Chapter 4

This is Macroeconomics

Measuring the Spending of Nations and Employment :-) and Unemployment :-(

please take out your multiple choice practice; go to #7

1. this chapter is about how economists measure our nation's real GDP, employment, and unemployment
2. every three months the real GDP (Y) report is released, but then there are two revisions to the initial report
   A. because of the multiple reports, it is very difficult to decide fiscal policy (government taxing and spending by Congress) and monetary policy (the size of the money supply and controlling inflation by the Federal Reserve); in other words...should the economy be expanded or contracted?

Pleas
1. G

Intermediate Goods vs. Final Goods and Value Added

1. when measuring GDP, it is important to not count the same item more than once, which is called **double counting**
   A. if you buy a bicycle, the bike is a **final good** (goods that undergo no further processing)
   B. the tires are part of the bike (the tires are an **intermediate goods**)
   C. only final goods are part of GDP, so you wouldn't add the cost of the tires *and* the bike to measure GDP because that would count the tires twice
2. only the **value added** is used to calculate GDP
   A. value added only counts what each firm adds to the other intermediate goods to get the final product

Value Added- Question

7. The value of which of the following is counted in the United States gross domestic product?

(A) Clean air
(B) Child care a father provides for his child
(C) An automobile produced in Sweden by a United States firm
(D) A car produced in the United States and sold in Europe
(E) Medical services not provided due to preventative health care

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(C) An automobile produced in Sweden by a United States firm
(●) A car produced in the United States and sold in Europe
(E) Medical services not provided due to preventative health care

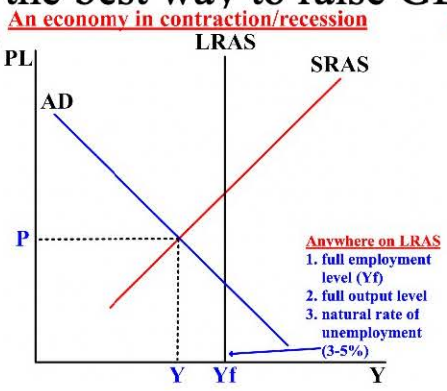
this cannot be measured

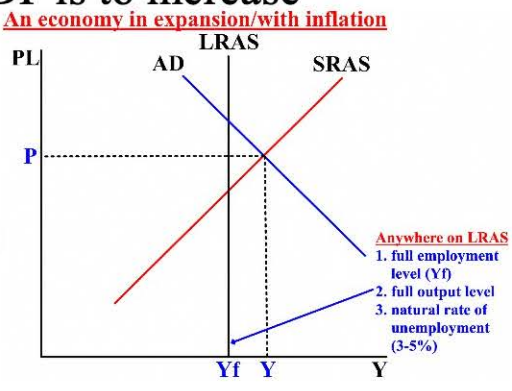
only counted if made in USA

nothing is being measured or counter

Sticky Wages

1. **sticky wages** occur when workers' earnings don't adjust quickly to changes in labor market conditions
   A. if workers' wages remain higher for longer than they should when an economy is in contraction/recession, the economy's recovery from a recession might take longer
   B. if workers' wages remain lower for longer than they should when an economy is in expansion/has inflation, the economy's recovery from an expansion might take longer
   C. when sticky wages occur, the best way to raise GDP is to increase government spending (G)





Sticky Wages- Question

20. If wages are sticky, which of the following policies will be the most effective in raising real gross domestic product to the full-employment level?

(A) Doing nothing, since there are automatic stabilizers
(B) The sale (selling) of bonds by the Federal Reserve
(C) An increase in the income tax
(D) An increase in government spending
(E) An increase in the discount rate

Sticky Wages- Question

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they will take too long

nope; this will decrease the amount of money the banks have to load / decrease what consumers have

nope; this will increase the cost of borrowing money from banks

The Spending Approach

1. America uses the spending approach as our main way to measure GDP
   A. the **spending approach** determines how GDP is allocated among the four major components of spending: consumption by consumers (C), business investment (I), government purchases (G), and net exports (X) (exports - imports)
2. because of scare resources, all four parts of spending must compete for the for what they need

$$Y = C + I + G + X$$

Y = real GDP/AD

C = consumption
I = business investment
G = government purchases
X = net exports (exports - imports)

The Spending Approach (cont.)

1. the **interest rate** (the part of a loan that is charged as interest to the borrower; either fixed or flexible) is a key factor that both influences and is influenced by C, I, G, and X spending and borrowing
   A. this applies more to the long-run (4-5 years out) than to the short-run (up to one year out) because it takes time for consumers (C), businesses (I), and net exports (X) to completely respond to changes in interest rates
   B. interest rates only affect the three shares of spending by the private sector: C, I, and X
      i. C, I, and X are interest-sensitive (sensitive to interest rates)
      ii. higher interest rates decrease borrowing and spending by C, I, and X while lower rates increase borrowing and spending
   C. government (G) spending/expenditures are part of the public sector and are not impacted by interest rates

The Spending Approach (cont.)

1. government surpluses and deficits have to be considered when it comes to spending and borrowing by C, I, and X
   A. if there is a government surplus, interest rates would decrease because the government would decrease its quantity demanded (Qd) of loanable funds (the amount of money in a country that is available to be loaned to C, I, and X) from where C, I, and X get their loans from
      i. there would be a surplus of money (the more money there is the less value the money has separately) and interest rates would decrease leading to spending or borrowing by C, I, and X to increase
   B. if there is a government deficit, interest rates would increase because the government would increase its quantity demanded (Qd) of loanable funds from where C, I, and X get loans from
      i. there would be a decrease in the money supply (the less money there is the more value the money has separately) and interest rates would increase leading to spending or borrowing by C, I, and X to decrease

The Spending Approach (cont.)

1. a consumer's choice between consuming today and consuming tomorrow depends on the **relative price** (the price one day vs. another)
2. changes in the interest rate will change the relative price
   A. a higher interest rate today will increase the price (cost) of consumption today relative to that of consumption tomorrow and also give consumers an incentive to save
   B. a lower interest rate today will decrease the price (cost) of consumption today relative to that of consumption tomorrow and also give consumers an incentive to spend
   C. by spending today when interest rates are higher, you are also losing what you might have gained by saving; your opportunity cost is higher
3. an increase in the interest rate or taxes leads to a decrease in consumption and aggregate demand (AD/Y)
4. a decrease in the interest rate or taxes leads to an increase in consumption and aggregate demand (AD/Y)

The Spending Approach- Business Investment and Depreciation

1. business **investment (I)** consists of new purchases of final goods by businesses/firms
   A. it's also called **business fixed investment** or **private domestic investment**
   B. this includes
      i. money spent on human capital (which also increases workers' output, productivity, and wages)
      ii. workers' stock (value)
      iii. capital goods (anything used to produce goods and services and to change their inventories)
   C. if companies from anywhere produce their goods in America then sell it in America, it increases America's GDP/AD
2. **depreciation** is the amount by which anything needed for production decreases in worth each year and needs to be replaced

D

please take out your multiple choice practice; go to #21

A

The Spending Approach- Business Investment- Questions

21. Gross private domestic investment (business spending) includes which of the following?

(A) Changes in business inventories
(B) National defense spending
(C) New durable goods purchased by households
(D) Transfer payments
(E) Depreciation of government goods (decreased value)

The Spending Approach- Business Investment- Questions

21. Gross private domestic investment includes which of the following?

(business spending)

(●) Changes in business inventories
(B) National defense spending
(C) New durable goods purchased by households
(D) Transfer payments
(E) Depreciation of government goods

(decreased value)

these are not business expenditures

The Spending Approach- Business Investment- Questions

31. Which of the following is a best example of an investment in human capital?
(workers stock/value)

(A) Decreasing the wage rate
(B) Training workers
(C) Hiring new workers
(D) Buying new equipment
(E) Updating technology

The Spending Approach- Business Investment- Questions

31. Which of the following is a best example of an investment in human capital?

(workers stock/value)

(A) Decreasing the wage rate ← this is the opposite of business investing (*I*)

(B) Training workers

(C) Hiring new workers ← business investing (*I*) in human capital involved improving current worker, and "B" is better

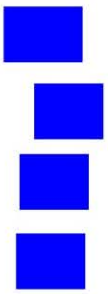
(D) Buying new equipment

(E) Updating technology ← this isn't human capital

The Spending Approach- Business Investment- Questions

26. An increase in which of the following will most likely increase productivity?

(A) Population growth rate
(B) Aggregate demand
(C) Capital stock
(D) Consumption
(E) Employment



The Spending Approach- Business Investment- Questions

26. An increase in which of the following will most likely increase productivity?

(A) Population growth rate ← higher numbers themselves do nothing to productivity
(B) Aggregate demand
(C) Capital stock
(D) Consumption ← more demand doesn't definitely lead to an increase in production
(E) Employment ← higher numbers themselves do nothing to productivity

The Spending Approach- Government Purchases

1. **government purchases (G)** is the spending or expenditures by federal, state, and local governments on new goods and services, such as the military and education
2. welfare payments are transfer payments from the government to individuals and not a government purchase and thus excluded from GDP
3. during a recession, government spending is critical as it leads to an increase in the money supply then decreased unemployment and finally increased real GDP (Y)
   A. ultimately inflation will occur though
   B. a decrease of taxes frees up money in the economy to be spent

The Spending Approach- Government Purchases- Questions

6. If the economy is in a severe recession, which of the following policy actions is most appropriate?

   (A) Keeping the money supply constant and reducing budget deficits
   (B) Decreasing government spending and taxes by the same amount
   (C) Increasing both the money supply and government spending
   (D) Increasing both the federal funds rate and taxes
   (E) Decreasing the money supply and increasing taxes

The Spending Approach- Government Purchases- Questions

6. If the economy is in a severe recession, which of the following policy actions is most appropriate?

(A) Keeping the money supply constant and reducing budget deficits ← reducing deficits is good, but the money supply has to grow

(B) Decreasing government spending and taxes by the same amount

(●) Increasing both the money supply and government spending

(D) Increasing both the federal funds rate and taxes

(E) Decreasing the money supply and increasing taxes

these would further depress the economy

The Spending Approach- Government Purchases- Questions

11. Which of the following combinations of changes in government spending and taxes is necessarily expansionary? (fiscal policy by Congress)

	Government Spending	Taxes
(A)	Increase	Increase
(B)	Increase	Decrease
(C)	Decrease	Not change
(D)	Decrease	Increase
(E)	Decrease	Decrease

The Spending Approach- Government Purchases- Questions

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(C)	Decrease	Not change
(D)	Decrease	Increase
(E)	Decrease	Decrease

good to increase govt. spending, but not taxes

decreases in govt. spending contracts the economy

The Spending Approach- Government Purchases- Questions

22. Which of the following are the most likely short-run effects of an increase in government expenditures? **(spending)**

	Unemployment Rate	Inflation Rate	Real Gross Domestic Product
(A)	Increase	Increase	Increase
(B)	Increase	Increase	Decrease
(C)	Decrease	Increase	Increase
(D)	Decrease	Decrease	Increase
(E)	No change	Decrease	Increase

The Spending Approach- Government Purchases- Questions

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(C)	Decrease	Increase	Increase
(D)	Decrease	Decrease	Increase
(E)	No change	Decrease	Increase

good to increase govt. spending, but it will not increase unemployment

if unemployment is decreasing, total demand (*AD*) must be increasing and so does inflation

The Spending Approach- Net Exports

1. **net exports** (X) is the difference between exports and imports
   A. three other terms for net exports are **trade balance**, **balance of payments**, and **current account**
   B. net exports can be either favorable/positive (if exports increase) or unfavorable/negative (if exports decrease)
   C. if net exports are positive (more exports than imports), that country has a **trade surplus**
   D. if net exports are negative (less exports than imports), that has a **trade deficit**
   E. the more a country exports the higher its GDP; the more it imports the lower the GDP

The Spending Approach- Net Exports (cont.)

1. the value of a country's currency has a huge impact on its trade balance
   A. if it's economy is doing well and its money is highly valued, goods will be more expensive to purchase in that country, and exports will decrease
   B. if it's economy is doing poorly and its money is less valued, goods will be less expensive to purchase in that country, and exports will increase
2. importing more than your country exports hurts its GDP because it decreases the amount of goods purchased in that country and lowers its AD/GDP
3. when the amount of exports decreases, the most effective fiscal policy (Congress) is to transfer money to those who need it (government transfer payments) in order to help those negatively impacted by the decrease

The Spending Approach- Net Exports- Questions

22. Which of the following will lead to an increase in United States net exports?

(A) An increase in United States real gross domestic product

(B) Appreciation of the United States dollar on (increased value) the foreign exchange market

(C) Depreciation of the United States dollar on (decreased value) the foreign exchange market

(D) An increase in government expenditures in the United States

(E) A decrease in income tax rates in the United States

The Spending Approach- Net Exports- Questions

22. Which of the following will lead to an increase in United States net exports?

(A) An increase in United States real gross domestic product

(B) Appreciation of the United States dollar on the foreign exchange market (increased value)

(●) Depreciation of the United States dollar on the foreign exchange market (decreased value)

(D) An increase in government expenditures in the United States

(E) A decrease in income tax rates in the United States

this would increase price levels in America and decrease exports due to increased prices

this would mean that price levels in the U.S. are increasing and decrease exports due to increased prices

these would lead to increased price levels because AD is increasing

The Spending Approach- Net Exports- Questions

4. An increase in which of the following would most likely cause the gross domestic product of a country to decrease in the short run?

   (A) Government spending
   (B) Imports
   (C) Money supply
   (D) Consumption spending by households
   (E) Investment spending by domestic firms

The Spending Approach- Net Exports- Questions

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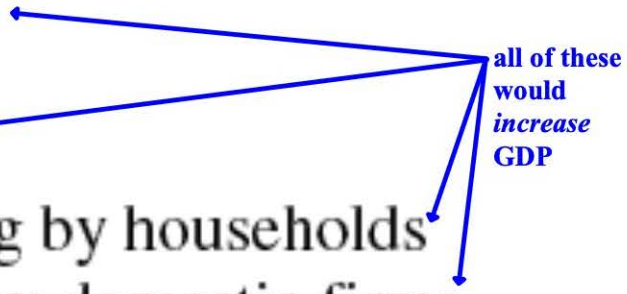

Macroeconomics Do-Now

Please do this:

1. **If the government share of GDP is 23%, what is the nongovernment or private share of GDP? 77%**

2. **If nominal GDP is $10 and real GDP is $5, what is the GDP deflator? 200**

3. **If nominal GDP is $10 and the GDP deflator is 100, what is the real GDP of the economy? $10**

4. **Draw a supply (S) and demand (D) graph from microeconomics showing a binding or effective price ceiling. Label everything.**

The Spending Approach- Net Exports- Questions

12. Which of the following will increase the United States trade deficit?
(debt)

(A) United States firms buying technologically advanced computers from Germany
(B) European citizens traveling in large numbers to the United States
(C) A United States company being hired to build a production plant in another country
(D) The United States dollar depreciating (decreasing value) in the foreign exchange market
(E) The United States selling one million tons of wheat to China

The Spending Approach- Net Exports- Questions

12. Which of the following will increase the United States trade deficit?

(debt)

(A) United States firms buying technologically advanced computers from Germany

this would hurt the trade deficit by making U.S. goods more expensive

(B) European citizens traveling in large numbers to the United States

this has nothing to do with trade

(C) A United States company being hired to build a production plant in another country

(D) The United States dollar depreciating (decreasing value) in the foreign exchange market

this would help the trade deficit by making U.S. goods cheaper to buy

(E) The United States selling one million tons of wheat to China

this would help the trade deficit

The Spending Approach- Net Exports- Questions

55. Which of the following is true in the short run if consumers buy more imported goods and fewer domestic goods?

(A) The trade balance moves toward deficit, and equilibrium income decreases.
(B) The trade balance moves toward deficit, and equilibrium income increases.
(C) The trade balance moves toward surplus, and equilibrium income is unaffected.
(D) The trade balance moves toward surplus, and equilibrium income decreases.
(E) The trade balance is unaffected, and equilibrium income decreases.

The Spending Approach- Net Exports- Questions

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(D) The trade balance moves toward surplus, and equilibrium income decreases.
(E) The trade balance is unaffected, and equilibrium income decreases.

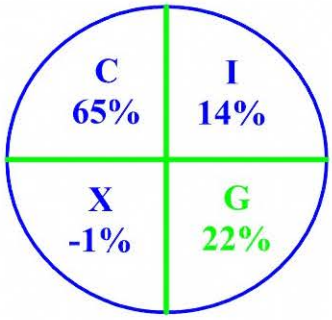
total demand (AD) in an economy would decrease, leading to a lower price level

buying more imported goods leads to a trade deficit

not in the real world; the balance must change

Putting the Shares of GDP Together

1. the sum of the three shares/components of GDP (consumer consumption (C), business investment (I), and net exports (X)) must equal what is left over after the government (G) takes its share, and all must equal 100%
   A. if the government's share is 22% of GDP (Y), than the sum of the consumption (C) share, the investment (I) share, and the net export (X) share must equal 78%
2. a decline in private (C, I, & X) spending/investment due to an increase in government purchases/expenditures is called **crowding out** because C, I, & X spending/investment is "crowded out" by government purchases/expenditures
   A. because the government is borrowing money, it leaves less money for C, I, & X to borrow thus making the remaining money more valuable thus raising interest rates



please take out your multiple choice practice; go to #50

Putting the Shares of GDP Together- Question

50. If an increase in government spending, financed by borrowing, crowded out an equal amount of private spending, which of the following would result?

(A) Interest rates would decrease.
(B) Aggregate demand would remain unchanged.
(C) The price level would increase.
(D) Unemployment would increase.
(E) Unemployment would decrease.

Putting the Shares of GDP Together- Question

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(B) Aggregate demand would remain unchanged.
(C) The price level would increase.
(D) Unemployment would increase.
(E) Unemployment would decrease.

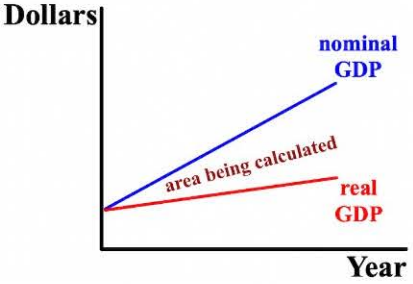
nothing would change because all that is happening is G is spending more money and C is spending equally less; GDP doesn't change

Real GDP vs. Nominal GDP- Measuring Inflation

1. nominal GDP gives a very misleading picture of the U.S. economy because nominal GDP grows faster than real GDP (Y) because the changes in the price level (inflation and deflation) aren't taken into account
2. if we divide nominal GDP by real GDP then multiply it by 100, we get the **GDP deflator**, which measures inflation in an economy
   A. the reason for the term deflator is that to get real GDP, we can deflate nominal GDP by dividing it by the GDP deflator

macro formula #8

$$\frac{\text{nominal GDP}}{\text{real GDP}} = \frac{\$20}{\$10} = \frac{2}{\_\_} \times 100 = \frac{200}{\text{GDP deflator}}$$



Real GDP vs. Nominal GDP- Measuring Inflation (cont.)

1. we can also start with knowing the real GDP (Y) and GDP deflator to find nominal GDP, or we can start with knowing nominal GDP and the GDP deflator to find real GDP

$$\frac{\$20}{\$5} = \frac{4}{1} \times 100 = 400 \text{ GDP deflator}$$

$$\frac{\$50}{\$25} = \frac{2}{1} \times 100 = 200 \text{ GDP deflator}$$

$$\frac{\$10}{\$2} = \frac{5}{1} \times 100 = 500 \text{ GDP deflator}$$

An Alternative Measure of Inflation

1. there are other measures of inflation besides the GDP deflator
   A. the **consumer price index (CPI)** is the price of a fixed collection: a "market basket" of 80,000 consumer goods and services in some future year divided by the price of the same collection in a base year
      i. if the market basket consists solely of one CD and two tapes, than the CPI for 2019 (on top) compared with the base year 2018 (on the bottom) would be

$$\text{2019} = \frac{\underset{P \quad Q}{\text{Tapes}} \quad \underset{P \quad Q}{\text{CDs}}}{\text{2018}} = \frac{\$30 \times 3 + \$10 \times 2}{\$15 \times 3 + \$5 \times 2} = \frac{110}{55} = \text{CPI of 2}$$

      ii. because the quantity demanded (Qd) doesn't change from year to year, CPI is referred to as the quantity-constant model

An Alternative Measure of Inflation (cont.)

1. when the price of goods rises, the quantity demanded (Qd) should decline
2. the CPI doesn't allow the quantity demanded to change when the price (P) changes
3. the CPI doesn't allow substitutes to be purchased when the price changes (the items in the basket of 80,000 goods and services are fixed and don't change
   A. because quantity demanded and the basket's items don't change, the result is an overstatement of inflation

$$\begin{array}{l} \qquad\quad \underline{\text{Tapes}} \qquad\quad \underline{\text{CDs}} \\ \qquad\quad P \quad Q \qquad\quad P \quad Q \\ 2019 = \$30 \times 3 + \$10 \times 2 \\ 2018 = \$15 \times 3 + \$5 \times 2 \end{array} = \frac{110}{55} = \text{CPI of 2}$$

An Alternative Measure of Inflation- Questions

39. The consumer price index (CPI) measures the

(A) value of current gross domestic product in base-year dollars
(B) prices of all consumer goods and services produced in the economy
(C) prices of selected raw materials purchased by firms
(D) prices of a specific group of goods and services purchased by consumers
(E) prices of imports, but not exports

An Alternative Measure of Inflation- Questions

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(C) prices of selected raw materials purchased by firms
(●) prices of a specific group of goods and services purchased by consumers ← direct definition
(E) prices of ~~imports~~, but not ~~exports~~

An Alternative Measure of Inflation- Questions

ANNUAL CONSUMER PRICE INDEX (CPI)

Year	CPI
1929	20
1984	100
1995	120

47. The table above shows the consumer price index for selected years. On the basis of these data, how much did it cost in 1995 to buy the same goods and services that cost $50 in 1929 ?

(A) $25
(B) $100
(C) $125
(D) $250
(E) $300

An Alternative Measure of Inflation- Questions

ANNUAL CONSUMER PRICE INDEX (CPI)

Year	Cost	CPI	
1929	$50	20	
1984	x 6	100	x 6
1995	$300	120	

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(A) $25
(B) $100
(C) $125
(D) $250
(E) $300

An Alternative Measure of Inflation- Questions

Year	Nominal GDP	Price Index
2012	$100,000	200
2013	$110,000	220

4. The table above shows the nominal gross domestic product (GDP) and the price index for an economy during the period 2012 and 2013. Which of the following would have occurred from 2012 to 2013 ?

(A) Real GDP decreased by 20%.
(B) Real GDP decreased by 10%.
(C) Real GDP increased by 20%.
(D) Real GDP increased by 10%.
(E) Real GDP did not change.

1.

An Alternative Measure of Inflation- Questions

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   (C) Real GDP increased by 20%.
   (D) Real GDP increased by 10%.
   (●) Real GDP did not change.

"Nooo..."

NGDP $\frac{\text{new} - \text{old}}{\text{old}} \times 100 = \frac{11-10}{10} \times 100 = 10\%$

PI $\frac{\text{new} - \text{old}}{\text{old}} \times 100 = \frac{22-20}{20} \times 100 = 10\%$

Foreign Exchange (FOREX)

1. the **foreign exchange market**, or **FOREX** is the global market for the trading of currencies from different countries
2. when countries buy goods from other countries, or when people travel to other countries, each country is usually paid in their own currency
   A. the buyer must exchange their currency for that of the seller
3. changes in preferences/tastes, relative incomes, relative price levels, and relative interest rates between countries can impact foreign exchange

Foreign Exchange (FOREX) (cont.)

1. a **higher dollar exchange rate** (stronger value/purchasing power of U.S. currency compared to another country's currency) brought about by a higher interest rate would tend to make goods imported into the U.S. more attractive because it makes foreign goods cheaper with the stronger U.S. dollar
2. if the Federal Reserve (monetary policy) sells government bonds/securities (loans) to banks and thus the nominal interest rate rises while other countries' central banks maintain or even lowers their interest rates, then the return on savings will be more attractive in the U.S. than in other countries
   A. given this higher rate in the U.S., international capital (money) will flow from other countries into the U.S. to earn higher interest rates
      i. this will lead to the dollar's appreciation (increase in value) and an increase in imports, but aggregate demand and GDP (AD/GDP/Y) will decrease because price levels will be higher
      ii. a loss of funds from a country, like when interest rates decrease, depreciates (decreases) a country's currency value and increases exports, and increases its AD/GDP/Y because price levels will be lower

Foreign Exchange (FOREX) (cont.)

1. the higher the **exchange rate** (either fixed/pegged or flexible/floating, the value of one currency for the purpose of conversion to another) the more the quantity demanded (Qd) of imported goods will be
   A. this is because in the country where there are higher exchange rates, their money is valued more and the people in that country will buy less of their own country's goods and will then buy more imports
2. a **fixed** or **pegged rate** is a country's exchange rate fixed completely by its own country
3. a **flexible or floating exchange rate** is an exchange rate between countries that changes depending on the supply (S) and demand (D) in the international community

Foreign Exchange (FOREX) (cont.)

1. in the foreign exchange market we only look at two countries/currencies at a time and examine the price of one currency relative to that of the other currency
2. if you need more dollars to buy one euro, the price for the euro **appreciates** (the increase in value of a country's currency with respect to a foreign currency) and the U.S. dollar **depreciates** (the loss in value of a country's currency with respect to a foreign currency)
   A. more dollars are then needed to buy the other currency and the dollar is said to be "weaker," and the American price level (PL) will decrease
3. if you need fewer dollars to buy one euro, the U.S. dollar appreciates relative to the euro
   A. fewer dollars are needed to buy a single unit of the other currency and the dollar is then said to be "stronger," and the American price level will increase

Foreign Exchange (FOREX) (cont.)

1. if the GDP for a country is strong, the exchange rate of its currency will tend to rise, its price level (PL) will increase, the chance of inflation will increase, and the chance of recession will decrease
2. if the GDP for a country is weak, the exchange rate of its currency will tend to decline, its price level will decrease, the chance of inflation will decrease, and the chance of recession will increase
3. higher exchange rates make U.S. exports less attractive because it makes American goods more expensive for foreigners to buy
   A. leads to more imports and fewer exports while a lower exchange rate means less imports and more exports

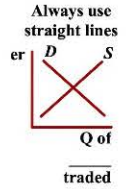
Foreign Exchange (FOREX) (cont.)

1. when thinking about FOREX and which country's currency is appreciating and which is depreciating; think of the currency that is wanted or demanded more relative to the other
   A. if America's currency is desired by foreigners either
      i. the inflation in America is decreasing relative to another country making it cheaper to buy American goods because America's price level is decreasing
      ii. America's interest rate is increasing relative to another country (making it more profitable for foreigners to put their money in American banks because of the higher rate of return from their investment)

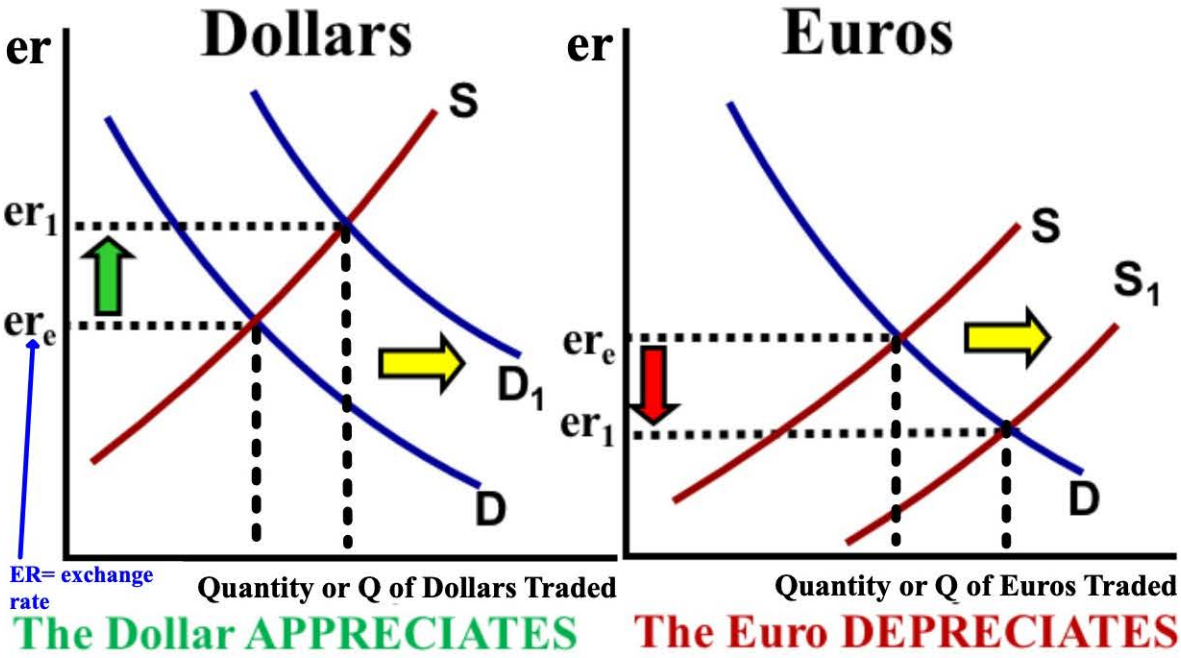
ex

1. D

Foreign Exchange (FOREX) (cont.)



What happens if Europeans prefer vacationing in the United States?

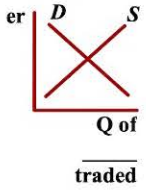


The Dollar APPRECIATES **The Euro DEPRECIATES**

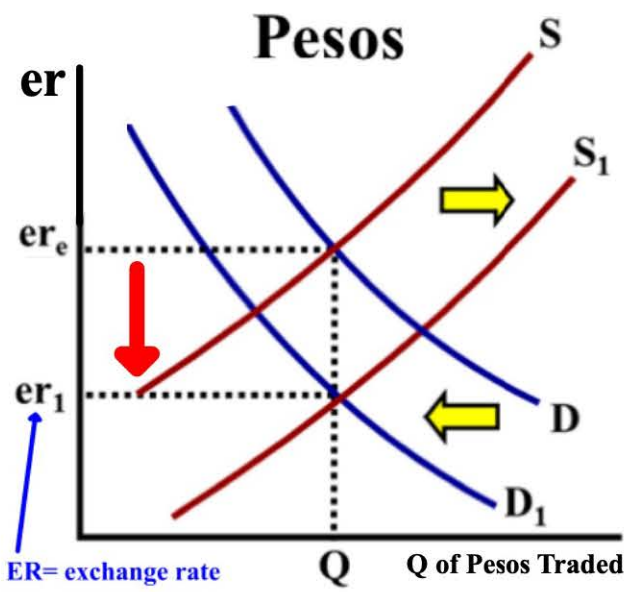
Foreign Exchange (FOREX) (cont.)

What will happen to the value of the Mexican Peso if either high inflation or low interest rates in Mexico decrease how much of it people want?

Always use straight lines



Foreign exchange market for the Peso



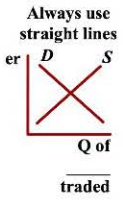
The demand for Pesos will decrease since Mexico's trading partners will not want to purchase higher priced Mexican products or lose money investing in Mexico. The supply of Pesos will increase as Mexicans look to buy lower priced imports.

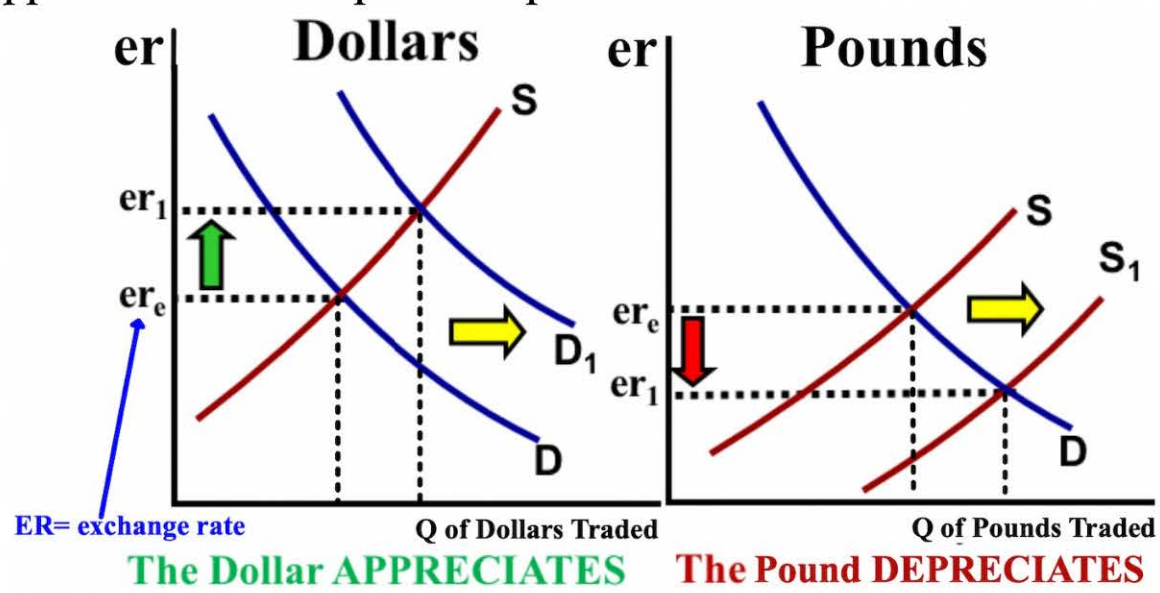
The peso DEPRECIATES

Foreign Exchange (FOREX) (cont.)

Reasons for a change in FOREX (foreign exchange):

1. Changes in tastes- British tourists flock to the U.S.….
   a. the demand for U.S. dollars increases (shifts right)
   b. the supply of British pounds increases (shifts right)
   c. the dollar appreciates and the pound depreciates

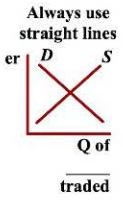


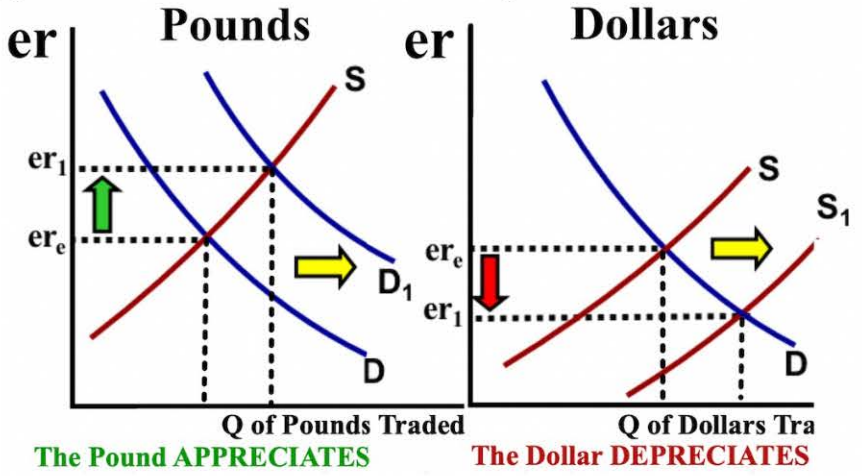


Foreign Exchange (FOREX) (cont.)

Reasons for a change in FOREX (foreign exchange):

2. Changes in relative incomes- U.S. growth increases U.S. incomes resulting in more imports….
   a. the U.S. buys more British imports
   b. the demand for pounds increases (shifts right)
   c. the supply of U.S. dollars increases (shifts right)
   d. the pound appreciates and the dollar depreciates

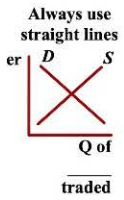


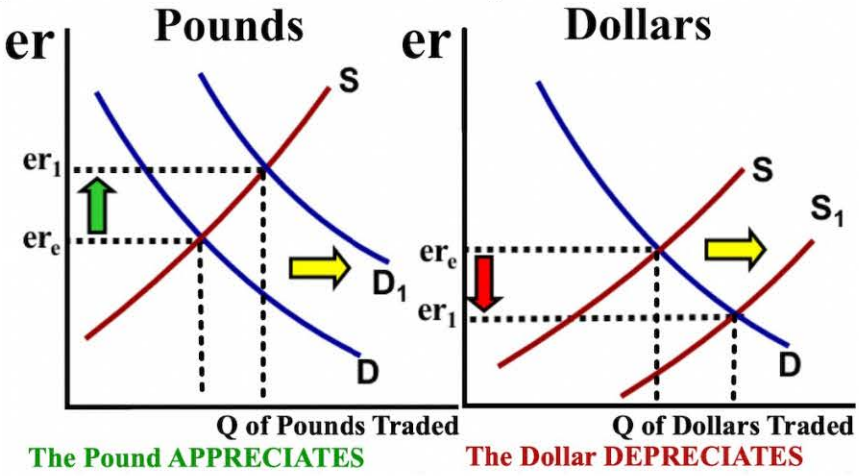


Foreign Exchange (FOREX) (cont.)

Reasons for a change in FOREX:

3. Changes in relative price level- U.S. prices increase relative to Britain resulting in more imports….
   a. the U.S. demand for cheaper imports increases
   b. the U.S. demand for the pound increases (shifts right)
   c. the supply of U.S. dollars increases (shifts right)
   d. the pound appreciates and the dollar depreciates

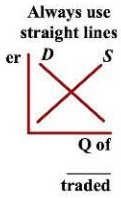


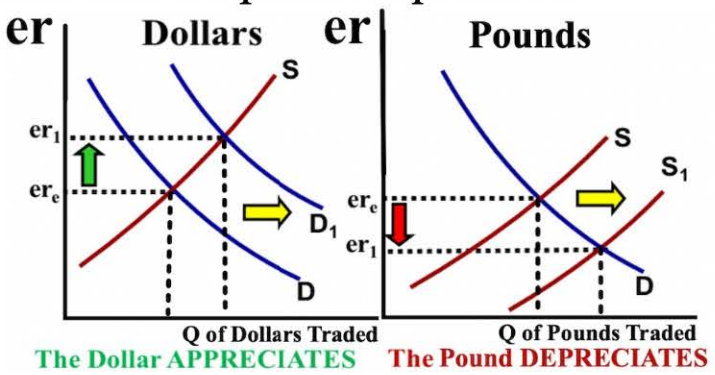


Foreign Exchange (FOREX) (cont.)

Reasons for a change in FOREX:

4. Changes in relative interest rates- Ex: U.S. has a higher interest rate than Britain....
   a. British people want to put money in U.S. banks
   b. capital flow (money) increases from other countries to the U.S. (shifts right)
   c. British demand for U.S. dollars increases (shifts right)
   d. British supply of pounds increase (shifts right)
   e. the dollar appreciates and the pound depreciates





Foreign Exchange (FOREX) (cont.)

For each of the following examples, identify what will happen to the value of U.S. Dollars vs. Japanese Yen.

1. American tourists increase visits to Japan

   U.S. $ depreciates and Yen appreciates

   Americans spend more in Japan

2. The U.S. government decreases personal income tax

   U.S. $ depreciates and Yen appreciates

   American money supply increases which leads to a higher dollar value and increased imports from Japan

3. Inflation in Japan rises faster than in the U.S.

   U.S. $ appreciates and Yen depreciates

   Japan will invest capital (money) in America and buy American goods because of the higher cost of Japanese goods

4. Japan has a budget deficit and increases interest rates

   U.S. $ depreciates and Yen appreciates

   Americans will invest capital (money) in Japan because of the higher interest rate in order to earn more money

Foreign Exchange (FOREX) (cont.)

For each of the following examples, identify what will happen to the value of U.S. Dollars vs. Japanese Yen.

5. Japan places high tariffs (taxes) on all U.S. imports

U.S. $ depreciates (demand decreases)
and Yen appreciates (supply decreases)

American goods increase in price to pay for the Japanese tariff and more Japanese goods are purchased

6. The U.S. suffers a larger recession than Japan

U.S. $ appreciates (supply decreases)
and Yen depreciates (demand decreases)

Japan will invest capital (money) in America because of their lower price level due to the recession

7. The U.S. Federal Reserve sells bonds at high interest rates.

Foreign Exchange (FOREX)- Questions

10. An appreciation of the United States dollar on the foreign exchange market could be caused by a decrease in which of the following?

    (A) United States interest rates
    (B) The United States consumer price index
    (C) Demand for the dollar by United States residents
    (D) Exports from the United States
    (E) The tariff on goods imported into the United States

Foreign Exchange (FOREX)- Questions

10. An appreciation of the United States dollar on the foreign exchange market could be caused by a decrease in which of the following?

(A) United States interest rates

(●) The United States consumer price index

(C) Demand for the dollar by United States residents

(D) Exports from the United States

(E) The tariff on goods imported into the United States

no foreigners would want U.S. currency with lower interest rates; their money would earn less

a decrease of this would cause depreciation of the $

Foreign Exchange (FOREX)- Questions

22. If Mexicans increase their investment in the United States, the supply of Mexican pesos to the foreign exchange market and the dollar price of the peso will most likely change in which of the following ways?

	Supply of Pesos	Dollar Price of Peso (for the)
(A)	Increase	Increase
(B)	Increase	Decrease
(C)	Decrease	Increase
(D)	Decrease	Decrease
(E)	Decrease	Not change

Foreign Exchange (FOREX)- Questions

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	Supply of Pesos	Dollar Price of Peso
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(B)	Increase	Decrease
(C)	Decrease	Increase
(D)	Decrease	Decrease
(E)	Decrease	Not change

(for the)

if the supply of the Peso increases then the worth of each will decrease

supply of the Pesos would increase because the dollar was wanted more

Foreign Exchange (FOREX)- Questions

55. If country X imposes a tariff (tax on imported goods) on its imports, how will the supply of its currency and its exchange rate be affected in foreign exchange markets?

	Supply	Currency
(A)	Increase	Depreciate
(B)	Increase	Appreciate
(C)	No change	Appreciate
(D)	Decrease	Depreciate
(E)	Decrease	Appreciate

please take out your multiple choice practice; go to #55

Foreign Exchange (FOREX)- Questions

55. If country X imposes a tariff (tax on imported goods) on its imports, how will the supply of its currency and its exchange rate be affected in foreign exchange markets?

	Supply	Currency
(A)	Increase	Depreciate
(B)	Increase	Appreciate
(C)	No change	Appreciate
(D)	Decrease	Depreciate
(E)	Decrease	Appreciate

supply of the currency would decrease because country X's people would want more of their own money because foreign goods would be more expensive because of the tariff

Foreign Exchange (FOREX)- Questions

(FED)

29. When Country X's central bank engages in monetary policy actions that lead to a decrease in interest rates, the international value of Country X's currency and Country X's exports and imports will most likely change in which of the following ways?

	Value of the Currency	Exports	Imports
(A)	Increase	Increase	Increase
(B)	Increase	Increase	Decrease
(C)	Increase	Decrease	Decrease
(D)	Decrease	Increase	Decrease
(E)	Decrease	Increase	Increase

Foreign Exchange (FOREX)- Questions

(FED)

29. When Country X's central bank engages in monetary policy actions that lead to a decrease in interest rates, the international value of Country X's currency and Country X's exports and imports will most likely change in which of the following ways?

	Value of the Currency	Exports	Imports
(A)	Increase	Increase	Increase
(B)	Increase	Increase	Decrease
(C)	Increase	Decrease	Decrease
(D)	Decrease	Increase	Decrease
(E)	Decrease	Increase	Increase

the value would decrease because foreigners wouldn't want to invest with lower interest rates, exports would increase because country X's prices would decrease, and imports would decrease because country X can't afford to import more goods because their money is less valuable

Foreign Exchange (FOREX)- Questions

21. Suppose that Country A is experiencing high inflation (compared to) relative to Country B, which is enjoying steady growth with a stable price level. Which of the following would occur in the foreign exchange market?

(A) An increase in the demand for Country A's currency
(B) An increase in the supply of Country B's currency
(C) A decrease in the supply of Country A's currency
(D) A decrease in the demand for Country B's currency
(E) A depreciation of Country A's currency

Foreign Exchange (FOREX)- Questions

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(B) An increase in the supply of Country B's currency
(C) A decrease in the supply of Country A's currency
(D) A decrease in the demand for Country B's currency
(●) A depreciation of Country A's currency

this question deals with importing/ exporting goods, and since Country A is experiencing high inflation/increased price levels, Country B won't want to buy from this

Macroeconomics Do-Now

1. Assume that the United States economy is operating at full employment.

   (a) Using a correctly labeled graph of the long-run aggregate supply, short-run aggregate supply, and aggregate demand, show each of the following.

      (i) Current price level, labeled PL_1

      (ii) Current output level, labeled Y_1

   (b) Assume that a recession starts in the United States. Think about it's impact on interest rates.

   (c) Based on the real interest rate change identified in part (b),

      (i) will interest-sensitive expenditures increase, decrease, or remain unchanged?

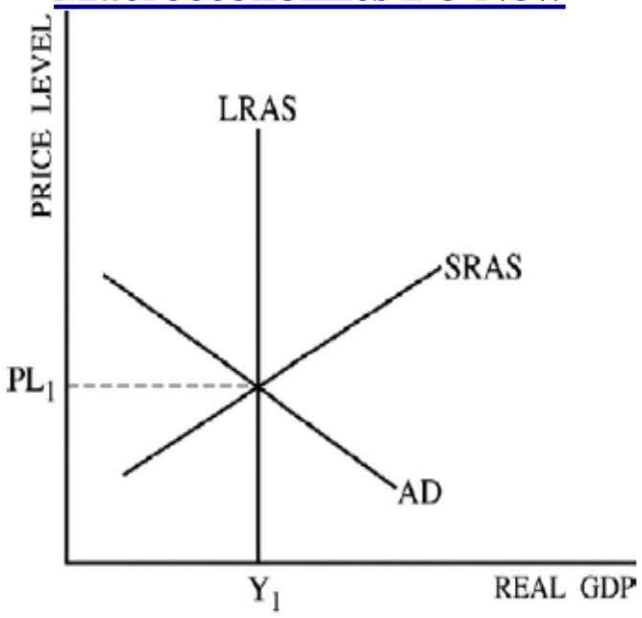
      (ii) what will happen to the rate of economic growth based on the information in (C) and (i)? Explain.

   (d) Assume that the real interest rate of the euro zone increases relative to the real interest rate of the United States. Draw a correctly labeled graph of the foreign exchange market for the euro and show the impact of the change in the real interest rate in the euro zone on each of the following.

      (i) Demand for the euro. Explain.

      (ii) Value of the euro relative to the United States dollar

Macroeconomics Do-Now



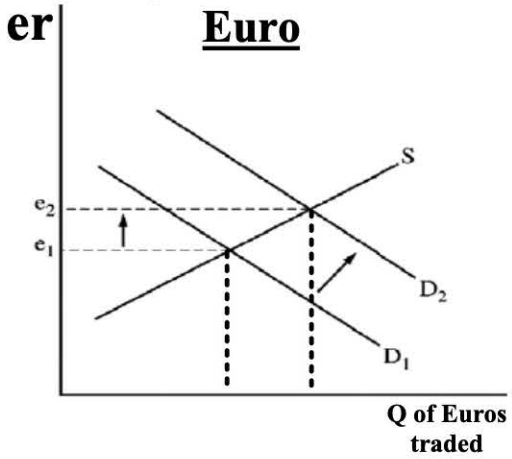
(a) 2 points:

- One point is earned for drawing a correctly labeled graph, showing AD, SRAS, and PL_1.
- One point is earned for drawing a vertical LRAS curve at Y_1 that is at the intersection of AD and SRAS.

Macroeconomics Do-Now

(c) 2 points:

- One point is earned for stating that interest-sensitive expenditures will increase.
- One point is earned for stating that the economic growth rate will increase because higher investment will increase capital formation.



(d) 3 points:

- One point is earned for drawing a correctly labeled graph of the foreign exchange market for the euro.
- One point is earned for shifting the demand curve to the right and showing an increase in the value of the euro.
- One point is earned for explaining that the demand for the euro increases because the higher real interest rate in the euro zone leads to higher returns for financial investments in the euro zone, attracting funds from the United States to the euro zone.

Macroeconomics Do-Now

3. Exchange rates and interest rates are important for macroeconomic decision making.

   (a) How does an increase in Japan's government budget deficit affect each of the following?

      (i) The real interest rate in the short run in Japan. Explain.

      (ii) Private domestic investment in plant and equipment in Japan

   (b) Draw a correctly labeled graph of the foreign exchange market for the euro, and show the effect of the change in the real interest rate in Japan from part (a)(i) on each of the following.

      (i) Supply of euros. Explain.

      (ii) Yen price of the euro

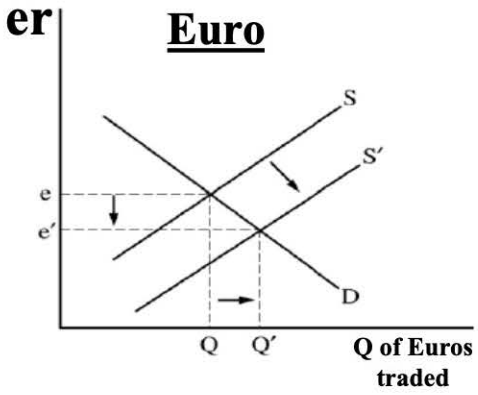
   (c) To reverse the change in the yen price of the euro identified in part (b)(ii), should the European Central Bank buy or sell euros in the foreign exchange market?

Macroeconomics Do-Now

6 points (2+3+1)

(a) 2 points:

- One point is earned for stating that the real interest rate in Japan will increase in the short run because the supply of loanable funds will decrease or the demand for loanable funds will increase.
- One point is earned for stating that private domestic investment in plant and equipment in Japan will decrease.



(b) 3 points:

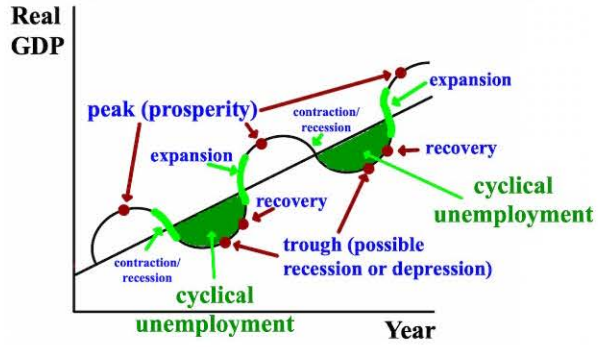
- One point is earned for drawing a correctly labeled graph of the foreign exchange market for the euro.
- One point is earned for showing that the supply curve for euros shifts to the right and for concluding that the yen price of the euro decreases.
- One point is earned for explaining that the European purchases of Japanese financial assets will increase due to the relatively higher rate of return in Japan.

(c) 1 point:

- One point is earned for stating that European Central Bank should buy euros.

Cyclical, Frictional, and Structural Unemployment

1. now we'll talk about about employment and unemployment
2. the **natural unemployment rate** (Yf) is the unemployment rate (about 3-5% in America) that exists when the economy is not in a recession or in an expansion and when real GDP is equal to potential GDP
3. an economy in long-run equilibrium leads potential GDP to be same as the real unemployment rate
4. an increase in aggregate demand (AD) does not impact the natural unemployment rate
5. the increase in unemployment above the natural rate during recessions is called **cyclical unemployment** (shaded green below) because it is related to the short-term cyclical functions in the economy
   A. increases or decreases in C, I, G, or X directly impacts cyclical unemployment



Cyclical, Frictional, & Structural Unemployment- Questions

25. When an economy is in equilibrium at potential gross domestic product, the actual unemployment rate is

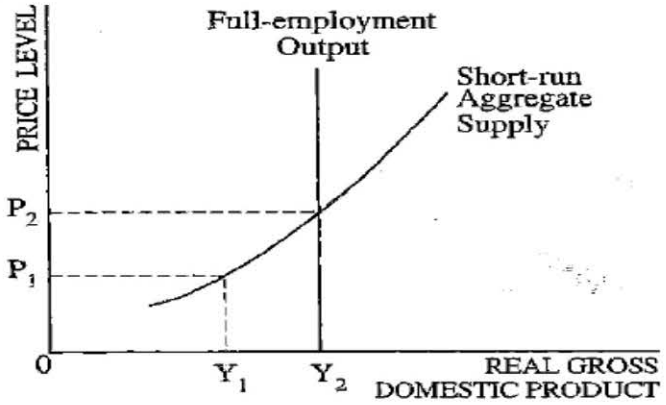
(A) equal to the cyclical rate
(B) greater than the natural rate
(C) less than the natural rate
(D) equal to the natural rate
(E) equal to zero

Cyclical, Frictional, & Structural Unemployment- Questions

25. When an economy is in equilibrium at potential gross domestic product, the actual unemployment rate is

(A) equal to the cyclical rate
(B) ~~greater~~ than the natural rate
(C) ~~less~~ than the natural rate
(D) equal to the natural rate ← definition
(E) equal to zero ← can never be this

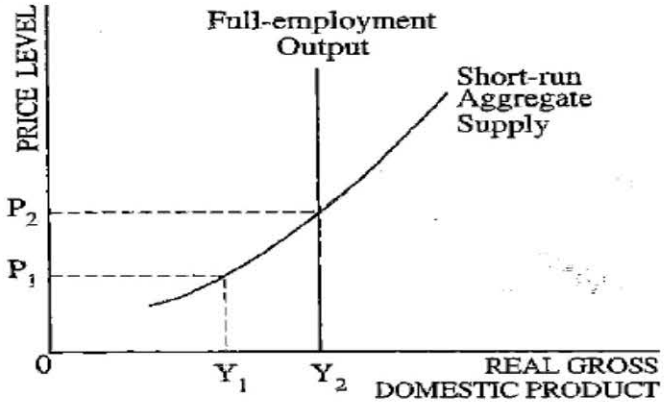
Cyclical, Frictional, & Structural Unemployment- Questions



53. The graph above shows the macroeconomic conditions of Wattsonia. Many economists estimate that the natural rate of unemployment is 6 percent. If this is true and the current rate of unemployment is 5.1 percent, in what range of real gross domestic product is the economy currently producing?

(A) Less than Y_1
(B) At Y_1
(C) At Y_2
(D) Greater than Y_1 and less than Y_2
(E) Greater than Y_2

Cyclical, Frictional, & Structural Unemployment- Questions



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(A) Less than Y_1
(B) At Y_1
(C) At Y_2
(D) Greater than Y_1 and less than Y_2
● Greater than Y_2

this would indicate an economy at higher than 6% unemployment (A,B, and D) or at 6% (C)

Macroeconomics Do-Now

1. Assume that the United States economy is currently operating below the full-employment level of real gross domestic product with a balanced budget.

   (a) Draw a correctly labeled graph of aggregate demand, short-run aggregate supply, and long-run aggregate supply, and show each of the following in the United States.

      (i) Current output and price level, labeled as Y_1 and PL_1, respectively

      (ii) Full-employment output, labeled as Y_f

   (b) The United States government increases spending on goods and services by $100 billion, which is financed by borrowing. How will the increase in government spending affect each of the following?

      (i) Cyclical unemployment

      (ii) The natural rate of unemployment

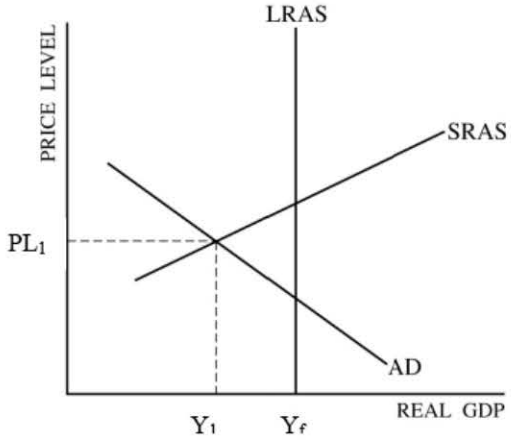
   ~~(c) If the marginal propensity to consume is equal to 0.75, calculate the maximum possible change in real gross domestic product that could result from the $100 billion increase in government spending.~~

   ~~(d) Assume that the government increases spending by $100 billion. Show the impact of the spending on the real interest rate and loanable funds. No numbers are needed.~~

   (e) Based on the real interest rate change in part (b), what is the effect on the long-run economic growth rate? Explain.

   (f) Now assume that instead of financing the $100 billion increase in government spending by borrowing, the United States government increases taxes by $100 billion. With this equal increase in government spending and taxes, will the real gross domestic product increase, decrease, or remain the same? Explain.

Macroeconomics Do-Now



(a) 2 points:

- One point is earned for drawing a correctly labeled graph showing an equilibrium with AD, SRAS, Y_1, and PL_1 labeled.
- One point is earned for drawing a vertical LRAS curve at Y_f to the right of the intersection of AD and SRAS.

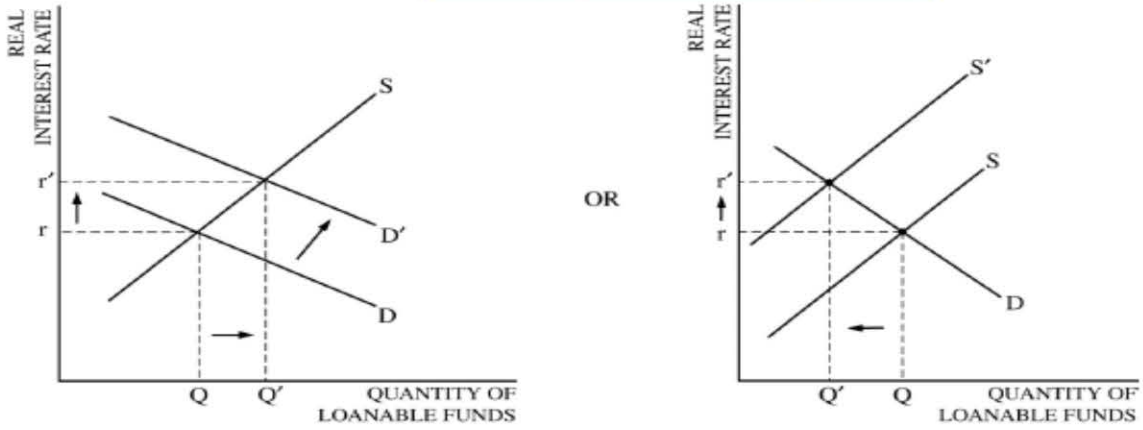
(b) 2 points:

- One point is earned for stating that cyclical unemployment will decrease.
- One point is earned for stating that the natural rate of unemployment will not change.

~~(c) 1 point~~

- ~~One point is earned for calculating the maximum change in real GDP:~~
  ~~Change in GDP = (1/0.25) X $100 billion = $400 billion~~

Macroeconomics Do-Now



(d) 2 points:

- One point is earned for drawing a correctly labeled loanable funds market graph.
- One point is earned for shifting the demand curve to the right (or shifting the supply curve to the left) and showing an increase in the real interest rate.

(e) 2 points:

- One point is earned for stating that the economic growth rate will fall.
- One point is earned for explaining that the higher real interest rate will slow down capital formation.

(f) 2 points:

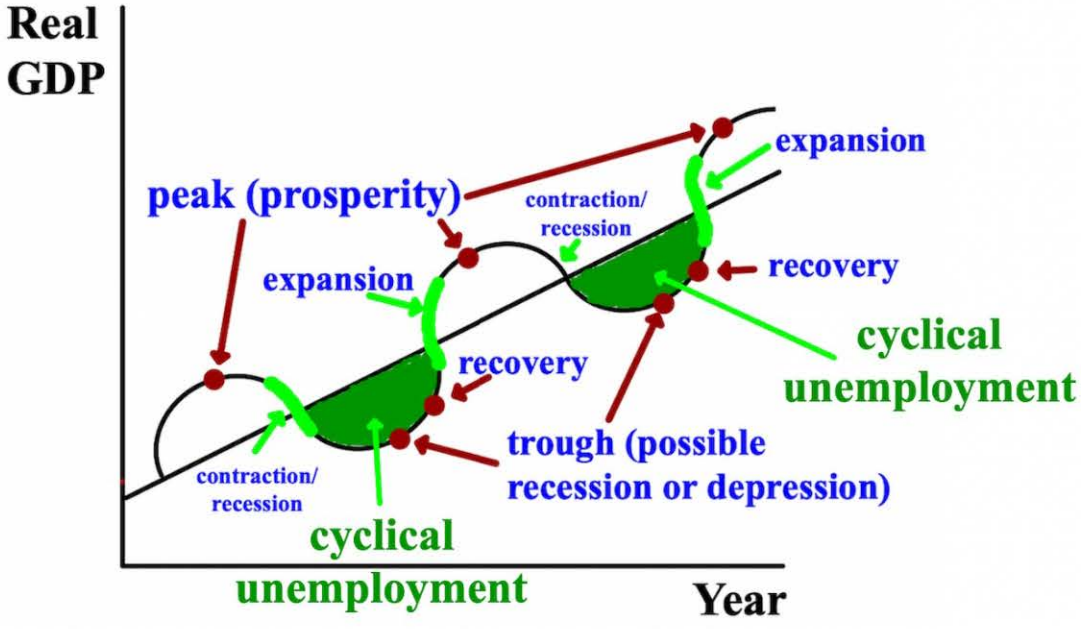
- One point is earned for stating that real gross domestic product will increase.
- One point is earned for explaining that the expansionary effect of the increase in government spending outweighs the contractionary effect of the increase in taxes of the same size. (Or students may explain by calculating the net increase in GDP, $100 billion, or stating the tax multiplier is smaller than the spending multiplier.)

Cyclical, Frictional, and Structural Unemployment (cont.)

1. the natural unemployment rate (Yf) is caused by a combination of **frictional unemployment** and **structural unemployment**
   A. frictional unemployment occurs when new workers enter the labor force and must look for work, or when workers change jobs for one reason or another, like quitting a job to get another one
      1. most frictional unemployment is short-lived
   B structural unemployment occurs if workers find that they have insufficient skills or find that their skills are no longer in demand as a result of technological change or a shift in people's tastes toward new products
2. frictional unemployment and structural unemployment are not constant and change over time

Cyclical, Frictional, and Structural Unemployment (cont.)

1. at full employment (Yf), frictional unemployment exists but not cyclical
2. economists feel that natural unemployment occurs whenever the operation of the overall economy is as close to normal in the sense that real GDP is near potential GDP



Cyclical, Frictional, & Structural Unemployment- Questions

29. Melanie quits her job to look for a better one that has opportunity for advancement. Melanie will be classified in which category of unemployment?

(A) Frictional
(B) Hidden
(C) Seasonal
(D) Structural
(E) Cyclical

Cyclical, Frictional, & Structural Unemployment- Questions

29. Melanie quits her job to look for a better one that has opportunity for advancement. Melanie will be classified in which category of unemployment?

(●) Frictional
(B) Hidden ← no such thing
(C) Seasonal ← the question says nothing about the time of year
(D) Structural ← Melanie's skills aren't in question
(E) Cyclical ← we don't have any information on the economy

Cyclical, Frictional, & Structural Unemployment- Questions

54. Which of the following best describes an economy at full employment?

(A) The rate of unemployment is zero.
(B) There is only structural and cyclical unemployment.
(C) There is only cyclical unemployment.
(D) There is cyclical, but not structural, unemployment.
(E) There is frictional, but not cyclical, unemployment.

Cyclical, Frictional, & Structural Unemployment- Questions

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(D) There is cyclical, but not structural, unemployment.
(●) There is frictional, but not cyclical, unemployment.

only in dream land

no cyclical occurring at that time

How is Unemployment Measured?

1. each month, the U.S. Census Bureau surveys households in the United States
2. the Census Bureau determines whether each person 16 years of age or over is employed or unemployed
3. **discouraged workers** are workers who have left the labor force after not being able to find a job
4. **part-time workers** are counted as employed
   A. the official definition of a part-time worker is one who works between one and 34 hours per week
5. the most comprehensive measure of labor input to the production of real GDP (Y) is the total number of hours worked by all workers, or **aggregate hours**

please take out your multiple choice practice; go to #55

How is Unemployment Measured?- Questions

55. If unemployed workers become discouraged and give up trying to find work, the number of workers employed and the unemployment rate would change in which of the following ways?

	Number of Workers Employed	Unemployment Rate
(A)	Decrease	Decrease
(B)	Decrease	Increase
(C)	Decrease	No change
(D)	No change	Decrease
(E)	No change	Increase

How is Unemployment Measured?- Questions

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(B)	Decrease	Increase
(C)	Decrease	No change
(D)	No change	Decrease
(E)	No change	Increase

the workers weren't working in the first place and they will no longer be considered part of the labor force

How is Unemployment Measured?- Questions

9. The official unemployment rate understates the unemployment level in the economy because the official unemployment rate

(A) ignores the duration of unemployment
(B) ignores underemployed and discouraged workers
(C) includes jobs created by the underground economy
(D) excludes all unemployed teenagers
(E) excludes frictionally unemployed workers

How is Unemployment Measured?- Questions

9. The official unemployment rate understates the unemployment level in the economy because the official unemployment rate

(A) ignores the duration of unemployment — not relevant

(B) ignores underemployed and discouraged workers

(C) includes jobs created by the underground economy — nope, these are excluded

(D) excludes all unemployed teenagers — as long as these people are looking for a job they *are* included

(E) excludes frictionally unemployed workers

Comparing Two Key Indicators

1. there are two key indicators of conditions in the economy
   A. one is the **unemployment rate** (the percentage of the labor force that is unemployed), which = the number of citizens unemployed / the number of citizens in the labor force x 100
      i. the **labor force** consists of those who are at least 16 and either working or looking for work
      ii. to be counted as unemployed, a person must be looking for work, but not have a job

macro formula #9

$$\frac{\text{the number of unemployed people}}{\text{the number of people in the labor force}} = \frac{10}{100} = .1 \times 100 = 10\% \text{ unemployment rate}$$

Date	Labor Force	Employed	Unem.	Working Age Pop.	Unempl. Rate?
11/2017	160.529.000	153,918,000	6,610,000	205,000,000	*4.1%*

$\frac{6,610,000}{160,529,000} = 0.041$ $\quad 0.041 \times 100 = 4.1\%$ unemployment

Macroeconomics Do-Now

Please do this:

1. **Compute country B's unemployment rate.: 160,000 employed and 40,000 unemployed but looking (16 or older). You can use your calculator for this.**

160,000 employed + 40,000 unemployed = 200,000 citizens in the country's labor force

40,000 unemployed / 200,000 citizens = 0.2 x 100 = 20% unemployment (leave this country!!)

Comparing Two Key Indicators- Questions

27. Which of the following individuals is considered officially unemployed?

(A) Chris, who has not worked for more than three years and has given up looking for work

(B) Kim, who is going to school full-time and is waiting until graduation before looking for a job

(C) Pat, who recently left a job to look for a different job in another town

(D) Leslie, who retired after turning 65 only five months ago

(E) Lee, who is working 20 hours per week and is seeking full-time employment

Comparing Two Key Indicators- Questions

27. Which of the following individuals is considered officially unemployed?

(A) Chris, who has not worked for more than three years and has given up looking for work

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Comparing Two Key Indicators- Questions

35. Following a decrease in aggregate demand, an increase in unemployment will result if

(A) prices increase and real wages decrease
(B) the aggregate supply curve is vertical
(C) prices and wages quickly adjust to equilibrium levels
(D) short-run aggregate supply also increases
(E) prices and nominal wages are slow to adjust in the short run

Comparing Two Key Indicators- Questions

35. Following a decrease in aggregate demand, an increase in unemployment will result if

(A) prices increase and real wages decrease

(B) the aggregate supply curve is vertical

(C) prices and wages quickly adjust to equilibrium levels

(D) short-run aggregate supply also increases

(E) prices and nominal wages are slow to adjust in the short run

if P is increasing then AD is increasing

if AS is vertical it is completely inelastic

AS would only increase if AD did

Comparing Two Key Indicators (cont.)

1. the second key indicator of conditions in the labor market is the **labor force participation rate** (the ratio of people in the labor force to the working-age population), which = the number of citizens in the labor force / the number of the working-age population x 100.

macro formula #10

$$\frac{\text{the number of citizens in the labor force}}{\text{the number of the working-age population}} = \frac{10}{100} = .1 \times 100 = 10\% \text{ labor force participation rate}$$

Date	Labor Force	Employed	Unem.	Age Pop.	Rate
11/2017-	160,529,000	153,918,000	6,610,000	205,000,000	4.1%

$\frac{160,529,000}{205,000,000} = 0.783$ → 0.783 x 100 = 78.3% labor force participation rate

Comparing Two Key Indicators- Questions

41. Assume an economy is in a long-run equilibrium. Following a decrease in aggregate demand, which of the following is true in the short run?

(A) The unemployment rate is equal to the natural rate of unemployment, and the rate of inflation is rising.
(B) The unemployment rate is greater than the natural rate of unemployment, and the rate of inflation is rising.
(C) The unemployment rate is greater than the natural rate of unemployment, and the rate of inflation is declining.
(D) The unemployment rate is lower than the natural rate of unemployment, and the rate of inflation is declining.
(E) The unemployment rate is lower than the natural rate of unemployment, and the unemployment rate is rising.

Comparing Two Key Indicators- Questions

41. Assume an economy is in a long-run equilibrium. Following a decrease in aggregate demand, which of the following is true in the short run?

(A) The unemployment rate is equal to the natural rate of unemployment, and the rate of inflation is rising.

(B) The unemployment rate is greater than the natural rate of unemployment, and the rate of inflation is rising.

(C) The unemployment rate is greater than the natural rate of unemployment, and the rate of inflation is declining.

(D) The unemployment rate is lower than the natural rate of unemployment, and the rate of inflation is declining.

(E) The unemployment rate is lower than the natural rate of unemployment, and the unemployment rate is rising.

AD has decreased so unemployment increases and prices decrease to increase AD

Comparing Two Key Indicators- Questions

47. Which of the following would be the initial impact on an economy if wages were to increase more than worker productivity?

(A) There would be no initial impact, since neither the aggregate supply curve nor the aggregate demand curve would shift.
(B) Employment would increase, causing a rightward shift in the aggregate demand curve.
(C) The price level would increase, resulting in excess aggregate supply.
(D) The short-run aggregate supply curve would shift to the left, increasing the price level.
(E) The aggregate demand curve would shift to the left, increasing the price level.

Comparing Two Key Indicators- Questions

47. Which of the following would be the initial impact on an economy if wages were to increase more than worker productivity?

(A) There would be no initial impact, since neither the aggregate supply curve nor the aggregate demand curve would shift.
← not possible; *something* would happen

(B) Employment would increase, causing a rightward shift in the aggregate demand curve.
← an increase in AD would happen 1st, not 2nd

(C) The price level would increase, resulting in excess aggregate supply.
← an increase in AD would have had to occurred first

(D) The short-run aggregate supply curve would shift to the left, increasing the price level.

(E) The aggregate demand curve would shift to the left, increasing the price level.
← nope; if anything, AD would shift to the right because of the increase in the money supply