreciated against the euro. It is not a possible explanation that

- (a) the US GDP has grown and, at the same time, the US interest rate has fallen.
- (b) the eurozone GDP has grown and, simultaneously, the eurozone inflation rate has decreased.
- (c) while the eurozone inflation rate went up, the US inflation rate went down.
- (d) None of the above

155. Triangular arbitrage is impossible when

- (a) 2 \$/€,  $\frac{1}{2}$  \$/¥,  $\frac{1}{4}$  €/¥.
- (b) 1 \$/€, 2 \$/¥, 2 ¥/€.
- (c) 1 \$/€,  $\frac{1}{2}$  \$/¥, 2 €/¥.
- (d) None of the above

156. The denial of which sentence is not false?

- (a) The dollar tends to depreciate against the euro if the European Central Bank purchases euros in the currency market.
- (b) In a fixed exchange rate regime the real exchange rate is necessarily equal to 1.
- (c) 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.
- (d) If  $e = 2$  €/.\$, the euro could be undervalued against the dollar with respect to its purchasing power parity value.

157. What could explain a reduction in the \$/€ exchange rate?

- (a) A fall in the US interest rate
- (b) A rise in the US inflation rate
- (c) Neither (a), nor (b), nor (d)
- (d) A rise in the eurozone interest rate

158. In which units is the real exchange rate expressed?

- (a) Current euros or in the same units as the CPI
- (b) Current dollars per euros of a base year
- (c) The real exchange rate does not have any units.
- (d) None of the above

159. Which variable measures an economy's competitiveness?

- (a) The real exchange rate
- (b) The money velocity of circulation
- (c) The unemployment rate minus the inflation rate
- (d) The real interest rate

161. Letting  $P$  designate the eurozone price index, the competitiveness of the eurozone cannot improve

- (a) when  $P$  remains constant,  $e$  (expressed in  $\$/\epsilon$  units) doubles, and  $P^*$  rises.
- (b) in passing from  $e = \frac{1}{4} \epsilon/\$$ ,  $P = 100$ , and  $P^* = 400$  to  $e = 2 \$/\epsilon$  and  $P = P^* = 400$ .
- (c) when  $P^*$  remains constant,  $e$  (expressed in  $\$/\epsilon$  units) falls, and  $P$  doubles.
- (d) when  $e$  remains constant,  $P^*$  increases, and  $P$  decreases but less than  $P^*$  increases.

162. Let the exchange rate  $e$  be expressed in dollars per euro. If  $i$  increases, then

- (a) the euro appreciates against the dollar, while the dollar appreciates against the euro.
- (b) the euro appreciates against the dollar, while the dollar depreciates against the euro.
- (c) the euro depreciates against the dollar, while the dollar appreciates against the euro.
- (d) None of the above

163. A real depreciation is a fall in

- (a) the real interest rate.
- (b) the GDP deflator or in real GDP.
- (c) the real exchange rate.
- (d) the unemployment rate or the interest parity.

164. The euro depreciates with respect to the dollar but appreciates against the Bolivian boliviano if

- (a) the Central Bank of Bolivia purchases bolivianos in exchange for euros and the Federal Reserve purchases dollars in exchange for euros.
- (b) the Central Bank of Bolivia purchases bolivianos in exchange for dollars and the Federal Reserve purchases dollars in exchange for bolivianos.
- (c) the European Central Bank purchases dollars in exchange for euros and the Central Bank of Bolivia purchases euros in exchange for bolivianos.
- (d) the European Central Bank purchases euros in exchange for dollars and, at the same time, purchases bolivianos in exchange for euros.

165. If there are no arbitrage opportunities, the exchange rate  $\$/\epsilon$  increases, and the exchange rate  $\yen/\epsilon$  decreases, then

- (a) the dollar does not appreciate against the yen.
- (b) the exchange rate  $\$/\yen$  remains unaltered.
- (c) the yen does not appreciate against the dollar.
- (d) None of the above

166. What could not explain an appreciation of the dollar with respect to the euro?

- (a) A rise in the eurozone inflation rate combined with a fall in the eurozone GDP.
- (b) A fall in the eurozone nominal interest rate combined with a rise in the US inflation rate.
- (c) A rise in the US nominal interest rate combined with a rise in the US GDP.
- (d) A fall in the US nominal interest rate combined with a rise in the US inflation rate.

167. In the 1970s, the psychologist Walter Mischel subjected four-year kids to the 'marshmallow test'. Each kid sits in a room with an instructor. The kid is told that the instructor is going to leave the room but will return soon and that, meanwhile, the kid has to choose between waiting until the instructor returns (in which case the kid is given two marshmallows) or ringing a bell before the instructor returns (in which case the kid receives only one marshmallow). The test showed that some kids preferred one marshmallow now than two later and that some others had the opposite preference. The whole experiment can be used to illustrate the concept of

- (a) purchasing power parity exchange rate.
- (b) discount factor.
- (c) the GDP deflator.
- (d) open market operation.

168. The euro would not tend to appreciate with respect to the dollar if

- (a) the eurozone interest rate is pushed up.
- (b) more European firms would like to establish and build factories in the US.
- (c) the US interest rate diminishes.
- (d) None of the above

169. Triangular arbitrage is not possible if exchange rates are

- (a)  $\frac{1}{2} \epsilon/\$, \frac{1}{2} \epsilon/\yen, 1 \$/\yen$ .
- (b)  $\frac{1}{2} \epsilon/\$, \frac{1}{2} \epsilon/\yen, \frac{1}{2} \$/\yen$ .
- (c)  $2 \epsilon/\$, \frac{1}{2} \epsilon/\yen, \frac{1}{2} \$/\yen$ .
- (d) None of the above

170. Rodrik's trilemma asserts that

- (a) a real depreciation cannot be a nominal appreciation.
- (b) a nominal appreciation cannot be a real depreciation.
- (c) commercial arbitrage, financial arbitrage, and spatial arbitrage are inconsistent.
- (d) None of the above

171. A central bank can increase liquidity by
- selling financial assets.
  - lowering the monetary base.
  - rising the reserve ratio.
  - purchasing financial assets.
172. In principle, what event would for sure explain a fall in the exchange rate  $\text{€}/\text{\$}$ ?
- An increase in the US interest rate
  - A fall in the US GDP
  - A rise in the eurozone inflation rate
  - None of the above
173. In principle, what event could not explain a depreciation of the exchange rate  $\text{\$/€}$ ?
- An increase in the US interest rate
  - A fall in the US GDP
  - A rise in the eurozone inflation rate
  - None of the above
174. Which sentence is not true?
- Certain changes in the liquidity ratio and the reserve ratio could leave the money multiplier unchanged.
  - It is false that all nominal variables are stock variables and that no real variable is a flow variable.
  - Deflation does not mean that the CPI is smaller than the GDP deflator.
  - None of the above is true.
175. A discount factor equal to one means that
- the interest rate is zero.
  - the discount factor has been calculated in the base period.
  - the GDP deflator inflation rate is zero.
  - None of the above
176. An inverse relationship has not been established between
- the price of T-bills and the interest rate.
  - the discount factor and the interest rate.
  - the GDP deflator inflation rate and the CPI inflation rate.
  - M1 and the interest rate.
177. What could explain a fall in the money multiplier?
- A reduction in the liquidity ratio
  - A rise in the reserve ratio
  - That liquidity ratio and reserve ratio both remain constant
  - A reduction in both the liquidity ratio and the reserve ratio
178. A contractionary open market operation
- occurs when banks refuse to use the lending facility.
  - is the same thing as a decrease in the reserve requirements.
  - is defined as either a rise in the main interest rate set by the central bank or a purchase of financial assets by the central bank.
  - None of the above
179. The liquidity ratio is 0.4. The reserve ratio is 0.3. Which change in the reserve ratio duplicates the money multiplier?
- 0.1
  - 0.1
  - Cannot be determined
  - None of the above
180. The interest rate has risen. A possible explanation is that
- there are more banks and fewer firms.
  - there are fewer banks and more firms.
  - there are fewer banks and fewer firms.
  - None of the above
181. 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
182. If the central bank conducts an expansionary open market operation and, simultaneously, the government issues bonds to finance an increase in the government expenditure, the equilibrium interest rate in the liquidity market model
- necessarily rises.
  - necessarily falls.
  - necessarily remains constant.
  - None of the above
183. Suppose there is a fixed exchange rate  $\bar{e}$  between the euro and the dollar that the European Central Bank is entrusted to preserve. The equilibrium exchange rate in the currency market is initially  $\bar{e}$ . If the supply of euros function shifts to the right, then the European Central Bank
- will necessarily increase the demand for dollars.
  - will sell dollars, thereby accumulating dollars.
  - will sell dollars, thereby decumulating dollars.
  - will carry out no intervention in the currency market.

184. What is false of financial assets and true of the eurozone?

- (a) A financial asset is a monetary aggregate that performs the medium of exchange function and the unit of account function but never the store of value function. The only member of the eurozone whose name in English includes the letter 't' is Italy.
- (b) M1 is not a measure of the amount of financial assets in an economy. At the beginning of 2016, the number of members of the eurozone was not 18.
- (c) All liquid and riskless financial assets have the highest rate of return. Denmark or Sweden is a member of the eurozone.
- (d) A T-bill is not a financial asset. Andorra is not a member of the eurozone.

185. The impossible trinity

- (a) refers to monetary policy, fixed exchange rates, and capital controls.
- (b) 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.
- (c) makes it impossible to have a fixed exchange rate, a speculative attack, and commercial arbitrage.
- (d) asserts that a floating (or flexible) exchange rate implies both capital controls and the impossibility of conducting an independent monetary policy.

186. The purchasing power parity exchange rate between dollar and euro is the exchange rate that makes equal

- (a) the price of the eurozone basket of goods that defines the eurozone CPI and the price of the US basket of goods that defines the US CPI, when both prices are measured in euros.
- (b) the eurozone GDP growth rate and the US GDP growth rate.
- (c) the rate of return of a typical financial asset from the eurozone and the rate of return of a typical financial asset from the US.
- (d) None of the above

187. The aim of an expansionary monetary policy is

- (a) to lower the interest rate.
- (b) to raise the government budget deficit.
- (c) to lower the inflation rate.
- (d) None of the above

188. What intervention in the currency market by the Bank of England will make the pound sterling tend to appreciate against the euro?

- (a) Buy pounds and sell euros
- (b) Sell pounds and buy euros
- (c) An expansionary monetary policy
- (d) None of the above

189. Which event does not lower the money multiplier?

- (a) A rise in the liquidity ratio
- (b) A rise in the reserve ratio
- (c) A rise in both the liquidity ratio and reserve
- (d) None of the above

190. The monetary base is 100, the money stock is 1000, and the liquidity ratio is 0.1. As a result,

- (a) the money multiplier cannot be calculated.
- (b) the reserve ratio must be zero.
- (c) the money multiplier is 10.
- (d) the money multiplier is 0.1.

191. According to the liquidity market model, what could not explain, in principle, a rise in the interest rate?

- (a) An expansionary open market operation
- (b) An increase in the reserve ratio
- (c) The government issues T-bills massively
- (d) 25% of all the banks go bankrupt

192. If the European Central Bank executes a contractionary monetary policy, then it is likely that, in the currency market,

- (a) the euro will appreciate against the dollar.
- (b) the dollar will appreciate against the euro.
- (c) the supply of euros function will shift to the right.
- (d) None of the above

193. According to the Fisher effect there is a one-to-one relationship

- (a) between the nominal exchange rate and the real interest rate.
- (b) between the nominal interest rate and the inflation rate.
- (c) between the real exchange rate and the CPI.
- (d) None of the above

194. As a rule, economies with a high inflation rate are prone

- (a) to have a low nominal interest rate.
- (b) to have a very high money multiplier.
- (c) to have a high nominal interest rate.
- (d) to have a very low money multiplier.

195. The Fisher effect relates
- the GDP growth rate and the nominal interest rate.
  - the GDP growth rate and the inflation rate.
  - the government budget surplus and the nominal interest rate.
  - the inflation rate and the nominal interest rate.
196. When  $P = 200$ ,  $P^* = 400$ , and  $e = 1$  \$/€, the euro is, with respect to its purchasing power parity value,
- overvalued.
  - undervalued.
  - at its purchasing power parity level.
  - None of the above
197. According to the Fisher equation, if the real interest rate is 6% and the nominal interest rate is 4%, then the inflation rate is
- 10%.
  - 2%.
  - 2%.
  - None of the above
198. What is the necessary effect of conducting a contractionary open market operation when firms issue financial assets to finance the construction of new factories?
- A fall in the interest rate
  - A fall in the amount of liquidity
  - A rise in the interest rate
  - None of the above
199. If banks decide to lower their voluntary reserves, then
- the interest rate will diminish and liquidity will expand.
  - the interest rate will rise and liquidity will contract.
  - a contractionary monetary policy is being conducted.
  - None of the above
200. The difference between depreciation and devaluation is
- absolutely none.
  - that a depreciation involves a government decision, whereas a devaluation is determined by the currency market.
  - that a depreciation is a reduction in the exchange rate, whereas a devaluation is an increase.
  - None of the above
201. The euro depreciates against the dollar but, at the same time, appreciates against the boliviano (the Bolivian currency) if
- the Central Bank of Bolivia purchases bolivianos in exchange for euros and the US Federal Reserve buys dollars in exchange for euros.
  - the Central Bank of Bolivia purchases bolivianos in exchange for dollars and the US Federal Reserve buys 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, simultaneously, purchases bolivianos in exchange for euros.
202. If people wish to increase the amount of cash they hold and, simultaneously, reduce their deposits, then bank reserves
- increase and the monetary base does not change.
  - increase and the money stock does not change.
  - decrease and the money multiplier increases.
  - decrease and the money multiplier also decreases.
203. The euro does not appreciate with respect to the dollar if
- the eurozone interest rate is pushed up.
  - the US GDP falls.
  - more US tourists visit the eurozone.
  - None of the above
204. An appreciation of the dollar against the euro has occurred. What could not be a possible explanation of the appreciation?
- The eurozone interest rate went down
  - The US GDP declined
  - The US inflation rate rose
  - None of the above
205. If the eurozone CPI is  $P = 400$  and the US CPI is  $P^* = 50$ ,
- the value of the real exchange rate is 8.
  - the value of the nominal exchange rate is 8.
  - the market nominal exchange rate between euro and dollar may differ from the corresponding purchasing power parity exchange rate.
  - None of the above

206. What could explain a fall in the exchange rate  $\$/\text{€}$ ?

- (a) A fall in the US interest rate
- (b) A rise in the US inflation rate
- (c) A rise in the eurozone interest rate
- (d) None of the above

207. Which option is not false?

- (a) None of the following
- (b) The impossible trinity relates democracy, the policy interest rate, and capital controls under a flexible exchange rate.
- (c) The real interest rate can be used to measure the competitiveness of an economy.
- (d) According to the interest parity, the euro should be expected to depreciate against the dollar when the US interest rate doubles the eurozone interest rate.

208. What is the likely effect on the equilibrium exchange rate  $e$  (expressed in  $\text{€}/\text{\$}$ ) when the US and the eurozone inflation rates both rise?

- (a) None of the following
- (b)  $e$  necessarily falls.
- (c)  $e$  tends to rise if the inflation rate increase is considerably larger in the eurozone than in the US.
- (d) It is impossible for  $e$  to remain constant.

209. Which option is not true?

- (a) The relative purchasing power parity condition holds that the euro appreciates against the dollar if the eurozone inflation rate is smaller than the US interest rate.
- (b) Triangular arbitrage is possible when the exchange rates are 2  $\text{€}/\text{£}$ , 2  $\text{€}/\text{\$}$ , and 2  $\text{£}/\text{\$}$ .
- (c) With respect to its purchasing power parity value, the dollar is overvalued against the euro if the market exchange rate is 2  $\text{€}/\text{\$}$  and the parity value is 2  $\text{\$/€}$ .
- (d) A change in the official exchange rate from 2  $\text{\$/€}$  to 2  $\text{€}/\text{\$}$  could represent a devaluation of the euro.

210. Triangular arbitrage is not possible if exchange rates are

- (a) 1  $\text{€}/\text{\$}$ , 2  $\text{€}/\text{¥}$ , 1  $\text{\$/¥}$ .
- (b) 2  $\text{€}/\text{\$}$ , 2  $\text{€}/\text{¥}$ , 1  $\text{\$/¥}$ .
- (c) 2  $\text{€}/\text{\$}$ ,  $\frac{1}{2}$   $\text{€}/\text{¥}$ ,  $\frac{1}{2}$   $\text{\$/¥}$ .
- (d) None of the above

211. The Fisher equation relates

- (a) CPI with GDP deflator.
- (b) discount factor with nominal interest rate.
- (c) nominal with real interest rate.
- (d) the interest rate of the European Central Bank marginal lending facility with the interest rate of the deposit facility.