Introduction to Macroeconomics · M7 · 12 May 2011

1. Real GDP necessarily rises if
(a) nominal GDP rises.
(b) the GDP deflator falls.
(c) nominal GDP falls and the GDP deflator rises.
(d) None of the above

2. In which case the two variables are flow variables?
(a) The monetary base at a given point in time and the rate of growth of real GDP.
(b) Employment at a given point in time and the inflation rate.
(c) Nominal GDP and real GDP per capita.
(d) None of the above

3. In which case the two variables are real variables?
(a) The GDP deflator and the CPI.
(b) The nominal GDP per capita and the unemployment rate.
(c) The labour force and the purchasing power parity exchange rate.
(d) None of the above

4. According to the second fundamental accounting identity, the trade balance NX is equal to
(a) $S + I - (G + TR - T)$.
(b) $T - G - TR - S + I$.
(c) $T - I - G - TR + S$.
(d) None of the above

5. On the basis of the second fundamental accounting identity, that an economy has lending capacity means that
(a) the government is running a budget surplus.
(b) a trade surplus exists.
(c) net private saving $S - I$ is negative.
(d) the economy is suffering from twin deficits.

6. Which of the following concepts represents currency?
(a) The nominal interest rate
(b) The bank deposits
(c) The liquidity ratio
(d) None of the above

7. It is to be expected from a financial asset that, other things being equal,
(a) the higher its liquidity, the smaller its risk.
(b) the smaller its rate of return, the higher its liquidity.
(c) the higher its risk, the smaller its rate of return.
(d) None of the above

8. The competitiveness of the eurozone improves when, other things being equal,
(a) the euro depreciates with respect to the dollar.
(b) the eurozone CPI rises.
(c) the US CPI falls.
(d) None of the above

9. The money multiplier directly relates
(a) the nominal interest rate to the reserve ratio.
(b) M1 to M0.
(c) the currency E held by the public to the face value of T-bills.
(d) the open market operations to the bank reserves.

10. If the central bank performs 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 loan market necessarily
(a) rises.
(b) falls.
(c) remains constant.
(d) None of the above

11. Using proper technical terms, the euro appreciates against the dollar if
(a) the US government time ago set a fixed exchange rate at 2 €/$ and now changes that fixed rate to 2 $/€.
(b) there is a floating exchange rate regime between the two currencies and the equilibrium exchange rate in the currency market goes from 2 €/$ to 2 $/€.
(c) there is a floating exchange rate regime between the two currencies and the equilibrium exchange rate in the currency market goes from 2 $/€ to 2 €/$.
(d) the US government time ago set a fixed exchange rate at 2 $/€ and now changes that fixed rate to 2 €/$.

12. The euro is likely to depreciate against the dollar in the currency market if
(a) real GDP increases in the US.
(b) the nominal interest rate in the US falls.
(c) the inflation rate in the eurozone goes up.
(d) None of the above

13. The nominal exchange rate is 2 $/€, the eurozone CPI is 200, and the US CPI is 100. In this case, the euro is
(a) overvalued with respect to its purchasing power parity value.
(b) undervalued with respect to its purchasing power parity value.
(c) at its purchasing power parity level.
(d) None of the above

14. 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.

15. If the nominal interest rate falls, then, necessarily,
(a) the associated discount factor also falls.
(b) the price of financial assets also falls.
(c) the real interest rate rises.
(d) None of the above

<u>Write your answers in minuscule letters</u> · No answer: no penalty · Wrong answer: –1/3 of the value of a correct answer · Points: 40%

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

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ID number (DNI, NIE…) _____________________ 1st Surname ____________________________ Name _______________________

1. [15%] Explain the meaning of the following concepts.

Real GDP per capita

CPI

Stock variable

M1

Financial asset

Real exchange rate

Open market operation

The impossible trinity

Currency appreciation

Arbitrage

2. [5%] Find the purchasing power parity exchange rate (when the euro is the home currency and indirect quotation is adopted) if the nominal exchange rate is 2 €/$, the eurozone CPI is 200, and the US CPI is 600 (assuming that both CPIs are based on the same basket of goods).

3. [4%] Find the approximate value of real GDP growth if the GDP deflator inflation rate is 5% and nominal GDP growth is –5%.

4. [5%] Find the price (that prevents arbitrage) of a T-bill with face value 1200 if the real interest rate is 5% and the inflation rate is 15%.

5. [4%] Find the money multiplier if the liquidity ratio is 0.1, the monetary base is 500, and the money stock is 1000.

6. [2%] Find the nominal interest rate if the real interest rate is constant and the inflation rate is 5%.

7. [13%] Banks have voluntarily decided to substantially increase their reserves. (i) Explain the effect that this decision is likely to cause on the money multiplier process. (ii) By means of a graphical representation of the loan market, show the impact of that decision on the equilibrium interest rate. (iii) Suggest a measure by the central bank that could offset that impact and explain why the measure can offset it.

8. [12%] Answer one of the following two questions. (i) Explain how triangular arbitrage would alter the exchange rates 1 \$/€, 1 \$/¥, and 2 €/¥. (ii) Reus and Tarragona are independent countries with their own currencies, the reuro and the tarragollar, respectively. The exchange rate between reuro and tarragollar is 2 reuros per tarragollar. The price of French bread is 3 reuros a piece in Reus and 1 tarragollar a piece in Tarragona. Assuming that there is no significant transportation cost, what changes would cause the commercial arbitrage of French bread in the exchange rate and the price of French bread in Reus and Tarragona?