

Review Questions for Final Exam

Chapter 13, Lectures 3/14 - 4/2

1. Define aggregate demand (AD). What is the equation for AD?

Aggregate demand (AD) shows the relationship between the price level and the quantity of real GDP demanded by HH's (C), firms (I), Government (G), and foreigners (NX). $AD = C + I + G + NX$

2. Why does AD have a negative slope? In other words, when the price level rises or falls, how are C, I, NX affected?

AD has a negative slope because:

1. Wealth Effect: as the price level rises, wealth decreases and C decreases
2. Interest Rate Effect: nominal interest rates = real rate + inflation; i increases = $r + \pi$ increases \rightarrow i rates increase because as price level rises, HH's and firms need more money to finance buying and selling; to obtain more money: borrow more, sell financial assets, withdraw funds from bank; increase demand for money increase $i \rightarrow$ decrease C and decrease I
3. NX Effect: as price level increases, imports (m) increases, exports (x) decreases, NX (net exports) decrease

3. What is monetary policy to stabilize the economy during recession? During inflationary boom?

AD shifts right; I moves downward; C increases

AD increases = C increases + I increases + G + NX

at every price level, AD is higher (rightward shift in AD)

4. What is fiscal policy to stabilize the economy during recession? During inflationary boom?

Congress can decrease taxes (T) and/or increase expenditures (G)

C moves upward; I shifts right; AD shifts rightward

$AD = C$ increases + I increases + G increases + NX

5. Define long-run aggregate supply (LRAS). What determines the level of LRAS? Why do we say LRAS is potential GDP or full employment output?

Long Run Aggregate Supply (LRAS): indicates the level of potential full employment output for the economy

1. Y bar represents potential output when U.S. is on PPF
2. Is vertical, i.e. Change in Price level has no effect on LRAS

LRAS is determined by:

1. # of workers
2. The capital stock (i.e. # of factory buildings, technology that is available, machines, software, etc.)

6. How would an increase in the size of the US work force, an increase in the U.S. capital stock or an advance in technology affect the LRAS curve?

LRAS: typically shifts every year

(\bar{Y} increases) – why?

1. # of laborers increases
2. Technological change or innovation occurs (increase output/hr = increase productivity)
3. Size of the capital stock increases every year

* if all 3 increase, LRAS shifts right to LRAS₂

7. Define short-run aggregate supply (SRAS). Why does the SRAS have a positive slope?

Short Run Aggregate Supply (SRAS): shows the effect of changes in the price level on the quantity of goods/services. Firms are willing and able to produce

- as price level (P) rises, the quantity of goods/services firms are willing to supply increases

SRAS has a positive slope because:

1. Output prices rise faster than input prices; inputs = labor, raw materials, etc. Sales revenues will increase faster than cost of inputs → profits = sales or revenue – costs → increase willingness of firms to produce more output (move up along SRAS function)
2. Some firms will not increase output prices as the price level rises → demand for their goods will rise (cheaper) which will increase sales, revenues, profits, and produce incentive to increase production (i.e. move up along SRAS curve)

8. Which of these factors would result in a shift in the SRAS?

- a. increase the size of the labor force and the size of the capital stock
- b. technological change
- c. expected changes in the future price level
- d. adjustments of workers and firms to errors in past expectations about the price level
- e. supply shock

9. Draw a graph of the LR macroeconomic equilibrium where AD = LRAS = SRAS at price level equals 100 and output at potential, \bar{Y} . Label the axes. Explain.

10. Starting from LR equilibrium in no. 9 above, show how a leftward shift in AD or SRAS can cause a recession.

a. describe the economy's automatic adjustment mechanism back to Y_{bar} . At the new LR equilibrium, is the price level higher or lower than $P = 100$?

lower price level in LR; no change in output in LR; in SR output falls below Y_{bar} ($Y_2 < Y_{bar}$); this adjustment from E to C will take time

b. in which case do we have stagflation?

Price level (P) increases; Y (real GDP) decreases from Y_{bar} to Y_2 (recession increase U)

stagflation: combination of falling output (recession), increase U and rising prices (Π)

11. Starting from LR equilibrium in no. 9, show how a rightward shift in AD can be cause an inflationary situation.

a. describe the economy's automatic adjustment mechanism back to Y_{bar} . At the new LR equilibrium, is the price level higher at lower than $P = 100$?

12. Define GDP gap. Is the gap positive or negative when the U.S. is in recession?

Real GDP Gap = actual GDP - Y_{bar} (potential GDP)

actual: \$13.16 trillion

potential: #14.51 trillion → recession (like in 2008)

Gap > 0 → actual GDP > Y_{bar} : inflationary boom (expansion) → U.S. trying to produce beyond Y_{bar} or PPF

13. The White House and Congressional Budget Office forecast the U.S. will return to potential in _____?

2014

14. What is the dynamic AD/AS model? Why are AD/LRAS and SRAS usually shifting rightward over time?

Empirically we know:

1. Y_{bar} (potential output) increase continually → LRAS is shifting rightward