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Economics & Society
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Self-Test 10 (KEY)

Short-run GDP fluctuations

The tasks in this self-test are designed to be solvable by any student who has mastered the material. The answers provided are written instructionally to walk you through the problem-solving process for each task. A well-prepared student should score between 9 and 11 out of 12 without assistance from AI or others. A 12 out of 12 — without help — requires outlier performance or sheer luck. This self-test is optional, and your result will not count towards your grade. Direct any questions to your section's TA.

1. Consider a commodity market in country A where C = 10 + 0.5(Y − T), T = 0.1Y, I = 115, G = 80, NX = −40. What is the equilibrium output?
   A. Around 200.
   B. Around 250.
   C. **Around 300.**
   D. Around 350.
   E. Around 400.
   [Y = 10 + 0.5(Y − 0.1Y) + 115 + 80 − 40 = 165 + 0.45Y. Solving: 0.55Y = 165, so Y = 300]

2. According to the previous question, what is the consumption level in economy A?
   A. Around 100.
   B. Around 120.
   C. **Around 145.**
   D. Around 160.
   E. Around 180.
   [T = 0.1 · 300 = 30. C = 10 + 0.5(300 − 30) = 10 + 135 = 145]

3. According to the previous question, which of the following will have a stronger expansionary effect on output?
   A. **A 10% increase in government spending.**
   B. A 10% decrease in the tax coefficient.
   C. Both have the same expansionary effect.
   D. Neither will have an expansionary effect.
   [A 10% increase in G raises it from 80 to 88: Y = 10 + 0.5(Y − 0.1Y) + 115 + 88 − 40 = 173 + 0.45Y, so 0.55Y = 173, Y = 314.55, ΔY = +14.55. A 10% decrease in the tax coefficient changes T from 0.1Y to 0.09Y: Y = 10 + 0.5(Y − 0.09Y) + 115 + 80 − 40 = 165 + 0.455Y, so 0.545Y = 165, Y = 302.75, ΔY = +2.75. In this economy, government spending has a stronger expansionary effect. This may not always be the case. With different parameter values, the result could be reversed]

4. Which of the following could lead to an increase in the GDP of a country, ceteris paribus?
   A. An increase in imports. *[Higher imports increase M, reducing net exports and GDP]*
   B. A cut in government spending. *[Lower G reduces GDP directly through the expenditure approach]*
   C. **An increase in consumption expenditure.** *[Higher C directly increases GDP through the expenditure approach: GDP = C + I + G + (X − M)]*
   D. All of the above.

5. The GDP of a country in 2025 was $117B. If the expenditure on investment was $16B, the expenditure incurred by the government was $35B, the value of exports was $9B, and the value of imports was $22B, what was the expenditure on consumption?
    A. Around $40B.
    B. Around $50B.
    C. Around $70B.
    D. **Around $80B.**
    E. Around $90B.
    [GDP = C + I + G + (X − M). Solving: 117 = C + 16 + 35 + (9 − 22) = C + 38, so C = $79B]

6. In the commodity market of a closed economy, we observe that Y > C + I + G. Which of the following is accurate?
    A. It is impossible that Y > C + I + G. *[It is possible in the short run when output exceeds planned expenditure]*
    B. **Inventories will increase.** *[Output exceeds planned expenditure. The unsold goods accumulate as unplanned inventory investment, signaling firms to reduce production until equilibrium is restored]*
    C. Saving will fall. *[Saving is determined by income and consumption decisions, not directly by the gap between output and expenditure]*
    D. The budget deficit will increase. *[The budget deficit is determined by G − T, not by the gap between output and planned expenditure]*

7. Which of the following could have a stabilizing effect in the economy against short-run fluctuations?
    A. An interest rate cut. *[An interest rate cut stimulates the economy]*
    B. **An increase in M1.** *[By accommodating increases in money demand, a higher M1 prevents the interest rate from changing, keeping investment and consumption stable]*
    C. A decrease in money demand. *[A decrease in money demand will destabilize the money market]*
    D. An increase in government spending. *[An increase in government spending stimulates the economy]*
    E. An increase in investment. *[Investment is procyclical. It rises in booms and falls in recessions, amplifying rather than stabilizing fluctuations]*
    F. An increase in imports. *[Imports are procyclical. They rise when income rises and fall when it falls]*

8. Which of the following may have an expansionary effect but could also trigger inflation?
    A. Expansionary fiscal policy. *[An increase in government spending raises the demand for production factors, which can push up their prices and trigger inflation]*
    B. Expansionary monetary policy. *[Expansionary monetary policy increases the quantity of money in circulation. If the percentage increase in M1 exceeds the real GDP growth, prices will increase]*
    C. **Both of the above.**
    D. None of the above.

9. Which of the following would you expect to see immediately after an increase in inflation?
    A. A decrease in the interest rate. *[Cutting interest rates stimulates demand and would worsen inflation, not reduce it]*
    B. **An increase in the interest rate.** *[Higher interest rates reduce borrowing and spending, cooling aggregate demand and combating inflation. This is the standard central bank response]*
    C. A decrease in taxes. *[Lower taxes stimulate demand and would worsen inflation]*
    D. An increase in taxes. *[While higher taxes could reduce demand and have a deflationary effect, taxation is a fiscal policy tool and not the most efficient or immediate response to inflation]*

10. Which of the following policies would be most suitable for a country with high government debt and high inflation?
    A. Expansionary monetary policy. *[Increasing the money supply would worsen inflation]*
    B. Contractionary monetary policy. *[It would reduce inflation but does nothing to address the government debt]*
    C. Expansionary fiscal policy. *[Higher spending would worsen both inflation and the debt simultaneously]*
    D. Contractionary fiscal policy. *[Spending cuts or tax increases improve the debt situation, while cooling aggregate demand and lowering inflation]*

11. Which of the following is an accurate explanation why investment and the real interest rate are negatively related?
    A. The higher the real interest rate, the costlier funding is for investment projects. *[The real interest rate represents the cost of borrowing. Higher costs make fewer projects profitable, reducing investment]*
    B. The higher the real interest rate, the lower the expected return of investment projects. *[Expected returns depend on a project's productivity and market demand, not the prevailing interest rate]*
    C. The higher the real interest rate, the lower the prices of goods produced by firms. *[Output prices are determined by supply and demand, not by the real interest rate]*
    D. The higher the real interest rate, the higher the risk of investment projects. *[A project's chance of failure depends on the business itself, not the interest rate]*

12. Which of the following is NOT accurate regarding the 2007-09 Global Financial Crisis?
    A. Many people lost their jobs even outside the banking and finance sector. *[The collapse in aggregate demand caused widespread unemployment across many industries]*
    B. Everyone tried to withdraw their deposits from banks. *[The crisis was primarily a wholesale funding crisis. Financial institutions lost access to short-term funding markets, but there was no widespread retail bank run by ordinary depositors]*
    C. Several major financial institutions collapsed. *[Lehman Brothers, Bear Stearns, and Washington Mutual were among the major institutions that collapsed]*
    D. A speculative bubble rapidly increased real estate prices. *[The US housing bubble was the primary driver of the crisis]*

Good afternoon! As we approach the end, I would like to share some valuable lessons that I have learned through expensive experiences. I am not sure if they will be of any use to you but… you never know. The order is random: (1) Cherish the moments and those around you before they become memories. People and moments sometimes leave us without notice. (2) If you choose to do something, do it well or don't do it at all. Life is too short to waste it in mediocre shit. (3) The only person you need to be competing with is your yesterday's self. (4) You cannot be a Gentleman or a Lady only 'sometimes' or only to 'some'. You either are or you are not and the choice is yours. (5) Giving your best matters more than winning. (6) If somebody makes your life difficult, they are either a jerk or maybe they care for you. In most cases, it's the former, but it's worth exploring to see if it's the latter. (7) The right path is always uphill. (8) Only a foolish person takes pride in something they did not contribute to achieving. (9) Only losers succeed always because they never take on difficult challenges. (10) The journey matters more than the destination but who you are traveling with matters even more. (11) Those who give you advice will not be there to share the cost if you fail. (12) If everyone around you gives you the same advice, listen to them. Then, try to prove them wrong. It is your life. Live it as you want. (13) If everyone around you tells you what you want to hear, start looking for some real friends. (14) If something can be counted (money, likes, views, sexual partners, cars, houses etc.) it doesn't have any real value. Kosmas

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Please report any typos, mistakes, or suggestions for improvement to kmarinakis@smu.edu.sg.