

## Economics – Chapter 7 – Aggregate Supply and Demand

1. **Aggregate Demand** – the quantity demanded of all good and services (Real GDP) at different price levels. The aggregate demand applies to the economy as the demand applies to a certain market
2. **Aggregate Demand Curve** – a curve that shows the quantity demanded of all goods and services (Real GDP) at different price levels. This curve slopes downward because as prices rise, total quantity demanded drops, much like in normal demand. The aggregate demand curve can also show the deviation of GDP from potential GDP at every inflation rate
3. **Real Balance Effect** – the change in the purchasing power of dollar denominated assets that results from a change in the price level. If you make \$100,000 and can buy 50 apples, and the next year you can only buy 30 apples with the \$100,000 due to a change in the price of apples, your purchasing power has decreased.
4. **Monetary Wealth** – the value of a person's monetary assets, or cash. Cars, houses, and other property are NOT considered monetary wealth
5. **Purchasing Power** – the quantity of goods and services that can be purchased with a unit of money. Purchasing power and the price level are inversely related. As the price level goes up, purchasing power goes down.
6. **Interest Rate Effect** – the changes in household and business buying as the interest rate changes, which in turn, is a reflection of a change in the demand for credit brought on by price level changes. As interests rates fall, people borrow more and buy more, thus increasing the real GDP
7. **International Trade Effect** – the change in foreign sector spending as the price level changes. If the prices fall, more foreign countries will purchase US goods, increasing the GDP.
8. **Moving Along and Shifts of the Aggregate Demand Curve** – The quantity demanded of Real GDP (or quantity demanded in normal demand) can be changed by changing the price level (or price in normal demand). A shift in the aggregate demand curve (similar to a shift in the normal demand curve) can be brought on by people wanting to buy more goods even though the price hasn't changed. This can be due to a variety of outside factors
9. **Consumption and Imports/Exports on the economy**
  - If consumption, investment, gov purchases, or exports rise, total spending on US goods/services rise
  - An increase in exports or a decrease in imports causes total spending on US goods/services to rise
  - If consumption, investment, gov spending, or exports fall, spending on US goods/services fall
  - A decrease in exports or an increase in imports causes total spending on US goods/services to fall
10. **Wealth** – the value of all assets owned, both monetary and non-monetary
11. If a person is wealthy, he'll spend more, which will increase consumption, increasing the AD
12. If individual expect prices to get higher soon, they'll spend more now, increasing the AD
13. If interests rates are lowered, people tend to borrow more, hence consuming/borrowing more, increasing the AD
14. If taxes is lowered, people have more money to spend, hence they consume more, increasing the AD
15. If businesses are optimistic about future sales, they'll invest more now, increasing AD
16. As foreign countries get more money to spend, they buy more US goods, increasing the AD
17. If the exchange rate changes, people would have more/less money to buy US goods, increasing/decreasing AD
18. **Exchange Rate** – the price of one currency in terms of another currency
19. **Appreciation** – an increase in the value of one currency relative to other currencies
20. **Depreciation** – a decrease in the value of one currency relative to other currencies
21. A change in the total money supply will cause other factors such as interest rates that will affect AD
22. **Aggregate Supply** – the quantity supplied of all goods and services (Real GDP) at different price levels.
23. **Short Run Aggregate Demand Curve** – a curve that shows the quantity supplied of all goods and services (Real GDP) at different price levels. The SRAD Curve shifts upwards
24. **Sticky Wages** – wages cannot change or be flexible due to labor contracts
25. **Real Wage** – nominal wage (the wage you supposedly get at a job)/Price Level
26. As the real wage rises, quantity of labor, or people who are willing to work, rises
27. As real wage rises, the quantity demanded of labor, or the amount of jobs available, falls
28. **Menu Costs** – the costs of changing prices. If the price of pancakes change, new menus have to be printed, hence the name, menu costs
29. The SRAS slopes upward because of sticky prices
30. The SRAS curve can shift when wage rates, price of non-labor inputs, productivity, and supply shocks change
31. **Wage Rates** – as wages rise, the price per unit rises, profits decrease, and producers want to produce less
32. Prices of non-labor inputs – an increase in the price of a non-labor input, ie. oil, shifts the curve leftward
33. **Productivity** – if productivity decreases, the curve shifts leftward
34. **Supply Shocks** – unexpected changes, such as bad weather that wipes out a crop, or a major cutback in the supply of oil, etc. Adverse supply shocks shift the curve left, while beneficial supply shocks shift the curve rightward
35. **Short Run Equilibrium** – the condition that exists in the economy when the quantity demanded of Real GDP equals the quantity supplied of Real GDP. Graphically, it's the intersection of the AD and AS curves
36. As unemployment rises, the Real GDP falls. As unemployment falls, Real GDP rises

37. **Natural Real GDP** – the real GDP that is produced at the natural unemployment rate. The Real GDP that is produced when the economy is in long run equilibrium
38. **Long Run Aggregate Supply (LRAS) Curve** – A vertical line at the level of the Natural Real GDP, or in some economists mind, the upward sloping end of the AS curve that rises exponentially. It represents the output of the economy produces when wages and prices have adjusted to their equilibrium levels.
39. **Long Run Equilibrium** – the condition that exists in the economy when wages and prices have adjusted to their final equilibrium levels and neither producers nor workers have any relevant misperceptions. Graphically, long run equilibrium occurs at the intersection of the AD and LRAS curves

Added 11/16/02

1. Real interest rate = nominal interest rate – expected inflation
  - a. It is this value that generally affects GDP, not the nominal interest rate
2. Why does the Aggregate Demand curve slope down?
  - a. **C, I, and X are negatively related to interest rate. When interest rates go up, real GDP goes down**
    - i. When interest rates are high, people tend to save more, hence, consumption goes down
    - ii. When interest Rates are high, it makes it harder for businesses to borrow money to buy machines and equipment, so investments go down
    - iii. When interest rates are high, foreigners want to invest in US financial markets, hence the demand for USD rises, and it makes it more expensive for others to buy our goods, hence net exports drop.
    - iv. If C, I, and X drop, the aggregate demand curve shifts down and intersects the 45 degree line at a lower Real GDP
  - b. **Inflation and nominal interest rates are directly proportional**
    - i. When inflation rises, the Fed raises interest rates, C, I, X drop due to the higher interest rate, and the inflation rate falls as demand has fallen
    - ii. When the inflation falls, the fed lowers interest rates, C, I, X rise due to the lower interest rate, and inflation rises as demand has just risen
    - iii. **Federal Funds Rate** – the rate the fed charges to lend money to banks to meet their reserves
      1. To decrease the FF Rate, the Fed increases bank reserves by buying bonds, less banks need to borrow money, the demand for overnight borrowing drops, and the FF Rate falls
      2. To increase the FF Rate, the Fed decreases reserves by selling bonds, more banks need to borrow money to meet the reserve requirement, and the FF Rate increases
    - iv. **Monetary Policy Rule** – the systematic approach of the Fed to control inflation rates
    - v. To raise the real interest rate, the change in nominal interest rate from the Fed needs to be greater than the change of inflation
  - c. **Real GDP is negatively related to inflation – hence, the AD curve slopes downward**
    - i. If inflation went up, the Fed reacts by raising interest rates. If interest rates rise, real GDP falls
    - ii. If inflation went down, the Fed lowers interest rates, hence increasing real GDP
3. **Moving along the AD Curve** – a change in real GDP due to a natural change in inflation moves along the curve
4. **Shifting the AD Curve** – a change in real GDP due to something other than inflation shifts the curve
  - a. **Government purchases** – a rise in G raises real GDP in the short run, curve shifts to the right
  - b. **Change in Monetary Policy** – say the Fed changes the target inflation rate. It suddenly decides that inflation should be higher. Raising the inflation rate lowers the real interest rate (shifts the interest/inflation curve out), and hence will increase real GDP
  - c. **The curve shifts to the right when:** G, C, X go up, taxes drop, higher TARGET inflation (policy change)
  - d. **The curve shifts to the left when:** G, C, X go down, taxes rise, lower TARGET inflation (policy change)
5. **Note that aggregate EXPENDITURE and aggregate DEMAND are not the same thing**
  - a. Aggregate expenditure is the sum of C, I, G, and X at different levels of income
  - b. Aggregate demand is the real inflation rate at different levels of GDP
6. **Inflation Adjustment Line** – a horizontal line showing the level of inflation at any level of Real GDP. Shifts up when real GDP is greater than potential GDP, shifts down when real GDP is less than potential GDP. However, this process does not happen immediately, and only relatively long run changes in GDP will shift this curve
  - a. Also shifts when expectations or inflation or raw materials prices change
  - b. The line is horizontal because inflation tends to stay the same in the short run
  - c. **Expectations of future inflation** – if the inflation rate has been around 4% for quite a while, a company will raise its prices by 4% in order to cover its costs, hence keeping the inflation at 4%. In addition, since wage increases are supposed to cover for inflation, a company may give its workers a somewhere around 4% raise. Prices have gone up the same amount as wages, hence the inflation is still at 4%
  - d. **Staggered Wages** – not all wages and prices change at the same time. Unions and contracts slow down the adjustment of prices and wages in the economy. Hence, even as some companies are raising prices faster, it takes quite some time before the entire economy catches on to the new “trend”, and in the short run, overall inflation stays relatively constant

7. **Changes in Expectations or Commodity Prices**

a. If inflation for some reason is expected to rise, firms will raise prices and wages to keep pace w/ the expected level of inflation, hence shifting the IA curve upwards

8. The IA Line and the AD Curve – pinpoints the real GDP at any point in time

a. Note that the AD curve has the deviation from potential GDP as its x axis