

ECO 212 - Macroeconomics

Yellow Pages

ANSWERS

Unit 2

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Kitchen sink economics

http://money.cnn.com/2003/06/27/news/economy/secondhalf_economy/index.htm Policy makers have thrown all but the kitchen sink at the economy. Will it help in the second half?

July 3, 2003: 10:23 AM EDT

By Mark Gongloff, CNN/Money Staff Writer

NEW YORK (CNN/Money) - Will the "kitchen sink" approach really fix the economy?

Policy makers in the federal government and the Federal Reserve have thrown everything but the kitchen sink at the <u>ailing economy</u>, and most economists are saying their efforts will spur relatively robust economic growth in the second half.

After growing at a paltry 1.4 percent rate in the first quarter and probably not much better in the second, gross domestic product (GDP) is expected to grow at a rate of 3.4 percent in both the third and fourth quarters, according to the Philadelphia Fed's latest survey of professional forecasters.

Of course, economic forecasters have often been overly optimistic since early 2001, when a recession/jobless recovery cycle began, and have been forced many times to ratchet down their expectations.

"All the good growth is in the forecasts, in the idea that financial conditions have eased," said Rory Robertson, interest-rate strategist at Macquarie Equities (USA). "But we've seen that doesn't always turn into actual good growth."

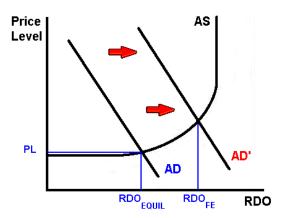
Still, Robertson and other economists have a little more reason to hope that this time might be different, thanks to a combination of:

- the recently-signed <u>tax-cut plan</u>, which will give rebate checks to families with children in late summer, right in time for back-to-school spending;
- <u>improving consumer confidence</u> -- critical, since consumer spending makes up more than two-thirds of the economy;
- the Fed's 13th rate cut of the cycle, taking the fed funds rate to 45-year lows;
- <u>a weakened dollar</u>, which should help make U.S. exports more competitive overseas; and a healthier stock market, making consumers feel wealthier.

PROBLEM: the economy has slow growth and probably some unemployment

Determinants mentioned in the article:

- Decrease taxes to increase AD
- Improving consumer confidence will increase consumption and increase AD
- The Fed is increasing the money supply (MS) which will decrease interest rates which will increase investment (I) and increase AD
- A weak dollar will increase exports (X) and increase AD



If AD increases then real domestic output will increase resulting in economic growth (achieving the potential) and decreasing unemployment.

But a higher price level will create more inflation.

August 23, 2001: 10:37 a.m. ET

Europe's biggest economy grinds to a halt in Q2; ECB may cut rates

LONDON (CNN) - Confirmation that German economic growth has stalled <u>could give euro-zone monetary</u> <u>chiefs the excuse to cut interest rates next week.</u>

Growth in Europe's biggest economy ground to a halt in the second quarter, official figures from Germany's Federal Statistics Office showed on Thursday, as most economists had predicted.

The numbers reflect output and <u>investment cutbacks</u> by companies suffering from excess stock amid a global economic slowdown. The construction industry came under pressure as building work on factories and offices dwindled.

German Finance Minister Hans Eichel refused to be downcast, however, telling ZDF television there was "no reason for pessimism." Referring to <u>tax cuts</u> that came into force in January, Eichel forecast an upturn in demand later in 2001.

"We see that the inflation rate is going down, so that there is a chance that tax reform with its enormous relief in the second half of the year will begin to work," Eichel said.

But that isn't likely to deliver a revival in the economy until the end of the year, economists warned

PROBLEM: the economy is has slow growth and probably some unemployment

Determinants mentioned in the article:

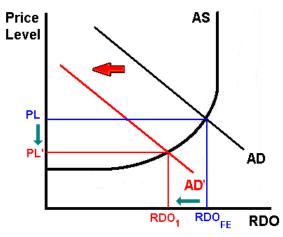
Why did the economy slow? Investment decreased causing AD to decrease.

Result:

lower RDO and therefore higher unemployment and less economic growth.

Also a lower price level indicates less inflation

Graph:



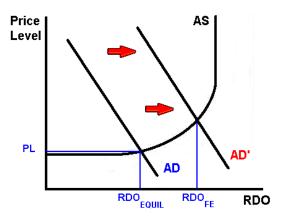
Government reaction:

Monetary chiefs may increase the money supply causing lower inter rates and therefore more investment. This will increase ${\bf AD}$.

Also, tax cuts will increase consumption and increase AD

The results of this government action will be an increase in RDO and therefore less unemployment and more economic growth, but an increase in the price level may cause some inflation.

Graph:



The economy's big surprise

Some analysts think 3Q GDP grew at the strongest pace in four years -- but jobs may stay scarce.

October 16, 2003: 5:42 PM EDT

By Mark Gongloff, CNN/Money Staff Writer

http://money.cnn.com/2003/10/16/news/economy/gdp/index.htm

NEW YORK (CNN/Money) - Economists have been jacking up their forecasts for third-quarter economic growth, and many now say it may be the strongest number in nearly four years.

The problem is that might not translate into strong jobs growth anytime soon.

Economists, on average, think gross domestic product (GDP) grew at a 5 percent rate in the quarter, according to the latest surveys by Blue Chip Economic Indicators and the *Wall Street Journal*. Such a rate would be pretty decent -- the fastest pace since the first quarter of 2002, in fact.

But recent reports on international trade and consumer spending have many economists looking for something even faster -- say 6 percent, or maybe even 7 percent, strength not seen since GDP grew at a 7.1 percent pace in the fourth quarter of 1999. GDP is the broadest measure of the nation's economy.

"We are looking at a growth rate somewhere in between 6.5 percent and 7 percent at this point," said Oscar Gonzalez, economist at John Hancock Financial Services in Boston. "I think it's really going to be up there."

The Commerce Department's report last week of a surprising August improvement in the international trade balance was the first report to send economists scrambling for their calculators. Since the trade gap subtracts from overall GDP, the surprise narrowing of that gap in August should help third-quarter GDP.

The department helped out again this week, when it revised <u>upward retail sales</u> figures for July and August. Since consumer spending makes up more than two-thirds of total GDP, the revised data had many economists more firmly convinced third-quarter GDP could be big.

"Seven percent is not an unreasonable estimate for GDP growth," said Kevin Logan, chief market economist at Dresdner Kleinwort Wasserstein. "Retail sales were strong, especially with the revisions. Consumer spending possibly grew 12 percent at an annual rate. That's really charging right along."

What is happening?

Economic growth is increasing,

Determinants mentioned that caused this:

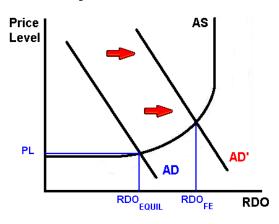
improvement in the international trade balance is an increase in net exports that will increase AD

upward retail sales is an increase in consumption which will increase AD

Graph and results:

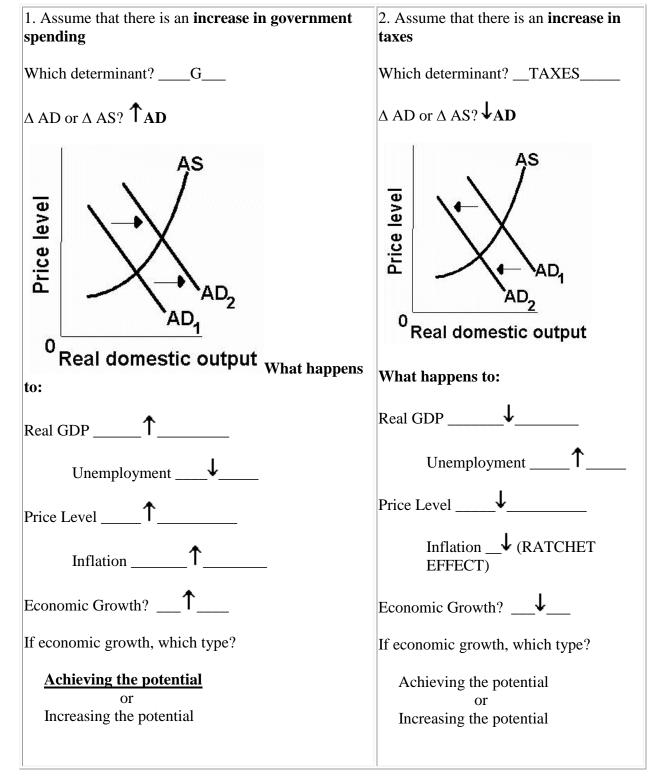
The result will be an increase in RDO and therefore less unemployment and more economic growth, but an increase in the price level may cause some inflation.

Graph:



Macroeconomics: AD / AS REVIEW -- ANSWERS

Use the graphs and the other information provided to answer the questions. BEFORE answering the questions DRAW the appropriate shifts on the graphs and use the graphs to FIND the answers.



3. Assume that there is reduced gov't red tape	4. in
Which determinant? _RED TAPE	W
Δ AD or Δ AS? \uparrow AS	Δ
AS ₁ AS ₂ AD	2
Real domestic output	
What happens to:	W
Real GDP	Re
Unemployment↓	
Price Level	Pr
Inflation	
Economic Growth?	Ес

If economic growth, which type?

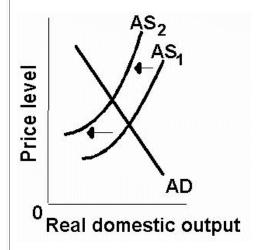
Achieving the potential or **Increasing the potential**

4. Assume that there is an increase in business investment
Which determinant?I
\triangle AD or \triangle AS? \uparrow AD
AS AS AD AD AD Real domestic output
What happens to:
Real GDP
Unemployment↓
Price Level
Inflation
Economic Growth?
If economic growth, which type?
Achieving the potential or Increasing the potential

5. Assume that there is an **increase in oil prices due to war**

Which determinant? PRICE OF RESOURCES

 \triangle AD or \triangle AS? \downarrow AS



What happens to:

Real GDP ____↓

Inflation ______**↑**_____

Economic Growth? __↓___

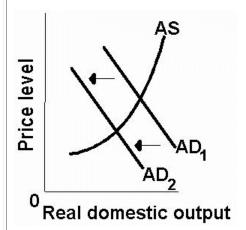
If economic growth, which type?

Achieving the potential or Increasing the potential

6. Assume that the Fed decreases the money supply

Which determinant? ____MS_____

 \triangle AD or \triangle AS? $\mathbf{\downarrow}$ AD



What happens to:

Real GDP ____

Price Level __↓ (RATCHET EFFECT)__

Inflation _____

Economic Growth? _____

If economic growth, which type?

Achieving the potential or

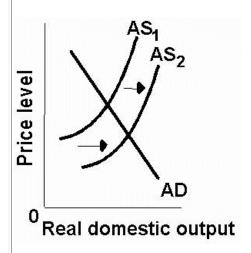
Increasing the potential

7. Assume that there is new technology that reduces electricity costs Which determinant? PRICE OF RESOURCES AD or Δ AS? AS	8. Assume that exports increase Which determinant? Xn Δ AD or Δ AS? ↑AD
AS ₁ AS ₂ AD Real domestic output	ALIC PAD AS AD
What happens to:	What happens to:
Real GDP	Real GDP
Unemployment↓	Unemployment↓
Price Level	Price Level
Inflation	Inflation
Economic Growth?	Economic Growth?
If economic growth, which type?	If economic growth, which type?
Achieving the potential or Increasing the potential	Achieving the potential or Increasing the potential

9. Assume that there is a **decrease in marginal** tax rates which increases labor productivity

Which determinant? **_PRODUCTIVITY**__

 Δ AD or Δ AS? \uparrow AS



What happens to:

Unemployment _____

Price Level ____↓____

Inflation $_$

Economic Growth? ____↑___

If economic growth, which type?

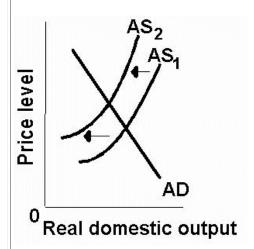
Achieving the potential

Increasing the potential

10. Assume that there is an **poor harvests** world wide which increases resource prices

Which determinant? **_PRICE OF RESOURCES**

 \triangle AD or \triangle AS? \downarrow AS



What happens to:

Real GDP ____↓___

Economic Growth? ____

If economic growth, which type?

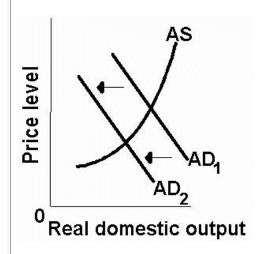
Achieving the potential or Increasing the potential

11. Assume that there is a rise in the foreign exchange value of the dollar	12. Assume that there is an increase in labor training and education		
Which determinant?Xn	Which determinant?PRODUCTIVITY		
\triangle AD or \triangle AS? \checkmark AD	\triangle AD or \triangle AS? \uparrow AS		
AS AD AD AD Real domestic output	AD Real domestic output		
What happens to:	What happens to:		
Real GDP	Real GDP		
Unemployment	Unemployment		
Price Level	Price Level		
Inflation	Inflation		
Economic Growth?	Economic Growth?		
If economic growth, which type?	If economic growth, which type?		
Achieving the potential or Increasing the potential	Achieving the potential or Increasing the potential		

13. Assume that there is an **increase in consumer debt**

Which determinant? ___**↓**C_____

 \triangle AD or \triangle AS? \downarrow **AD**



What happens to:

Real GDP __↓____

Price Level _↓ (RATCHET EFFECT)_

Inflation $_$

Economic Growth? ____

If economic growth, which type?

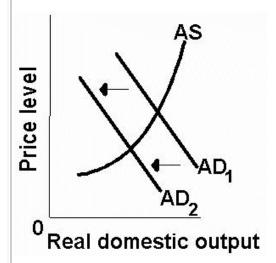
Achieving the potential or

Increasing the potential

14. Assume that there is a **decrease in consumer confidence**

Which determinant? ____\underline C_____

 \triangle AD or \triangle AS? \downarrow **AD**



What happens to:

Real GDP ___↓____

Price Level _↓ (RATCHET EFFECT)_

Inflation $__$

Economic Growth? _____

If economic growth, which type?

Achieving the potential or Increasing the potential

15. Assume that there is an **recessions in Europe**, Japan, and Canada Which determinant? $_$ \downarrow \mathbf{Xn} \triangle AD or \triangle AS? \downarrow **AD** Price level Real domestic output What happens to: Real GDP ____↓____ Unemployment ____**↑**_____ Price Level _↓ (RATCHET EFFECT)_ Inflation $__$ Economic Growth? ____

If economic growth, which type?

Achieving the potential

Increasing the potential

16. Assume that there are discoveries of new oil fields			
Which determinant? _PRICE OF RES			
Δ AD or Δ AS? \uparrow AS			
AS ₁ AS ₂ AD			
Real domestic output			
What happens to:			
Real GDP			
Unemployment			
Price Level			
Inflation			

If economic growth, which type?

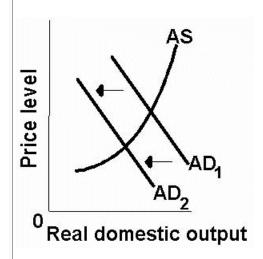
Achieving the potential

Increasing the potential

17. Assume that there is an increase in interest rates not caused by price level changes

Which determinant? **__↓MS**_____

 \triangle AD or \triangle AS? \bigvee AD



What happens to:

Real GDP _↓____

Price Level _↓ (RATCHET EFFECT)_

Inflation ______

Economic Growth? _____

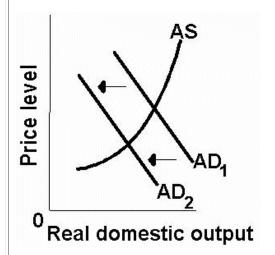
If economic growth, which type?

Achieving the potential or Increasing the potential

18. Assume that there is a **decrease in the amount of money in circulation**

Which determinant? ____**\dagger**MS______

 \triangle AD or \triangle AS? \downarrow **AD**



What happens to:

Real GDP ____

Price Level _↓ (RATCHET EFFECT)_

Inflation $__lue$

Economic Growth? ___

If economic growth, which type?

Achieving the potential or Increasing the potential

19. Assume that there is an international agreement to make businesses reduce pollution
Which determinant? _more government regulation (red tape) △ AD or △ AS? ↓AS
AS ₂ AS ₁ AD
Real domestic output
What happens to:
Real GDP↓
Unemployment
Price Level
Inflation
Economic Growth?
If economic growth, which type?
Achieving the potential or

Increasing the potential

20. Assume that there is an **more** competition due to fewer trade restrictions Which determinant? _increase in productivity_ \triangle AD or \triangle AS? \uparrow AS Price level Real domestic output What happens to: Price Level _____ Inflation $_$ If economic growth, which type?

Achieving the potential

Increasing the potential

ANSWERS - Chapter 6 – Introduction to Macroeconomics – Quick Quiz

- 1. The term "recession" describes a situation where:
- 1. inflation rates exceed normal levels.

2. output and living standards decline.

- 3. an economy's ability to produce is destroyed.
- 4. government takes a less active role in economic matters.
- 2. Why are economists concerned about inflation?
- 1. Inflation generally causes unemployment rates to rise.
- 2. Real GDP is necessarily falling when there is inflation.

3. Inflation lowers the standard of living for people whose income does not increase as fast as the price level.

- 4. Inflation increases the value of peoples' saving and encourages overspending on goods and services.
- 3. Which of the following is an example of economic investment?
- 1. Volvo buys an old factory building from General Motors.

2. Nike buys a new machine that increases shoe production.

- 3. Bill Gates buys shares of stock in IBM.
- 4. Warren Buffet buys U.S. savings bonds.
- 4. If an economy wants to increase its current level of investment, it must:
- 1. sacrifice future consumption.
- 2. print more money.
- 3. offer more stocks and bonds to financial investors.

4. sacrifice current consumption.

ANSWERS - Chapter 12 – Aggregate Demand and Aggregate Supply – Quick Quiz AGGREGATE DEMAND

- 1. Other things equal, a decrease in the real interest rate will:
- 1. expand investment and shift the AD curve to the left.

2. expand investment and shift the AD curve to the right.

- 3. reduce investment and shift the AD curve to the left.
- 4. reduce investment and shift the AD curve to the right.
- 2. Which of the following would most likely shift the aggregate demand curve to the right?

1. An increase in stock prices that increases consumer wealth.

- 2. Increased fear that a recession will cause workers to lose their jobs.
- 3. An increase in personal income tax rates.
- 4. A reduction in household borrowing because of tighter lending practices.
- 3. Which of the following would most likely reduce aggregate demand (shift the AD curve to the left)?
- 1. A reduced amount of excess capacity.
- 2. Increased government spending on military equipment.

3. An appreciation of the U.S. dollar.

- 4. Increased consumer optimism regarding future economic conditions.
- 4. In an effort to avoid recession, the government implements a tax rebate program, effectively cutting taxes for households. We would expect this to:
- 1. affect neither aggregate supply nor aggregate demand.

2. increase aggregate demand.

- 3. reduce aggregate demand.
- 4. reduce aggregate supply.

ANSWERS - Chapter 12 – Aggregate Demand and Aggregate Supply – Quick Quiz AGGREGATE SUPPLY

- 1. The aggregate supply curve (short-run):
- 1. graphs as a horizontal line.

2. is steeper above the full-employment output than below it.

- 3. slopes downward and to the right.
- D. presumes that changes in wages and other resource prices match changes in the price level.
- 2. The aggregate supply curve (short-run) is upsloping because:
- 1. wages and other resource prices match changes in the price level.
- 2. the price level is flexible upward but inflexible downward.

3. per-unit production costs rise as the economy moves toward and beyond its fullemployment real output.

- 4. wages and other resource prices are flexible upward but inflexible downward.
- 3. Other things equal, appreciation of the dollar:
- 1. increases aggregate demand in the United States and may increase aggregate supply by reducing the prices of imported resources.
- 2. increases aggregate demand in the United States and may decrease aggregate supply by reducing the prices of imported resources.

3. decreases aggregate demand in the United States and may increase aggregate supply by reducing the prices of imported resources.

- 4. decreases aggregate demand in the United States and may reduce aggregate supply by increasing the prices of imported resources.
- 4. The economy's long-run aggregate supply curve:
- 1. slopes upward and to the right.

2. is vertical.

- 3. is horizontal.
- 4. slopes downward and to the right.
- 5. Graphically, cost-push inflation is shown as a:
- 1. leftward shift of the AD curve.
- 2. rightward shift of the AS curve.

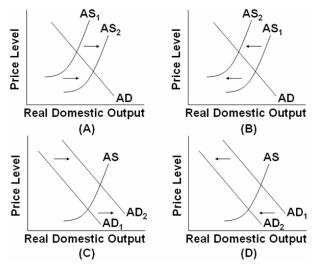
3. leftward shift of AS curve.

4. rightward shift of the AD curve.

ANSWERS - Chapter 12 – Aggregate Demand and Aggregate Supply – Quick Quiz EQUILIBRIUM and CHANGES in AD and AS

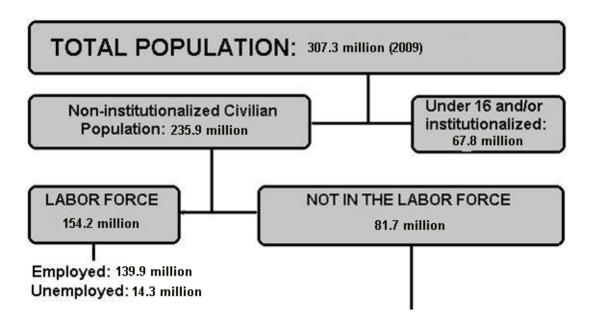
Amount of Real	Price Level	Amount of Real
Output Demanded	(Index Value)	Output Supplied
\$200	300	\$500
300	250	450
400	200	400
500	150	300
600	100	200

- 1. Refer to the above data. The equilibrium price level will be:
- 1. 150.
- <u>2. 200.</u>
- 3. 250.
- 4.300.



- 2. Which of the above diagrams best portrays the effects of an increase in resource productivity?
- <u>1. A</u>
- 2. B 3. C
- 4. D
- 3. Which of the above diagrams best portrays the effects of a decrease in the availability of key natural resources?
- 1. A
- <u>2. B</u>
- 3. C
- 4. D

 4. Which of the above diagrams best portrays the effects of an increase in foreign spending on U.S. products? 1. A 2. B 3. C D. D
 5. Which of the above diagrams best portrays the effects of an increase in consumer spending? 1. A 2. B 3. C 4. D
6. Which of the above diagrams best portrays an improvement in expected rates of return on investment? 1. A 2. B 3. C D. D
7. Which of the above diagrams best portrays the effects of a substantial reduction in government spending? 1. A 2. B 3. C 4. D
8. Which of the above diagrams best portrays the effects of a dramatic increase in energy prices? 1. A 2. B 3. C 4. D



"Employed" includes:

- part-time (at least 1 hour a week for pay)
- 2. underemployed

Not in the labor force:

- Students not working or looking
- Retired not working or looking
- Institutionalized
- Homemakers "working" and not looking
- Underground economy working but not counted
- Discouraged workers

THE UNEMPLOYMENT RATE

1. In the table below are statistics showing the labor force and total employment during year 1 and year 5. Make the computations necessary to complete the table. (Number of persons is in thousands.)

	Year 1	Year 5
Labor force	95,450	108,250
Employed	90,325	100,830
Unemployed	_5125_	_7420_
Unemployment rate	5.37%	6.85%

(a) How is it possible that *both* employment and unemployment increased?

The labor force increased more than employment increased.

(b) Would you say that year 5 was a year of full employment?

No, the unemployment rate of 6.8% is greater than the full employment rate of 5-5.5%.

(c) Why is the task of maintaining full employment over the years more than just a problem of finding jobs for those who happen to be unemployed at any given time?

The number of people looking for work expands.

- 2. Use the following data to calculate:
 - (a) the size of the labor force and
 - (b) the official unemployment rate.

Total population = 1,500;

not in labor force = **810** (**includes** population under age 16 and institutionalized);

unemployed = 69;

workers with part-time jobs who are looking for full-time jobs = 30.

labor force =
$$1500 - (810) = 690$$

UE rate =
$$69 / 690 = 10\%$$

3. What are two criticisms of the unemployment rate? How do these criticisms relate to the overstating or understating of the unemployment rate?

Part-time workers are counted as employed. This will UNDERSTATE the actual unemployment.

Discouraged workers are not included in the labor force. This will UNDERSTATE the actual

QUICK QUIZ - What Is Unemployment?

- 1. A nation has a population of 260 million people. Of these, 50 million are retired, in the military, or in institutions. There are 188 million who are employed and 12 million who are unemployed. What is the unemployment rate?
 - 1.4 percent

2. 6 percent

- 3.9 percent
- 4. 27 percent
- **2.** In calculating the unemployment rate, "discouraged" workers who are not actively seeking employment are:

1. excluded.

- 2. included.
- 3. treated the same as part-time workers.
- 4. used to determine the size of the labor force.
- **3.** In calculating the unemployment rate, part-time workers are:
 - 1. counted as unemployed.

2. counted as employed.

- 3. used to determine the size of the labor force, but not the unemployment rate.
- 4. treated the same as "discouraged" workers who are not actively seeking employment.
- **4.** Official unemployment rate statistics may:
 - 1. overstate the amount of unemployment by including part-time workers in the calculations.
 - 2. understate the amount of unemployment by excluding part-time workers in the calculations.
 - 3. overstate the amount of unemployment because of the presence of "discouraged" workers who are not actively seeking employment.
 - 4. understate the amount of unemployment because of the presence of "discouraged" workers who are not actively seeking employment.

QUICK QUIZ - What Is Full Employment?

- 3 Kevin has lost his job in an automobile plant because of the use of robots for welding on the assembly line. Kevin plans to go to technical school to learn how to repair microcomputers. The type of unemployment Kevin is faced with is:
 - 1. cyclical.
 - 2. frictional.
 - 3. structural.
 - 4. natural.
- **2.** At the full-employment unemployment rate there is only:
 - 1. cyclical and frictional unemployment.
 - 2. frictional and structural unemployment.
 - 3. demand-deficient unemployment.
 - 4. "discouraged workers" unemployment.
- **3.** The full-employment rate of unemployment is also called the:
 - 1. potential rate of unemployment.
 - 2. cyclical rate of unemployment.
 - 3. frictional rate of unemployment.
 - <u>4. natural rate of unemployment.</u>
- **4.** One reason why economists argue that the full-employment unemployment rate was higher in the 1980s than in the 1960s is that:
 - 1. smaller numbers of women and young workers entered the labor force in the 1980s.
 - 2. larger numbers of white male workers have entered the labor force in the 1980s.
 - 3. unemployment compensation was increased in terms of the number of workers covered and the size of benefits over this time period.
 - 4. substantial decreases occurred in the minimum wage over this time period.

ANSWERS - Chapter 9 – Unemployment and Inflation – Quick Quiz TYPES OF UNEMPLOYMENT

- 1. When the U.S. economy has achieved full employment, the unemployment rate is between:
- 1. 7 percent.

2. 5 percent.

- 3. 3 percent.
- 4. 1 percent.
- 2. Which of the following constitute the types of unemployment occur at the natural rate of unemployment?
- 1. frictional and cyclical unemployment.

2. structural and frictional unemployment.

- 3. cyclical and structural unemployment.
- 4. frictional, structural, and cyclical unemployment.
- 3. Assume that Kyle is temporarily unemployed because he has voluntarily quit his job with company A and will begin a better job next week with company B. Kyle will be considered as:
- 1. cyclically unemployed.

2. frictionally unemployed.

- 3. secularly unemployed.
- 4. employed.
- 4. Susie has lost her job in a Vermont textile plant because of import competition. She intends to take a short course in electronics and move to Oregon where she anticipates that a new job will be available. We can say that Susie is faced with:
- 1. secular unemployment.
- 2. cyclical unemployment.

3. structural unemployment.

- 4. frictional unemployment.
- 5. The type of unemployment associated with recessions is called:
- 1. frictional unemployment.
- 2. structural unemployment.

3. cyclical unemployment.

4. seasonal unemployment.

ANSWERS - Chapter 9 – Unemployment and Inflation – Quick Quiz INFLATION

1. If the Consumer Price Index rises from 300 to 333 in a particular year, the rate of inflation in that year is:

1. 11 percent.

- 2. 33 percent.
- 3. 91 percent.
- 4. 10 percent.
- 2. Demand-pull inflation:
- 1. occurs when prices of resources rise, pushing up costs and the price level.

2. occurs when total spending exceeds the economy's ability to provide output at the existing price level.

- 3. occurs only when the economy has reached its absolute production capacity.
- 4. is also called cost-push inflation.
- 3. Inflation initiated by increases in wages or other resource prices is labeled:
- 1. demand-pull inflation.
- 2. demand-push inflation.

3. cost-push inflation.

- D. cost-pull inflation.
- 4. Cost-of-living adjustment clauses (COLAs):
- 1. invalidate the "rule of 70."
- 2. apply only to demand-pull inflation.
- 3. increase the gap between nominal and real income.

4. tie wage increases to changes in the price level.

5. Which of the following statements is *correct?* Unanticipated inflation:

1. arbitrarily "taxes" fixed-income groups.

- 2. increases the real value of savings.
- 3. increases the purchasing power of the dollar.
- 4. benefits creditors at the expense of debtors.

ANSWERS - Chapter 7 – Measuring the Economy – Quick Quiz DEFINING GDP

- 1. GDP is:
- 1. the monetary value of all goods and services (final, intermediate, and non-market) produced in a given year.
- 2. total resource income less taxes, saving, and spending on exports.
- 3. the economic value of all economic resources used in the production of a year's output.

4. the monetary value of all final goods and services produced within a nation in a specific year.

- 2. Final goods and services refer to:
- 1. goods and services that are unsold and therefore added to inventories.
- 2. goods and services whose value has been adjusted for changes in the price level.

3. goods and services purchased by ultimate users, rather than for resale or further processing.

- 4. the excess of U.S. exports over U.S. imports.
- 3. Tom Smith grows tomatoes for home consumption. This activity is:
- 1. excluded from GDP in order to avoid double counting.
- 2. excluded from GDP because an intermediate good is involved.

3. excluded from GDP because no market transaction occurs.

- 4. included in GDP because it reflects production.
- 4. Which of the following transactions would be included in GDP?
- 1. Mary buys a used book for \$5 at a garage sale.
- 2. Nick buys \$5000 worth of stock in Microsoft.
- 3. Olivia receives a tax refund of \$500.

4. Peter buys a newly constructed house.

- 5. Gross investment refers to:
- 1. private investment minus public investment.

2. net investment plus investment in replacement capital.

- 3. net investment after it has been "inflated" for changes in the price level.
- 4. net investment plus net exports.
- 6. Which of the following is *not* economic investment?
- 1. the purchase of a drill press by the Ajax Manufacturing Company

2. the purchase of 100 shares of AT&T by a retired business executive

- 3. construction of a suburban housing project
- 4. the piling up of inventories on a grocer's shelf

1. DEFINITION OF GDP

Which of the following are included and which are excluded in calculating this year's GDP? Explain in each instance.

- (a) A monthly scholarship check received by an economics student
- (b) The purchase of a new truck by a trucking company
- (c) Government purchase of missiles from a private business
- (d) The purchase of a used tractor by a farmer
- (e) The value of the purchase of shares of Microsoft by an individual
- (f) Social Security checks received by a retired person
- (g) An increase in business inventories
- (h) The income of a tax accountant working for a business
- (i) Income received from interest on a corporate bond
- (j) The cashing in of a U.S. savings bond
- (a) Scholarships are not included in GDP. They are viewed as financial transactions and would be either a public or private transfer payment depending on the source of funds. They are awards for past performance and would not be included in current production. They don't represent income earned by providing a productive resource as defined in the GDP accounts.
- (b) The truck is included because it represents investment. It is a final good that was produced in the current year.
- (c) The missile purchase is included as part of government spending on goods and services.
- (d) The used tractor is not included because it was counted when it was new.
- (e) The value of a stock purchase is not included because it is just a swap of paper assets.
- (f) A Social Security payment is not included because it is a transfer payment, not payment for current productive services.
- (g) An increase in business inventories is included as part of business investment.
- (h) The accountant's income is included because it is payment for productive services (accounting).
- (i) The income from a corporate bond is included because it is payment for use of capital resources during that year.

2. GDP AND SOCIAL WELFARE

GDP is often used as a measure of Economic Well-Being in a country

a. non-market transactions are not included in GDP

Therefore does GDP <u>UNDERSTATE</u> or OVERSTATE society's actual economic well-being?

b. leisure increases the standard of living but it isn't counted

Therefore does GDP UNDERSTATE or OVERSTATE society's actual economic well-being?

c. improved product quality often isn't accounted for in GDP

Therefore does GDP **UNDERSTATE** or OVERSTATE society's actual economic well-being?

d. GDP does not account for the composition output

Therefore does GDP UNDERSTATE or **OVERSTATE** society's actual economic well-being? GDP overstates society's well-being if "bad" things are produced (switchblades and handguns)

e.GDP does not account for the distribution of output

Therefore does GDP UNDERSTATE or <u>OVERSTATE</u> society's actual economic well-being? GDP overstates society's well-being in countries that have a very unequal distribution of income.

f. increases in GDP may harm the environment

Therefore does GDP UNDERSTATE or **OVERSTATE** society's actual economic well-being?

g. the underground economy produces goods and services but they are not included in GDP Therefore does GDP **UNDERSTATE** or OVERSTATE society's actual economic well-being?

h. GDP does not account for a possible future decline in output due to resource depletion. Therefore does GDP UNDERSTATE or **OVERSTATE** society's actual economic well-being?

- i. Noneconomic Sources of Well-Being like courtesy, crime reduction, etc., are not covered in GDP. Therefore does GDP <u>UNDERSTATE</u> or OVERSTATE society's actual economic well-being?
- j. We must use per capita GDP to compare the living standards of different countries.

 Therefore does GDP UNDERSTATE or OVERSTATE society's actual economic well-being?

 Total GDP figures would overstate well-being in countries with large populations (like India) and understate well-being in countries with low populations (like Switzerland)

3. GDP PER CAPITA

Which country has a higher GDP, Switzerland or India? Which has a higher level of economic well-being? Why?

Switzerland, because it has a much higher GDP per capita. Therefore Switzerland probably has a higher standard of living.

Switzerland:

GDP: \$239.3 billion (2003); Population: 7,450,867 (July 2003)

GDP per capita = GDP/population

GDP per capita: \$32,700

India:

GDP: 1,065,070,607 (July 2003); Population: \$3.033 trillion (2003)

GDP per capita = GDP/population

GDP per capita: \$2,900

4. CALCULATING GDP

Below is a list of domestic output and national income figures for a given year. All figures are in billions. The ensuing questions ask you to determine the major national income measures by both the expenditure and income methods. Answers derived by each approach should be the same.

- a. Using the data below, determine GDP and NDP by the expenditure method.
- b. Calculate National Income (NI).

Personal consumption expenditures	245
Net foreign factor income earned	4
Transfer payments	12
Rents	14
Consumption of fixed capital =depreciation	27
Social security contributions	20
Interest	13
Proprietors' income	33
Net exports	11
Dividends (part of corporate profits)	16
Compensation of employees	223
Indirect business taxes	18
Undistributed corporate profits (part of profits	21
Personal taxes	26
Corporate income taxes (part of corporate profits)	19
Corporate profits	56
Government purchases	72
Net private domestic investment	33
Personal saving	20

a. Using the above data, determine GDP and NDP by the expenditure method.

```
GDP = $388

GDP = C + Igross + G + Xnet

Igross = Inet + depreciation = 33 + 27 = 60

GDP = 245 + 60 + 72 + 11 = 388

NDP = $361

NDP + C + Inet + G + Xnet

NDP = 245 + 33 + 72 + 11 = 361

or

NDP = GDP - depreciation

NDP = 388 - 27 = 361
```

b. calculate National Income (NI) by the income method.

```
NI = $339

NI = wages + rents + interest + profits

profits = corporate profits + proprietor's income

profits = 56 + 33 = 89

NI = 223 + 14 + 13 + 89 = 339
```

5. NOMINAL AND REAL GDP

The following data show nominal GDP and the appropriate price index for several years.

Compute real GDP for each year. In which year(s) was there a recession (decline in real GDP)? All GDP are in billions.

Year	Nominal GDP	Price level index	Real GDP
1	\$117	120	
2	124	104	
3	143	85	
4	149	96	
5	178	112	
6	220	143	

Year	Nominal GDP	Price level index	Real GDP
1	\$117	120	\$ 98
2	124	104	119
3	143	85	168
4	149	96	155
5	178	112	159
6	220	143	154

ANSWERS - Chapter 7 – Measuring the Economy – Quick Quiz GDP and SOCIAL WELFARE

- 1. Which of the following activities is excluded from GDP, causing GDP to understate a nation's well-being?
- 1. the services of health care workers
- 2. the services of military personnel
- 3. the construction of new buildings

4. goods and services produced in the underground economy

- 2. The GDP tends to:
- 1. overstate economic welfare because it does not include certain nonmarket activities such as the productive work of housewives.
- 2. understate economic welfare because it includes expenditures undertaken to offset or correct pollution.

<u>3. understate economic welfare because it does not take into account increases in leisure.</u>

- 4. overstate economic welfare because it does not reflect improvements in product quality.
- 3. The growth of GDP may *understate* changes in the economy's economic well-being over time if the:
- 1. distribution of income becomes increasingly unequal.

2. quality of products and services improves.

- 3. environment deteriorates because of pollution.
- 4. amount of leisure decreases.
- 4. GDP data are criticized as being inaccurate measures of economic welfare because:
- 1. they do not take into account changes in the amount of leisure.
- 2. they do not take into account all changes in product quality.
- 3. they do not take into account the adverse effects of economic activity on the environment.

4. of all of these considerations.

ANSWERS - Chapter 7 – Measuring the Economy – Quick Quiz CALCULATING GDP

Answer the next question(s) on the basis of the following data. All figures are in billions of dollars:

Government Purchases	\$15
Consumption	90
Gross Investment	20
Consumption of Fixed Capital	5
Exports	8
Imports	12

[NOTE: "Consumption of Fixed Capital" means "Depreciation"]

- 1. Refer to the above data. GDP is:
- 1. \$116.
- **2.** \$121.
- 3. \$125.
- 4. \$150.
- 2. Refer to the above data. NDP is:

<u>1. \$116.</u>

- 2. \$121.
- 3. \$125.
- 4. \$150.
- 3. Real GDP and nominal GDP differ because the real GDP:
- 1. is adjusted for changes in the volume of intermediate transactions.
- 2. includes the economic effects of international trade.

3. has been adjusted for changes in the price level.

- 4. excludes depreciation charges.
- 4. If nominal GDP rises:

1. real GDP may either rise or fall.

- 2. we can be certain that the price level has risen.
- 3. real GDP must fall.
- 4. real GDP must also rise.

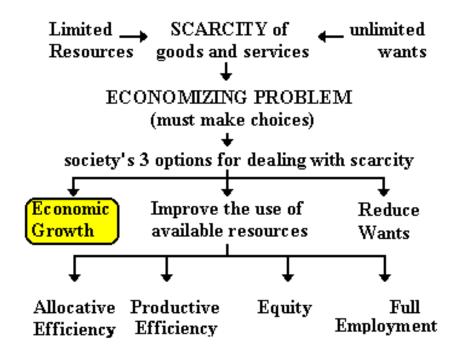
5. Using the table below, in which year was there a recession?

Year	Nominal	Price	Real
	GDP	Index	GDP
1	\$ 550	140	\$ 393
2	560	145	389
3	590	150	393
4	600	152	395
5	620	155	400

- 1. year 1
- 2. year 2 3. year 3 4. year 4 5. Year 5

REVIEW ECONOMIC GROWTH

1. Use the diagram below to answer this question.



a. Define ECONOMIC GROWTH as shown in the diagram:

This type of economic growth is an increase in the ability to produce goods and services

b. What CAUSES this type of economic growth?

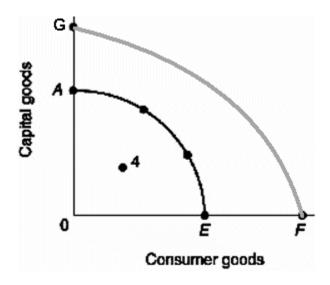
This will occur if society gets:

- more resources
- better resources
- better technology

c. Is this type of economic growth an increase in POTENTIAL GDP or ACHIEVING the potential?

This is an increase in the POTENTIAL GDP

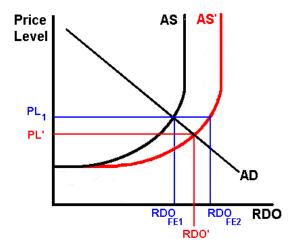
- 2. Use the diagram below to answer the questions.
 - a. If the economy's production possibilities curve is shown by curve AE, then draw in a new curve which indicates positive economic growth according to the 5 Es model.



b. Is this type of economic growth (1) INCREASING the potential GDP or (2) ACHIEVING the potential?

This would be INCREASING the potential.

3. Use the diagram below to answer this question.

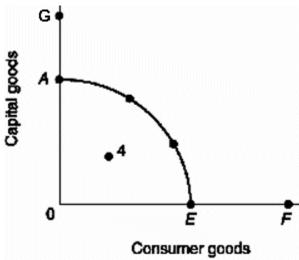


- a. What would cause the AS curve to shift to the right?
 - A decrease in input (resource) prices
 - An increase in the productivity of resources
 - A change in the legal-institutional environment that encourages business to produce more like a decrease in business taxes or a decrease in business regulation (less red tape)

b. Is this type of economic growth an INCREASE in potential GDP or ACHIEVING the potential?

This would be INCREASING the potential.

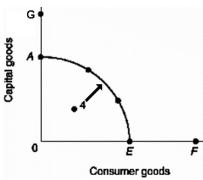
4. Use the diagram below to answer this question.



a. If the economy illustrated by production possibilities curve *AE* is producing at point 4, what economic problem does this represent for this economy?

At point 4 this economy is producing less than its potential so it must have unemployment or productive inefficiency

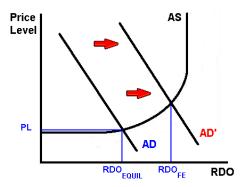
b. Assume that the economy moves from point 4 to a point on the curve. Draw an arrow to show the change.



c. Is this type of economic growth an INCREASE in potential GDP or ACHIEVING the potential?

This would be ACHIEVING the potential.

5. Use the diagram below to answer this question.



a. What would cause the AD curve to increase from AD to AD' as shown in the graph above?

An increase in AD would be caused by:

- An increase in Consumption (C) or a decrease in Saving (S) will increase AD
 - o If consumer wealth increases consumption can
 - If consumers expect higher incomes in the future it will increase consumption today
 - A decrease in taxes will increase consumption
 - o If consumer debt is low consumption can increase
- An increase in Investment (I) will increase AD
 - o If money supply increase (MS) it will cause Interest rates to fall and investment will increase
 - If business expect profits to increase in the future it will increase investment today
 - If business taxes decrease profit expectations on investment projects will increase and investment will increase technology
 - If businesses have little excess capacity investment should increase
- An increase in government purchases (G) will increase AD
- An increase in net exports (Xn) will increase AD
 - If incomes in foreign countries increase it will increase our export
 - If the value of the dollar depreciates (like a "weak dollar") then foreigners will buy more of our products and we will buy less of theirs and our net exports will increase

b. Is this type of economic growth an INCREASE in potential GDP or ACHIEVING the potential?

This would be ACHIEVING the potential.

- 6. What are the two (three) definitions of economic growth used in class? State which definition is an INCREASE in potential GDP and which is ACHIEVING the potential?
 - 1. Increasing the ABILITY to produce = increasing our potential
 - 2. Increasing Real GDP = producing more = achieving our potential
 - 3. Increasing GDP per capita = increasing output PER PERSON
- 7. Suppose an economy's real GDP is \$125 billion in year one and \$130 billion in year two. What is the growth rate of its GDP?

EG rate = (GDP this year – GDP last year) / GDP last year times 100

EG rate = $(130 - 125) / 125 = .04 \times 100 = 4\%$ growth rate

ANSWERS - Chapter 8 - Economic Growth - Quick Quiz

- 1. Growth is advantageous to a nation because it:
- 1. promotes faster population growth.

2. lessens the burden of scarcity.

- 3. eliminates the economizing problem.
- 4. slows the growth of wants.
- 2. Strong property rights are important for modern economic growth because:
- 1. they allow governments to extract the gains from private citizens' investments.

2. people are less likely to invest if they are fearful that others can take their returns on investment without compensation.

- 3. they ensure an equitable distribution of income.
- 4. business cycle fluctuations will be smaller and less likely to disrupt investment patterns.
- 3. Which of the following institutional arrangements is most likely to promote growth?
- 1. Patents and copyrights that expire quickly and are loosely enforced.
- 2. Strong government control over resource allocation decisions.

3. Unrestricted trade between nations.

- 4. All of these.
- 4. Free trade:
- 1. discourages growth by increasing competitive pressures on domestic firms.
- 2. encourages growth by effectively eliminating all patent and copyright barriers to growth.
- 3. discourages growth compared to circumstances where the government strongly controls foreign trade.

4. encourages growth by promoting the rapid spread of new inventions and innovations.

- 5. An outward shift of a nation's production possibilities curve:
- 1. ensures the nation of an increase in real GDP per capita.
- 2. ensures the nation of an increase in real GDP, but not of real GDP per capita.

3. neither ensures a nation of an increase in real GDP nor of an increase in real GDP per capita.

4. ensures a nation of an increase in both real GDP and real GDP per capita.

Use the list below to answer the following questions:

- 1. Improvements in technology
- 2. Increases in the supply (stock) of capital goods
- 3. Purchases of expanding output
- 4. Obtaining the optimal combination of goods, each at least-cost production
- 5. Increases in the quantity and quality of natural resources
- 6. Increases in the quantity and quality of human resources
- 6. Refer to the above list. As distinct from the demand and efficiency factors of economic growth, the supply factors of economic growth are:
- (1). 2, 5, and 6 only.
- (2). 2, 4, 5, and 6 only.
- (3). **1, 2, 5, and 6 only.**
- (4). 1, 3, 4 only.
- 7. Refer to the above list. As distinct from the supply factors and efficiency factor of economic growth, the demand factor of economic growth is:
- (1). 1 only.
- (2). 4 only.
- (3). 1 and 3 only.
- (4). 3 only.
- 8. Refer to the above list. As distinct from the supply factors and demand factor of economic growth, the efficiency factor of economic growth is:
- (1). 1 only.
- (2). **4 only.**
- (3). 1 and 3 only.
- (4). 3 only.
- 9. Which set of items in the above list would shift an economy's production possibilities curve outward?
- (1). 2, 5, and 6 only
- (2). 2, 4, 5, and 6 only
- (3). **1, 2, 5, and 6 only**
- (4). 1, 3, 4 only
- 10. Which set of items in the above list would move an economy from a point inside its production possibilities curve to a point on its production possibilities curve?
- (1). 1, 2, 5, and 6 only
- (2). **3 and 4 only**
- (3). 3 only
- (4). 1, 3, 4 only

ECONOMIC GROWTH – THE LESS DEVELOPED COUNTRIES - Indicators of Economic Development

From the textbook: Characteristics of Developing countries (DVCs / LDCs):

Role of agriculture: important (large) in LDCs

Literacy rates: low in LDCs

Unemployment: high in LDCs

population growth rate: high in LDCs

Type of exports: in LDCs most exports are raw materials, natural resources, and agricultural

Amount of capital equipment: little in LDCs

production technologies: low tech in LDCs

productivity: low in LDCs

Mark's List: Characteristics of Less Developed Countries (LDCs):

1. GDP per capita: low in LDCs

2. Population Growth rates: high in LDCs

3. Occupational Structure of the Labor Force: high percent in primary industries (agriculture) in LDCs

4. Urbanization: low in LDCs

5. Consumption per capita: low in LDCs

6. Infrastructure: poorly developed in LDCs

7. Social Conditions

literacy rates: low in LDCs life expectancy: low in LDCs health care: lacking in LDCs caloric intake: low in LDCs infant mortality: high in LDCs

ECONOMIC GROWTH - THE LESS DEVELOPED COUNTRIES -

The absolute income gap between rich and poor nations has been widening. .

For example,

LDC: if per capita income is \$400 per and there is a 2% growth rate, by how much will income increase?

$$400 \times 0.2 = 80

IAC: Where per capita income is \$20,000 per and there is a 2% growth rate, by how much will income increase?

$$20,000 \times 0.2 = 4000

So, if a rich country and a poor country are growing at the same rate the absolute gap between the rich and poor gets wider

ECONOMIC GROWTH - THE LESS DEVELOPED COUNTRIES - AID OUIZ

What fraction of the U. S. federal government's budget is spent on FOREIGN AID?

1%	5%	10%	15%	20%	25%
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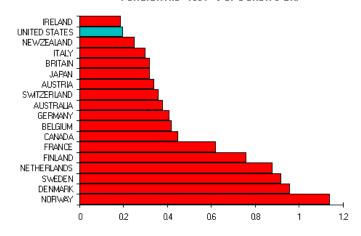
The figure is about 1 percent of the Federal budget. Total foreign aid -- military and non-military combined -- is now about \$13 billion a year. About half that, devoted largely to human-development programs relating to health, family planning and economic self-help, is administered by the United States Agency for International Development.

HOW MUCH AID DO WE GIVE as a % of our GDP (income)?

0.00/	0. =0 /	407	= 0.7	• • • • •	4 = 0 /
0.2%	0.5%	1 %	50/0	20%	15%
U•# /U	0.5 /0	1/0	2 / 0	2 0 / 0	15/0

In terms of absolute amounts, the United States is second only to Japan as a leading provider of development assistance to the LDCs (DVCs). But many other industrialized nations contribute a <u>larger percentage</u> of their incomes to foreign aid than does the United States where about 0.18~% of the GDP is devoted to foreign aid.

FOREIGN AID -1991- % OF DONOR'S GNP



REVIEW: Indicators Of The Level Of Economic Development

NOTE: Do not confuse "indicator" with "cause"

INDICATOR	IAC / MDC	DVC/LDC
Role of agriculture	less	more
Level of industrialization:	high	low
Literacy rates:	high	low
Unemployment:	low	high
Population growth rate:	low	high
Type of exports:	manufactured	raw materials
Amount of capital equipment:	high	low
Production technologies:	high tech	low tech
Productivity:	high	low
GDP (income) per capita:	high	low
Structure of the Labor Force:	tertiary activities	primary and secondary activities
Urbanization:	high	low
Consumption per capita:	high	low
Infrastructure:	well developed	poorly developed
literacy rates:	high	low
life expectancy:	high	low
caloric intake:	high	low
infant mortality:	low	high
birth rates:	low	high

ANSWERS - Chapter 22W - Less Developed Countries - Quick Quiz

- 1. Approximately what percentage of the world's income is received by the richest one-fifth of the world's population?
- 1. 20 percent
- 2. 30 percent
- 3. 60 percent

4. 80 percent

- 2. Most of the world's population lives in:
- 1. North America.

2. the DVCs.

- 3. Western Europe.
- 4. the IACs.
- 3. The DVCs are:
- 1. located primarily in Northern Europe.
- 2. located primarily in Western Europe.

3. located primarily in Africa, Asia, and Latin America.

- 4. more-or-less evenly distributed over the various continents.
- 4. Increases in the total real output of many DVCs do not increase the nation's standard of living because:
- 1. diminishing returns may be encountered in increasing total output.

2. population increases may dissipate the increase in real output.

- 3. disguised unemployment in agriculture will persist.
- 4. surplus farm labor may move from rural areas to industrial areas, causing unemployment.
- 5. In recent years the industrially advanced nations as a group have provided foreign aid amounting to about what percentage of their aggregate outputs?

1. 0.25 percent

- 2. 0.7 percent
- 3. 1.0 percent
- 4. 2.0 percent
- 6. Economic growth in the DVCs might increase if IACs:

1. reduce their tariffs and import quotas.

- 2. encourage more immigration of high-skilled DVC workers.
- 3. outlaw direct private investment abroad by IAC corporations.
- 4. discourage capital flight to the DVCs.
- 7. Large agricultural subsidies for food and fiber in IACs hurt the economies of the DVCs by:
- 1. causing higher prices for imported food products.
- 2. lowering saving rates in the DVCs.
- 3. encouraging "brain drains" from the DVCs.
- 4. reducing world agricultural prices and thus export income of the DVCs.