

# Introduction to Macroeconomics · M4 · 2016-17

## Problem Set 4 · Multiple choice questions

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1. According to the classical dichotomy, a reduction in the money stock causes
  - (a) a reduction in the real interest rate.
  - (b) a reduction in real exchange rate.
  - (c) a reduction in real GDP.
  - (d) None of the above
2. That money is neutral in the long run means that
  - (a) Okun's law is invalid in the long run.
  - (b) monetary policy can always neutralize a negative supply shock.
  - (c) the Ricardian equivalence proposition only creates inflation in the long run.
  - (d) None of the above
3. Using the version of the quantity equation in which variables are expressed as rates of change, if the money stock remains constant and the general price level rises, then
  - (a) real GDP necessarily rises.
  - (b) if real GDP remains constant, the velocity of money has diminished.
  - (c) if real GDP remains constant, the rate of change of the velocity of money is positive.
  - (d) None of the above
4. What policy can neutralize the effect on the inflation rate of a reduction in population that does not affect employment?
  - (a) Supply-side policy.
  - (b) Contractionary monetary policy.
  - (c) Expansionary fiscal policy.
  - (d) None of the above
5. According to the quantity equation, if  $V = 2$  and  $M = 400$ , then
  - (a) nominal GDP is not 800.
  - (b)  $P = 8$  if real GDP is 100.
  - (c) real GDP is higher than 100.
  - (d) None of the above
6. Decisions on indirect taxes (like the VAT) fall
  - (a) within supply-side policy.
  - (b) within monetary policy.
  - (c) within fiscal policy.
  - (d) None of the above
7. The rest of the world has just entered a recession, so foreign GDP is being reduced. It is likely that, in the domestic economy, this will cause
  - (a) a rise in both the inflation rate and real GDP.
  - (b) a rise in the inflation rate and a fall in real GDP.
  - (c) a fall in both the inflation rate and real GDP.
  - (d) a fall in the inflation rate and a rise in real GDP.
8. The central bank can provide liquidity by
  - (a) conducting an open market operation in which the central bank sells financial assets.
  - (b) raising the reserve requirements.
  - (c) raising the people's liquidity ratio.
  - (d) conducting an open market operation in which the central bank purchases financial assets.
9. Policymakers have decided to offset the effect on real GDP of a contraction of the AS function. If they resort to the fiscal policy to achieve this goal, the appropriate fiscal policy
  - (a) shifts the AD function to the right.
  - (b) shifts the AD function to the left.
  - (c) shifts the AS function to the left.
  - (d) None of the above
10. When the central bank sells financial assets,
  - (a) the nominal interest rate tends to decline.
  - (b) liquidity tends to rise.
  - (c) the money multiplier goes up because the sale causes a rise in both the reserve ratio and the liquidity ratio.
  - (d) the nominal interest rate tends to increase.
11. The interest rate channel of monetary policy differs from the exchange rate channel in that the former affects
  - (a) the government expenditure, whereas the latter affects net exports.
  - (b) private investment, whereas the latter affects government expenditure.
  - (c) private consumption, whereas the latter affects the credit conditions.
  - (d) None of the above

12. Using the version of the quantity equation in which variables are expressed as rates of change, if the money velocity remains constant, then
- if nominal GDP does not change, then the inflation rate is approximately equal to the rate of change of the money stock.
  - the rate of change of nominal GDP is always positive.
  - if the money stock does not vary, then the inflation rate is approximately equal to the rate of change of nominal GDP.
  - if the inflation rate is zero, then nominal GDP remains constant.
13. 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.
14. A contractionary monetary policy aims at
- reducing the real interest rate.
  - increasing the real exchange rate.
  - reducing the inflation rate.
  - None of the above
15. The empirical evidence suggests that a persistently monetized budget deficit tends to
- increase the inflation rate.
  - accelerate a disinflation process.
  - cause deflation.
  - Neither (a) nor (b)
16. Which of the following is not an example of demand policy?
- An expansionary open market operation
  - Professional training programmes for unemployed workers
  - Cutting unemployment benefits
  - A rise in the tax rates
17. Monetizing the government debt means
- increasing taxes now with the aim of decreasing them in the future.
  - that the central bank is implementing an expansionary fiscal policy.
  - that the central bank is carrying out a contractionary monetary policy.
  - None of the above
18. What is the likely, immediate effect on the macroeconomic equilibrium of implementing, simultaneously, a contractionary fiscal policy and a supply-side policy?
- The inflation rate goes up while GDP does not vary.
  - The inflation rate could remain unchanged and GDP could diminish.
  - The inflation rate is reduced but GDP could not remain constant.
  - None of the above
19. An increase in real GDP and a reduction in the inflation rate have been observed. A possible explanation is that
- an expansionary fiscal policy has been implemented.
  - a contractionary monetary policy has been implemented.
  - supply-side policies have been applied.
  - None of the above
20. Combining an expansionary fiscal policy with a contractionary monetary policy
- always makes the inflation rate go up.
  - may leave the inflation rate unaltered.
  - always causes a drop in the inflation rate.
  - None of the above
21. Fighting stagflation means aiming at
- increasing real GDP and lowering the inflation rate by adopting a contractionary monetary policy and an expansionary fiscal policy.
  - lowering real GDP and increasing the inflation rate by means of supply-side policies.
  - increasing real GDP and lowering the inflation rate by adopting an expansionary monetary policy and a contractionary fiscal policy
  - None of the above
22. Which variable is in the quantity equation?
- The velocity of money
  - The unemployment rate
  - The target inflation rate
  - The real interest rate
23. Taylor's rule is an instance of
- a fiscal policy rule.
  - a monetary policy rule.
  - a supply-side policy rule.
  - None of the above

24. Which sentence is not false?
- The ultimate goal of monetary policy is to lose control of the nominal interest rate.
  - The inflation rate is the only intermediate target of monetary policy.
  - Establishing reserve requirements is a monetary policy instrument.
  - Open market operations do not constitute an instrument of monetary policy.
25. 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.
26. An example of a policy rule is given by
- Okun's law.
  - the Laffer curve or the rule of 70.
  - Taylor's rule.
  - the Phillips curve.
27. The crowding-out effect has to do with
- the Laffer curve.
  - the Phillips curve.
  - neither (a), nor (b), nor (d).
  - the Ricardian equivalence proposition and the impossible trinity.
28. Which sentence is true?
- An increase in the government revenues due to a tax raise stimulates the economic activity
  - A cut in public spending or a tax raise or both tend to depress aggregate demand
  - An increase in public spending causes a fall in the overall economic activity
  - Only (a) and (c) are true
29. The empirical evidence suggests that the degree of independence of a central bank with respect to the government is negatively correlated with
- the unemployment rate.
  - the real GDP rate of growth.
  - the inflation rate.
  - None of the above
30. The sequence  $\downarrow M0 \Rightarrow \downarrow M1 \Rightarrow \uparrow i \Rightarrow \uparrow r \Rightarrow \downarrow C \downarrow I \Rightarrow \downarrow AD \Rightarrow \downarrow Y$  represents the interest rate channel of monetary policy.
- The step  $\downarrow M1 \Rightarrow \uparrow i$  is not correct because, in the liquidity market, a fall in liquidity never implies a raise in the interest rate.
  - The step  $\downarrow M0 \Rightarrow \downarrow M1$  is due to the money multiplier.
  - The above sketch represents the effect of an expansionary monetary policy.
  - None of the above
31. According to the crowding-out effect, an increase in the government expenditure tends to
- reduce private expenditure (consumption plus investment).
  - lower the nominal interest rate.
  - increase the inflation rate and reduce GDP.
  - None of the above
32. According to Taylor's rule,
- the central bank should force the real interest rate to be below the long-run equilibrium real interest rate if the inflation rate is below the target inflation rate.
  - the central bank should force the real interest rate to be above the long-run equilibrium real interest rate if the inflation rate is below the target inflation rate.
  - the central bank should force the real interest rate to be below the long-run equilibrium real interest rate if the inflation rate is above the target inflation rate.
  - the proper design of economic policy demands having at least as many instruments as targets (or goals).
33. The main refinancing operations (MROs)
- are the interest rates set by the European Central Bank.
  - are known as the marginal lending facility.
  - are a particular case of the Taylor's rule.
  - constitute a tool of monetary policy.
34. Goodhart's law states that the design of economic policies
- requires at least as many instruments as goals.
  - is always temporally inconsistent.
  - faces the problems generated by the existence of lags.
  - None of the above

35. Which combination of measures cannot give rise to a contractionary fiscal policy?
- The tax rate is lowered and the government expenditure is increased.
  - The central bank sells financial assets.
  - The tax rate is raised and transfers are increased.
  - None of the above
36. Which sentence is not false?
- Policies that improve the productive capacity of the economy constitute examples of demand-side policies.
  - Monetary policy is an example of a supply-side policy.
  - According to the quantity equation the higher the government budget deficit, the larger the crowding out effect on private expenditure.
  - The classical dichotomy expresses a view on the relationship between real variables and nominal variables.
37. The basic rule of economic policy asserts that
- there is no basic rule of economic policy.
  - polymaking based on rules is better than polymaking based on discretionary measures.
  - a temporal inconsistent policy is not credible.
  - None of the above
38. The European Central Bank does not set
- 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
39. Which sentence is not true?
- Monetizing the budget deficit does not mean that the government increases the tax rate to raise more revenue.
  - The crowding out effect takes place when the central bank buys financial assets.
  - An expansionary fiscal policy causes, at least initially, an increase in aggregate demand.
  - The empirical evidence suggests that, in general, the higher the degree of independence of a central bank with respect to the government, the smaller the inflation rate of the economy.
40. The quantity equation is not directly related to
- contractionary fiscal policy measures.
  - the velocity of money.
  - real GDP.
  - None of the above
41. 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.
42. What is likely to cause stagflation?
- A contractionary open market operation
  - An expansionary fiscal policy.
  - The closure of 30% of all the factories.
  - A tax rise combined with an increase in transfers.
43. The policy consisting of an expansionary fiscal policy combined with a supply-side policy,
- shifts Goodhart's law to the right.
  - shifts Taylor's rule to the right.
  - shifts both the AS function and the AD function to the right.
  - None of the above, or rotates the Laffer curve around its maximum point, or monetizes all the public debt, or always constitutes a temporally inconsistent policy, or contradicts the quantity equation.
44. Which variable does not appear in Okun's law, the Phillips curve, or the quantity equation?
- The government budget deficit.
  - The unemployment rate.
  - The stock of money.
  - The inflation rate.
45. Which combination of policies alter the inflation rate in the same direction?
- Expansionary fiscal policy and contractionary monetary policy.
  - Expansionary monetary policy and supply-side policy.
  - Supply-side policy and contractionary fiscal policy.
  - None of the above

46. What policy neutralizes the effect on the inflation rate and the real GDP of a positive shock to the aggregate supply function?

- (a) An expansionary fiscal policy
- (b) A contractionary fiscal policy
- (c) A contractionary monetary policy
- (d) None of the above

47. In the aggregate supply and aggregate demand model, what could neutralize the effect of stagflation on the macroeconomic equilibrium?

- (a) An expansionary fiscal policy
- (b) An contractionary monetary policy
- (c) A supply-side policy
- (d) None of the above

48. An expansionary fiscal policy aims at rising

- (a) the money stock.
- (b) the unemployment rate.
- (c) foreign real GDP.
- (d) None of the above

49. An expansionary fiscal policy on the inflationary region of the aggregate supply function

- (a) stimulates production and rises the unemployment rate.
- (b) causes a decline in production.
- (c) has a negligible effect on the inflation rate.
- (d) None of the above

50. An expansionary monetary policy aims at

- (a) lowering the interest rate.
- (b) a currency appreciation.
- (c) Reducing the inflation rate.
- (d) None of the above

51. Taylor's rule

- (a) is an example of discretionary fiscal policy.
- (b) is a supply-side policy measure.
- (c) is an analytical tool to represent the monetary policy decisions taken by a central bank.
- (d) None of the above

52. The possibility of having a temporally inconsistent policy is the same thing as

- (a) the action lag in policy-making.
- (b) Taylor's rule.
- (c) the basic rule of economic policy.
- (d) None of the above

53. Which sentence is not false?

- (a) Goodhart's law is a particular case of Okun's law.
- (b) The Laffer curve consists of the part of the Phillips curve that is immune to the effectiveness lag.
- (c) Taylor's rule relates changes in the inflation rate with changes in both the nominal and the real interest rate.
- (d) The debate "rules vs discretion" is the debate on whether supply-side policies are preferable to demand-side policies.

54. Which one is a monetary policy instrument of central banks?

- (a) The money multiplier
- (b) The reserve ratio
- (c) The GDP deflator
- (d) The inflation rate

55. Which sentence is not true?

- (a) Monetarism is the view that the money stock is the chief determinant of the short-run aggregate demand.
- (b) There is empirical evidence suggesting that lower inflation rates tend to be associated with more independent (with respect to the government) central banks.
- (c) Referring to inflation as a tax means that, inevitably, a rising inflation causes a rise in the government deficit.
- (d) The ECB interest rate on the marginal lending facility is higher than the ECB interest rate on the deposit facility.

56. In the AS-AD model, what could not lead, most likely, to a fall in the inflation rate?

- (a) A cut in the taxes paid by consumers when they purchase goods.
- (b) A revaluation, in a fixed exchange rate regime.
- (c) The adoption of supply-side policy measures
- (d) A contractionary monetary policy

57. Which sentence about the quantity equation is not false?

- (a) It is a particular case of Goodhart's law.
- (b) It refers to nominal GDP.
- (c) It is the inverse of Okun's law.
- (d) It is the sum of the money multiplier and the expenditure multiplier.

58. In the AS-AD model, real GDP necessarily grows if
- taxes (paid by consumers) on sales rise and reserve requirements are brought down.
  - transfers are increased and a contractionary open market operation is conducted.
  - supply-side policies are adopted at the same time as government purchases fall.
  - None of the above
59. According to the crowding-out effect
- the exchange rate channel of monetary policy is more effective than the interest rate channel.
  - the classical dichotomy invalidates the Ricardian equivalence proposition.
  - the monetization of the government deficit reduces the inflation rate.
  - None of the above
60. Using the quantity equation (with absolute or relative values), in which case is the inflation rate higher?
- With a constant velocity of circulation of money, the money stock increases by 10% and real GDP decreases by 5%.
  - With a constant velocity of circulation of money, the money stock increases by 10% and real GDP increases by 5%.
  - Nominal GDP increases by 5%, real GDP remains constant, and the velocity of money increases by 2%.
  - Both the money stock and the velocity of money remain constant, whereas real GDP falls by 12%.
61. The crowding-out effect is a negative consequence of
- the existence of lags in the implementation of Taylor's rule when the Phillips curve becomes a temporary inconsistent policy.
  - the existence of trade unions.
  - a fiscal policy financed by issuing government bonds or T-bills.
  - None of the above
62. What is a fiscal policy tool?
- The tax rate
  - The unemployment rate
  - The inflation rate
  - The reserve ratio
63. Taylor's rule is
- a formula to calculate the GDP deflator.
  - the equation that defines the purchasing power parity exchange rate.
  - the same thing as Okun's law but from the standpoint of the aggregate supply and aggregate demand model.
  - None of the above
64. In the AS-AD model, what could offset the negative impact on GDP of a recession?
- A revaluation, under a fixed exchange rate regime.
  - A contractionary supply-side policy.
  - An expansionary monetary policy.
  - None of the above
65. 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 supply-side policy and an expansionary open market operation have been executed.
  - the number of consumers has increased and the number of firms has decreased.
  - the economy has lost competitiveness and a severe drought has caused a rise in the price of electric power.
  - contractionary monetary and expansionary fiscal policies have been implemented.
66. A monetary policy transmission channel
- operates through the government spending.
  - operates through the exchange rate.
  - operates through triangular arbitrage.
  - None of the above
67. What is likely to shift the AS function to the right and the AD function to the left?
- Supply-side policy plus expansionary monetary policy
  - Closing down of firms plus expansionary fiscal policy
  - Closing down of firms plus stock market crash
  - Supply-side policy plus stock market crash
68. The goal of an expansionary fiscal policy is to
- increase the money stock.
  - increase the unemployment rate.
  - lower the foreign real GDP.
  - None of the above

69. In which case would the aggregate demand function shift for sure to the right but the inflation rate could decrease?

- (a) A supply-side policy is implemented at the same time as 50% of all the firms close down.
- (b) An expansionary monetary policy is implemented at the same time as a contractionary fiscal policy.
- (c) An expansionary fiscal policy is implemented at the same time as a supply-side policy.
- (d) None of the above

70. Which sentence is true?

- (a) The Phillips curve is Taylor's rule when the inflation rate equals the interest rate
- (b) The GDP deflator establishes how aggregate production changes and, in particular, how GDP changes.
- (c) Okun's law, in essence, relates GDP with the unemployment rate.
- (d) The aggregate supply function establishes a positive relationship between interest rate and unemployment rate.

71. What is the likely, immediate effect on the macroeconomic equilibrium of implementing an expansionary fiscal policy and, simultaneously removing a previously applied supply-side policy?

- (a) The inflation rate goes down while GDP does not change.
- (b) GDP could remain unchanged but the inflation rate increases.
- (c) GDP falls but it is not possible to ascertain whether the inflation rate moves up or down.
- (d) None of the above

72. Taylor's rule

- (a) states that the Lucas paradox occurs when Okun's law coincides with the Phillips curve.
- (b) is a particular case of the Swan diagram.
- (c) is not an example of a monetary policy rule.
- (d) None of the above

73. The fallacy of composition

- (a) is also known as the perversity thesis.
- (b) could justify the opinion that policy measures that work well for certain markets may not work well for the whole economy.
- (c) is a particular example of the Laffer curve.
- (d) None of the above

74. What would shift the AS function and the AD function in the same direction, at least initially and in general?

- (a) A contractionary fiscal policy and an increase in the number of firms
- (b) A contractionary monetary policy and an expansionary fiscal policy
- (c) A supply-side policy and a rise in the financial wealth caused by a stock market boom
- (d) A rise in energy prices and a depreciation of the domestic currency

75. In which case would the aggregate supply function shift for sure to the left but the inflation rate could decrease?

- (a) A supply-side policy is implemented at the same time as 50% of all the firms close down.
- (b) An expansionary fiscal policy is implemented at the same time as a supply-side policy.
- (c) An expansionary monetary policy is implemented at the same time as a contractionary fiscal policy.
- (d) None of the above

76. Which sentence is false?

- (a) The inflation rate and the unemployment rate are both determined in the aggregate supply and aggregate demand model.
- (b) Neither the real exchange rate nor the interest rate are determined in the currency market.
- (c) The liquidity market model is not useful to determine the value of the unemployment rate but it is to represent the effect of open market operations.
- (d) Taylor's rule is an equation stating how a central bank would set the interest rate.

77. Goodhart's law

- (a) constitutes an example of a policy rule.
- (b) is a way of financing the government debt.
- (c) sets limits to what can be accomplished through economic policies.
- (d) is inversely related to the Fisher equation.

78. The Ricardian equivalence proposition points out some limitations of implementing

- (a) fiscal policies.
- (b) the Swan diagram.
- (c) the business cycle.
- (d) None of the above

79. The expression “supply-side economics” means that
- liquidity is in short supply or that the central bank should supply liquidity.
  - the government should supply public services.
  - the money supply equals cash plus deposits.
  - None of the above
80. Demand-pull deflation is deflation caused by
- the balance sheet recession theory.
  - an increase in the demand for liquidity.
  - a reduction in aggregate demand.
  - None of the above
81. What shifts the AS function and the AD function in the same direction, at least initially and in general?
- A contractionary fiscal policy and an increase in the number of firms
  - A contractionary monetary policy and an expansionary fiscal policy
  - A supply-side policy and a rise in the financial wealth caused by a stock market boom
  - A rise in energy prices and a depreciation of the domestic currency.
82. To offset, using monetary policy, the effect on the inflation rate caused by a contractionary shift of the AS function, what function and in what direction will have to shift?
- The AD function, to the right.
  - The AD function, to the left.
  - The AS function, to the left.
  - None of the above
83. The aim of an expansionary monetary policy
- is to lower the interest rate.
  - is to raise the government budget deficit.
  - is to lower the inflation rate.
  - None of the above
84. 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
85. In the AS-AD model, GDP has increased but the inflation rate has remained approximately constant. A possible explanation is
- that consumers have lost wealth.
  - that the international price of oil went up.
  - that the tax rate paid by consumers has been lowered, with the economy remaining on the non-inflationary region of the AS function.
  - None of the above
86. What policy mix produces a non-ambiguous effect on GDP?
- Expansionary fiscal policy + contractionary monetary policy
  - Expansionary monetary policy + supply-side policy
  - Supply-side policy + contractionary fiscal policy
  - None of the above
87. A positive shock has affected the AS function. What policy would revert the macroeconomic equilibrium to its initial state?
- Expansionary fiscal policy
  - Contractionary fiscal policy
  - Contractionary monetary policy
  - None of the above
88. What measure is not an example of a demand-side policy?
- An open market operation.
  - A programme to improve the skills of unemployed workers.
  - A cut in unemployment benefits.
  - A rise in the taxes that consumers must pay.
89. Monetizing the public debt means that
- taxes rise now and are reduced in the future.
  - the central bank conducts an expansionary fiscal policy.
  - the central bank conducts a contractionary monetary policy.
  - None of the above
90. What is typically not an economic policy tool?
- Open market operations
  - Taxes
  - The liquidity ratio
  - None of the above
91. An expansionary fiscal policy aims at raising
- the money stock.
  - the unemployment rate.
  - foreign real GDP.
  - None of the above