AP Macro Review and Formula sheet

GDP

- GDP = total value of all final goods and services produced by an economy in a given year
- GDP = C + I + G + (X-M) or C + I + G + Xn
- Not counted in GDP are illegal activities, government transfer payments (social security, welfare, veterans benefits, etc.) sale of used goods, financial payments (bonds, stocks)
- GDP is also referred to as Output, or Y
- GDP per Capita = GDP/population
- Real GDP (adjusted for inflation)
- Nominal GDP = current dollars
- Nominal – Inflation = Real
- GDP Price index (deflator) = $\frac{\text{nominal GDP}}{\text{Real GDP}} \times 100$
- Real GDP = $\frac{\text{nominal GDP}}{\text{price index (deflator) in hundredths}}$ X 100

Consumer Price Index

- CPI = $\frac{\text{Recent market basket in a specific year}}{\text{Market basket in a base year}} \times 100$
- Rate of Inflation = $\frac{\text{Current CPI} - \text{Previous CPI}}{\text{Previous CPI}} \times 100$

Marginal Propensity to Consume and Save

- MPC = $\Delta C/\Delta DI$ MPS = $\Delta S/\Delta DI$ or 1-mpc
- MPC + MPS = 1
- APC = C/DI APS = S/DI

Simple spending multiplier

- 1/1-mpc or 1/mps
- Investment multiplier
- Government spending multiplier 1/1-mpc or 1/mps
- Tax multiplier = -MPC/MPS or make it 1 less than the multiplier and negative
- SPENDING MULTIPLIER

MPC		MULTIPLIER
.5	=	2X
.6	=	2.5 X
.75	=	4X
.8	=	5X
.9	=	10X

- ΔGDP = change in spending (C, I, or G) x the Multiplier
- ΔGDP = change in taxes (C, I, or G) x the Tax Multiplier (always negative)
- An increase in taxes change is a positive number x negative multiplier = decrease in GDP

- Shift in AE will be down.
- A decrease in taxes = change is a negative number x negative multiplier = increase in GDP
- Shift in AE will be up.

***Spending from a tax break is less then spending because we spend less of our tax break.

☺ Unemployment Rate

- Civilian Labor Force = Unemployed + Employed

- UR = number of unemployed x 100
  Labor Force

- LFPR = Civilian labor force
  Civilian (non- institutionalized) Adult population x 100

- ER = Employed
  Civilian Non – institutionalized Population x 100

- U and E have different denominators and cannot be added together to get 100 percent.

- The Civilian Non-Institutionalized Population is everyone over the age of 16, not in the military or other institution (such as a mental hospital or prison)

- To be considered unemployed a person must be actively looking for work in the past 4 weeks.

- Natural Unemployment Rate –varies over time and is the amount of unemployment due to structural and frictional unemployment

- Full Employment is when economy is operating at its natural rate of unemployment, but never 100 percent.

☺ Types of Unemployment

Cyclical – due to a recession, downturn in the economy
Structural – skills of worker does not match needs of the economy
Frictional – voluntary between jobs, looking for first job
Seasonal – seasonal employment

☺ Money Multiplier

- 1/rr x ∆Fresh deposits of money = ∆Money supply
- 10% rr = 10x
- 5% rr = 20x
- 20% rr = 5x
- 15% rr = 6.67 x

☺ What is money

- M1 = currency, checkable deposits, travelers checks
- M2 = all of M1 and CDs lower than 250,000
- M3 = all of M2 and CDs above 250,000

☺ Velocity of Money

- Velocity is number of times money is used in the economy

MV = P * Q
M = money supply
V = velocity of money
P = Overall price level
Q = Quantity or Real GDP
PL * Real GDP = Nominal GDP

☺ Loanable funds graph

- Savers supply loans – decreased taxes on savings increases the supply of loans. (people take money out from under the mattress and puts it in the bank). Supply shifts to the right and interest rates come down.
- Investment (Business investment) demands loans - tax breaks on investments make investors demand more loans – increasing the demand for loanable funds and increasing the interest rate.
- Crowding Out - Government borrowing to finance its budget deficit, reduces the supply of loanable funds.