

# Macro Exam Review

DAN ZIEGENFELDER

## TERMS

**Microeconomics:** the study of how households and firms make decisions and how they interact in markets.

**Macroeconomics:** the study of economy-wide phenomena, including inflation, unemployment, and economic growth.

**Gross Domestic Product (GDP):** the market value of all final goods and services produced within a country in a given period of time.

**Consumption:** spending by households on goods and services, with the exception of purchases of new housing.

**Investment:** spending on capital equipment, inventories, and structures, including household purchases of new housing.

**Government Purchases:** spending on goods and services by local, state, and federal governments.

**Net Exports:** spending on domestically produced goods by foreigners (exports) minus spending on foreign goods by domestic residents (imports).

**Nominal GDP:** the production of goods and services valued at current prices.

**Real GDP:** the production of goods and services valued at constant prices.

**GDP Deflator:** a measure of the price level calculated as the ratio of nominal GDP to real GDP times 100.

**Consumer Price Index:** a measure of the overall cost of the goods and services bought by a typical consumer.

**Inflation Rate:** the percentage change in the price index from the preceding period.

**Producer Price Index:** a measure of the cost of a basket of goods and services bought by firms.

**Indexation:** the automatic correction by law or contract of a dollar amount for the effects of inflation.

**Nominal Interest Rate:** the interest rate as usually reported without a correction for the effects of inflation.

**Real Interest Rate:** the interest rate corrected for the effects of inflation.

**Labor Force:** the total number of workers, including both the employed and the unemployed.

**Unemployment Rate:** the percentage of the labor force that is unemployed.

**Labor-Force Participation Rate:** the percentage of the adult population that is in the labor force.

**Natural Rate of Unemployment:** the normal rate of unemployment around which the unemployment rate fluctuates.

**Discouraged Workers:** individuals who would like to work but have given up looking for a job.

**Frictional Unemployment:** occurs as unemployed workers and firms search for the best available worker-job matches. Included in this category are new labor force entrants for their first jobs and workers who are temporarily between jobs because they are moving to a new location or occupation which they will be more productive.

**Structural Unemployment:** is the result of a skills mismatch. As voice recognition software is perfected, skilled typists may find themselves out of work. The same was true for blacksmiths skilled at making horseshoes after the advent of the automobile made horse-drawn buggies obsolete. Poorly educated people may find themselves structurally unemployed because they lack marketable skills.

**Cyclical Unemployment:** results from downturns in the business cycle. During recessions and depressions, firms are likely to hire fewer workers or let existing workers go. When the economy recovers, many of these cyclically unemployed workers will again find work.

**Seasonal Unemployment:** is the result of changes in hiring patterns due to the time of year. Ski instructors and lifeguards are the classic examples of workers who lose their jobs because of the season.

**Job Search:** the process by which workers find appropriate jobs given their tastes and skills.

**Unemployment Insurance:** a government program that partially protects workers' incomes when they become unemployed.

**Union:** a worker association that bargains with employers over wages, benefits, and working conditions.

**Collective Bargaining:** the process by which unions and firms agree on the terms of employment.

**Strike:** the organized withdrawal of labor from a firm by a union.

**Efficiency Wages:** above-equilibrium wages paid by firms to increase worker productivity.

**Recession:** a period of declining real incomes and rising unemployment.

**Depression:** a severe recession (Very Rare).

**Stagflation:** a period of falling output and rising prices.

**Model of Aggregate Demand and Aggregate Supply:** the model that most economists use to explain short-run fluctuations in economic activity around its long-run trend.

**Aggregate-Demand Curve:** a curve that shows the quantity of goods and services that households, firms, the government, and customers abroad want to buy at each price level.

**Aggregate-Supply Curve:** a curve that shows the quantity of goods and services that firms choose to produce and sell at each price level.

**Natural Rate of Unemployment:** a period of declining real incomes and rising unemployment (AKA potential output and full-employment output).

**Business Cycles:** Short-run economic fluctuations.

**Classical Dichotomy:** the separation of variables into two groups. Real- quantities, relative prices  
Nominal- measured in terms of money.

**The Neutrality of Money:** changes in the money supply affect nominal, but not real variables.

**Financial System:** the group of institutions in the economy that help to match one person's saving with another person's investment.

**Financial Markets:** financial institutions through which savers can directly provide funds to borrowers.

**Bond:** a certificate of indebtedness (an IOU). Government bonds have a low risk and return while corporate bonds have a higher risk, but less than stock.

**Stock:** a claim to partial ownership in a firm, there is a high risk with stocks.

**Financial Intermediaries:** financial institutions through which savers can indirectly provide funds to borrowers.

**Mutual Fund:** an institution that sells shares to the public and uses the proceeds to buy a portfolio of stocks and bonds.

**National Saving:** the total income in the country that remains after paying for consumption and government purchases.

**Private Saving:** the income that households have left after paying for taxes and consumption.

**Public Saving:** the tax revenue that the government has left after paying for its spending.

**Budget Surplus:** an excess of tax revenue over government spending.

**Budget Deficit:** a shortfall of tax revenue from government spending.

**Market for Loanable Funds:** the market in which those who want to save supply funds and those who want to borrow to invest demand funds.

**Crowding Out:** a decrease in investment that results from government borrowing.

**Finance:** the field that studies how people make decisions regarding the allocation of resources over time and the handling of risk.

**Present Value:** the amount of money today that would be needed to produce, using prevailing interest rates, a given future amount of money.

**Future Value:** the amount of money in the future that an amount of money today will yield, given prevailing interest rates.

**Compounding:** the amount of money in the future that an amount of money today will yield, given prevailing interest rates.

**Risk Averse:** exhibiting a dislike of uncertainty.

**Diversification:** the reduction of risk achieved by replacing a single risk with a large number of smaller unrelated risks.

**Idiosyncratic Risk:** risk that affects only a single economic actor.

**Aggregate Risk:** risk that affects all economic actors at once.

**Fundamental Analysis:** the study of a company's accounting statements and future prospects to determine its value.

**Efficient Markets Hypothesis:** the theory that asset prices reflect all publicly available information about the value of an asset.

**Informationally Efficient:** reflecting all available information in a rational way.

**Random Walk:** the path of a variable whose changes are impossible to predict.

**Money:** the set of assets in an economy that people regularly use to buy goods and services from other people.

**Medium of Exchange:** an item that buyers give to sellers when they want to purchase goods and services.

**Unit of Account:** the yardstick people use to post prices and record debts.

**Store of Value:** an item that people can use to transfer purchasing power from the present to the future.

**Liquidity:** the ease with which an asset can be converted into the economy's medium of exchange.

**Commodity Money:** money that takes the form of a commodity with intrinsic value.

**Fiat Money:** money without intrinsic value that is used as money because of government decree.

**Currency:** the paper bills and coins in the hands of the public.

**Demand Deposits:** balances in bank accounts that depositors can access on demand by writing a check.

**Federal Reserve (Fed):** the central bank of the United States.

**Central Bank:** an institution designed to oversee the banking system and regulate the quantity of money in the economy.

**Money Supply:** the quantity of money available in the economy.

**Money Demand:** how much wealth people want to hold in liquid form.

**Monetary Policy:** the setting of the money supply by policymakers in the central bank.

**Reserves:** deposits that banks have received but have not loaned out.

**Fractional-Reserve Banking:** a banking system in which banks hold only a fraction of deposits as reserves.

**Reserve Ratio:** the fraction of deposits that banks hold as reserves.

**Money Multiplier:** the amount of money the banking system generates with each dollar of reserves.

**Open-Market Operations:** the purchase and sale of U.S. government bonds by the fed.

**Reserve Requirements:** regulations on the minimum amount of reserves that banks must hold against deposits.

**Discount Rate:** the interest rate on the loans that the Fed makes to banks.

**Quantity Theory of Money:** a theory asserting that the quantity of money available determines the price level and that the growth rate in the quantity of money available determines the inflation rate.

**Nominal Variables:** variable measured in monetary units.

**Real Variables:** variables measured in physical units.

**Classical Dichotomy:** the theoretical separation of nominal and real variables.

**Monetary Neutrality:** the proposition that changes in the money supply do not affect real variables.

**Velocity of Money:** the rate at which money changes hands.

**Quantity Equation:** the equation  $M \times V = P \times Y$ , which relates the quantity of money, the velocity of money, and the dollar value of the economy's output of goods and services.

**Inflation Tax:** the revenue the government raises by creating money.

**Fisher Effect:** the one-for-one adjustment of the nominal interest rate to the inflation rate.

**Shoelather Costs:** the resources wasted when inflation encourages people to reduce their money holdings.

**Menu Costs:** the cost of changing prices.

**Closed Economy:** an economy that does not interact with other economies in the world.

**Open Economy:** an economy that interacts freely with other economies around the world.

**Exports:** goods and services that are produced domestically and sold abroad.

**Imports:** goods and services that are produced abroad and sold domestically.

**Net Exports:** the value of a nation's imports minus the value of its exports; also called trade balance.

**Trade Balance:** the value of a nation's exports minus the value of its imports; also called net exports.

**Trade Surplus:** an excess of exports over imports.

**Trade Deficit:** an excess of imports over exports.

**Balanced Trade:** a situation in which exports equal imports.

**Net Capital Outflow:** the purchase of foreign assets by domestic residents minus the purchase of domestic assets by foreigners.

**Nominal Exchange Rate:** the rate at which a person can trade the currency of one country for the currency of another.

**Appreciation:** an increase in the value of a currency as measured by the amount of foreign currency it can buy.

**Depreciation:** a decrease in the value of a currency as measured by the amount of foreign currency it can buy.

**Real Exchange Rate:** the rate at which a person can trade the goods and services of one country for the goods and services of another.

**Purchasing-Power Parity:** a theory of exchange rates whereby a unit of any given currency should be able to buy the same quantity of goods in all countries.

**Trade Policy:** a government policy that directly influences the quantity of goods and services that a country imports or exports.

**Capital Flight:** a large and sudden reduction in the demand for assets located in a country.

**Theory of Liquidity Preference:** Keynes theory that the interest rate adjusts to bring the money supply and money demand into balance.

**Multiplier Effect:** the additional shifts in aggregate demand that result when expansionary fiscal policy increases income and thereby increases consumer spending.

**Crowding-Out Effect:** the offset in aggregate demand that results when expansionary fiscal policy raises the interest rate and thereby reduces investment spending.

**Automatic Stabilizers:** changes in fiscal policy that stimulate aggregate demand when the economy goes into a recession without policymakers having to take any deliberate action.

**Phillips Curve:** a curve that shows the short-run tradeoff between inflation and unemployment.

**Natural-Rate Hypothesis:** the claim that unemployment eventually returns to its normal, or natural rate, regardless of the rate of inflation.

**Supply Shock:** an event that directly alters firms costs and prices, shifting the economy's aggregate-supply curve and thus the Phillips curve.

**Sacrifice Ratio:** the number of percentage points of annual output lost in the process of reducing inflation by 1 percentage points.

**Rational Expectations:** the theory according to which people optimally use all the information they have, including information about government policies, when forecasting the future.

**Foreign direct investment:** domestic residents actively manage the foreign investment. Ex.) McDonalds opens a fast-food outlet in Moscow.

**Foreign portfolio investment:** domestic residents purchase foreign stocks or bonds, supplying "loanable funds" to a foreign firm.

**Law of one price:** the notion that a good should sell for the same price in all markets.

**Tariff:** a tax on imports.

**Import quota:** a limit on the quantity of imports.

**"Voluntary export restrictions:"** the gov't pressures another country to restrict its exports; essentially the same as an import quota.

**Fiscal Policy:** the setting of the level of gov't spending and taxation by gov't policymakers.

**Marginal Propensity to Consume (MPC):** the fraction of extra income that households consume rather than save.



**The Multiplier Effect:** each \$1 increase in  $G$  can generate more than a \$1 increase in aggregate demand.

**Marginal Propensity to Save (MPS):** the fraction of each additional dollar of income that is saved.

**Recessionary Gap:** exists as the amount by which equilibrium real GDP would have to increase to reach final GDP.

**Inflationary Gap:** exists as the amount by which equilibrium real GDP would have to decrease to reach GDP final.

**Natural-rate hypothesis:** the claim that unemployment eventually returns to its normal or "natural" rate, regardless of the inflation rate.

## EQUATIONS

$$GDP = C + I + G + NX$$

$$GDP \text{ Deflator} = \frac{\text{Nominal GDP}}{\text{Real GDP}} \times 100\%$$

$$CPI = \frac{\text{Cost of basket in the current year}}{\text{Cost of basket in the base year}} \times 100\%$$

$$\text{Inflation Rate} = \frac{\text{CPI this year} - \text{CPI last year}}{\text{CPI last year}} \times 100\%$$

$$\text{Converting Prices New} = \frac{\text{Current Year Index}}{\text{Original Year Index}} \times \text{Original}$$

$$\text{Real Interest Rate} = \text{Nominal Interest Rate} - \text{Inflation Rate}$$

$$\text{Labor Force} = \frac{\text{Number of Employed}}{\text{Number of Unemployed}}$$

$$U - \text{Rate} = \frac{\text{Number of Unemployed}}{\text{Labor Force}} \times 100$$

$$\text{Labor Force Participation Rate} = \frac{\text{Labor Force}}{\text{Adult Population}} \times 100$$

$$\text{Private Saving: } Y - T - C$$

$$\text{Public Saving: } T - G$$

$$\text{National Saving: } Y - C - G$$

$$FV = PV(1 + R)^n$$

$$PV = FV/(1 + R)^n$$

$$\text{The Rule of 70} = 70/X$$

$$\text{Money Multiplier} = 1/R$$

$$\text{Velocity} = \frac{P \times Y}{M}$$

$$\text{Unemployment Rate}$$

$$= \text{Natural Rate of Unemployment} - a(\text{Actual Inflation} - \text{Expected Inflation})$$

$$S = I + NCO$$

$$\text{Real Exchange Rate} = \frac{e \times P}{P^*}$$

$$\text{Spending Multiplier} = \frac{1}{1 - \text{MPC}}$$

Real Interest Rates = Nominal Interest Rates – Anticipated Inflation

Nominal Interest Rate = Real Interest Rate + Anticipated Inflation

Merchandise Trade Balance = merchandise exports – merchandise imports

Current-Account Balance = trade balance + service balance + transfers

Capital-Account Balance = foreign purchases of home assets – home purchases of foreign assets

Monetarist Equation for Exchange:  $MV = PQ$

## KEY CONCEPTS

- **Are financial assets or transfer payments included in GDP?**

GDP does not include financial assets or transfer payments.

- **What does GDP not value?**

- 1.) The quality of the environment
- 2.) Leisure time
- 3.) Non-market activity, such as the child care a parent provides his or her child at home
- 4.) An equitable distribution of income

- **What are the problems involved in CPI?**

- 1.) Substitution Bias
- 2.) Introduction of new goods
- 3.) Unmeasured quality change

- **How do CPI and GDP Deflator differ?**

Imported Consumer Goods: Included in CPI, Excluded from GDP deflator

Capital Goods: Excluded from CPI, Included in GDP deflator

The Basket: CPI uses fixed basket, GDP deflator uses basket of currently produced goods and services (This matters if different prices are changing by different amounts)

- **What causes shifts in the Aggregate Demand Curve?**

Shifts in the Aggregate Demand Curve are caused by the components of GDP, Consumption (C) + Investment (I) + Government Spending (G) + Net Exports (NX).

- **What causes shifts in the Aggregate Supply Curve?**

Shifts in the Aggregate Supply Curve are due to the factors of production (Land, Labor, and Capital).

- **What is the largest part of CPI? GDP?**

The largest part of CPI is housing and the largest part of GDP is consumption.

- **What are the three facts about economic fluctuations?**

- 1.) Economic fluctuations are irregular and unpredictable
- 2.) Most macroeconomic quantities fluctuate together
- 3.) As output falls, unemployment rises

- **The four steps to analyzing economic fluctuations.**

- 1.) Determine whether the event shifts AD or AS

- 2.) Determine whether curve shifts left or right
- 3.) Use AD-AS diagram to see how the shift changes Y and P in the short run
- 4.) Use AD-AS diagram to see how economy moves from new SR equilibrium to new LR equilibrium

- **Who are speculators?**

Speculators are those who predict the future.

- **Why is the Long Run Aggregate Supply Curve straight?**

The Long Run Aggregate Supply Curve is straight because everything is utilized.

- **What is price level?**

Price level is a cost of living.

- **Why is a boom in the stock market a good thing?**

The stock market boom is a good thing for the economy because it shows the economy is doing better.

- **With other things the same, what would price levels falling cause?**

Other things the same, as the price level falls, a dollar buys more domestic good.

- **Do interest rate and investment follow each other?**

Interest rate and investment follow each other.

- **What causes the LRAS curve to shift?**

LRAS shifts occur from changes in labor, physical and human capital, natural resources, and technology.

- **What causes consumption, investment, government spending, and net exports to increase?**

**Causes AD Curve to shift to the right.**

Consumption increase due to

- ⇒ Expectations of inflation or shortages in the future
- ⇒ Increased incomes or wealth
- ⇒ Optimism about jobs and income

Investment increases due to

- ⇒ Interest rates drop
- ⇒ Investors gain optimism

Government carries out expansionary policy such as a(n)

- ⇒ Increase in spending
- ⇒ Increase in the money supply
- ⇒ Decrease in taxes

Net exports increase because

- ⇒ The exchange rate decreases (imports decrease)
- ⇒ Foreign income increases (exports increase)

*The opposite effect would decrease each causing the AD curve to shift to the left*

- **What is the difference between investment and savings?**

**Investment**- spending your money in order to buy capital.

**Savings**- not spending your money.

- **What is debt finance? Equity finance?**  
Debt finance is the sale of bonds to raise funds & equity finance is the sale of stocks.
- **During financial difficulty, who gets paid first, stockholders or bondholders?**  
 When there is financial difficulty, firms pay bondholders before stockholders. Stockholders, however, stand to gain more if a firm is profitable.
- **On a graph for the Market for Loanable Funds, where does supply and demand come from? What causes a movement along the curve?**  
 Supply comes from savings (households with excess money (after consumption)). Demand comes from investment (Firms who want to use this money for investment). A movement along the curve is caused by a change in interest rate.  
Note: Banks are financial intermediary who link the supply and demand.
- **In a closed economy, what does savings equal and why?**  
 Savings equals investment in a closed economy and this is because a closed economy ignores the possibility of trade. In a closed economy, national savings must equal domestic investment.
- **What happens to demand when an investment tax credit is raised?**  
 An investment tax credit increases the demand for loanable funds, which raises the equilibrium interest rate and increase the equilibrium quantity of loanable funds.
- **What are a few characteristics of bonds?**  
 Bonds are certificates of indebtedness, are purchased through auctions, and represent ownership of a corporation. For tax purposes, government bonds are treated differently than corporate bonds.
- **Which are riskier, stocks or bonds?**  
 Stocks are riskier than bonds for the holder. The act of buying stock of a corporation amounts to buying a part of that corporation.
- **What kind of exchange do banks give?**  
 Through the checking accounts they facilitate, banks provide a medium of exchange.
- **What are characteristics of mutual funds?**  
 Mutual funds typically hold a wide assortment of stocks and/or bonds. Mutual funds pool together the money of many different savers. Mutual funds allow people with limited funds to diversity.
- **What are characteristics of loanable funds?**  
 National saving provides the supply of loanable funds. Domestic investment provides the demand for loanable funds. The loanable funds market determine the interest rate in the economy.
- **What will happen if the government changes the tax code in a way that encourages households to save more?**  
 If the government changes the tax code in a way that encourages households to save more the supply of loans will shift to the right, leading to a lower interest rate.

- **For present value, when should you buy land?**  
If PV is less than the price then you should not buy it. If PV is greater than the price then you should buy it.
- **What does fluctuate mean?**  
More variability to it.
- **What does utility measure?**  
Utility is a subjective measure of well-being that depends on wealth.
- **What are two problems in insurance markets?**  
**Adverse Selection:** a high-risk person benefits more from insurance, so is more likely to purchase it.  
**Moral Hazard:** People with insurance have less incentive to avoid risky behavior.
- **What are most people when it comes to risk?**  
Most people are risk averse.
- **When people increase the percentage of their savings that they have invested in stocks, as opposed to short-term government bonds, they \_\_\_\_\_ the average return they can expect to earn, and they \_\_\_\_\_ the risks they face.**  
Increase, increase.
- **What does the efficient markets hypothesis argue?**  
Assets prices reflect all publicly available information about the value of an asset.
- **What are some different functions of money?**  
Medium of exchange, unit of account, and store of value.
- **What are the functions of commodity money?**  
It must have an intrinsic value. It must be easily divisible, in order to make small payments. It must be durable.
- **What is the value of Fiat money?**  
Fiat money, such as the dollar bills we use now-a-days, has no intrinsic value at all.
- **What is the difference between M1 and M2? List in decreasing order of liquidity (meaning they include forms of money that are harder and harder to gain access to and spend quickly).**  
M1: currency, demand deposits, checking deposits, and travelers' checks.  
M2: everything in M1 plus savings deposits, small time deposits, money market mutual funds, money market mutual funds, and a few minor categories.
- **Which of the following actions by the Fed will cause the supply of money to grow?**  
The Fed reduces the discount rate.
- **What happens when the Fed lowers the Discount rate?**  
Banks borrow more than otherwise from the fed, banks' reserves increase, and banks start lending more.
- **What happens when the Fed reduces the reserve requirement?**  
The money multiplier gets bigger.

- **What are the 3 tools of monetary control?**
  - 1.) **Open Market Operations (OMOs):** the purchase & sale of U.S. gov't bonds by the Fed. This is the Fed's monetary tool of choice.
    - To increase the money supply, they would buy bonds with low reserve requirements.
    - To decrease the money supply, they would sell bonds with high reserve requirements.
  - 2.) **Reserve Requirements (RR):** affect how much money banks can create by making loans.
  - 3.) **The Discount Rate:** the interest rate on loans that Fed makes to banks. Fed makes loans to banks as a last resort (it's an emergency type thing).
- **What happens when there is inflation?**

The value of money decreases in the economy.
- **'Money Demand' is the:**

Amounts of money people are willing to hold at different price levels.
- **When the Fed adds more money to the economy, the Money Supply curve shifts to the \_\_\_\_\_, causing the equilibrium price level to \_\_\_\_\_.**

Right, increase.
- **If the Fed increased the supply of money, and velocity remains unchanged, according to the quantity equation:**

$P \times Y$  must increase.
- **The one-for-one adjustment of the nominal interest rate to the inflation rate is called the \_\_\_\_\_ effect.**

Fisher
- **When inflation turns out to be higher than expected, borrowers will be \_\_\_\_\_ off, and lenders will be \_\_\_\_\_ off.**

Better, worse.
- **What is Liquidity?**

How fast something can be converted into cash.
- **In the Velocity formula, what variables are nominal, real, and constant?**

Velocity (V) is constant.  
Real GDP (Y), Price Level (P), and Money Supply (M) are nominal variables.  
Nominal GDP (P X Y) is a real variable.
- **In economics, what does the velocity mean?**

Velocity means how many transactions.
- **What is the difference between real variables and nominal variables?**

Nominal variables measure money and real variables measure output.
- **According to classical dichotomy, what do nominal variables affect? Real variables?**

Nominal variables can only change nominal variables.  
Real variables can only change real variables.

- **What is the risk for Stock, Bond, CD, and Savings Accounts?**

**Stock:** Partial Ownership in the company

⇒ Have a high risk.

**Bonds:** Certificate of Indebtedness

⇒ Government bonds have low risk and return

⇒ Corporate bonds have high risk, but less than stock

**CD:** Certificate of Deposit in a bank (A pledge to leave your deposit for a number of years)

⇒ Very low risk and return

**Savings Account**

⇒ Low risk and little return

- **Other things held constant, how does a higher interest rate affect the supply and demand of loanable funds?**

Move along the curves; quantity supplied will increase and quantity demanded will decrease.

Results in a surplus of loanable funds, which can be fixed by lowering the interest rate

⇒ Remember that in our LF market, the interest rate refers to both the return on saving and the cost of borrowing; it is the same number.

- **What happens to interest rate and quantity of loanable funds if demand shifts left? Supply shifts right?**

Demand shifts left: equilibrium interest rate and quantity of loanable funds falls; this could be caused by the end of a tax incentive for investment

Supply shifts right: equilibrium interest rate falls and quantity of loanable funds increases; this could be caused by a tax incentive to save money

- **What is the relationship between price level and value of money?**

Inverse relationship. As price levels increase, the value of money decreases.

- **Inflation and price levels affect what type of variables?**

Nominal; real variables are unaffected by prices because money is neutral in the long run (classical dichotomy)

- **How can inflation help borrowers?**

Over time they will repay the loan dollars that are worth less.

- **Is money neutral in the long run or the short run?**

Money is neutral in the long run because it will balance out. In the short run there is too much confusion.

- **What is the difference between market risk and firm specific risk?**

**Market risk:** affects the entire stock market, cannot fully protect against

**Firm-specific risk:** affects a particular firm; can be limited through diversification

- **How does the government surplus and deficit affect the loanable funds market?**

Government surplus will increase loanable funds because there is a surplus of money.

Government deficit takes from loanable funds because they are spending more than they have.

- **What is the relationship between risk and return?**

Higher risk will bring a higher return and a lower risk will bring a lower return.

- **What does the reserve ratio do?**  
The reserve ratio keeps money in the bank if people want to make a withdrawal.
- **Where does the money supply come from? Money demand?**  
Money supply comes from the fed  
Money demand comes from the people
- **What kind of banking system does the United States have?**  
The United States has a fractional reserve banking system in which only a fraction of total deposits is held on reserve and the rest is lent out.
- **WHAT ARE THE VARIABLES THAT INFLUENCE NET EXPORTS?**
  - ⇒ consumers' preferences for foreign and domestic goods
  - ⇒ prices of goods at home and abroad
  - ⇒ incomes of consumers at home and abroad
  - ⇒ the exchange rates at which foreign currency trades for domestic currency
  - ⇒ transportation costs
  - ⇒ gov't policies
- **WHAT ARE VARIABLES THAT INFLUENCE NET CAPITAL OUTFLOW?**
  - ⇒ The real interest rates being paid on foreign assets
  - ⇒ The real interest rates being paid on domestic assets
  - ⇒ The perceived economic and political risks of holding assets abroad
  - ⇒ The government that affect foreign ownership of domestic assets
- **WHY MUST  $NCO = NX$ ?**  
Arises because every transaction that affects NX also affects NCO by the same amount (and vice versa).
- **THE THREE POSSIBLE OUTCOMES FOR AN OPEN ECONOMY.**

<b>TRADE DEFICIT</b>	<b>BALANCED TRADE</b>	<b>TRADE SURPLUS</b>
Exports < Imports	Exports = Imports	Exports > Imports
Net Exports < 0	Net Exports = 0	Net Exports > 0
$Y < C+I+G$	$Y = C+I+G$	$Y > C+I+G$
Savings < Investment	Saving = Investment	Saving > Investment
Net Capital Outflow < 0	Net Capital Outflow = 0	Net Capital Outflow > 0

- **WHAT DO THE VARIABLES IN THE REAL EXCHANGE RATE EQUAL?**  
 $P$  = domestic price  
 $P^*$  = foreign price (in foreign currency)  
 $e$  = nominal exchange rate, i.e., foreign currency per unit of domestic currency
- **IN THE LOANABLE FUNDS MARKET, WHAT MAKES UP SUPPLY & WHAT MAKES UP DEMAND?**  
Supply- savings from households  
Demand- Net Capital Outflow & Investment
- **AD CURVE SLOPES DOWNWARD FOR THREE REASONS, WHICH ONE HAS THE MOST EFFECT ON THE U.S. ECONOMY?**  
The Interest Rate Effect



- **WHAT DOES A HOUSEHOLD'S MONEY DEMAND EFFECT?**

A household's "money demand" reflects its *preference for liquidity*.

- **WHY IS THE MONEY SUPPLY CURVE VERTICAL?**

The money supply is vertical because it is fixed by the Fed.

- **WHO CONTROLS FISCAL POLICY? WHAT ARE THE TYPES OF FISCAL POLICY?**

Fiscal Policy is controlled by government policymakers, like Congress.

**Expansionary:** involves increasing government purchases, increasing transfers, or decreasing taxes in order to shift aggregate demand to the right and boost real GDP.

**Contractionary:** involves decreasing purchases, decreasing transfers, or increasing taxes, thus shifting aggregate demand to the left, which will lower the price level and decrease real GDP.

- **EXPLAIN HOW FISCAL AND MONETARY POLICY WORK WITH LONG LAGS. WHAT EFFECT DO THESE LONG LAGS CAUSE?**

**Fiscal Policy:** Changes in  $G$  and  $T$  require Acts of Congress. The legislative process can take months or years.

**Monetary Policy:** Firms make investment plans in advance, so  $I$  takes time to respond to changes in  $r$ . Most economists believe it takes at least 6 months for monetary policy to affect output and employment.

Due to these long lags, critics of active policy argue that such policies may destabilize the economy rather than help it: by the time the policies affect aggregate demand, the economy's condition may have changed.

- **WHAT HAPPENS TO TAXES WHEN AN ECONOMY GOES INTO A RECESSION?**

When an economy goes into a recession, this causes taxes to fall automatically. This stimulates aggregate demand and reduces the magnitude of fluctuations.

- **WHAT IS MONETARY POLICY? WHO CONTROLS IT? HOW DOES IT WORK?**

Monetary Policy is the use of money and credit controls to influence interest rates, inflation, exchange rates, unemployment, and real GDP. Monetary Policy is controlled by the Fed. The Fed has 3 tools: Open Market Operations (OMOs), The Discount Rate, and Reserve Requirements.

- **WHAT ARE THE THREE DIFFERENT FUNCTIONS OF MONEY?**

1.) **Medium Exchange Rate:** Without money, we would have to barter for everything. This is hard enough when there is a double coincidence of wants, meaning that the person who owns the goods or services you want has a desire for what you have to barter with.

*For example, if you have chickens and you want flour, but the flour owner wants a shovel, you will have to try to trade your chickens for a shovel that you can trade for flour. If the shovel maker doesn't want chickens, the complexity grows.*

*A common medium of exchange greatly simplifies such transactions.*

2.) **Store of Value:** If the goods or service you produce are perishable, you will benefit from a nonperishable item that will hold the value of past production into the future.

*For example, the output of a tomato farmer or a ski instructor will have little value six months after production. By exchanging this output for something with a more stable value, the benefits of production can be transferred into the future.*

*Although no store of value is completely safe and inflation can erode the value of money over time, money can often serve this purpose relatively well.*

- 3.) **Unit of Account:** Money provides a standard unit for price listings and comparisons. If there were no common unit of account, price listings would be in terms of arbitrary units (three chickens per shovel, two sacks of flour per telephone) and price comparisons would involve a complex set of conversions.

*For Example, the recent adoption of the euro as a standard unit of account in the European Union was largely an attempt to eliminate the burden of reconciling the many different measures of value there.*

● ***WHAT ARE THE BASIC ECONOMIC CONCEPTS?***

- 1.) Economic growth- produce more and better goods and services
- 2.) Full employment- suitable jobs for all citizens who are willing and able to work
- 3.) Economic efficiency- achieve the maximum production using available resources
- 4.) Price-level stability- avoid large fluctuations in the price level (inflation + deflation)
- 5.) Economic freedom- business, workers, consumers have a high degree of freedom in economic activities
- 6.) Equitable distribution of income- try to minimize gap between rich and poor
- 7.) Economic security- provide for those who are not able to earn efficient income
- 8.) Balance of trade- try to seek a trade balance with the rest of the world

● ***WHAT IS THE BASIC ECONOMIC PROBLEM?***

- 1.) Society's material wants, that is, the material wants of its citizens and institutions, are virtually unlimited and insatiable
- 2.) Economic Resources- the means of producing goods and services- are limited or scarce

● ***HOW CAN YOU TELL THE DETERMINANTS FOR PRODUCTION?***

One must compare marginal benefits and marginal costs to determine the best or optimal output mix on the Production Possibilities Curve.

● ***WHAT ARE THE TYPES OF INFLATION?***

**Demand-pull inflation:** more spending than the economy's capacity to produce. The excess demand increases the prices of the limited real output, causing prices to rise.

**Cost-Push (Supply-side) inflation:** Per-unit production costs (total input cost + units of output) rise, reducing the amount of companies willing to sell products at the current price level. Then, supply decreases, causing the price level to increase.

● ***EXPLAIN WAGE-PRICE SPIRAL.***

As price level rises, labor will demand and get higher nominal wages. Businesses will agree, hoping to get back the money by increasing prices. Then, as prices increase even more, labor will find that it has a reason to demand more wage increases, but that causes more prices to increase, and so on.

- **EXPLAIN INFLATIONARY EXPECTATION.**

The effects of unexpected inflation are-

It hurts people with fixed nominal incomes, since the money they earn isn't worth as much anymore. It hurts people who save in fixed-value accounts it benefits debtors (borrowers) while hurting creditors (lenders).

The effects of inflation can be lessened if people expect it (anticipated inflation), since then they can get a chance to prepare for the damages that the inflation may cause.

*For example*, a person who has a fixed nominal income can try to adjust it if they know that its value is going to decrease. Many unions have labor contracts with cost-of-living adjustment (COLA) clauses, in which workers' wages increase if there is inflation.

- **HOW CAN YOU FIX CYCLICAL UNEMPLOYMENT?**

In order to decrease cyclical unemployment, we must try to increase overall spending in the economy so businesses find their inventories decreasing and so hire more people. We do this by increasing aggregate demand with fiscal or monetary policy.

- **WHAT IS THE CRITICISM OF THE UNEMPLOYMENT RATE?**

- 1.) Part-time workers are counted as fully employed; however, some part-time workers are people who can't get a full-time job because of recession. This tends to underestimate the unemployment rate.
- 2.) Also, discouraged workers who are not actively searching for jobs anymore are not counted in the labor force. This understates the unemployment rate, especially in a recession.

- **WHAT IS A GDP GAP?**

A GDP gap is the amount by which actual GDP falls short of potential GDP (the GDP that can be attained at the natural rate of unemployment).

- **WHAT IS OKUN'S LAW?**

For every 1 percentage point that the actual unemployment rate exceeds the natural rate, a GDP gap of about 2% occurs.

*For example*, if the actual rate is 6% and the natural rate is 4%, there will be a GDP gap of 4%.

- **WHAT IS THE MONEY MULTIPLIER?**

The money multiplier deals with the money supply and how it increases. It is based on the reserve requirement,  $1/R$  in decimal form, so if the reserve require is 20%, we do  $1/.2$  and get 5. That means if the Fed increases the money supply by \$1,000, the total maximum increase is  $\$1,000 \times 5 = \$5,000$ .

Since banks lend their excess reserves, a system of banks will "magnify" original excess reserves into a larger amount of new demand-deposit money, causing the money supply to grow by more than the original excess reserves.

- ***EXPLAIN NET CAPITAL OUTFLOW. GIVE AN EXAMPLE OF NET CAPITAL INFLOW.***

Net capital outflow-measures whether money for financial assets (capital) is flowing in or out of a country. It is determined by interest rates. Think of our money market graph with money supply and money demand. If something happens to decrease interest rates (like an increase in the money supply) then US financial assets are less desirable. American citizens and foreigners will take the money that is in savings and bonds here and put it in countries with higher interest rates. Capital is flowing OUT, so NCO will increase. This will increase the supply of dollars in the foreign currency exchange market, which depreciates the dollar. An example of Net Capital Inflow would be if interest rates are higher here, money will FLOW IN to the US. This means net capital OUTflow will decrease.

- ***HOW CAN THE GOVERNMENT FIX A RECESSIONARY SITUATION?***

The government now needs to use an expansionary fiscal policy. The aim of the policy is to increase aggregate demand, which shifts the AD curve to the right and will cause an increase in real GDP.

The government has two tools to use: it can increase government spending or decrease taxes (or both). Increasing government spending will increase AD (since  $AD=C+I+G+NX$ ). Decreasing taxes will increase consumption spending (it increases it by the tax increase times the MPC), which will also increase AD.

- ***WHAT IS THE IMPACT OF POLICIES ON AD/AS IN EQUILIBRIUM?***

AN expansionary policy shifts (or tries to shift) the AD curve to the right. This will shift the equilibrium GDP up (as long as the economy isn't in the vertical range). Usually, the government uses an expansionary fiscal policy when the economy is in the horizontal range, so the policy only shifts equilibrium GDP up.

A contractionary fiscal policy shifts the AD curve to the left. This will lower equilibrium price level (when it's not in horizontal range) and lower equilibrium GDP (when it's not in vertical range). However, the economy is usually in the vertical range when the government uses this policy, so the policy usually only shifts price levels down.

- ***THE ISSUE OF DEBT AND DEFICITS.***

Deficit spending is expansionary, and it counters recession. There's two ways of financing a deficit. The gov't can enter the money market and borrow, competing with private business borrowers for funds. This might cause a crowding-out effect, "taking up" some space for investment spending and consumer spending. The crowding-out effect reduces the expansionary impact of the deficit spending. The government can also make more money, making spending increase without any harm done to investment. However, making more money can have an inflationary effect too.

To counter demand-pull inflation, fiscal policy has to involve making a budget surplus. However, a surplus can do one of two things: debt reduction (paying off debt, but then it might offset the anti-inflationary impact because the gov't is putting money back into circulation), or impounding (keeping the surplus funds, doing nothing with them; this way, the full extent of the anti-inflationary policy will be met.

Debt can actually be inflationary because if the gov't tries to pay it off quickly, there will be inflation because the money supply increases.

- **WHAT IS MONETARISM?**

Monetarists believe that the economy is stable in the long run at the natural rate of unemployment, and the observed instability of the economy is caused by inappropriate monetary policy. Keynesians, on the other hand believe that the economy is potentially unstable and observed instabilities are caused by fluctuations in AD and AS.

They believe that changes in the money supply directly changes AD, which directly changes GDP. They do not think investment is an important issue.

Monetarists also believe that without government interference, the economy would be very stable. The government caused the economy to become what it is today: downward wedge inflexibility, business cycles, etc.

- **WHAT ARE SOME SOURCES OF GROWTH?**

**Increased investment in human capital**, which come from education, training, practice, and exercise.

EX) As more people receive training solar panel installation, more solar panels can be purchased and installed.

**Increased investments in physical capital**

EX) With more tractors, farmers can harvest more grain from a given are of land

**Improvements in technology**, as can result from research and development efforts.

EX) The use of robots in automobile manufacturing plants permits assembly lines to move more rapidly

**Enhanced resource utilization.** This results from better management and distribution of productive resources.

EX) If there is underutilized capital or labor in an economy, better use of those resources will allow production levels to increase.

- This type of growth can be illustrated on the production possibilities frontier graph by a movement from a point lying below production possibilities frontier toward a point on the frontier

# THE THEORIES OF THE AGGREGATE CURVES:

## Why Aggregate Demand Slopes Downward

### THE WEALTH EFFECT:

- As price levels fall  $\Rightarrow$  consumers feel richer  $\Rightarrow$  consumers buy more goods  $\Rightarrow$  Real GDP increases
- As price levels rise  $\Rightarrow$  consumers feel poorer  $\Rightarrow$  consumers buy less goods  $\Rightarrow$  Real GDP decreases

## **THE SAVINGS/ INTEREST RATE EFFECT:**

- Price levels decrease  $\Rightarrow$  consumers spend less on goods  $\Rightarrow$  consumers save more  $\Rightarrow$  banks offer a lower interest rate  $\Rightarrow$  banks loan more money to businesses  $\Rightarrow$  businesses increase their investment  $\Rightarrow$  Real GDP increases
- Price levels increase  $\Rightarrow$  consumers spend more on goods  $\Rightarrow$  consumers save less  $\Rightarrow$  banks offer a higher interest rate  $\Rightarrow$  banks loan less money to businesses  $\Rightarrow$  businesses decrease their investment  $\Rightarrow$  Real GDP decreases

## **EXCHANGE RATE/ NET EXPORTS EFFECT:**

- Price levels decrease in the U.S.  $\Rightarrow$  foreign countries currency is worth more  $\Rightarrow$  foreign countries buy more goods from the U.S.  $\Rightarrow$  the U.S. exports more and imports less  $\Rightarrow$  Real GDP increases
- Price levels increase in the U.S.  $\Rightarrow$  foreign countries currency is worth less  $\Rightarrow$  foreign countries buy less goods from the U.S.  $\Rightarrow$  the U.S. exports less and imports more  $\Rightarrow$  Real GDP decreases

# **Why Aggregate Supply Slopes Upward**

## **STICKY WAGES:**

- $\Rightarrow$  Example- Labor contracts
- $\Rightarrow$  NOTE: Nominal wages are sticky in the short run
- $\Rightarrow$  Firms and workers set the nominal wage in advance based on the  $P_E$  (Expected price level)
  - Price level is greater than the Expected Price Level  $\Rightarrow$  Revenue is higher  $\Rightarrow$  Labor cost is not due to stick wages  $\Rightarrow$  Production is more profitable  $\Rightarrow$  Firms increase output and unemployment  $\Rightarrow$  Higher price level causes increase in GDP

## **STICKY PRICES:**

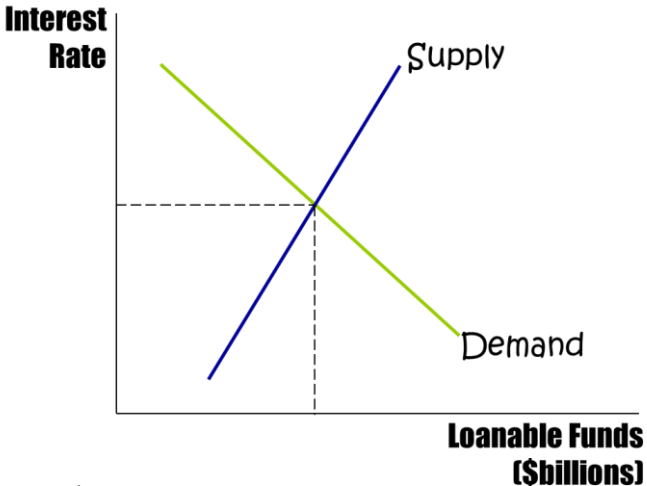
- $\Rightarrow$  Example- Menu cost
- $\Rightarrow$  Prices are sticky in the short run
- $\Rightarrow$  Firms set stick prices in advance based on  $P_E$ 
  - Fed increases money supply unexpectedly. In the long run,  $P$  will rise. In the short run, firms without menu costs can raise their prices immediately. Firms with menu cost wait to raise prices. Meantime, their prices are relatively low, which increases demand for their products, so they increase output and employment. Hence a higher  $P$  associated with a higher  $Y$ . Therefore the GDP increases.

## **THE MISPERCEPTION THEORY:**

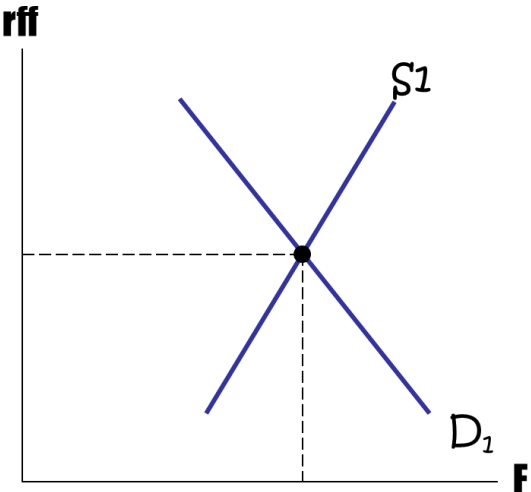
In the short run, firms may confuse changes in  $P$  with changes in the relative price of the products they sell. If  $P$  rises above  $P_E$ , a firm sees its prices rise before they realize that all prices are rising. The firm believes that its relative price is rising, and may increase output and employment. This increases real GDP. Eventually the firm may end up decreasing their prices or they will leave them the same.

# DIAGRAMS

## Market for Loanable Funds



## The Federal Funds Market

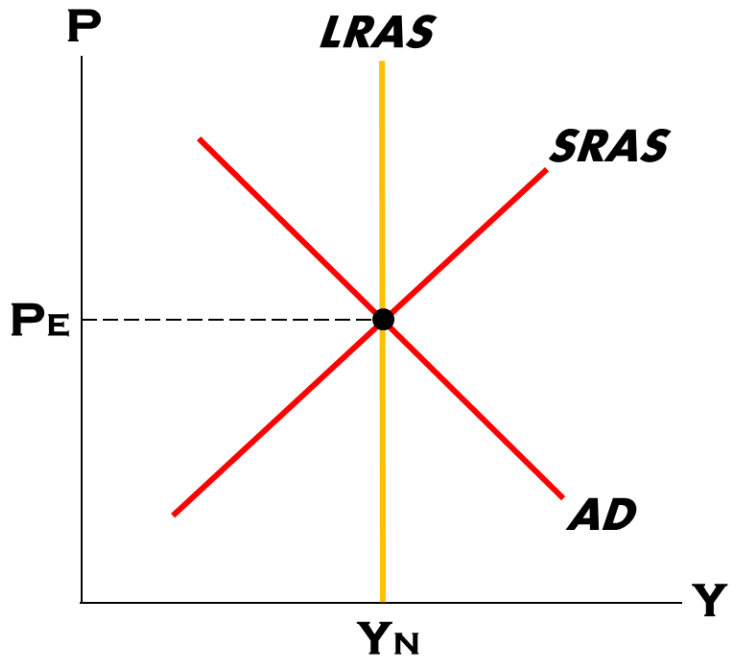


rff= Federal Funds Rate  
 F= Quantity of Federal Funds Rate

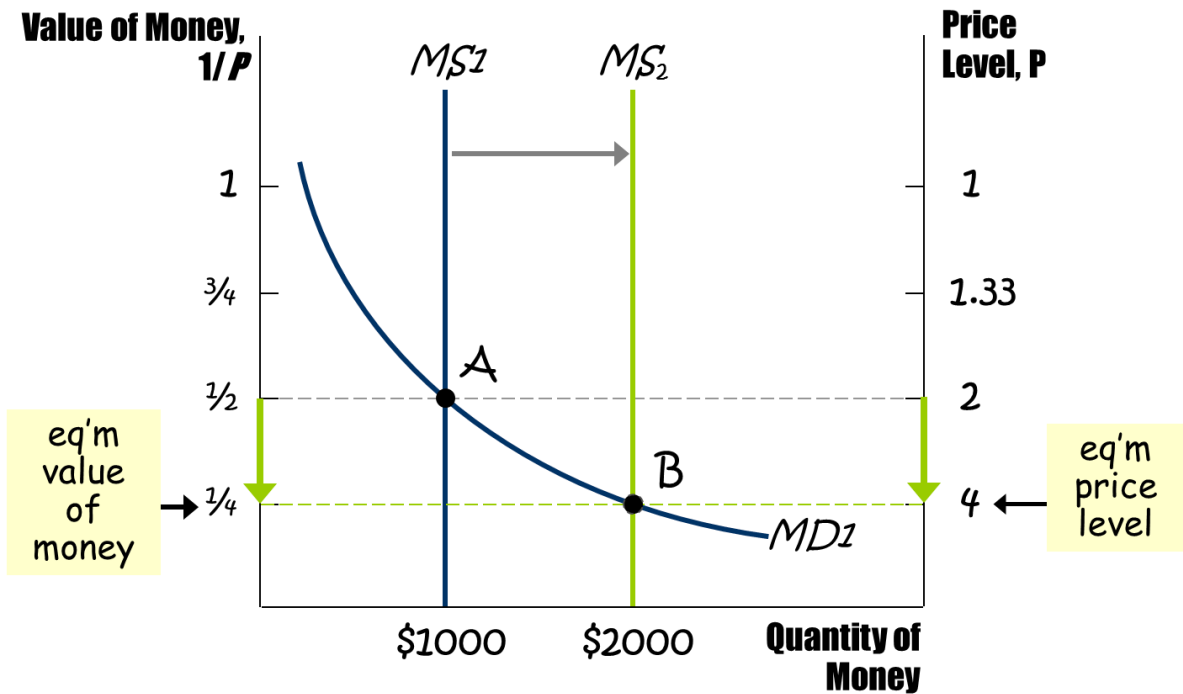
## T-Accounts

ASSETS	LIABILITIES
Reserves: \$	Deposits: \$
Loans: \$	

*Aggregate Demand & Supply Curve*

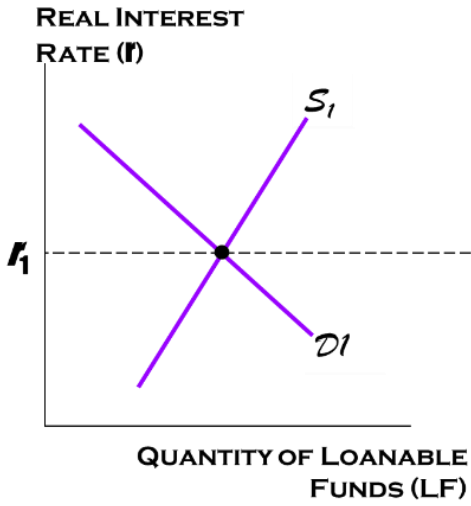


*Money Supply & Money Demand*

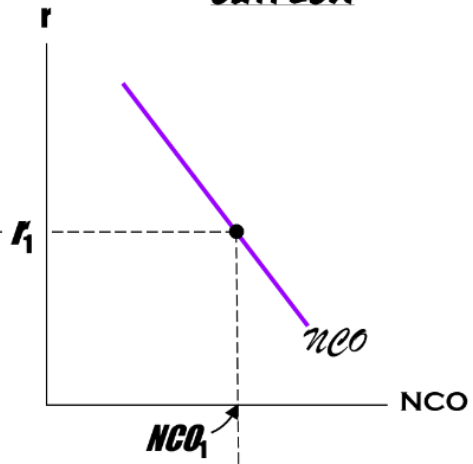




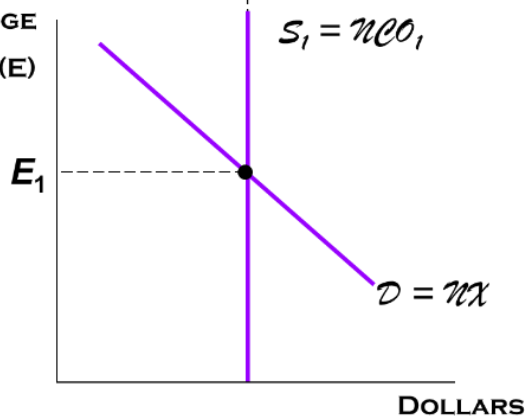
**LOANABLE FUNDS MARKET**



**MARKET FOR NET CAPITAL OUTFLOW**

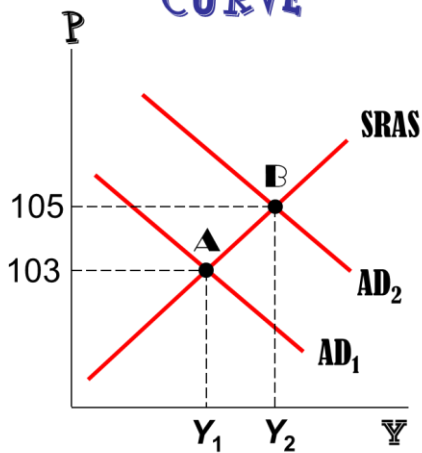


**REAL EXCHANGE RATE (E)**



**MARKET FOR FOREIGN-CURRENCY EXCHANGE**

**AGGREGATE DEMAND & SUPPLY CURVE**



**PHILLIPS CURVE**

