

1. In the aggregate supply and aggregate demand model, what combination of policies could leave GDP unchanged?

- (a) Removal of a supply-side policy and exchange rate revaluation
- (b) Expansionary fiscal policy and exchange rate devaluation
- (c) Contractionary monetary policy and supply-side policy
- (d) None of the above

2. In the aggregate supply and aggregate demand model, what combination of policies could leave the inflation rate unchanged?

- (a) Supply-side policy and exchange rate revaluation
- (b) Expansionary fiscal policy and exchange rate devaluation
- (c) Contractionary monetary policy and supply-side policy
- (d) None of the above

3. If the foreign CPI is 50 and the domestic CPI is 250, then the real exchange rate

- (a) is larger than 4.
- (b) cannot be calculated.
- (c) is smaller than 1.
- (d) None of the above

4. Nominal GDP is 200. Expressed in base 100, GDP deflator is 400. In this case, real GDP

- (a) is larger than 100.
- (b) cannot be calculated.
- (c) is smaller than 40.
- (d) None of the above

5. Using the approximation of the quantity equation involving rates of change, if the velocity of circulation of money falls by 3% and the amount of money rises by 3%, then

- (a) nominal GDP has approximately changed by 0%.
- (b) real GDP has approximately changed by 0%.
- (c) the inflation rate has approximately increased by 6% or has approximately decreased by 6%.
- (d) None of the above

6. Which option is not true?

- (a) $M1 - M0$ equals deposits minus reserves.
- (b) The money multiplier takes value one when the liquidity ratio equals the reserve ratio.
- (c) The money multiplier relates $M1$ with $M0$.
- (d) None of the above

7. According to the savings identity, when savings equal investment,

- (a) net exports are zero.
- (b) the government deficit could be positive or negative.
- (c) if there is a trade surplus, then there is a government deficit.
- (d) None of the above

8. In an open market operation

- (a) everybody could buy and sell without problems.
- (b) the market of another country is affected.
- (c) "The worse things go, the better for everyone; and the worse for everyone, the better... the better for my (yours) political profit."
- (d) None of the above

9. In year 1, unemployment rate, inflation rate, interest rate, and GDP growth rate are 10%, -2%, 3%, and -3%. In year 2, all four rates are 0%. These figures are inconsistent

- (a) with both Okun's law and the Phillips curve.
- (b) with both the Fisher effect and the Phillips curve.
- (c) with the Fisher effect, but consistent with Okun's law.
- (d) None of the above

10. What does not typically grow during the expansionary phase of the business cycle?

- (a) The inflation rate
- (b) The unemployment rate
- (c) GDP
- (d) None of the above

11. The euro depreciates against the dollar and the pound sterling appreciates against the yen if exchange rates move from

- (a) 4 \$/€ and 2 ¥/£ to 4 €/ \$ and ¼ £/¥.
- (b) 4 €/ \$ and 2 ¥/£ to 1 €/ \$ and ½ £/¥.
- (c) 4 €/ \$ and 2 ¥/£ to 1 €/ \$ and 4 ¥/£.
- (d) None of the above

12. The real interest rate has gone up. By the Fisher equation,

- (a) it is possible that the inflation rate went down.
- (b) the nominal interest rate must be equal to the inflation rate.
- (c) if the inflation rate has increased, then the nominal interest rate necessarily decreased.
- (d) None of the above

13. The purchasing power parity exchange rate is

- (a) the exchange rate that makes the real interest rate equal to 1.
- (b) equal to 1 when the real exchange rate is also 1.
- (c) larger than 1 if the home CPI is smaller than the foreign CPI.
- (d) None of the above

14. In the liquidity market model, the interest rate

- (a) always falls when the demand for liquidity changes.
- (b) always rises when an open market operation is conducted.
- (c) could not change if, as a result of some shock to the economy, firms are willing to take more loans from the banks and the banks are willing to provide more loans.
- (d) None of the above

15. How would an increase in the number of Italian, French, and German tourists coming to Spain affect the exchange rate \$/€?

- (a) The euro would appreciate against the dollar because that event would shift the demand for euros function to the right.
- (b) The dollar would depreciate against the euro because that event would shift the supply of dollars function to the right.
- (c) By itself this fact would not alter the exchange rate.
- (d) None of the above

16. Which option includes both a fiscal policy instrument and a monetary policy tool?

- (a) Unemployment rate, legal reserves, public expenditure.
- (b) Open market operations, inflation rate, GDP.
- (c) Taxes, transfers, export subsidies.
- (d) None of the above

17. In the liquidity market model, the sale of financial assets by households would affect the

- (a) supply of liquidity function, shifting it to the left.
- (b) demand for liquidity function, shifting it to the right.
- (c) supply of liquidity function, shifting it to the right.
- (d) demand for liquidity function, shifting it to the left.

18. If cash in the hands of the public equals reserves and deposits is double the amount of cash, then the money multiplier

- (a) is larger than 2.
- (b) in this case, coincides with the sum of the liquidity ratio and the reserve ratio.
- (c) cannot be calculated.
- (d) None of the above

19. Which variable cannot take a negative value?

- (a) Inflation rate
- (b) Real interest rate
- (c) GDP growth rate
- (d) None of the above

20. According to the quantity equation, if the velocity of circulation is 2 and nominal GDP is 100, the amount of money

- (a) is 200.
- (b) is 50.
- (c) cannot be calculated.
- (d) None of the above

INSERT IN THE TABLE BELOW THE ANSWERS TO THE MULTIPLE CHOICE QUESTIONS

No answer: -0 · An incorrect answer takes 1/3 of the value of a correct answer · Score: 30%

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	

DNI number _____ Surname(s) _____ Name _____

1. [16%] For each event and model (**D** = currency market model, **L** = liquidity market model, **A** = aggregate supply and aggregate demand model), explain which function or functions of the model the event modifies, how, and why.

Expansionary open market operations that have been applied so far are no longer conducted	L	
American tourists formerly visiting the United Kingdom now visit Spain instead	D (\$/€)	
Fearing massive cash withdrawals, banks increase the amount of voluntary reserves	L	
American tourists formerly visiting France now visit Spain instead	D (\$/€)	
American tourists formerly visiting France now visit Spain instead	A	
The government announces that national firms will no longer pay taxes	A	
The government announces that national firms will no longer pay taxes	L	
The government announces that national firms will no longer pay taxes	D	

2. What is...

[1.5%] ... the monetary base?	[1.5%] ... the money multiplier?
[1.5%] ... a contractionary fiscal policy?	[1.5%] ... the real exchange rate?

3. Imagine that Catalonia (economy A) becomes independent from Spain (economy B). The first measure by the Spanish government is to ban all imports coming from Catalonia. Explain the short-run effect of the prohibition on the macroeconomic equilibrium of both A and B, and illustrate graphically that explanation by means of the AS-AD model, in each of the following cases.

(i) **[5%]** In B, the goods formerly imported from Catalonia are replaced with goods produced within B and, in A, the Generalitat implements supply-side policies to improve the productive capacity of small and medium-sized firms.

(ii) **[4.5%]** How would the results found in (i) change if the tourists from the rest of the eurozone were very sensitive to the evolution of the inflation rate in the countries they plan to visit?

(iii) **[4.5%]** [Do not take in to account (i) nor (ii)] In B, the goods no longer imported from Catalonia are replaced with goods produced in the rest of the eurozone, but at the expense of an increase in the production costs of the firms in B and, in A, the Generalitat grants subsidies to firms to help them to sell abroad and to redirect to the rest of the world the exports formerly sent to B.

(iv) **[5%]** [Do not take in to account (i) nor (ii) nor (iii)] As the first reaction to the ban, suppose that the Catalan exporting firms consider two strategies to avoid the effects of the Spanish prohibition.

- **E1.** Close down the firms in A and reopen them in B to sell in B the production formerly made in A and exported to B.
- **E2.** Keep the firms in A and create an instrumental society in France to which all the production previously going directly to Spain is now sold, so that the society reexports that production to B.

Explain how each strategy would affect A's macroeconomic equilibrium and compare the results with those existing before the ban.

4. [7%] Imagine that Catalonia becomes an independent country, that both Catalonia and Spain are expelled from the eurozone, that Spain adopts the *peseta* again, and that Catalonia creates the Catalan *peceta* as the new domestic currency. Explain (and analyze graphically by means of the currency market model) the effect on the exchange rate between the two currencies caused by the decision of investors from the rest of countries to sell the Spanish financial assets and the shares of Spanish firms they own to buy Catalan firms and financial assets.

5. [8%] Imagine that Catalonia becomes an independent country, that both Catalonia and Spain remain in the eurozone, and that no agreement is reached regarding the fraction of the Spanish public debt that the Generalitat must take. Suppose international investors refuse to buy more Spanish public debt, that they sell all the Spanish public debt they have, and that they use the proceeds of this sale to purchase Catalan public debt. Explain, and analyze graphically by means of the liquidity market model, how the investors' decision is likely to affect the Spanish interest rate and the Catalan interest rate.

6. [14%] Indicate how each event would alter the variables ('↑' = increases, '↓' = decreases, '?' = uncertain effect, '=' = does not change) and functions specified ('→' = shifts to the right, '←' = to the left, '=' = does not change, '?' = who knows).

0.35 each answer	Exchange rate \$/€	Supply of euros function	Supply of dollars function
The US interest rate goes up			
The eurozone inflation diminishes			
The eurozone GDP grows and the US interest rate falls			
The US inflation rate increases and the US GDP decreases			

0.35 each answer	Inflation rate	GDP	Aggregate supply function	Aggregate demand function
50% of all the firms go bankrupt and close down				
Foreign GDP rises				
Expansionary fiscal policy				
Contractionary monetary policy				
The price of electric energy that firms must pay increases				
Reduction in the price of foreign goods				
The exchange rate depreciates				