Introduction to Macroeconomics · Final exam · 6 June 2014

1. Taylor's rule is
(a) a formula to calculate the GDP deflator.
(b) the equation that defines the purchasing power parity exchange rate.
(c) the same thing as Okun's law but from the standpoint of the aggregate supply and aggregate demand model.
(d) None of the above

2. According to the macroeconomic identities, the value of savings **S** is necessarily equal to
(a) the lending capacity of the economy.
(b) the government budget.
(c) investment minus export plus imports.
(d) None of the above

3. The impossible trinity asserts that it is not possible to have, at the same time,
(a) an independent supply-side policy, a fixed purchasing power parity, and a contractionary monetary policy.
(b) an unregulated GDP, interest rate controls, and an independent government.
(c) a fixed exchange rate, an autonomous fiscal policy, and freedom to save in the form of liquid financial assets.
(d) None of the above

4. According to the aggregate supply and demand model, what could offset the negative impact on GDP of a recession?
(a) A revaluation, under a fixed exchange rate regime.
(b) A contractionary supply-side policy.
(c) An expansionary monetary policy.
(d) None of the above

5. 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

6. It is not false that
(a) at least 25% of the eurozone members have not adopted yet the euro as the home currency.
(b) the notion of multiplier effect means that structural unemployment multiplies Goodhart's law so that Fisher effect is neutralized during the contractionary phase of the business cycle.
(c) the government budget can be equal to net exports.
(d) None of the above

7. An economy has just entered into a recession. An explanation that does not depend on the relative importance of the two events is that
(a) a supply-side policy has been implemented in combination with an expansionary open market operation.
(b) the number of consumers has increased and the number of firms has decreased.
(c) the economy has lost competitiveness and a severe drought has caused a rise in the price of electric power.
(d) a contractionary monetary policy and an expansionary fiscal policy have been implemented.

8. A monetary policy transmission channel
(a) operates through the government spending.
(b) operates through the exchange rate.
(c) operates through triangular arbitrage.
(d) None of the above

9. In which case the variable associted with the model is not a variable directly determined by the model?
(a) Exchange rate and currency market model
(b) Inflation rate and liquidity market model
(c) GDP and aggregate supply and aggregate demand model
(d) None of the above

10. In which case it is foreseeable that an increase in the first variable will cause a fall in the second variable?
(a) GDP and unemployment rate
(b) Aggregate demand and inflation rate
(c) Inflation rate and interest rate
(d) None of the above

11. In which case the two events do not modify the aggregate demand function in the same direction?
(a) Both the domestic interest rate and the exchange rate go up.
(b) The number of consumers increases and the government decrees a raise in the taxes consumers must pay.
(c) GDP in each country of the rest of the world grows and the domestic inflation rate falls.
(d) None of the above

12. Which sentence is not false?
(a) The monetization of the government budget deficit means that the European Central Bank makes the Euribor more liquid but less profitable.
(b) A discretional fiscal policy automatically stabilizes the business cycle because the central bank increases or decreases taxes to expand or contract the economic activity avoiding the restrictions set by the quantity equation but respecting the money multiplier when the Fisher equation allows this possibility.
(c) It is possible in the aggregate supply and aggregate demand model that GDP grows without having to shift the aggregate supply function.
(d) If the CPI goes up, then the CPI inflation rate turns out to be negative.

13. The concept of business cycle refers to
(a) the feedback process that increases M1 in the so-called money creation process.
(b) the speculation cycle that causes currency crises when governments violate the macroeconomic identities.
(c) the fact that there is no macroeconomic variable that grows when GDP grows.
(d) None of the above

14. The inflation rate went up and the interest rate went down. What cannot explain that both events occur simultaneously?
(a) An expansionary monetary policy has been conducted and a contractionary fiscal policy has been executed.
(b) 50% of all firms and 50% of all banks close down.
(c) The central bank carries out a massive purchase of financial assets and the government cuts spending.
(d) None of the above

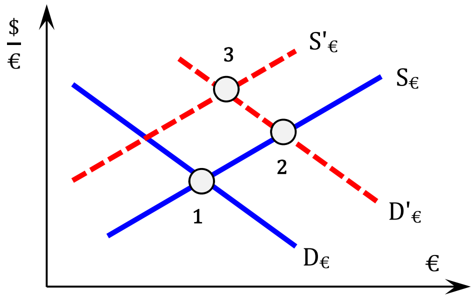
No answer: no penalty · Wrong answer: –1/3 of the value of a correct answer · Weight: 28%

1	2	3	4	5	6	7	8	9	10	11	12	13	14

DNI number ____________________ Surnames_______________________________________ Name _______________________

THE EXCESSIVE AMOUNT OF SPELLING OR GRAMMATICAL MISTAKES (≥ 10) WILL BE PENALIZED

1. [1%] (i) Which market is represented by the next graph? ____________________________________

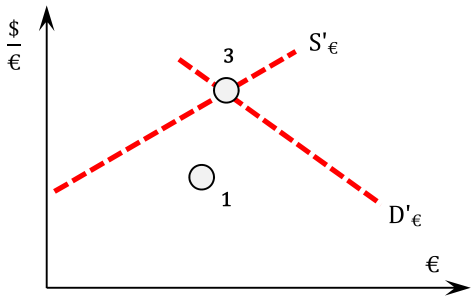


(ii) [1%] Which currency depreciates in passing from **1** to **3**? _________

(iii) [2,5%] Suggest an event causing market equilibrium to go from point **1 to 2**. Explain why the event causes the equilibrium change.

(iv) [2,5%] Suggest an event causing market equilibrium to go from point **1 to 3**. Explain why the event causes the equilibrium change.

(v) [3%] The market is initially at point **3**. The European Central Bank decides to intervene in the market with the aim of making the exchange rate $/€ reach the value that corresponds to point **1**. Explain what kind of intervention would achieve this goal and what function (or functions) would be altered. Represent the intervention in the next graph.



2. (i) [1,5%] Explain what is meant by "expansionary open market operation". (ii) [3%] Analyze in the graph just below the effect on the interest rate of an expansionary open market operation. (iii) [3,5%] If it exists, which is the collateral effect of an expansionary open market operation on the exchange rate? How is this effect generated?

3. Consider the aggregate supply and aggregate demand model (when the economy is initially at its macroeconomic equilibrium) and the next two economic policy measures.

- **Measure 1**: immediate (and unexpected by businessmen) reduction of the payments made by firms to the social security system.
- **Measure 2**: immediate (and unexpected by consumers) increase of the VAT (value-added tax).

(i) [1,5%] Of what type of policy is an example **Measure 1**? And **Measure 2**? Justifiy your answers.

(ii) [5%] Analyze graphically and explain the effect of **Measure 1** on the macroeconomic equilibrium. Has **Measure 1** any effect on the government budget? If so, which one and why. Is there any reason to expect a crowding-out effect?

(iii) [2,5%] Analyze graphically and explain the effect of **Measure 2** on the macroeconomic equilibrium.

(iv) [2%] Analyze graphically and explain the effect on the macroeconomic equilibrium of applying simultaneously **Measures 1** and **2**.

4. [1,5%] Select two variables that tend to grow during the expansionary phase of the business cycle and another that tends to fall.

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6. [1%] Point out two macroeconomic variables such that, when one goes up, the other necessarily goes down.

5. [1,5%] State some characteristic that deflation and hyper-inflation have in common and some that differentiates them.

7. [1,5%] Indicate an expansionary fiscal policy measure, a contractionary monetary policy measure, and a contractionary supply-side policy measure.

8. [1%] Write down a variable that in general moves in a direction opposite to real GDP's.

9. [1%] What variables does a Phillips curve relate?

10. [1,5%] Identify two concepts o relations that involve the inflation rate (concepts in whose definition appears the inflation rate or relations connecting the inflation rate with other variables).

11. [3,5%] Economies A and B have the same real interest rate. The inflation rate in A is five percentage points higher than in B. According to the Fisher equation, which economy has the higher nominal interest rate and by how many percentage points? Justify your answer in detail.

12. [3%] Is it possible for the money stock to grow by 5% when, at the same time, the inflation rate diminishes by 5%? Justify your answer.

13. [5%] Answer only one of the following questions (indicate clearly the chosen question).

(i) Calculate M0 if $M1 = 1200$, the reserve ratio is $1/10$ and the currency held by the public is 200.

(ii) With $M1 = 1200$ and $M0 = 300$, find the reserve ratio if the reserve ratio is half the liquidity ratio.

14. [3,5%] Let X designate the domestic currency and Y a foreign currency. The goal of the government of the economy with currency X is to make the real exchange rate equal to 4. The domestic price level is 100. The foreign price level 50. Compute in detail the necessary value of the nominal exchange rate to achieve the goal and indicate its units (and the units of the numbers 4, 50, and 100).

15. [5,5%] Explain briefly how the money multiplier process and the money multiplier itself are affected by the banks' voluntary decision to increase the reserve ratio. Analyze graphically in the corresponding model the effect on that increase on the interest rate.

16. [4%] The government announces that the tax on the firms' profits will be lowered soon. Explain, in the aggregate supply and aggregate demand framework, if it is significant whether businessmen believe or not that the government will honour the promise and will actually approve the tax cut.

17. [1,5%] What change in the real exchange rate would cause a rise in the macroeconomic equilibrium GDP and why?