

## Introduction to Macroeconomics · M4 · 2016-17

### Problem Set 2 · Multiple choice questions

1. In which case does an economy not have, for sure, lending capacity?
- Net private saving is positive and the government budget is in deficit.
  - Net private saving is negative and the government budget is in surplus.
  - Net private saving is positive and the government budget is in surplus.
  - None of the above
2. In which case has the economy lending capacity for sure?
- $S - I > 0$  and  $T - G - TR > 0$
  - $S - I > 0$  and  $T - G - TR < 0$
  - $S - I < 0$  and  $T - G - TR > 0$
  - $S - I < 0$  and  $T - G - TR < 0$
3. According to the savings identity, the trade balance  $NX$  equals
- $S + I - (G + TR - T)$ .
  - $T - G - TR - S + I$ .
  - $T - I - G - TR + S$ .
  - None of the above
4. Which variable cannot be negative?
- The trade balance
  - The change in the government budget
  - The percent change in the unemployment rate
  - None of the above
5. On the basis of the savings identity, that an economy has lending capacity means that
- the government has a budget surplus.
  - a trade surplus exists.
  - net private saving  $S - I$  is negative.
  - the economy runs twin deficits.
6. According to the savings identity, the value of savings  $S$  is necessarily equal to
- the lending capacity of the economy.
  - the government budget.
  - investment minus export plus imports.
  - None of the above
7. Given the savings identity, it is impossible that
- net exports are zero.
  - the government budget deficit is zero.
  - net private savings (the difference between private savings and investment) are zero.
  - None of the above
9. Suppose private saving  $S$  and net exports  $NX$  are both zero. Then
- investment  $I$  equals government saving  $T - G - TR$ .
  - investment  $I$  equals the budget deficit  $G + TR - T$ .
  - the economy has financial need.
  - there is a trade surplus.
9. Define the government deficit as  $G + TR - T$  and let  $NX$  denote net exports. Then
- the government deficit cannot be positive and net exports negative.
  - the government deficit and net exports cannot both be zero.
  - if investment  $I$  is zero, then the government deficit is equal to net exports.
  - if private saving  $S$  equals investment  $I$ , then the government deficit is equal to minus net exports.
10. Define the government saving as  $T - TR - G$  and the foreign saving as  $IM - EX$ . If investment  $I$  equals private saving  $TS$ , then
- the government saving necessarily equals the foreign saving.
  - the government saving is necessarily greater than the foreign saving.
  - the government saving is necessarily smaller than the foreign saving.
  - the government saving may be equal to the foreign saving.
11. Let  $NPS$  designate net private saving  $S - I$ ;  $GB$ , the government budget  $G + TR - T$ ; and  $NX$  the trade balance. According to the macroeconomic identities, which situation cannot arise?
- $NPS$  rises,  $GB$  decreases,  $NX$  remains constant.
  - $NPS$  increases,  $GB$  decreases,  $NX$  increases.
  - $NPS$  decreases,  $GB$  increases,  $NX$  decreases.
  - $NPS$  remains constant,  $GB$  rises,  $NX$  decreases.
12. If net private savings  $S - I$  equal zero and imports equal exports, then
- there is a budget surplus (public savings are positive).
  - there is a budget deficit (public savings are negative).
  - the economy suffers from a financial need.
  - None of the above

13. A period of falling unemployment and rising GDP is called
- Okun's law.
  - business cycle.
  - depression.
  - None of the above
14. If the government runs neither a budget surplus nor a budget deficit, then
- there must be a trade surplus.
  - there must be a trade deficit.
  - if investment  $I$  differs from private saving  $S$ , then the trade balance is necessarily neither in surplus nor in deficit.
  - None of the above
15. Define the government budget as government expenditure minus taxes plus transfers. Then the savings identity holds that
- savings equal investment minus the government budget minus net exports.
  - investment equals savings plus the government budget plus net exports.
  - savings equal investment plus the government budget plus net exports.
  - None of the above
16. If the government budget is balanced (runs neither a surplus nor a deficit), then
- net exports  $NX$  are equal to savings  $S$ .
  - net exports  $NX$  are equal to investment  $I$ .
  - investment  $I$  equals savings  $S$  if net exports  $NX$  are zero.
  - None of the above
17. With the government budget defined as spending minus receipts, it follows from the savings identity that
- if savings equal investment, then the government budget is equal to the trade balance.
  - if there is a trade balance deficit, then there is a government budget deficit.
  - if there is a government budget surplus, then there is a trade balance surplus.
  - None of the above
18. Aggregate planned expenditure is more likely to rise if
- the interest rate and the exchange rate rise.
  - the interest rate rises and the exchange rate falls.
  - the interest rate falls and the exchange rate rises.
  - the interest rate and the exchange rate fall.
19. The macroeconomic equilibrium lies on the inflationary region of the AS function. Starting from this point, an increase in the number of firms together with an increase in the number of consumers cannot lead to
- an increase in the aggregate production.
  - an increase in the inflation rate .
  - a reduction in the inflation rate.
  - a reduction in the aggregate production.
20. Which sentence is not true?
- In the AS-AD model, each change in the AD function always changes the inflation rate.
  - Negative shocks to the AS function tend to cause stagflation.
  - According to the AS-AD model, during the expansionary phase of the business cycle, the inflation rate tends to rise.
  - Neither (b) nor (c) is false.
21. In the AS-AD model, both the AS function and the AD function shift to the right. As a result,
- the inflation rate necessarily rises.
  - the economy is experiencing a recession.
  - it is likely that real GDP will rise.
  - it is economically impossible that disinflation occurs.
22. What is typical of a recession?
- Workers are laid off, the inflation rate rises
  - GDP falls, the inflation rate rises
  - unemployment falls, the inflation rate falls
  - None of the above
23. It is reasonable to expect some factories to remain idle
- during the contractionary period of the business cycle.
  - never during the business cycle.
  - when the economy is entering the inflationary region of the aggregate supply function.
  - None of the above
24. If people feel poorer because of a fall in the price of financial assets,
- the AD function will shift to the left because people will be induced to consume more.
  - the AD function will shift to the right as people will be induced to consume more.
  - the AD function will shift to the left because people will be induced to consume less.
  - the AD function will shift to the right as people will be induced to consume less.

25. By itself alone, the AS-AD model can be used to predict the changes in the
- unemployment rate.
  - real interest rate.
  - inflation rate.
  - real exchange rate.
26. In the AS-AD model, production has increased while the inflation rate remained unchanged. A possible explanation is that
- consumers have lost part of their wealth.
  - the oil prices are on the rise.
  - there has been a cut in the taxes consumers pay while the economy remains on the non-inflationary region of the AS function
  - None of the above
27. In the AS-AD model, a devaluation of the domestic currency is likely to
- fuel inflation.
  - reduce the nominal exchange rate.
  - increase the interest rate.
  - raise the unemployment rate.
28. A shift of the AD function to the left cannot be explained by
- the general belief that the economy is entering a recession.
  - a tax reduction combined with a cut in the government purchases of goods.
  - the price level goes down faster at the rest of the world than at home.
  - None of the above.
29. The expression 'business cycle' refers to
- the ups and downs of the trade deficit.
  - the ups and downs of the inflation rate.
  - the changes in the firms' profits.
  - None of the above
30. What cannot shift the AD function to the right?
- Consumption rises, investment falls.
  - Net exports fall, government spending rises.
  - Consumption falls, net exports fall.
  - None of the above.
31. The peaks and troughs of a lagging variable tend to occur
- at about the same time as the peaks and troughs of the business cycle.
  - later than the peaks and troughs of the business cycle.
  - before the peaks and troughs of the business cycle.
  - None of the above
32. Loosely speaking, Okun's law relates
- the unemployment rate to GDP.
  - the inflation rate to the unemployment rate.
  - the inflation rate to the interest rate.
  - GDP to the exchange rate.
33. The Phillips curve does not refer to
- the inflation rate.
  - the real exchange rate.
  - the unemployment rate.
  - None of the above
34. The macroeconomic equilibrium is given by
- the inflation rate and the unemployment rate.
  - the real GDP and the unemployment rate.
  - the real GDP and the inflation rate.
  - the real interest rate and the real exchange rate.
35. In the AS-AD model, a positive shock to consumption combined with a negative shock to the AS function tends to generate
- necessarily, a fall in the unemployment rate.
  - always, an uncertain effect on the inflation rate.
  - a rise in the inflation rate.
  - necessarily, a fall in GDP.
36. A negative shock to the aggregate supply function on the inflationary region generates a
- rise in the inflation rate and a fall in real GDP.
  - fall in the inflation rate and a fall in real GDP.
  - rise in the inflation rate and a rise in real GDP.
  - fall in the inflation rate and a rise in real GDP.
37. A rise in production together with a fall in the inflation rate has been observed. What could explain that result?
- Only the AD function has been modified.
  - Both the AD function and AS function may have changed.
  - Necessarily, only the AS function has been modified.
  - None of the above
38. An increase in real GDP and a decrease 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 policies have been adopted.
  - None of the above

39. The expenditure multiplier effect means that
- an initial exogenous increase in the inflation rate leads to an increase in the interest rate that further increases the inflation rate, that further increases the interest rate, that further increases the inflation rate...
  - the tax revenue is always a multiple of the money stock.
  - when the economy is booming, the inflation rate becomes a procyclical variable.
  - an initial exogenous increase in aggregate demand leads to an increase in income that further increases aggregate demand, that further increases income, that further increases aggregate demand...
40. By the expenditure multiplier effect,
- an increase in the inflation forces the central bank to rise the interest rate, so the money stock falls.
  - an increase in the government budget deficit financed by bond issue induces people to save for the payment of additional future taxes, so they cut consumption and aggregate demand falls.
  - an increase in transfers, raises aggregate demand, which raises income, which raises consumption, which raises aggregate demand, which raises income...
  - None of the above
41. What is likely to shift the aggregate demand function to the right?
- An increase in net exports
  - A decline in the firms' production costs
  - An increase in the unemployment rate
  - A decline in aggregate income
42. What tends to shift the aggregate demand function to the right?
- An increase in imports
  - A reduction in the firms' production costs
  - A fall in the proportion of income that is saved
  - A decline in aggregate income
43. Characteristically, in a booming economy
- GDP does not decline.
  - the inflation rate is falling.
  - the economy is reaching the through of the business cycle.
  - countercyclical variables become cyclical, and coincident indicators become lagging indicators.
44. Okun's law establishes a negative relationship between
- real GDP growth and the interest rate.
  - the unemployment rate and the inflation rate.
  - real GDP growth and the unemployment rate.
  - the inflation rate and the unemployment rate.
45. Which argument does not justify a negatively sloped aggregate demand function?
- A decline in the inflation rate increases purchasing power and stimulates consumption
  - A surge in the inflation rate erodes competitiveness and reduces net exports
  - When the inflation rate rises, the central bank increases the interest rate, which tends to reduce expenditure
  - None of the above
46. A positive shock to the aggregate demand function on the non-inflationary region of the aggregate supply function causes
- a rise in the inflation rate and a fall in real GDP.
  - a fall in the inflation rate and a fall in real GDP.
  - a significant rise in the inflation rate and a rise in real GDP.
  - essentially, only an increase in real GDP.
47. The expenditure multiplier effect means that
- an exogenous rise in the inflation rate causes an increase in the interest rate  $i$ , which in turn causes an increase in the inflation rate, which causes an increase in  $i$ ...
  - an exogenous increase in aggregate demand AD causes an income rise, which rises AD, which rises income...
  - an increase in the monetary base  $M_0$  causes an increase in the money stock  $M_1$ , which causes an increase in  $M_0$ , which causes an increase in  $M_1$ ...
  - aggregate demand is a multiple of the government expenditure.
48. The business cycle refers to the fact that
- a procyclical variable is always a lagging indicator.
  - Okun's law relates changes in the inflation rate to changes in the unemployment rate.
  - a recession is a self-sustained contractionary phenomenon while an expansion is not a self-sustained booming phenomenon.
  - None of the above

49. It is characteristic of the expansionary phase of the business cycle that
- GDP (real or nominal) grows.
  - the unemployment rate grows.
  - the quantity equation and the Laffer curve become false.
  - the crowding-out effect becomes null and the trade balance is zero.
50. What is likely to shift the aggregate supply function to the left?
- An increase in the government spending
  - An increase in the firms' production costs
  - A productivity rise
  - A tax cut
51. In which case the two variables are not nominal variables?
- GDP deflator and CPI
  - Nominal GDP per capita and unemployment rate
  - Labour force and unemployment
  - None of the above
52. Which variable cannot be negative?
- the inflation rate.
  - the change in the unemployment rate.
  - the participation rate.
  - None of the above
53. Consider the equation  $\Delta u = 1 - y/2$ , where  $\Delta u$  is the change in the unemployment rate and  $y$  is the rate of growth of real GDP. This equation
- is an example of a Phillips curve.
  - does not mean that if the growth rate of real GDP increases by 4 per cent points, the unemployment rate increases by 2 per cent points.
  - is an example of an aggregate demand function.
  - implies that, when there is no change in real GDP, the unemployment rate goes up by two per cent.
54. Which sentence is not false?
- The Eurocoin is sometimes a leading indicator and sometimes a countercyclical variable.
  - Consumption is typically a procyclical variable.
  - It is an empirical regularity that the period of time between peak and trough of a business cycle is equal to the period of time between trough and peak.
  - 'Business cycle' is an expression synonymous with 'Phillips curve'.
55. The labour force consists of
- the people with an employment.
  - the total population of working age.
  - the participation rate.
  - employed people plus unemployed people.
56. If a fraction of the unemployed people leaves the labour force, then the unemployment rate
- goes up.
  - goes down.
  - does not change.
  - None of the above
57. If a fraction of the employed people leaves the labour force, then the unemployment rate
- goes up.
  - goes down.
  - does not change.
  - None of the above
58. A period during which real GDP grows and unemployment falls is called
- a Phillips curve.
  - the business cycle.
  - an expansion.
  - a recession.
59. If the labour force expands, then
- the unemployment rate increases if unemployment remains constant.
  - the unemployment rate decreases if unemployment remains constant.
  - the unemployment rate cannot change.
  - None of the above
60. In which expression the unemployment rate and the inflation rate are both absent?
- In the expression that defines the GDP deflator
  - In the Fisher equation
  - In an expression that defines a Phillips curve
  - In the equation that expresses the relative purchasing power parity
61. In the AS-AD model a fall in the inflation rate could occur if
- the price of imported energy (like oil) rises and real GDP in the rest of the world declines.
  - there is a surge in the arrival of immigrants and 50% of all the firms close down.
  - unemployment reaches historical highs and, at the same time, the government places a tax, on all the firms, that increases with the number of employees of a firm.
  - None of the above

62. In which case all the events indicated tend to modify aggregate demand in the same direction?
- The nominal interest rate falls (with the expectation that the inflation rate will remain constant) and the number of firms rise.
  - The foreign inflation rate rises and domestic financial wealth falls.
  - The nominal exchange rate increases and businessmen expect an increase in aggregate demand in the near future.
  - None of the above
63. The expenditure multiplier effect
- states that inflationary expectations multiply the inflation rate so that the economy moves faster from the inflationary region to the non-inflationary region than vice versa.
  - captures the idea that increases in income lead to increases in consumption which, in turn, lead to increases in aggregate demand and further increases in income.
  - is exactly the same effect as the money multiplier effect: more money generates more expenditure and more expenditure creates more money.
  - cannot take place if the economy reacts to an increase in aggregate expenditure by altering both the inflation rate and real GDP.
64. Which sentence is not true?
- Stagflation does not mean that the inflation rate remains stagnant.
  - It is likely that changes in the inflationary expectations will alter the macroeconomic equilibrium.
  - The above two sentences are true.
  - A macroeconomic equilibrium is solely a value for the inflation rate such that aggregate supply and aggregate demand coincide at that value of the inflation rate.
65. Which pair of variables cannot both simultaneously grow?
- The CPI and the GDP deflator
  - Employment and the unemployment rate
  - Nominal GDP and real GDP
  - None of the above
66. In the AS-AD model, both the AS function and the AD function shift to the right. As a result,
- the inflation rate necessarily rises.
  - the economy enters into a recession.
  - it is likely that real GDP will go up.
  - it is impossible that a disinflation occurs.
67. 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
68. In the AS-AD model, domestic real GDP tends to grow if
- foreign real GDP and foreign inflation rate both grow.
  - foreign real GDP falls and the domestic currency appreciates.
  - the economy moves from the AS inflationary (but not hyperinflationary) region to the non-inflationary one.
  - None of the above
69. Which one would not be an explanation for the existence of involuntary unemployment?
- A slow adjustment of the real wage
  - An insufficient aggregate demand (or the businessmen's belief that aggregate demand is insufficient)
  - A decrease in the Swan diagram when there are no arbitrage opportunities and the central bank conducts a contractionary fiscal policy to prevent a depreciation of the exchange rate.
  - That most of the workers are represented by a trade union with power to bargain over wages with businessmen.
70. The concept of business cycle refers to
- the feedback process that increases  $M1$  in the so-called money creation process.
  - the speculation cycle that causes currency crises when governments violate the macroeconomic identities.
  - the fact that there is no macroeconomic variable that grows when GDP grows.
  - None of the above
71. What explanation is valid to justify a downward-sloping aggregate demand function?
- Wealth effect: if the inflation rate falls, money's purchasing power rises and people would like to consume more.
  - Interest rate effect: if the inflation rate falls, by the Fisher effect, the nominal interest rate also falls, which stimulates consumption and investment.
  - Competitiveness effect: if the inflation rate falls, domestic goods become comparatively cheaper, so net exports rise.
  - None of the above

72. The expenditure multiplier process
- is another name for the money multiplier process.
  - involves feedback between income and consumption.
  - occurs only when spatial arbitrage is impossible.
  - is the process that makes commercial arbitrage possible.
73. The unemployment rate does not tend to go down when
- the economy is in the expansionary phase of the business cycle.
  - the economy is between the trough and the peak of the current business cycle.
  - the economy is hit by a depression.
  - None of the above
74. If net private savings  $S - I$  equal zero and imports equal exports,
- there is a budget surplus (public savings are positive).
  - there is a budget deficit (public savings are negative).
  - the economy has financial need.
  - None of the above
75. Characteristically, in a booming economy
- GDP and inflation rate both tend to rise.
  - the inflation rate is falling.
  - the economy approaches the trough of the business cycle.
  - countercyclical variables become cyclical variables and coincident indicators turn into lagging indicators.
76. Define the government budget as spending plus transfers minus taxes. Then it is a macroeconomic identity that
- savings = investment - the government budget - net exports.
  - investment = savings + the government budget + net exports.
  - savings = investment + the government budget + net exports.
  - None of the above
77. Which variable cannot be positive?
- The unemployment rate
  - The change in unemployment rate
  - The change in the percent change in the unemployment rate
  - None of the above
78. In the AS-AD model, a favourable shock on consumption under a negative shock on aggregate supply
- leads necessarily to a reduction in the unemployment rate.
  - always creates an uncertain effect on the inflation rate.
  - tends to generate a rise in the inflation rate.
  - necessarily lowers GDP.
79. 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
80. What could explain a shift of the AD function to the right?
- The belief that the economy is entering into a recession
  - A cut on taxes paid by consumers that occurs while the government expand its spending
  - Prices abroad rising at a faster rate than domestic prices
  - None of the above
81. A period in which GDP grows and unemployment falls is
- the Phillips curve.
  - an expansion.
  - the business cycle.
  - a recession.
82. Which argument cannot contribute to justify a downward-sloping aggregate demand function?
- A falling inflation rate increases the purchasing power of money and that stimulates consumption.
  - A rising inflation rate erodes competitiveness and that causes a drop in net exports.
  - When the inflation rate grows, the central bank raises the interest rate, which tends to reduce investment.
  - None of the above
83. An economy has, for sure, lending capacity if
- $S - I > 0$  and  $T - G - TR > 0$ .
  - $S - I > 0$  and  $T - G - TR < 0$ .
  - $S - I < 0$  and  $T - G - TR > 0$ .
  - $S - I < 0$  and  $T - G - TR < 0$ .