

## AP Macro Final Exam Review – 2008

- ✓ **Interpret production possibilities curves:**
  - points on the curve (full employment / efficient production);
  - points under the curve (less than full employment / inefficient production);
  - points outside the curve (unattainable given current resources and technology);
  - trade-offs and opportunity costs occur on the curve (to get something, you have to give up something).
  - Movement from a point under the curve to the curve does not entail an opportunity cost because idle resources are used.
- ✓ **Comparative Advantage:** theory held by economists that specialization should be based on who gives up the **least (lowest domestic opportunity cost)**. Economists believe that even if a person can perform two tasks better than another, the person **should still specialize (according to comparative advantage)** in the task for which he/she gives up the least.
- ✓ GDP is a measure of the total **final output** produced by a nation in a year.
  - Current final output purchased (**C, I, G, Xn**) and income generated are included in GDP
  - **Second-hand sales** and **purely financial transactions** (stock transactions) are **excluded**.
  - Current inventory increases are included (added); **inventories from past years are excluded** (subtracted).
  - **Only domestic output (excludes imports)** and income are included; foreign production or income earned abroad is excluded.
- ✓ **Aggregate Demand = composed of C, I, G, and Xn**
  - Decreases in AD are caused by decreases in C, I, G, or Xn
  - Decreases in AD (shift left) result in decreases in output and price level; increase in unemployment
  - Increases in AD are caused by increases in C, I, G, or Xn
  - **Increases in AD (shift right) result in increases in output and price level; decrease in unemployment**
  - An **increase in net exports** increases AD → **increases in output and price level; decrease in unemployment.**
- ✓ **Short Run Aggregate Supply:**
  - **Increases in resource prices (i.e., increase in the price of oil) reduce SRAS. (increase in cost of productive resources decreases short run AS.**
  - **Increase in wages decreases SRAS; decrease in wages increase SRAS.**
  - **Increases in productivity increase SRAS (and LRAS)**
  - If **SRAS (short run aggregate supply)** increases (shift right), output will increase and unemployment and price level decrease.
  - If SRAS decreases, output decreases and unemployment and price level increase
- ✓ A **DECREASE in short run aggregate supply (SRAS)** causes **STAGFLATION** (decreased output and increased price level and unemployment).
- ✓ **Long Run Aggregate Supply (LRAS)**
  - Represents the potential output of the economy at full employment = PPC curve
  - **Increases represent long-run economic growth**
  - Increases if **↑ in quality or quantity of resources / technology**
  - **Increase if ↑ productivity, ↑ health care and living standards, ↑ education/training**
  - **NEGATIVE NET investment decreases LRAS; positive net investment increases LRAS**
  - **Increased saving → ↑ LR economic growth (more saving → more loanable funds → lower interest rates → ↑ investment in capital goods)**
- ✓ The **simple circular flow model** illustrates the money flows (payments for goods and services and payments for factors of production [RWIP]) and real flows (goods and services and factors of production) that are exchanged between consumer households and business firms in the economy.

- **Consumer households demand goods and services in the product market and supply factors of production in the factor (resource) market.**
- **Business firms are demanders of factors of production in the resource (factor) markets and suppliers of goods and services in the product markets.**
- ✓ **The Federal Reserve is our nation's central banking system. It conducts monetary policy by:**
  - The Federal Reserve can increase the money supply by **BUYING** (purchasing) government securities (bonds) on the open market, decreasing the reserve requirement or decreasing the discount rate.
    - **An increase in the money supply is an expansionary Monetary policy designed to fight recession.**
    - **An increase in the money supply** (shifts the  $S_M$  to the right) **decreases interest rates** → ↑ **business investment spending** and consumption → ↑ **AE** → ↑ **AD**
    - **↑  $S_M$  increases output and price level and decreases unemployment**
  - The Federal Reserve can **decrease the money supply** by **SELLING** government securities (bonds) on the open market, **increasing the reserve requirement or increasing the discount rate.**
    - **A decrease in the money supply is a contractionary (restrictive) monetary policy designed to fight inflation.**
    - **A decrease in the money supply** (shifts the  $S_M$  to the left) **increases interest rates** → ↓ **business investment spending and consumption** → ↓ **AE** → ↓ **AD**
    - **↓ money supply decreases output and price level and increases unemployment** in the short run
    - an open market sale of government securities (bonds) increases interest rates and decreases the total amount of loans made by commercial banks.
- ✓ **Fiscal policy:**
  - **Expansionary: increase government spending and/or decrease taxes**
    - Used to fight recession
    - **↑G → ↑AD**
    - **↓T → increase in disposable income → ↑C → ↑AD**
    - **increases output and price level and decreases unemployment in the short run.**
  - **Crowding Out Effect --- increase in government borrowing** (deficit due to expansionary fiscal policy) increases the demand for loanable funds and **raises real interest rates**. This increase in interest rates **reduces business investment** spending (crowds-out private sector investment)
  - **Contractionary: decrease government spending and/or increase taxes**
    - Used to fight inflation
    - **↓G → ↓AD**
    - **↑T → decrease in disposable income → ↓C → ↓AD**
    - **decreases output and price level; increases unemployment**
- ✓ **Aggregate Demand = C + I + G + X<sub>n</sub>**; therefore, any increase in C, I, G, or X<sub>n</sub> will increase AD and any decrease in C, I, G, or X<sub>n</sub> will decrease AD.
- ✓ An **inflationary gap** means that too much spending is occurring in the economy; spending exceeds the full employment (potential) level of output.
  - An inflationary gap can be eliminated by:
    - **Contractionary** (restrictive) monetary (decrease money supply → ↑ **interest rates**)
    - **contractionary (restrictive) fiscal policy** (↓G or ↑T)
    - **Decrease in X, I, G or X<sub>n</sub>**
- ✓ **Real GDP** is output adjusted for price level changes (inflation); **nominal GDP** has not been adjusted for price level changes (inflation). The difference between real and nominal GDP is the amount of inflation (or deflation) that is occurring.

- **If nominal GDP is increasing at a higher rate than real GDP, the price level is rising (inflation)**
- ✓ **Unemployment** = percent of the labor force out of work **but looking for a job**
  - Discouraged workers are out of work but have given up looking for a job (**NOT** counted in unemployment rate) – this makes the **unemployment rate less accurate** as a general picture of unemployment
  - A natural rate of unemployment exists at full employment ( $Y_f$ )
  - **Structural unemployment** --- workers **skills are obsolete** due to changes in the economy (i.e., workers replaced by robots)
  - Cyclical unemployment --- workers lose jobs due to recession
  - Frictional unemployment --- in between jobs; looking for first job; seasonal unemployment (i.e. construction)
- ✓ Banks create money by making loans and creating checkable deposits.
  - **A single bank can create money by the amount of its excess reserves.**
  - The **banking system** can create money by a **multiple** of the initial excess reserves.
  - **Excess reserves** = actual reserves – required reserves
  - Required reserves = reserve requirement x deposit
  - Deposit multiplier =  $1/\text{reserve requirement}$
  - Banking system \$ created = multiplier x the initial excess reserves
  - Two factors that lessen the money creating potential of the banking system are: currency drains (people hold more of their money as currency) and banks not loaning out all of the excess reserves.
- ✓ **Automatic stabilizers** (nondiscretionary fiscal policy actions) work automatically to slow the economy during inflation (reduce transfer payments and increase tax revenues) and expand the economy during recession (increase transfer payments and decrease tax revenues) **WITHOUT the necessity of new legislation.**
- ✓ **Net export effect:**
  - decrease in interest rates decreases foreign demand for U.S. bonds/securities (decrease capital inflow to U.S).
  - **Decrease in foreign demand for U.S. bonds decreases the demand for the dollar → depreciation of the \$ →  $\uparrow X_n$**
  - **Increase in interest rates increases foreign demand for U.S. bonds/securities (increases capital inflow to U.S.)**
  - **Increase in foreign demand for U.S. bonds increases the demand for the dollar → appreciation of the \$ → decrease in  $X_n$**
  - **If dollar appreciates, imports seem cheaper (increase U.S. imports) and exports seem more expensive to foreign consumers (decrease U.S. exports); therefore,  $X_n$  decreases.**
  - **If dollar depreciates, imports seem more expensive (decrease imports) and U.S. exports seem cheaper to foreign consumers (increase exports); therefore,  $X_n$  increases.**
- ✓ **Open market purchase of bonds (by FED) →  $\uparrow$  money supply →  $\downarrow$  interest rate →  $\downarrow$  demand for U.S. bonds by foreign investors →  $\downarrow$  demand for dollar in foreign exchange markets (depreciate)**
- ✓  **$\uparrow$  deficit spending by government → increased demand for loanable funds →  $\uparrow$  real interest rates →  $\downarrow$  business investment**
- ✓ **The spending multiplier: changes in AE (example: change in C, I, G or  $X_n$ ) → larger increase in income and output (some spending leads to more spending).**
  - **Balanced budget multiplier (G and T increase by the same amount or decrease by the same amount) = 1 x the change in G. (Ex.  $\uparrow G$  and T by \$10 billion =  $\uparrow$  GDP of \$10 billion)**
  - **A change in G has a greater impact on GDP than a change in T.**
- ✓ **Simultaneous expansionary monetary and fiscal policies will increase unemployment but the effect on interest rates is indeterminate (exp. fiscal policy increases interest rates and exp. monetary policy decreases interest rates).**

- ✓ The **short run Phillips curve** reflects a **trade-off between inflation and unemployment**. As inflation (price level) increases, unemployment decreases.
- ✓ **Real interest rate = nominal interest rate – expected rate of inflation.**
- ✓ **Investment** as defined by economists is **business spending on new machinery and equipment** (capital goods) to expand plant.
- ✓ An increase in the supply of loanable funds will decrease real interest rates. A decrease in the supply of loanable funds will increase real interest rates.
- ✓ Investment demand curve shows an inverse relationship between interest rates and the quantity of dollars demanded for business investment (**increase real interest rates → decrease quantity of investment \$ and decrease in real interest rates → increase quantity of investment \$** )
- ✓ Interest rates and bond prices vary inversely.
- ✓ An increase in demand for U.S. goods by foreign consumers increases the demand for the dollar and increases the supply of foreign currency. The dollar appreciates (Americans pay less for imports; foreign consumers pay more for U.S. exports).
- ✓ If the dollar appreciates in foreign exchange markets, American goods seem more expensive to foreign consumers (decreases exports) and foreign goods seem cheaper to Americans (increases imports); therefore,  $X_n$  decreases.
- ✓ In foreign exchange markets, an increase in demand for one currency creates an increase in supply of the other currency. A decrease in demand for one currency creates a decrease in supply of the other currency.
- ✓ Analyze and interpret various economic models (AD-AS, money market, bond market, investment demand, production possibilities curve, foreign exchange markets, loanable funds market, etc.)
- ✓ Review how to work trade problems (input and output) for a bonus question

**REALLY take the time to study this review and do well on the final exam!!!**