

Homework 1, ECON 2105, Darren Grant, Fall 1999. We will go over some of these the next several Fridays. By the time the first test has come, we will have gone over them all. I intend to use volunteers to discuss these problems in class. Only volunteer if you have worked the problem in advance and are prepared, but if you are prepared, you are encouraged to volunteer.

1. For the following markets, identify whether they are or are not competitive, and why.

- A) Wheat
- B) Paper
- C) Art (like paintings, sculpture)
- D) Unskilled Workers to work in Fast Food Restaurants
- E) Loans (money to be lent)
- F) Long Distance Service

2. True or False?

- A) A market can be perfectly competitive even government places restrictions on it; for example, that workers must be paid time and a half for overtime.
- B) In perfectly competitive markets, firms choose how much they will produce based on how much they think people will want to buy.
- C) When prices go up, that must mean that people are buying more.
- D) The perfectly competitive market always seeks the price that equates the amount supplied with the amount demanded.

3. Identify three things government does to facilitate the smooth operation of the free market.

4. Answer these questions about price controls.

- A) What are price controls?
- B) There is a persistent surplus of product X in the marketplace. The market is competitive. What has happened?
- C) People are buying product Y on the black market for much higher prices than the price that is listed in the store. Why?
- D) When do price controls increase product quality, and when do they hurt product quality?

5. Illustrate, for each situation, the effect of the “event” on price and quantity, using a supply/demand graph.

- A) An decrease in income, on the market for gold.
- B) A cost-saving technology improvement, on the market for computers.
- C) A flood (of water), on the market for wheat.
- D) Summer (vacation time), on the market for gasoline.
- E) An increase in the price of electricity, on the market for steel.
- F) An increase in the price of mustard, on the market for hot dogs.

6. The deregulation of the trucking industry around 1980 dramatically lowered the transportation costs of many goods producers, particularly manufacturers; it was cheaper to transport in the raw materials, and it was cheaper to transport out the final product. How did this affect the price and quantity of manufactured goods in the competitive market? Illustrate on a supply/demand graph. Who wins: manufacturers, consumers, or both?
7. (Case and Fair, modified) One way to increase the amount of housing available to low-income households is simply for the government to build it (public housing). An alternative is to provide low-income households with vouchers that can be used like cash in renting housing supplied by the private market (not by government).
- A) Illustrate the effect of each policy on the price and quantity of housing in the short run, using (separate) supply/demand curves.
- B) In which case are landlords (owners of private housing) better off?
8. (Case and Fair, modified) The U.S. government administers two programs that affect the market for cigarettes. Media campaigns and labeling requirements are aimed at making the public aware of the health dangers of cigarettes. At the same time, the Department of Agriculture maintains a program which limits the amount of land that can be devoted to growing tobacco. Are these two programs at odds with respect to the goal of reducing cigarette consumption? Illustrate on a supply/demand graph.
9. Price supports keep the price of peanuts far above the free market price. Quotas are used to prevent overproduction (beyond that which consumers are willing to purchase). Illustrate this on a supply/demand graph. Indicate the supported price on your graph, the quantity produced and sold at that price, and the price and quantity that would prevail in the free market (without the price supports).
11. When the Olympics came to Atlanta, people needed a place to stay. Illustrate how this affected the price and quantity of hotel rooms (or equivalent, like rooms in houses) on a supply/demand graph.
12. Illustrate, for each situation, the effect of the “event” on price and quantity, using a supply/demand graph.
- A) A machine is developed that allows tomatoes to be harvested mechanically, on the market for tomatoes.
- B) An economic expansion leads to a boom in housing construction, on the housing market.
- C) Oil is discovered in Alaska, on the oil market.
13. Explain the fundamental rationale for leaving the free, competitive market alone (i.e., no government intervention).
14. Illustrate the effect of rent controls on price and quantity in the rental housing market, using a supply/demand graph. Give three side-effects of rent controls.
15. Which markets are not competitive? Why not?
- A) Peanuts
 - B) Hotels
 - C) Hospitals
 - D) Landscaping

Homework 2, ECON 2105, Darren Grant, Fall 1999.

Homework from the book:

Chapter	Test Your Understanding	Using the Tools	Problems and Discussion
Chapter 20	all	1, 4	1, 2, 3, 5, 7
Chapter 21	all	1, 4	1, 4, 6, 7, 8
Chapter 27	all	1, 2	2, 5, 7, 10
Chapter 31	all	1, 2	1, 6, 7

The answers to “Test Your Understanding” and “Using the Tools” are in the back of each chapter.

1. Fill in the following table. 1995 is the base year.

Year	Nominal GDP	Price Index	Real GDP
1995	\$5.0		
1997		120	\$5.2
1999	\$8.0		\$5.4

If the following table represented (approximately) the U.S. economy, then the figures would be in {hundreds, thousands, millions, billions, etc.}?

2. In the crazy country of Grantonia, between 1998 and 1999, the CPI increased from 100 to 110, while real GDP increased from \$500 Million to \$505 Million.

- A) What is nominal GDP in 1998?
- B) What is nominal GDP in 1999?
- C) What was inflation between 1998 and 1999?

3. Which one of the following takes up the largest portion of the Federal budget?

- A) Spending on Welfare.
- B) Spending on Social Security and Medicare.
- C) Defense Spending.
- D) Spending on the Department of Agriculture.

4. What is “Gross” about GDP?

5. There are (at least) three different types of unemployment: frictional, structural, and cyclical. Briefly

describe each. Then tell which kind of unemployment the following policies are most clearly directed at:

- 1) Job-training assistance for workers displaced by NAFTA.
- 2) The Dept. of Labor posts job listings and has a computer database where people can look up jobs in their field.
- 3) Expansionary monetary policy is used to help pull the economy out of a recession.

6. The Government of Bartavia runs the same government deficit from year to year. What happens to the government debt?

- A) It increases from year to year.
- B) It decreases from year to year.
- C) It remains the same from year to year.
- D) Some years it increases, some years it decreases.

7. What is a regressive tax?

- A) Richer people pay more money to the tax than poor people do.
- B) Richer people pay less money to the tax than poor people do.
- C) Richer people pay a higher fraction of their income to the tax than poor people do.
- D) Richer people pay a lower fraction of their income to the tax than poor people do.

8. Our U.S. laws are set up so that expenditures on certain items in the federal budget (such as unemployment insurance) automatically increase during a recession. What are these items called?

9. In 1998 in Sockland, GDP was \$5 Trillion, net exports were \$100 Billion, investment was \$1 Trillion, and government purchases were \$1.5 Trillion. What accounts for the remaining \$2.4 Trillion? Did Sockland import more than it exported, or export more than it imported?

10. Which of the following taxes are progressive and which are regressive?

- 1) The social security tax
- 2) The federal income tax
- 3) The sales tax

11. In a recession, what happens to real GDP, inflation, and unemployment? What about an expansion?

12. How is government spending different from government purchases of goods and services?

13. Name one weakness (each) of the way economists measure output, unemployment, and inflation.

14. Identify the main differences between the U.S. Treasury and the Federal Reserve.

15. How are the Natural Rate of Unemployment and Potential GDP related?

16. According to the Quantity Theory of Money, what sort of relationship is expected between money and prices?

17. Do changes in the money supply typically have any effect on interest rates? If so, what?

18. Illustrate, on a set of AS/AD graphs, expansionary fiscal policy and expansionary monetary policy. What is the difference between the two kinds of policies? In terms of the AS/AD graph, do they have the

same effect, or different effects?

19. If real GDP is \$8.0 Trillion and nominal GDP is \$8.0 Trillion, what is the price index?

20. An analogy to unemployment, at GSU, is when students can't get the classes they want. In this spirit, give an analog to frictional unemployment, structural unemployment, and cyclical unemployment.

21. Country A is currently mired in recession. Its AS curve has the shape suggested by John Keynes.

A) Draw an AS/AD graph for this country.

The government undertakes expansionary fiscal policy.

B) Give an example of expansionary fiscal policy.

C) Draw the effects of the policy on the graph. Identify output and the new price level on the graph.

C) Does inflation increase much in country A?

D) Does unemployment decrease much in country A?

E) On balance, is the expansionary policy desirable or not?

22. Country B is currently in an expansion which has lasted for some time. Its AS curve has the shape suggested by John M. Keynes.

A) Draw an AS/AD graph for this country.

The government undertakes expansionary monetary policy

B) Give an example of expansionary monetary policy.

C) Draw the effects of the policy on the graph. Identify the new price level and output level on the graph.

D) Does inflation increase much in country B?

E) Does unemployment decrease much in country B?

F) On balance, is the expansionary policy desirable or not?

Homework 3, ECON 2105, Darren Grant, Fall 1999.

Homework from the book:

Chapter	Test Your Understanding	Using the Tools	Problems and Discussion
Chapter 32	1-3, 6-11, 13, 15	2, 4 (4 has a typo)	2, 3, 4, 5
Chapter 33	1-4	1a, 2, 3, 4a	1, 2, 4, 5, 7

The homework problems below feature “comparative advantage” problems in especial abundance. This “skill” will be featured on the next test. Supply/demand analysis will also show up on your next test, for analyzing the effects of trade, and for analyzing the foreign exchange market.

1. The “Minnow” has been shipwrecked on an uncharted desert island!! The table below tells you how many fish or coconuts each castaway could catch/find in a hour of work. (Mr. and Mrs. Howell, of course, don’t work.)

	Fish Caught in one hour of work	Coconuts Found in one hour of work	Opp. Cost of 1 Fish
Gilligan	5	18	
Ginger	8	24	
MaryAnn	3	12	
The Professor	6	15	
The Skipper	7	14	

A) Determine the opportunity cost of producing one unit of fish, for each person, and fill them in the table.

B) In order to produce coconuts and fish most efficiently, should each castaway make some fish and some coconuts, or should people specialize in fish or coconuts?

C) Which person has the lowest opportunity cost of producing fish? Should this person specialize in fish or coconuts?

D) In the real world, how is it that people end up specializing according to comparative advantage?

2. Match the following organizations with their primary purposes.

- | | |
|---------------|--|
| 1) WTO | A) Administers GATT, resolves trade disputes |
| 2) World Bank | B) Sort of an international central bank |
| 3) IMF | C) Encourages economic development in less-developed countries |

3. The three largest countries in North America are the United States, Canada, and Mexico. Listed below are the amounts (in bushels) of Wheat Germ and Oat Bran each country can produce on one acre of land, if they devote it to the production of that commodity.

	Wheat Germ	Oat Bran
United States	50	150
Canada	60	240
Mexico	70	350

- A) Draw the PPC's for each country (three PPC's).
- B) Plot the point (50,150) on the United States' graph. Is this point on the PPF or not?
- C) During the talks for NAFTA, the three countries agree that one of them should specialize in the production of Wheat Germ. Which country should it be? Show your work.
- D) Which has a higher price, a bushel of Wheat Germ or a bushel of Oat Bran?
- E) Countries do best when they specialize in producing those product(s):
 - a) which they can produce more of than other countries can.
 - b) which they cannot produce as much of as other countries can.
 - c) which they can produce at a lower opportunity cost than other countries can.
 - d) which they can produce at a higher opportunity cost than other countries can.

4. Jerry and Elaine from *Seinfeld* have been shipwrecked on an uncharted deserted island!! The table below tells you how many Grubs or Bananas each person could catch/find in a hour of work.

	Grubs caught in one hour of work	Bananas picked in one hour of work	Opp. Cost of 1 Banana	Opp. Cost of 1 Grub
Jerry	10	18		
Elaine	12	24		

- A) Who is a better worker, Jerry or Elaine?
- B) Determine the opportunity cost of producing one Banana, for each person, and fill them in the table.
- C) Determine the opportunity cost of producing one Grub, for each person, and fill them in the table.
- D) Draw Jerry's and Elaine's PPFs.
- E) Who should specialize in Grubs, and who should specialize in Bananas?
- F) One season, unusually warm weather improves the Banana crop, so that each person can collect twice as many Bananas as they could have before. How does this change who specializes in what, in part E)?

5. Currently imports of sugar from the Caribbean are restricted by the U.S. government. Much of the sugar produced within the U.S. is grown in Florida and Louisiana and processed there and elsewhere (such as in Savannah).

A) Illustrate the effect of removing the trade barriers on the price and quantity of sugar in the Caribbean.

B) Illustrate the effect of removing the trade barriers on the price and quantity of sugar in the U.S.

C) Who, of the following, would benefit from free trade in sugar?

- 1) U.S. sugar producers
- 2) U.S. sugar consumers
- 3) U.S. sugar workers
- 4) Caribbean sugar producers
- 5) Caribbean sugar consumers
- 6) Caribbean sugar workers

D) Which group, of those listed above, would probably gain the most from the free trade in sugar?

E) Which of the following statements are true?

- 1) If the trade restrictions were removed, the U.S. would benefit, as a whole.
- 2) If the trade restrictions were removed, the Caribbean would benefit, as a whole.
- 3) If the trade restrictions were removed, more total stuff would be produced.
- 4) The United States has comparative advantage in sugar production.
- 5) If the trade restrictions were removed, some U.S. sugar growers would go out of business.
- 6) The trade restrictions on sugar benefit everyone in the United States

6. What effect would the following have on the value of the dollar? Illustrate on supply/demand graphs.

A) Consumer optimism leads people in the U.S. to want to buy more imported leather goods.

B) The interest rate rises in the United States.

C) Governmental instability in Russia causes everyone to wish to take their invested money out of that country and invest it in the U.S. instead.

D) When the value of the dollar goes up, what happens to the yen/dollar exchange rate? Does it take more or less yen to buy a dollar?

7. What is the main currency is the following countries:

- 1) United Kingdom
- 2) Japan
- 3) Germany
- 4) Mexico
- 5) Canada

8. If the American dollar gets stronger against the yen, which (if any) of the following are true?

- 1) imports from Japan, into the United States, become cheaper
- 2) the yen/dollar exchange rate goes up
- 3) Americans travelling in Japan will be able to buy more

9. Which (if any) of the following would strengthen the dollar?

- 1) A decrease in American interest rates
- 2) A decrease in trade barriers in the United States
- 3) There is political instability in the United States after President Clinton appears on Nightline, murmuring "All work and no play makes Bill a dull boy. All work and no play makes Bill a dull boy. All work ... "

10. What is foreign capital? Why would government want to attract foreign capital? What are some of the things government can do to attract foreign capital?

Homework 4, ECON 2105, Darren Grant, Fall 1999.

Readings:

For week 1 (income inequality), Ch. 17 and pp. 377-388 of Ch. 19

For week 2 (pollution), Ch. 14 and 15

For week 3 (big business and antitrust), pp. 264-267 of Ch. 13

Homework from the book:

Chapter	Test Your Understanding	Using the Tools	Problems and Discussion
Chapter 14	#2, 4	#2	#1, 4
Chapter 15	#1-5 and 8-12	----	#2, 3
Chapter 17	#5-9	----	#5, 7, 8
Chapter 19	#1-6	----	----

Supply/demand analysis will again be the special skill that is featured on your last test. Nothing new about it, it's just so important I want to test it twice.

1. The car question.

A) Cars pollute the air. If cars and gasoline are sold in a free, competitive market, is there too much or too little pollution (relative to efficiency)?

B) Discuss three ways society could (or does) deal with this imperfection.

C) The state highway patrol are provided by government. Why would the highway patrol be considered a "public good"? Why is it difficult or impractical for the highway patrol to be provided for privately, through private enterprise?

2. Choose from the following markets (or goods) when answering the following questions.

1. *Cigarettes*

2. *Soybeans*

3. *Animal Control*
(the Dogcatcher)

A) Which market, if unregulated by government, is most likely to function efficiently (without market imperfections)?

B) For which good are negative spillovers most prevalent? When there are negative externalities, does the free (unregulated) market produce too much or too little of the good (relative to efficiency)?

C) Which good is a public good?

3. Sometimes government does more, in attempting to correct market imperfections, when it does less. What do I mean? Give one or two examples.

4. From the following list, identify: the good with negative externalities (spillovers); and the public good.

- THE LIST:
1. Blue Whales in the Pacific Ocean
 2. A Coke
 3. Weiner Dogs (small dogs that bark a lot)
 4. A Skydiving Demonstration (for viewing, not to participate in)
 5. A Restaurant Meal.

5. Firm X sells over 80% of the product in some industry. Al Gore says, "This is bad. Firm X should be broken up." George Bush says, "This is good. Firm X should be praised." Give an example of how Al Gore could be right, and an example of how George Bush could be right.

6. Which of the following are true about antitrust law?
- A) Its main purpose is to prevent firms from becoming big.
 - B) Its main purpose is to punish firms that become big.
 - C) Its main purpose is to punish firms that become too big relative to the size of the market.

7. Give three reasons wages differ among individuals. For which of these might remedial action by government be justified? Does redistribution from one individual to another typically affect "the size of the pie"? What is meant by "the size of the pie"?

8. Answer true or false for each, and tell why or why not.
- A) The market operates to generate generally fair outcomes for all participants involved.
 - B) It is generally a problem when a market is not perfectly competitive.
 - C) It is generally not a problem when a market is perfectly competitive.

9. Illustrate the effect of the following on prices/wages and quantity/employment in the competitive market, using supply/demand curves.

- A) The Olympics coming to Atlanta, on the market for hotel rooms.
- B) An increase in raw materials prices, on the market for plastics.
- C) A pine-bore infestation, on the market for 2x4's (lumber).
- D) A tariff on cotton imports, on the market for tube socks.
- E) A higher sales tax (paid by the consumer), on the market for fast-food.
- F) A decrease in welfare benefits, on the market for low-skill labor.
- G) A decrease in trade barriers, on the market for textile workers (we import textiles).
- H) A decrease in interest rates (which means lower mortgage payments), on the market for housing.
- I) A decrease in interest rates, on the market for construction workers.

10. The deregulation of the trucking industry around 1980 dramatically lowered the transportation costs of many goods producers, particularly manufacturers; it was cheaper to transport in the raw materials, and it was cheaper to transport out the final product.

A) How did this affect the price and quantity of manufactured goods in the competitive market? Illustrate on a supply/demand graph.

B) How did this affect the wages and employment level of manufacturing workers (not truckers)? Illustrate on a supply/demand graph.

11. Three factories are located upstream from a small community, which uses the river water for drinking. Each factory emits pollutants into the river water, which forces the city to treat the water in order for it to be drinkable.

A) What is the market imperfection here? Identify it by name, and describe why it is a market imperfection.

One way to address this market imperfection would be to require these factories (and their competitors, which pollute too) to adopt certain pollution control devices.

B) How would this affect the price and quantity of the products made by these factories in the competitive market? Illustrate on a S/D graph.

C) Discuss two different, alternative ways to address this market imperfection, along the lines of those discussed in class. List one important, relevant advantage of each (compared to requiring the adoption of specific pollution control devices).

12. Graph the effect of each of these on the market for *chicken*, and the market for *chicken workers*. You'll have two supply/demand graphs for each part.

A) Because of bad weather, chicken feed gets more expensive.

B) Mad cow disease makes people reluctant to eat beef.

C) The minimum wage increases. (Many chicken workers work at the minimum wage.)