

ECON 304 Final Exam Study Guide

Supplement – Theory of Aggregate Demand

- I. Consumption Function; $AD = C + I + G + NX$
 - a. $C = f(P)$
 - i. As price level increases, our wealth coming from stock market and real estate wealth decreases
 - ii. Real wealth falls \rightarrow consumption falls
 - b. $C^d = c_0 + c_1(Y-T) - c_2r + c_3CC + c_4W - c_5P$
 - i. $Y-T \rightarrow$ disposable income
 - ii. This is the intercept equation
 - c. Intercept is \bar{c}
 - i. $\bar{A} = C + I + G + NX$
 - d. Slope = c_1
 - i. Change in C / change in $Y = MPC$
 - e. Consumption (C) > Income (Y) \rightarrow dissaving at those levels of income
 - i. US economy as a whole is dissaving
 - f. Shifts in Consumption (change in the intercept)
 - i. Decrease in taxes
 - ii. Increase in income
 - iii. Decrease in interest rate
 - iv. Increase in consumer confidence
 - v. Increase in wealth
 - vi. Decrease in price level
 - g. Equilibrium Income and Output
 - i. $AD = Y_0$
 1. $= A + c_1Y$
 - ii. When $AD = Y_0$, IU (unplanned inventory investment) = 0
 - iii. If AD does not equal Y_0 , inventories...
 1. Accumulate: $AD < Y$, $IU > 0$, falls
 2. Or fall: $AD > Y$, $IU < 0$, rises
- II. Change in AD and the Multiplier
 - a. $Y = AD$
 - i. $= A + c_1Y$
 - ii. $A = Y(1-c_1)$
 - iii. $Y_0 = 1/(1-c_1) \times A$
 - iv. Change in $Y_0 = 1/(1-c_1) \times \text{change } A$
 - b. Change in income = change in AD = change in production
 - c. The multiplier = $1/(1-c_1)$

Chapter 9 (pp. 342-349) – Business Cycles and Macroeconomic Policy

- I. Why is AD negatively related to the price level
 - a. As the price level rises, MS/P falls and r rises
 - i. Affects real money supply

- ii. Increase $r \rightarrow C^d$ and I^d decrease
 - iii. Occurs because P rising and simply just move along the demand curve
- b. As the price level rises, real wealth falls
 - i. Wealth – real estate wealth \rightarrow financial crisis saw value of homes plummet \rightarrow equity in homes declined; stock market wealth
 - ii. (WRE/P) and $(WSM/P) \rightarrow$ price level increasing decreases both
 - 1. C^d falls
 - 2. Move along aggregate demand function
- c. As the price level rises, NX falls
 - i. As PL rises by more than foreign increase in PL , NX are going to fall because exports decrease
 - ii. Our goods are relatively more expensive, so as consumers we will import more from abroad

II. Aggregate Demand Curve

- a. Change in the price level is always a movement along the demand curve
- b. Curve relates aggregate quantity of output demanded to the general price level
- c. If prices rise by an amount, the price level also increases by that amount
- d. The increase in the price level reduce aggregate quantity of goods demanded
- e. An increase in the price level reduces aggregate quantity of output demanded
- f. AD curve slopes downward because an increase in the price level reduces the money supply \rightarrow shifts LM curve up and to the left
- g. Factors that Shift AD curve (increase curve)
 - i. Goods Market
 - 1. An increase in consumption, investment, government spending, and net exports will cause the AD curve to shift
 - 2. Increase in wealth
 - 3. Increase in expected future output
 - 4. Decrease in taxes
 - 5. Increase in expected future MPK
 - 6. Decrease in effective tax rate on capital
 - ii. Money Market
 - 1. Increase in nominal money supply
 - 2. Increase in expected inflation
 - 3. Decrease in nominal interest rate on money
 - 4. Decrease in real money demand (r falls)

III. Aggregate Supply Curve

- a. Prices remain fixed in the short run

- b. In long run, prices and wages adjust to clear all markets in economy
 - c. Long-Run Aggregate Supply
 - i. Vertical at full employment output
 - ii. As the price level rises output is unchanged
 - iii. When income (Y) = full employment output (\bar{Y}), the labor market is in equilibrium
 - iv. $\bar{Y} = AF(K, \bar{N})$
 - v. GDP Deflator reflects the average level of prices of all output produced
 - vi. Completely independent of price changes
 - vii. Output remains unchanged as the price level rises because relative prices are unchanged
 - d. Factors that Shift LRAS curve
 - i. Beneficial supply shock (technological innovation)
 - ii. Increase in labor supply
 - iii. Increase in capital stock (more output can be produced with the same amount of labor \rightarrow increase in productivity)
 - e. Short-Run Aggregate Supply
 - i. Horizontal because firms are willing to supply any amount of output at the particular price level
- IV. Equilibrium in the AD-AS Model
- a. Short-run equilibrium – when prices are fixed
 - i. Intersection of AD and SRAS curve
 - b. Long-run equilibrium – when prices have fully adjusted
 - i. Intersection of AD, SRAS and LRAS curves
 - ii. Output equals full-employment level
 - iii. Same as general equilibrium
- V. Monetary Neutrality in the AD-AS Model
- a. All real economic variables are unaffected in the long run
 - b. Variables – \bar{Y} , MS/P , L , r , \bar{N} , \bar{w}
 - c. Increase in money supply has no long run effects
- VI. Dynamic Adjustment
- a. Increase in AD
 - i. From SR to LR, prices will rise as input prices increase and we move up along AD
 - ii. Demand shifts because of an increase in the MS, for example
 - iii. Increase in MS decreases r , C^d and I^d increase leads to AD increase
 - 1. $IU < 0$ due to $AD_2 >$ supply
 - 2. Firms increase production and output rises
 - iv. At price level, AD_2 is greater than LRAS
 - 1. Prices must rise as wages and other input prices start to rise; costs are going up and supply is being affected again
 - v. In the money market