

Introduction to Macroeconomics · M5 · 2014-15

Problem Set 1 · Multiple choice questions

- Which sentence is not false?
 - GDP at constant prices is a nominal variable.
 - Population is not a real variable.
 - Real GDP may be smaller than nominal GDP.
 - The CPI inflation rate minus the GDP deflator plus the population multiplied by the rate of change of real GDP per capita divided by the base period is twice the base period minus the rate of change of nominal GDP per capita minus the GDP deflator inflation rate plus the CPI.
- If the GDP deflator goes up and nominal GDP goes down, then
 - real GDP goes down.
 - real GDP goes up.
 - real GDP remains constant.
 - nominal GDP goes up.
- Which variables are related by definition?
 - Nominal GDP and population growth rate
 - Real GDP and GDP deflator
 - GDP deflator inflation rate and CPI
 - None of the above
- In which case are the two variables flow variables?
 - The amount of wealth at a given point in time and the rate of growth of real GDP.
 - Population at a given point in time and the inflation rate.
 - Nominal GDP and real GDP per capita.
 - None of the above
- Which sentence is not true?
 - The rate of growth of real GDP may be smaller than the rate of growth of nominal GDP.
 - The rate of growth of nominal GDP may be higher than the inflation rate.
 - The rate of growth of real GDP per capita cannot be negative.
 - The CPI inflation rate may be different from the GDP deflator inflation rate.
- If nominal GDP is 600 and the CPI is 20, then the real GDP
 - is $600/20 = 30$.
 - is $600 \cdot 20 = 12,000$.
 - is necessarily 600 if the period considered is different from the base period.
 - cannot be determined.
- Which of the following variables measures the general price level of an economy?
 - The output gap
 - The nominal GDP divided by the real GDP
 - The nominal GDP per capita
 - None of the above
- In which case the two variables are not nominal variables?
 - The GDP deflator and the CPI
 - The nominal GDP per capita and the proportion of the population not having a job
 - Population and the proportion of the population having a job
 - None of the above
- Real GDP necessarily rises if
 - nominal GDP rises.
 - the GDP deflator falls.
 - nominal GDP falls and the GDP deflator increases.
 - None of the above
- In which case does a rise in the first variable necessarily cause a fall in the second variable?
 - CPI inflation rate and potential GDP
 - GDP deflator and nominal GDP per capita
 - Real GDP and nominal GDP
 - None of the above
- Real GDP and real GDP per capita have in common that both are
 - estimates of the underground economy.
 - variables without units.
 - stock variables.
 - None of the above

12. Which of the following variables can be taken as a good measure of the aggregate production in an economy?
- The output gap
 - Nominal GDP divided by real GDP
 - The inflation rate or real GDP per capita
 - None of the above
13. By definition of CPI-based inflation rate, that the CPI-based inflation rate rises means that
- the general price level diminishes.
 - the population increases.
 - the GDP deflator necessarily goes up.
 - None of the above
14. The base period CPI is 100, it is 110 in period 2, and it is 100 in period 3. From period 2 to 3, the CPI inflation rate
- cannot be calculated.
 - is 0%.
 - is 10%.
 - is negative.
15. Which sentence is not true?
- GDP at constant prices may fall and, at the same time, GDP at current prices may rise.
 - Real GDP is always smaller than nominal GDP.
 - If nominal GDP rises and the GDP deflator diminishes, then real GDP increases.
 - Real GDP and nominal GDP may be equal.
16. Which variable cannot be negative?
- The inflation rate
 - The change in the inflation rate
 - The nominal GDP growth rate
 - None of the above
17. Which pair of variables cannot both simultaneously grow?
- The CPI and the GDP deflator
 - Population and real GDP per capita
 - Nominal GDP and real GDP
 - None of the above
18. Identify the sentence that is not false.
- A stock variable could be a flux variable.
 - A disinflation necessarily implies a deflation.
 - The CPI is only valid as a price level in the long run.
 - None of the above
19. Which sentence is not false?
- The real GDP per capita growth rate is smaller than the nominal GDP growth rate.
 - The GDP deflator inflation rate is the nominal GDP per capita growth rate minus the CPI inflation rate.
 - The CPI inflation rate can never be equal to the GDP deflator inflation rate.
 - The GDP deflator is a price index.
20. In which case all variables are real?
- GDP at constant prices, GDP deflator, output gap
 - Population, a flow variable, CPI
 - A stock variable, nominal GDP, real GDP per capita
 - None of the above
21. The GDP deflator inflation rate is positive.
- If the initial period for the calculation of the inflation rate is the base period, nominal GDP is higher than real GDP.
 - The inflation rate associated with the CPI must necessarily be negative.
 - Nor nominal nor real GDP have changed.
 - None of the above
22. Which matching between a macroeconomic variable and the property it could be used to measure is logically invalid?
- Real GDP and size of an economy.
 - Inflation rate and purchasing power of money.
 - Real GDP per capita and standard of living in an economy.
 - None of the above
23. Which sentence is logically impossible?
- Simultaneously, GDP deflator goes up, nominal GDP goes down, and real GDP goes up.
 - Simultaneously, the population rises, the inflation rate falls, and GDP at current prices goes up.
 - Real GDP per capita increases while population also increases.
 - None of the above
24. Real GDP has increased. Which other variable must necessarily have also increased?
- The CPI or the GDP deflator
 - Nominal GDP
 - Real GDP per capita
 - None of the above

25. 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
26. 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.
27. Which sentence is true?
- The CPI-based inflation rate can never be equal to the GDP deflator inflation rate.
 - An economy can never experience inflation and disinflation at the same time.
 - That an economy has lending capacity means that the government runs a budget surplus ($T > G + TR$).
 - The above three sentences are not true.
28. 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 $T - G - TR < 0$
29. According to the macroeconomic accounting 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
30. Which variable cannot be negative?
- The trade balance
 - The change in the government budget
 - Private credit to GDP
 - None of the above
31. 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.
32. 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 TI differs from private saving S , then the trade balance is necessarily neither in surplus nor in deficit.
 - None of the above
33. 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
34. 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.
35. 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 increases, GB decreases, and NX remains constant.
 - NPS increases, GB decreases, and NX increases.
 - NPS decreases, GB increases, and NX decreases.
 - NPS remains constant, GB increases, and NX decreases.

36. On the basis of the macroeconomic accounting identities, that an economy has lending capacity means that
- the government is running a budget surplus.
 - a trade surplus exists.
 - net private saving $S - I$ is negative.
 - the economy is suffering from twin deficits.
37. Knowing the GDP deflator from 2013 and nominal GDP from 2013, it is possible to calculate
- the inflation rate of 2013.
 - the CPI of 2013.
 - real GDP of 2013.
 - None of the above
38. According to the macroeconomic identities, 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
39. Given the fundamental macroeconomic identities, 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
40. Define the government budget as government expenditure minus taxes plus transfers. Then one of the fundamental macroeconomic identities 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
41. 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
42. Real GDP went up by 10%, whereas the CPI inflation rate went down by 5%. As a consequence,
- a fall in the GDP deflator inflation rate necessarily took place.
 - an approximately 5% increase in nominal GDP occurred.
 - nominal GDP may not have changed.
 - None of the above
43. Which sentence is not false?
- GDP per capita is, by definition, a measure of silent evidence.
 - The fallacy *cum hoc ergo propter hoc* implies that the CPI inflation rate cannot be negative when the nominal GDP growth rate is positive but, provided that net exports are zero and the savings identity fails to be true, the fallacy implies that the GDP deflator inflation rate can be negative when the fallacy *post hoc ergo propter hoc* is part of the government budget,.
 - That an economy runs a trade deficit does not mean that the economy has lending capacity.
 - The basket of goods on which the CPI is based is larger than the basket of goods corresponding to the GDP deflator.
44. Which sentence is not true?
- The expressions “fallacy of composition” and “emerging property” have both exactly the same meaning.
 - Deflation does not mean that the economy is experiencing a reduction in GDP per capita when population grows.
 - For sufficiently small rates, the rate of change of real GDP per capita is approximately equal to the rate of change of nominal GDP minus the GDP deflator inflation rate minus the rate of change of population.
 - The El Farol bar problem is not directly related to the possibility that the government may run a budget deficit at the same time that the economy runs a trade surplus.