

# 34/ Income Inequality + Poverty

## Income - Maintenance System 712-714

4/21

gov wants to ↓ poverty  
but spending has ↑ from 4% of GDP 1940 →  
14% of GDP 1996

2 parts

both known as entitlement programs

- everyone who is eligible is covered

### Social Insurance

- partially replace lost earnings
- retirement, disability, unemployment, elderly
- "social security", unemployment, Medicare
- viewed as earned rights
- financed from payroll taxes
- workers pay in now to withdraw later

#### - OASDI

- "social security"

- pay at retirement

- taxed through 15.3% payroll tax

#### - Medicare

- hospital insurance for elderly + disabled

- 2.9% tax

#### - Unemployment Compensation

- funded by payroll taxes

pay ~ 35% of workers normal incomes

- short waiting period to collect benefits

~ 12 weeks

- only if fired

## Public Assistance (Welfare)

- for those who can't earn incomes
- financed from normal taxes
- regarded as a public charity
- must pass a "means" test
- Supplemental Security Income (SSI)
  - unified, national income
- Aid to Families With Dependent Children (AFDC)
  - aid to single-parent families
    - even if working - 60% of what would get you to poverty line
- Food Stamps
  - try to give everyone a good diet
  - \$ to spend on food
- Medicare
  - helps pay medical expenses for the poor
  - people use strategies to let the gov pay (even if they have enough \$)
- + more
- Earned Income Tax Credit
  - ↓ taxes

## 34 Income Inequality + Poverty

### Welfare: Goals + Conflicts <sup>714-715</sup>

4/21

good welfare system needs to meet 3 goals

- effectively lift families out of poverty
- provide incentives for able-bodied people to work
- costs should be reasonable

but these goals conflict - causing tradeoffs

minimum annual income - amount each person should make in a year

benefit-reduction rate - rate benefits  $\downarrow$  as income  $\uparrow$   
break-even income - income where transfer payments begin to = 0

- but a high benefits reduction rate is a "tax" on working

Get \$100 from gov normally

Get a \$100 job

- Now only make \$50 from gov

- But still \$150 total

- reducing benefit reduction rate would  $\uparrow$  work incentive but also  $\uparrow$  costs

- a higher guaranteed income would further  $\uparrow$  costs to the program

### Conflicts

Plan 1:  $\downarrow$  costs,  $\downarrow$  incentive to work,  $\downarrow$  income (=  $\uparrow$  poverty)

2: stronger work incentive, but  $\uparrow$  costs

3: better at  $\downarrow$  poverty, but  $\uparrow$  costs

# 2/3 Income Inequality Poverty

Welfare: Goals + Conflicts

1/21

good welfare system needs to meet 3 goals

efficiency, but families out of poverty

provide incentives for able-bodied people to work

- costs should be reasonable

but these goals conflict causing tradeoffs

minimum annual income - amount paid person should

make a year

benefit-replacement rate - benefits as % of income

total sum income - income where transfer payment

begin to = 0

but a high benefit replacement rate is a

"tax" on working

get \$100 from gov normally

get \$150 job

now only make \$50 from gov

- but still \$150 total

reduction benefit reduction rate would

be with incentive but also costs

- a higher replacement rate would cost more to the program

↑ cost to the program

Conflict

Plan 1: ↓ costs ↓ incentives to work ↓ income

2. changes work incentives but ↑ costs

3. better off in poverty but ↓ costs

# 34) Income Inequality + Poverty Welfare: Criticism + Reform 715-718

4/21

In the 80's welfare benefits ↑, but so did poverty

## Administrative Inefficiencies

- clumsy + inefficient system
- caused by haphazard growth

admin it well?

## Serious Inequalities

- states have different payments
- some people could fall through cracks

## Lack of Work Incentives

- ↓ incentive to work
  - buys people leisure
    - ↓ opportunity costs of it
  - some people may even lose \$ when they lose benefits not replaced by wages
- slows down econ

## Dependency

Creates long term culture of poverty

## Divisiveness

- angers people who work

## High Costs

- some states trying welfare programs
- provide edu + training
  - subsidize transport + child care
  - still pay some benefits after starting work
  - some required community service to get welfare payments
  - some put time limits on getting \$

1996: Congress passed Personal Responsibility Act

- gives lump-sum payments to states
- sets limits on how long benefits can be taken
- tries to end "culture of welfare"
- critics say this hurts the victims
  - many of which are children whose parents don't want to work
  - only worked due to strong labor market
  - and employment programs are more expensive

### Last Word: Future of Social Security (1996 edition)

1950: .5% of GDP	5:1 workers:benefit
1996: 4%	1960
2020: 6%	3:1 1996
	2:1 2070

current revenues pay current benefits mostly  
some is put into a trust fund

- will go bankrupt by 2030
- extra strain from baby boomers
- ↑ life expectancy
- ↓ birth rate
- ↓ rate of return
- savings rate fell since gov providing

#### 3 plans

- 1) Maintain Benefits - invest in ↑ risk stocks
- 2) Individual Accounts - extra \$ put into an account you control
- 3) Personal Security - individuals would own the \$

# 30 Government + Market Failures

## Public Goods 620-624

4/23

Government plays a part in your life

- taxes
- education
- regulation

Gov, in part, participates where the market fails

Intro

Private goods are divisible + can exclude people from them

Gray area in between - toll highways

Public goods are not divisible + no one can be excluded from them

- so can't sell in a marketplace
- and people won't pay for what is free (free-rider)

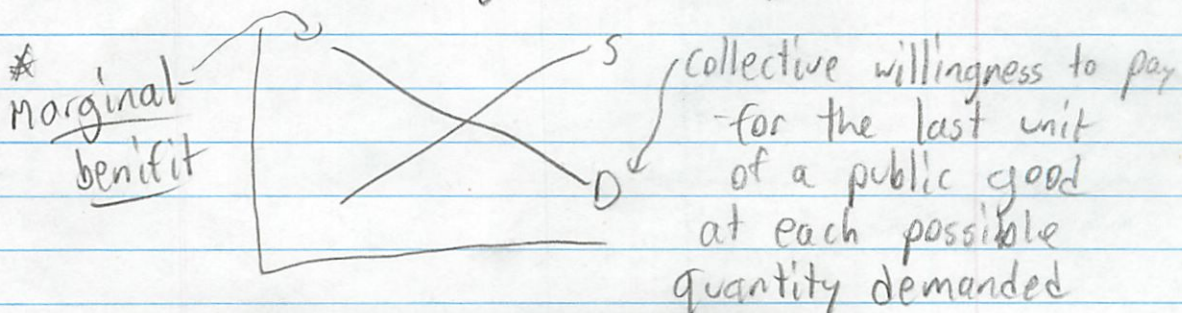
\* When one can not exclude nonpayers from receiving benefits - it is difficult or impossible to offer the good for sale

↑ most people are free riders

Demand

- gov must estimate the demand for something
  - surveys
  - public votes
  - intuition
  - etc

\* multiple people together are willing to pay more for a good than 1 person is



## Supply

- same - the marginal cost
- gov has a fixed amt. of resources
- must allocate resources

## Optimal Quantity

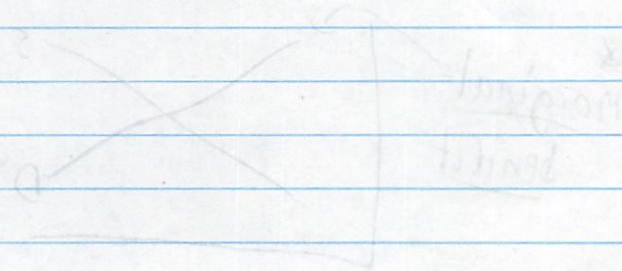
- at the intersection point
- $MB = MC$

## Benefit-Cost Analysis

- gov must take resources from private uses to take on public projects
- so benefit from public use > private uses
- also matters "how much" of the program should do
- \*  $MB = MC$

Economy in gov spending means to better align  $MB = MC$

- not the same as ↓ gov spending





# 30/ Government + Market Failures

## Externalities Revisited 624-631

4/24

Externality = spillover = cost or benefit accrued to a 3rd party outside of the market transaction

negative = pollution

can be both

positive = everyone protected from a disease

public education

over allocation + over production it is a negative spillover

### Costs

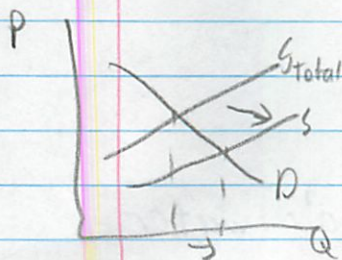
- producers shift some of their costs onto the community

- MC lower than otherwise

- so supply curve does not include all of the costs

- equilibrium output is larger than normal

- too many units are produced

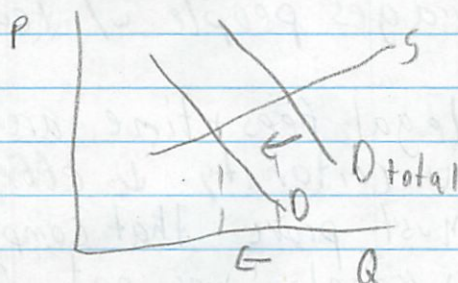


### Benefits

Demand is below normal levels

- does not include the spillover benefit

Example: When 1 person is inoculated from a disease, the people around him also benefit



- market does not make enough vaccinations

## Individual Bargaining: Coase Theorem

- Robert Coase
- Gov should not remedy spillovers (good or bad) where
  - property ownership is clearly defined
  - # people involved is small
  - bargaining costs are negligible
- Gov should encourage bargaining b/w groups
- Property rights create an opportunity cost so parties are self motivated to find help

for example a lake side resort could pay a land owner not to cut down trees which would ↓ his business

- but
- sometimes many parties
  - high bargaining costs
  - community property like air + water
    - acid rain
  - so gov must "save us"

## Liability Rules + Lawsuits

- gov allows lawsuits to protect property rights + recover damages
- perpetrator must pay damages to those injured
- discourages people w/ fear of lawsuits

- but
- legal fees + time are problems
  - uncertainty ↓ effectiveness
  - must prove that companies acted wrongly + was not someone else
  - company may go out of business

## Gov Intervention

may be needed to achieve economic efficiency when many people are at stake

Direct Controls - could pass legislation against an activity

- clean air acts limit what can be emitted
- violation = fines or imprisonment
- raise MC of producers to allow for the extra equipment needed
- may shut down needed business - still need services

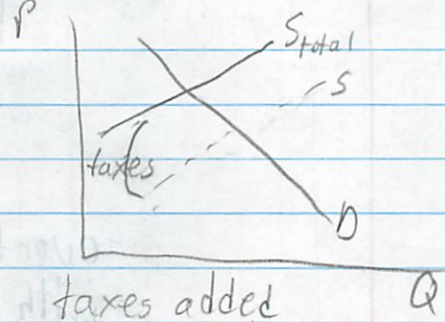
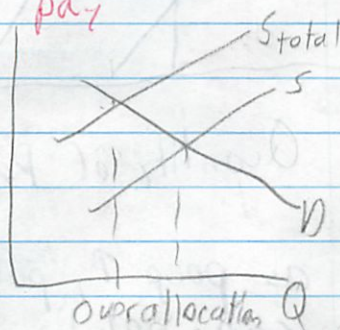
Specific Taxes - charge more for the good

- example: gov taxed CFCs
- producers must decide to pay taxes or find substitutes
- either way  $\uparrow$  costs to producers

to reduce demand

or will pay

get tax revenue



## Subsidies + Gov Provisions (Benefits)

1. Subsidies to buyers - gov could give out coupons to buyers for inoculations
2. Subsidies to producers - like a tax in reverse more are produced
3. Gov provisions - Gov could make it a public good free polio vaccines for example

## Market for Externality Rights

normally no incentive to keep common resources free of pollution

- so they are polluted b/c no cost
- "overused"

better than

direct control

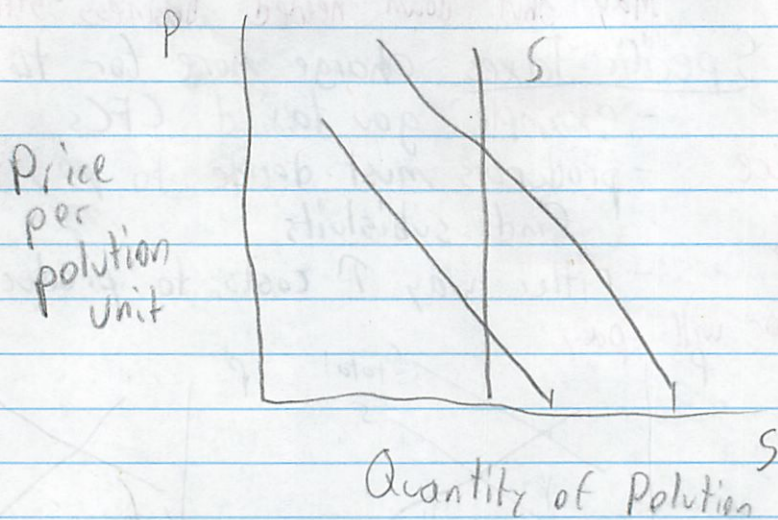
b/c don't want to slow econ

by shutting things down

- agency would decide max amt of pollution allowed in a year

- this is divided up into right slips (like ration coupons)

- supply is fixed and inelastic



- overtime as  $p$  up  $P$ , pollution (if free) would  $P$

- with the cap - pollution would be unchanged (if free) - but rights units would be more expensive

- better than pure regulation since it costs some firms more than others to ↓ pollution

- is cheaper for some firms to just buy credits

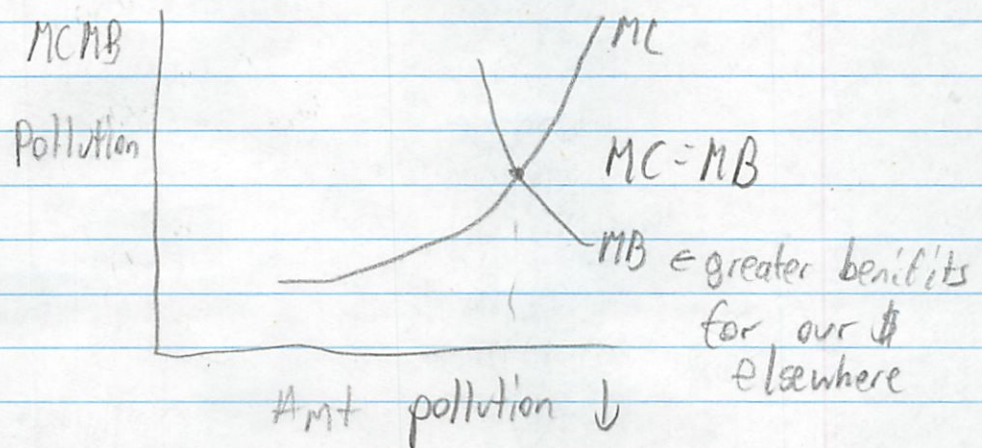
- is more profitable for others to sell their credits

- society benefits too!

- gives \$ incentive not to pollute
- conservation groups can buy up credits
- revenue from sale could go to helping environment
- self-regulating via rising costs
- admin + political problems restrict totally remaining direct controls
- but market has emerged

### Optimal Amt of Externality Reduction

- pollution hurts society
- but so does ↓ pollution
  - must decide how much pollution reduction "to buy"
- can't totally remove pollution
- law of diminishing returns makes each successive section harder
  - MC ↑ as more + more pollution ↓
  - total cost may > total benefit

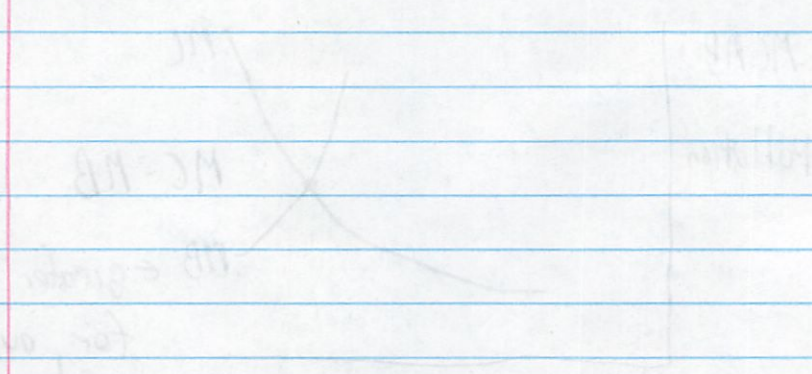


MC + MB curves may shift over time  
 new tech might ↓ MC  
 new info about pollution's harms might  
 ↑ MB

- since it includes not the pollute  
 - corporate groups can buy up credits  
 - on sale could go to help  
 - self-regulating via rising costs

- obtain political problems - control  
 - but market has emerged

- National Act of Ex-factory Reduction  
 - pollution laws cost  
 - but so does ↓ pollution  
 - must handle how much pollution  
 - cost totally remove pollution  
 - low of diminishing return water cost  
 - excessive section border  
 - MC ↑ as more - more pollution ↓  
 - total cost may ↑ total benefit



- total pollution ↓  
 - MC - MB curve may shift over time  
 - new technology ↓ MC  
 - new info about pollution ↓ MB

# 30 Gov + Market Failure

## Closer Look at Pollution 631-635

4/26

- most acute external cost

- 25,000 US sources of pollution

- causes health problems

- people don't want to be near new dumps

- pollution is global

- causes global-warming w/ greenhouse effect

### Causes

- law of conservation of matter + energy

- all inputs are transformed into waste

- volume of waste exceeds absorptive capacity of environment

- Population Growth - more people is harder to cope with

- Rising Per Capita Consumption = more garbage

- but at some point (~\$25,000 GDP) money can be used to clean up

- Technological Changes - throwaway containers soaps which don't biodegrade

- "Tragedy of Commons" - no incentive not to overuse since no direct costs

- also individuals think they can't make a difference - but together they can

- Public town center over used

### Anti-Pollution Policy in USA

- complex web of laws, regulations, taxes, pollution rights, and gov-sponsored cleanup

now growing awareness

↑

pollution

was much

worse before



MC=MB  
Supply + Demand  
like everything

hurts overseas countries b/c we are export most of waste

Soviets were very bad at containing pollution

## Superfund Law (1980)

- before companies disposed of toxic waste
- however they wanted to
- direct control of disposal by EPA
- specific taxes from sale of toxic materials created to go into "Superfund" to pay for cleanup of 1,250 sites
- gov can later sue to recover costs
- has cleaned up  $\frac{1}{3}$  of sites
- but politicians want to use \$ to help their projects
- lots of \$ spent on litigations
- firms suing each other + insurance firms for payment

## Clean Air Act of 1990

has  
worked

- tries for uniform emission standards
- forces companies to use best technology to cut emissions of 189 chemicals by 90%
- require autos to be 30-60% cleaner
- require 50% ↓ of CFCs
- require 50% of sulfur dioxide emissions from coal power plants
- created sulfur dioxide credit trading system
  - can trade internally + externally
  - for new firms to enter

## Progress

- pollution ↓ 30% in 25 years
- even as econ 2x

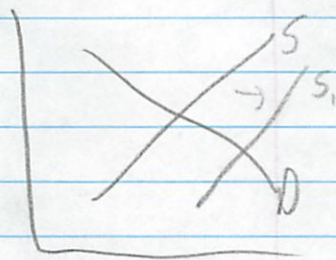
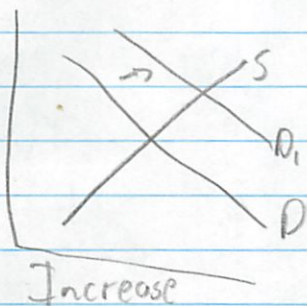


## Solid - Waste Disposal + Recycling

- landfills are filling up
- garbage needs to be carried long distances
- people don't want dumps near their homes
- nor incinerators which create air pollution
- recycling  $\uparrow$

## Market for Recyclables Input

- demand for recycled glass derived from demand for glass
- producers will use more recycled glass as price for it  $\downarrow$
- also dependent on tech + cost of raw material



## Incentive to $\uparrow$ Recycling

### Demand

- $\uparrow$  demand for recyclables
- tax new "virgin" glass
- require itself to buy recycled paper
- companies advertise recycling to avoid backlash

### Supply

also buy goods w/o much packaging

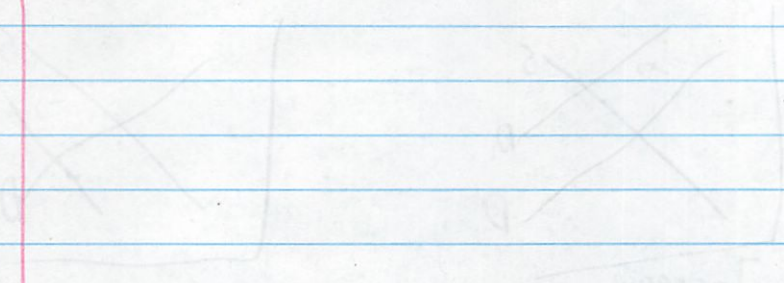
- local govs could pick up recyclables for free
- could pay people to recycle
- may  $\downarrow$  efficiency if pay more than what new costs

## Solid Waste Disposal - Recycling

- bottles are falling up
- garbage needs to be carried long distance
- garbage that is not dumped near the source
- not materials which create air pollution
- recycling ↑

## Market for Recycled Glass

- demand for recycled glass derived from demand for glass
- producer will use more recycled glass as price for it ↓
- price for it ↓
- also dependent on technology of recycling



Demand  
Supply

## Transition to Recycling

- demand for recyclables
- the new 'value' of glass
- increasing cost to buy recycled glass
- companies adjust their recycling
- to avoid bottlenecks

Supply

also...  
- cost of recycling is high  
- but...  
- for...  
- for...  
- for...

ACTIVITY 67

95.05% → 1.5

# Economic Efficiency and the Optimum Amount of Pollution Cleanup

The human and environmental damage caused by industrial pollution often arouses public attention. While it might be nice to restore our environment to its pristine state, pollution cleanup is costly, and dollars used for cleanup might be spent elsewhere. It seems, then, that some sort of balance must be struck between undesirable pollution and costly cleanup. Let's apply marginal analysis to determine an optimal amount of pollution and environmental cleanup.

The marginal social benefit of cleaning up pollution tends to decline as additional units of pollution are cleaned up. The marginal social cost of cleaning up pollution tends to increase as additional units of pollution are cleaned up. If society has accurate information about the total social (public and private) benefits and costs of various amounts of cleanup, it should be able to get as close as possible to the most efficient (or optimum) level of cleanup (and/or

pollution) where the marginal social benefits equal the marginal social costs.

Imagine a community in which two firms emit foul sludge into two local lakes (one for each firm). Natural processes gradually break down the sludge, rendering it harmless. But as long as emissions continue, a certain "equilibrium" level of harmful sludge remains in the lake. If emissions are lowered, this equilibrium level will be reduced. The opposite occurs if emissions are increased. Currently each firm emits five units of sludge each week.

Given the information in the tables *Firm 1* and *Firm 2*, you should be able to determine the optimal level of emissions for this community. Fill in all of the blanks in the tables, and use this information to answer questions 1 through 4. Assume that benefits obtained and costs incurred for cleanup at one lake have no impact on costs and benefits at the other lake.

Firm 1

Reduction of Foul Sludge Emissions	Total Social Benefit of Cleanup	Marginal Social Benefit of Cleanup	Total Social Cost of Cleanup	Marginal Social Cost of Cleanup
0	0		0	
1	350	350	160	160
2	650	300	370	210
3	900	250	630	260
4	1100	200	940	310
5	1250	150	1300	360

2-3 levels

1. Using the data from Firm 1, fill in the blanks and cross out the incorrect words in parentheses in each set underlined below.
  - a. The marginal social benefit (MSB) of reducing emissions by the first unit of foul sludge is \$ 350, and the marginal social cost (MSC) of reducing pollution emissions by the first unit is \$ 160. The marginal social benefit (MSB) is (greater than/equal to/less than) the marginal social cost (MSC), so that it (would/would not) be economically efficient from society's perspective to require Firm 1 to reduce pollution emission by the first unit.
  - b. The MSB of eliminating the last (fifth) unit of foul sludge is \$ 150 and

Ox

## Unit 5

### ACTIVITY 67 continued

the MSC of reducing pollution emissions by the last (fifth) unit is \$ 360 . The MSB is (*greater than/equal to/less than*) the MSC so that it (*would/would not*) be economically efficient from society's perspective to require Firm 1 to reduce pollution emission by the fifth unit.

**Firm 2**

Reduction of Foul Sludge Emissions	Total Social Benefit of Cleanup	Marginal Social Benefit of Cleanup	Total Social Cost of Cleanup	Marginal Social Cost of Cleanup
0	0		0	
1	350	350	160	160
2	650	300	320	160
3	900	250	480	160
4	1100	200	640	160
5	1250	150	800	160

4-5 levels

2. Using the data from Firm 2, fill in the blanks and cross out the incorrect words in parentheses in each set underlined below.
  - a. The marginal social benefit (MSB) of eliminating the fourth unit of foul sludge is \$ 300 , and the marginal social cost (MSC) of reducing pollution emissions by that fourth unit is \$ 160 . The MSB is (*greater than/equal to/less than*) the MSC so that it (*would/would not*) be economically efficient from society's perspective to require Firm 2 to reduce pollution emissions by four units.
  - b. The MSB of eliminating the fifth (last) unit of foul sludge is \$ 150 , and the MSC of reducing pollution emissions by that fifth (last) unit is \$ 160 . The MSB is (*greater than/equal to/less than*) the MSC so that it (*would/would not*) be economically efficient from society's perspective to require Firm 2 to reduce pollution emissions by five units.

07

## Unit 5

### ACTIVITY 67 continued

3. If this community decides to adopt a pollution control ordinance aimed at maximizing economic efficiency, how should it evaluate each of the following three proposals, all of which are based on the data presented above? Write a brief economic evaluation in the space provided after each of the following proposals. Be sure to use the concepts of marginal social benefit and marginal social cost in your analysis.

Proposal A. "Foul sludge emissions should be reduced (by five units) to zero in each firm because we should eliminate ~~all~~ pollution from our lakes regardless of the cost." This proposal (~~would~~/~~would not~~) maximize economic efficiency, because:

it would cause too much to be spent (too high costs), The economy would not be allocating its scarce resources efficiently.

Proposal B. "Firm 2 should be forced to reduce emissions (by five units) to zero because the total social benefit of cleanup (\$1,250) exceeds the total social cost of cleaning up (\$800). But Firm 1 should not be forced to clean up at all, because the total social benefit of clean up (\$1,250) is less than the total social cost of reducing emissions to zero (\$1,300)." This proposal (~~would~~/~~would not~~) maximize economic efficiency, because:

why → marginal is ~~what~~ matters  
-1.5 ↑ Social Cost + benefit

Proposal C. "In the interest of equal treatment for all, each firm should be forced to ~~clean up~~ (reduce emissions) by three units." This proposal (~~would~~/~~would not~~) maximize economic efficiency because:

it might cost the firms different amounts and provide different levels of benefits

4. Using the data presented above, what do you think is the optimum level of emissions reduction for each firm?

Firm 1 ~~2~~ units.

Firm 2 ~~3~~ units.

2  
4 ← close, counts

Explain briefly why you chose the numbers that you did.

$$MB = MC$$

## 30 Government + Market Failure

### Information Failure 636-640

4/28

buyers or sellers have imperfect information  
- and cost of obtaining better info is too high  
↳ asymmetric information

Without perfect info - resources are used inefficiently  
- so gov may have to provide the info

#### Sellers

- will cause under allocation of resources

#### Gas Market

- if gov did not regulate + test gas stations

- you would have to go around + test each station yourself

- very costly

- customers would opt-out of the market

- or honest stations would ask for

gov intervention

- so gov creates weights + measurements bureau

#### Surgeons

- would take a lot of time to see if a surgeon is reliable

- need to check references + such

- a bad surgery is very bad

- but a bad paint job is not

- so gov requires doctors to be licensed

- and regulates which drugs can be sold

## Buyers

Moral Hazards - tendency of 1 party of a contract to alter his/her behavior after the contract is signed which would hurt the other party

- \* if someone has insurance on something, they may be more reckless and make the event they are insured for more likely to occur
- this causes insurers to raise premiums
- lowering insured rate
- can't discriminate against the most risky people
- gov provides AFDC + other programs as "divorce insurance"
- off sets the hazards

## Adverse Selection

- information known by 1 party is not known by the other
  - and the 2nd party incurs  $\uparrow$  costs
- at the time the contract is signed
- people <sup>that</sup> most need insurance are most likely to buy it, raising the cost of it
  - this makes people are unlikely to use it not buy it, further  $\uparrow$  prices
- gov then usually provides the insurance
  - and forces everyone to pay

## Workplace Safety

- employers have incentives to ↓ injury
  - no loss of productivity
  - ↓ cost of hiring new workers.
  - ↓ workers comp insurance
- but expensive
  - protective gear, slower speed
- so firm does MC + MB analysis to find point of econ efficiency
- but only workers if know exactly the risks
- but if the workers don't know the risks the risky firm might not have to pay a high wage to compensate for the risk
- gov could
  - publish injury rates
  - require firms to provide safety info
  - establish high standards + enforce them

injuries  
cost lots  
of \$

## Qualifications

- many firms provide warranties
- chain stores remove risk of eating where you don't like
- Consumer Reports + others provide info
- but some times the gov has to step in

## Last Word: Used Cars

- why do cars lose a lot of \$ when driven off the lot?

- - used car buyers face asymmetric info
- one price comes out for a certain type of car →

Don't know  
the history  
of the car



- People with lemons have more incentive to sell
- so prices  $\downarrow$  further
- further reducing quality of cars for sale

but

- warranties protect re-sale buyers
  - can be inspected
  - rental companies sell good cars
  - gov has lemon laws requiring cars be fixed
- but buying is risky

## Market failure

- market does not give optimal efficiency for society
- insufficient info
- immobility
- monopoly
- externalities

# 3) Public Choice Theory + Taxation

## Majority Voting 643-647

4/29

- many people do not trust the government
- often spending does not produce results
  - poverty still here
  - test scores about the same despite ↑ money
- lots of buracracy + paperwork

- what should the government do?

Not like a market where only the people who want to pay for a good

- Democracies rely on "majority voting"
- Candidates represent the issues
- We pick our fav candidate
- at local level we may vote directly on referandums
- generally works well, but some inefficiencies

### Inefficiencies

- voting does not always produce most economic efficient outcome
- does not always follow  $MB=MC$

- may vote no to something people are willing to pay for if one is willing to pay a lot, but many don't want it

- may vote yes to something many people want - but in total not enough \$ to pay for it

- may be an overallocation or an underallocation of a good or resource →

- \* each person has 1 vote no matter what they would gain or lose
- buying votes is illegal - but people may want to do it sometimes
- people can not use a public good if the majority don't want it
  - but can buy a private good the majority does not want
  - like squid at a supermarket
- and consumers are forced to pay for a public good they might not want

### Interest Groups + Logrolling

- groups may send out mailings to persuade people
- or may trade votes with another group
  - "logrolling"
- both of these can be inefficient

### Paradox of Voting

- society may not be able to rank its preferences consistently w/ paired-choice majority voting

#### Preference

- when you test to find the priority of what people want it depends what you set against each other when people choose b/w 2 outcomes
- fails to make consistent choices reflecting the communities preference
- but there isn't anything better

corn sellers  
vote for  
high sugar  
tariffs -  
raises their  
profits since  
substitute

bath  
get what  
they want

→

### 3) Public Choice Theory + Taxation

Public Sector Failure <sub>647-650</sub> 4/29

- gov must intervene during market failures
    - should resolve conflicts with  $MB=MC$  analysis
    - but gov does not always perform in most efficient manner
- ↳ public sector failure

lobbies work against you if you don't support them

- for politicians the best choice is what keeps them in power the longest - not the best econ choice

#### Special-Interest Effect

rational ignorance →

- a small # of people obtain gov program which gives them large gains while hurting a large # of people a small amt.
- the beneficiaries are vocal + well-informed
- the losers are small + uninformed
- politicians can support the special interest groups since the losers are not upset enough not to vote for them
  - but don't want to annoy the special interest group

iron triangle - hard to break

- also in "park barral politics" - project which helps a certain community
- gains support of the constituents at the expense of the larger taxpayers
- special interest groups more likely to make political contributions

leaches out

\$ from econ

↓ econ vitality

) Some think this happened to Britain →

all "good" pres lived during crisis - were able to take country in new direction

## Rent-Seeking Behavior

- appeal to gov for special benefit at taxpayers expense

\* - rent = higher profits than <sup>pure</sup> market would allow

- unions, trade associations often do this

- can be direct (contracts) or indirect (laws)

- tariffs, special tax breaks, more public works projects, too much licensing

not enough regulators

- overlook

a lot - or are friends w/ the industry

↑  
then is needed to allocate resources to that

## Clear Benefits, Hidden Costs

- politicians want programs with clear and immediate benefits, but don't care about long-term costs

- oppose projects w/ clear costs now and benefits a few years in the future

- deficit financing can cover + defer costs

## Limited + Bundled Choices

- politics makes us less selective w/ public

- each candidate represents a bundle of goods

- no bundle exactly fits voter's preferences

- take bad w/ good

- inefficient

- congress also has to vote on entire bill



## Bureaucracy + Inefficiencies

- gov is not lazy b/c filled w/ incompetent people

\* - gov is not motivated by profit to be efficient

- a private firm must be efficient

- creates profits + promotion prospects for the manager

↑ an incentive

- inefficient firms die

- but inefficient gov is propped up

↑ possibly making the problem worse

- very hard for politicians to downsize as the workers + special interest groups will join together

## Imperfect Institutions

- criticisms perhaps exaggerated

- system far from efficient

- supposed to remove inefficiencies

- hard to say if a good belongs in the private or public sector

Democratic Institutions

Are they lost? etc (filled w/ scribbles)

gov is not motivated by profit to be efficient  
- a private firm must be efficient  
Creates jobs, promotion prospects for  
the manager

Democratic

political firms are

- but political gov is pushed up

political firms in the problem worse

they need for politicians to be efficient

workers + special interest groups will join

together

Political Institutions

political groups organized

- are often far from efficient

- designed to remove inefficiencies

hard to say if a good belongs to

the private or public sector

### 3) Public Choice + Taxation

#### Apportioning the Tax Burden

4/29

650-652

- hard to measure the benefits of public goods on each person
- need to decide how to distribute the tax "burden"

#### Benefits-Received Principle

- should pay tax like buying the good
- those who use more should pay more
- the gas tax funds highways
- but
  - how will gov determine how much benefits each receives
  - what about spillover benefits?
  - businesses need good roads for the customers to get to them
  - Can not apply to income redistribution programs
  - gas tax, fish+wildlife permit  $\rightarrow$  self-defeating

#### Ability to Pay

- burden should be appropriate according to tax payer's income + wealth
- each extra \$ earned gives a lower marginal satisfaction/utility
  - $\rightarrow$  go for less needed goods
- should pay larger fraction too?
- not easy measure one's ability to pay
  - income tax  $\rightarrow$
  - real estate tax for school
    - $\rightarrow$  makes schools bad in poor areas



## Progressive, Proportional + Regressive Taxes

- depending on income
- taxes are paid on income
- Progressive - rate  $\uparrow$  as income  $\uparrow$ .
  - not only larger absolute amt, but larger %
- Regressive - rate  $\downarrow$  as income  $\uparrow$ 
  - may or may not take more absolutely,
- Proportional - rate does not  $\Delta$
- progressive fall more heavily on rich
- regressive fall more heavily on poor

## US Personal Income Tax - progressive

- made less progressive by rules which allow mortgage interest to be deducted

## Sales Tax - Regressive

- a poor person spends more of their income

## Corp. Income Tax - proportional (35%)

- but passed onto consumers making it more of a sales tax - thus regressive

## Payroll Taxes - Regressive

- apply only to 1st part of income
- also apply only to wages
  - rich people make  $\Delta$  in stocks + such

## Property Taxes - Regressive (like sales tax)

- added to what tenants charged
- greater % of poor's income
- are higher in poorer areas to make up for low property values

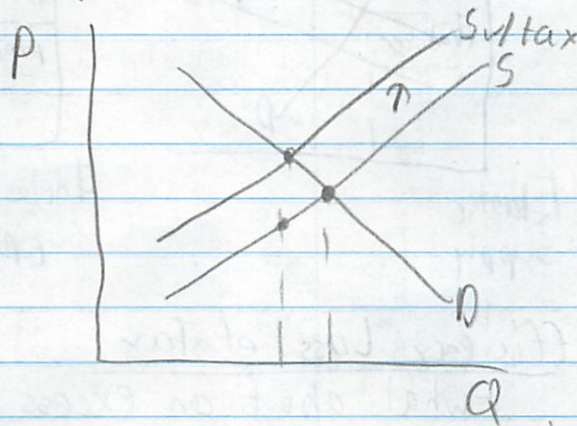
### 3) Public Choice + Taxation

Tax Incidence + Efficiency Loss 652-657 4/30

- taxes are not always paid by those who they are levied
- must find tax's final resting place or tax incidence
- are the costs of the tax paid for by the consumers?

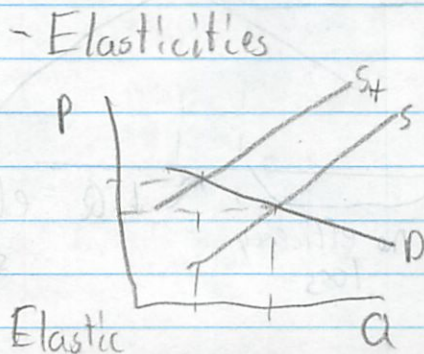
#### Elasticity

- if gov adds a tax to wine - who pays it?
- Division of Burden - adds to the MC of the producer
- sellers must raise their price by the same amt of the tax to get the same profit

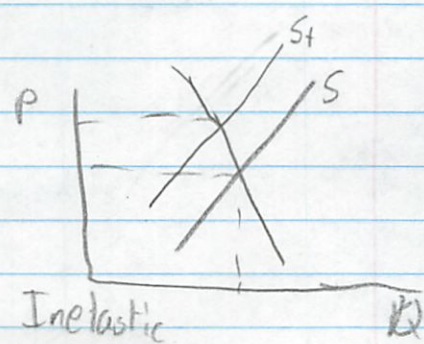


- or consumers + producers might split the cost if producer  $\downarrow$  profits somewhat and also raises its prices
- $Q \downarrow$  either way

#### - Elasticities



Elastic



Inelastic

\*  $\rightarrow$  with a certain supply - the more inelastic the demand, the larger the portion of tax shifted to consumers

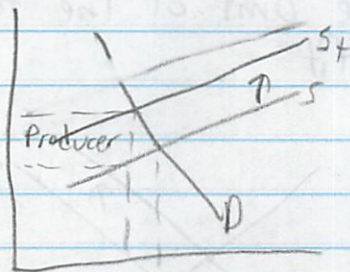
-  $\downarrow$  in  $Q$  is less

- tax revenues stay high

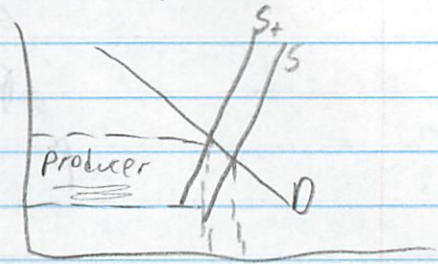
\* with a specific demand, the more inelastic the supply, the larger the portion of tax borne by the producers

- gold for example has inelastic supply

- so extra tax is paid by producer



Elastic Supply

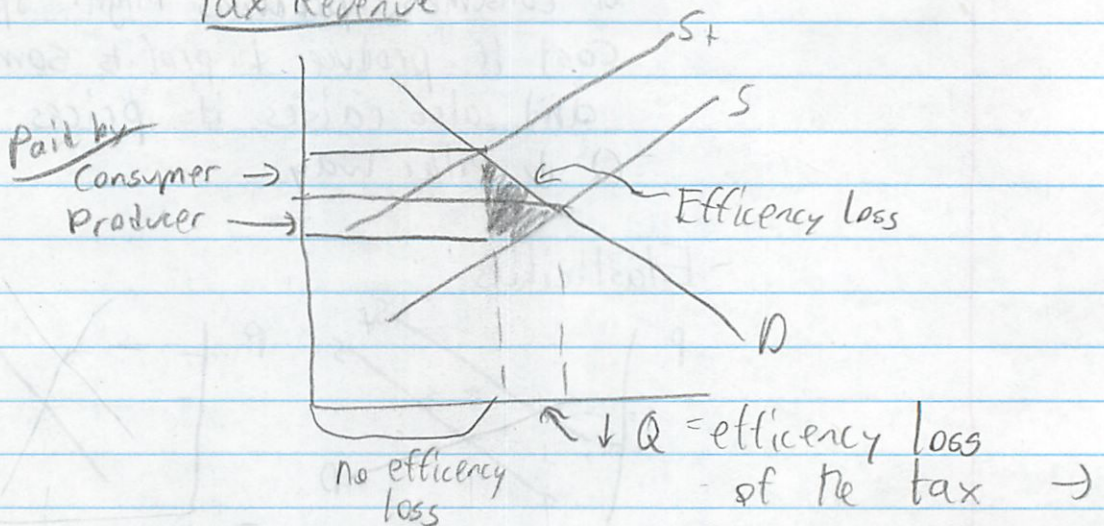


Inelastic Supply

### Efficiency Loss of Tax

- what about on excess tax?

#### Tax Revenue



- \* efficiency loss of the tax - society's sacrifice of net benefit because the tax ↓ production and consumption of the product below the levels of economic efficiency where  $MB = MC$

### Role of Elasticities

- most taxes create some sort of efficiency loss
- loss is greater in areas where demand is relatively elastic
- loss is greater when supply is more elastic
- \* 2 taxes with = revenue might not impose = costs on society
- gov should try to ↓ efficiency loss

### Qualifications

- other goals may be important
- Redistribution Goals - gov may use a progressive tax to redistribute income
- taxed luxury goods in 1990
  - ↳ but the ↓ in Q was so great that many people were laid off so was repealed in 1993
- Reducing Negative Externalities - may add tax to ↓ use of the product and supply of resources allocated to its production

## Probable Incidence of US Taxes

Personal Income Tax - hard to shift

but people who control their fees (doctors)

may be able to pass on a tax  $\uparrow$

unions might be able to  $\uparrow$  wages,  $\uparrow$  prices,

shifting burden to consumers

Corporate Income Tax - firm at profit-maximizing

price + quantity has little incentive to  $\Delta$

$\uparrow$  stockholders bear burden b/c  $\downarrow$  profits

means  $\downarrow$  dividends

- but if have control over price, firms

may be able to pass on taxes

- no consensus

Sales + Excise Taxes - sales tax can't really

be resisted so all shifted to consumer

Excise taxes might be hard to pass on

if demand is elastic b/c sub. exists

Property Taxes - borne by property owner

- on rented property can be shifted

onto the renter

## US Tax Structure

- hard to tell if our tax system

is progressive, regressive or flat

- since don't know how incidence shifted

- Fed tax = Progressive - top 10% of

people paid 60% of taxes

- but offset by payroll taxes (regressive)

- State + Local = Regressive - property +

sales tax affect rich less

- Overall: Slightly progressive -

tax transfer does most of redistribution

# 3) Public Choice Theory + Taxation

## Tax Reform 657-659

5/1

### Current Concerns

- lower rates of savings, investment, + econ growth
- tremendous tax complexity

### Value-Added Tax

- more savings allows more econ. growth
  - but causes ↓ in consumption
- VAT charges a company % of difference b/w what they paid for materials + what they charge
  - applies to all firms
    - so firms can shift costs to buyers
  - like a national sales tax
  - penalizes consumption
- rate would have to be high

would have to give up deductions →

### Flat Tax

- society demotes many resources towards accounting + collecting tax
- would establish 1 tax rate
- simple tax form
- would not tax interest nor capital gains
- allow greater growth

### Criticisms

- would reduce progressivity
  - undermining gov's effort to redistribute income
- tax prep businesses would go out of business
- home ownership + charitable contributions would ↓ as no longer incentivized
- would cause price level to ↑
- no more advantage for municipal bonds
  - would ↑ costs of cities

builders + realtors would be hurt

# Public Choice Theory - Introduction

## Tax Reform

2/1

1/1/20

limit interest on savings investment, 1.5% on growth  
- increases tax complexity

## Value-Added Tax

- more savings allow more economic growth  
but cause 1/3 in consumption

- VAT changes or company 2% of 100

the what to pay for materials what

the charge

- applies to all firms

- some can shift costs to buyers

- it's a national sales tax

- purchase consumption

- rate would have to be high

## Lottery

lottery denotes more resources towards

defunding collecting tax

- would establish 1 tax rate

- simple tax rate

- would not tax interest nor capital gains

- allow greater growth

## Charities

would reduce progressivity

- determining gov effort to reduce but income

- for high business would go out of business

- like municipal + charitable contributions

- would be no longer available

- tax rate price level to 7

- no more advantage for municipal bonds

- would cause rate of change

### 3) Public Choice + Taxation

Issue of Freedom <sup>+Last word</sup>  
654-660

5/1

- what is the relationship between individual freedom, and the size + power of the government

#### Conservative Position

- "power corrupts" ↓ individual freedoms
- can't choose where to take our business or where to spend our \$
  - minority must go with majority
  - should make decisions in the marketplace
- centralization of power does not allow one to move to another community

#### Liberal Position

- fallacy of limited decisions - Conservatives think that if Gov makes decisions for us, are less decisions for us to make
  - instead the framework allows there to be more choices
- gov does assign contracts to private companies

---

#### Last Word: Pork Spending

- requiring ships to be US flag vessels is a subsidy to USA
- many things tacked on defense bill
- \$333,000 toilet in National park that only works 1/2 the year
- 10 pages of specs for an ashtray



# Public Choice & Taxation

Issue of Freedom  
21-000

2/1

What is the relationship between individual freedom and the size of government?

## Conservative Position

- favor concepts of individual freedom
- not expose what to take out business
- want to open up
- minority must go with majority
- should make decisions in the marketplace
- centralization of power does not allow one to move to another community

## Liberal Position

- (lack of limited decision = conservative view)
- that if Gov makes decision for us, we lose decision for us to make
- instead of government allowing this to be more choices
- Gov does not contract to private companies

## of World Bank Spending

- requires steps to be taken
- a series of
- many things taken on before bill
- \$33,000 total in National Bank that
- will work for the year
- 10 pages of paper for an entire

### 3) Public Choice Theory + Taxation

#### Study Questions

4/29

#### 1. Affirmative or Negative votes problems

- The voting system is inefficient because people may vote for a system, but the aggregate they are willing to pay might not be enough to pay for it (affirmative) or they may vote against a plan which a few people are willing to pay a large amount of (negative)
- This problem would be more under ability to pay
  - If he was allowed to buy votes, Adams could use his surplus (extra benefit) to cover the costs for the other voters

#### 2. Explain the paradox of voting;

When the choices are set out in paired-choice majority style - it is hard to tell what good society values the most. The government will get different answers due to how they pair the question "which do you prefer?"

Because people have different priorities, they will vote differently when paired choices will come up. This means, depending on the questions asked, they will come up with an inconsistent order of priority.

3. Which size of dam will be selected using the paired choice method?

Would the one in the middle be picked?

No

Small

Medium

Large

XL

4. Bundling?

Bundling is inefficient because a voter must choose a candidate who they support. This candidate is a bundle of every issue. If you are anti-abortion, you must vote for John McCain even if you don't like his 100 years in Iraq. Otherwise you would have to shift your priorities. This is inefficient as you have to spend \$ on programs you might not like.

This is one of the reasons private businesses are more efficient than the gov. Other reasons include paperwork, political appointees who don't know what they are doing, and the inability to quickly change direction.

\* public gov is not motivated by profits

5. Would politicians make better decisions if they did not have to run for reelection?

Yes and No. They might be able to make sound economic decisions - but they might not be what the people want.

On the flip side, the politician is now free to ignore the public and may not do what is best for society.

Term limits stop politicians from getting too close with special interest groups - but also remove the most experienced leaders

6. Benefits or ability to pay?

→ Benefits - received charges people in proportion to how much they use the service; the gas tax for example pays for road repairs, Ability to pay is what we do, where you pay a % of your income.

Benefits sounds cool but is too hard to measure, thus it looks like I have to go along and say ability to pay is the best of the two.

Complete

7.	Income	10,000	20,000	30,000
	Tax	2,000	3,000	4,000
	Rate	20%	15%	13.33%

Regressive

8. Progressive - average rate  $\uparrow$  as income  $\uparrow$   
Regressive - average rate  $\downarrow$  as income  $\uparrow$   
Flat - rate does not change  
 $\uparrow$  proportional

- Fed. Personal Income Tax - set up as progressive but the payroll cop is partially regressive  
Overall: progressive
- 3% state sales tax - Regressive as poor people spend a higher % of income
- Excess tax on tires - Regressive - poor people spend higher % of income on tires  $\uparrow$
- Real Estate tax - Regressive
- Corporate tax - Regressive since the cost is commonly passed along to the consumer as a price  $\uparrow$  which is like a sales tax (see 6)

9. Incidence of excise tax for highly inelastic demand?

The more inelastic the demand for the product -  
the more the tax is shifted to the consumer.

For a highly elastic demand the producer must  
bear the incidence of most of the tax.

The more inelastic the supply, the more the  
tax incidence is born by the producer.

The efficiency loss of tax is society's sacrifice  
of the net benefit because the tax ↓  
production + consumption below where  $MB=MC$

Efficiency loss is greater when demand is elastic.

10. Demand  $\rightarrow P = 8 - .6Q$

Supply  $\rightarrow P = 2 + .4Q$

Equilibrium price + quantity?

$$\begin{array}{r} 8 \\ -2 \\ \hline \end{array} - .6Q = \begin{array}{r} 2 \\ -2 \\ \hline \end{array} + .4Q$$

$$P = 8 - .6(6) \\ 8 - 3.6$$

$$\begin{array}{r} 6 \\ +.6Q \\ \hline \end{array} - .6Q = \begin{array}{r} .4Q \\ +.6Q \\ \hline \end{array}$$

$$P = 4.4$$

$$6 = Q$$

Excess tax makes supply  $\rightarrow P = 4 + .4Q$

$$8 - .6Q = 4 + .4Q$$

$$P = 8 - .6(4)$$

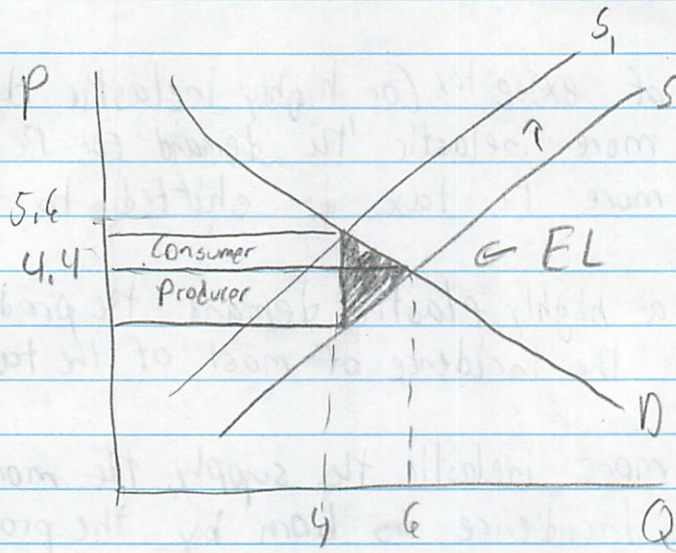
$$4 - .6Q = .4Q$$

$$8 - 2.4$$

$$4 = Q$$

$$P = 5.6$$

10  
cont.



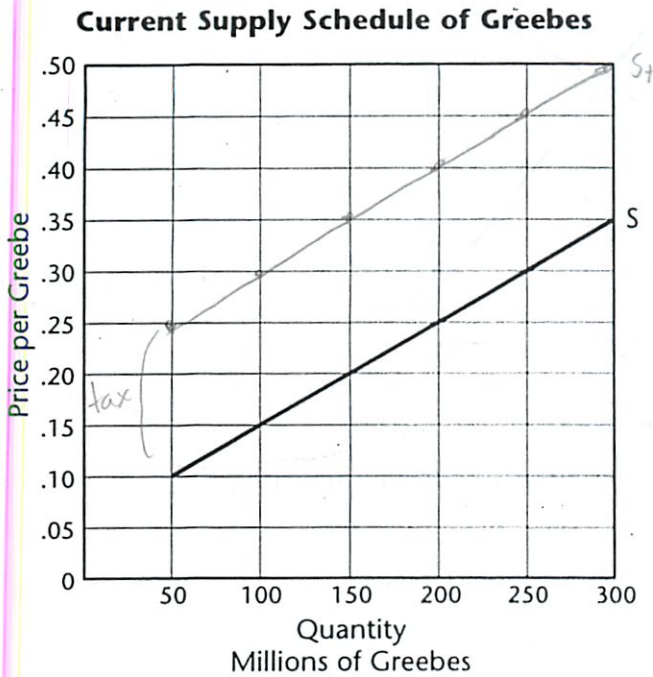
more  $EL$  is what is lost as  $Q \downarrow$  as prices  $\uparrow$

11. Last Word: Pork-barral + Logrolling?  
All are examples of pork barral spending  
which might have been passed because  
of log rolling

# ACTIVITY 73

## Excise Taxes

Suppose the following graph and table show the current supply of Greebes.



**Table of Current Supply Schedule of Greebes**

Quantity (millions)	Supply price before tax (\$ per Greebe)	Supply price after tax (\$ per Greebe)
50	\$.10	.25
100	.15	.30
150	.20	.35
200	.25	.40
250	.30	.45
300	.35	.50

Now suppose that (to raise revenue for higher education) the government enacts an excise (sales) tax of \$.15 per Greebe. This tax will result in a new supply curve for Greebes. To determine where this new supply curve lies, reason as follows: If before the tax, firms were willing to supply 50 million Greebes at a price of \$.10, they would now be willing to supply 50 million Greebes only if the price were \$.25. (Remember: \$.15 of the price of each Greebe sold is now going to go to the government. So, if the price is \$.25 and the government is getting \$.15 of this price, then the seller is receiving the remaining \$.10.)

Fill in the blank spaces in the table and draw in the new supply curve resulting from the tax. Label the new supply curve  $S_1$ .

What will be the result of this excise (sales) tax on: The equilibrium quantity of Greebes? The equilibrium price paid by buyers ( $P_b$ )? The equilibrium price received by sellers ( $P_s$ )? The revenue received by the government? And the income or revenue received by sellers after the tax?

The answers to these important questions will depend on the nature of the demand for Greebes. The next section of this Activity will help you determine the effects of a \$.15 excise tax on Greebes under four different demand conditions. After you have completed these, there are some additional, less mechanical, questions for you to think about and answer.



ACTIVITY 73 continued

Part A.

Relatively Inelastic Demand for Greebes



*different area than what I was thinking*

1. On the graph *Relatively Inelastic Demand for Greebes*, the equilibrium quantity of Greebes is 200 million.
2. On the graph, the equilibrium price of Greebes is \$ 0.25 per Greebe.
3. Buyers are spending a total of \$ 50 million on Greebes.
4. Sellers are receiving a total of \$ 50 million from selling Greebes.
5. If an excise tax of \$.15 per Greebe sold is levied on the sellers of Greebes, the equilibrium price paid by buyers ( $P_b$ ) will differ from the equilibrium price received by sellers ( $P_s$ ) by the amount of the tax. This \$.15 goes to the government. Under these circumstances:
  - a. The new equilibrium quantity of Greebes would be 150 million.
  - b. The new equilibrium price paid by buyers would be \$ 0.35 per Greebe.
  - c. The new equilibrium price received by sellers (after tax) would be \$ 0.20 per Greebe.
  - d. Buyers would spend a total of \$ 52.5 million on Greebes.
  - e. Sellers would receive a total of \$ 30 million (after tax) from selling Greebes.
  - f. The government revenue from this tax would be \$ 22.5 million.
  - g. \$ 15 million of this revenue would be paid by buyers in the form of higher prices.
  - h. \$ 7.5 million of this revenue would be paid by sellers in the form of reduced income.
  - i. As a result of the tax, buyers might buy a smaller quantity than before the tax. If so, the sellers would also have a loss of revenue that is not collected by the government. In this case, the "uncollected revenue loss" would be equal to \$ 12.5 million.

*← Calc error?*

$$\begin{array}{r}
 22.5 \\
 \uparrow \\
 .15 \times 150 \\
 \uparrow \quad \uparrow \\
 P \quad Q
 \end{array}$$

260  
*add up the boxes too*

$$\begin{array}{l}
 (200 - 150) \times .25 = \\
 50 \times .25 \\
 12.5
 \end{array}$$

$$\begin{array}{l}
 50 \\
 - 30 \text{ } \leftarrow \text{new revenue} \\
 \hline
 20 \\
 - 7.5 \text{ } \leftarrow \text{tax producers pay} \\
 \hline
 12.5 \text{ } \leftarrow \text{revenue lost}
 \end{array}$$

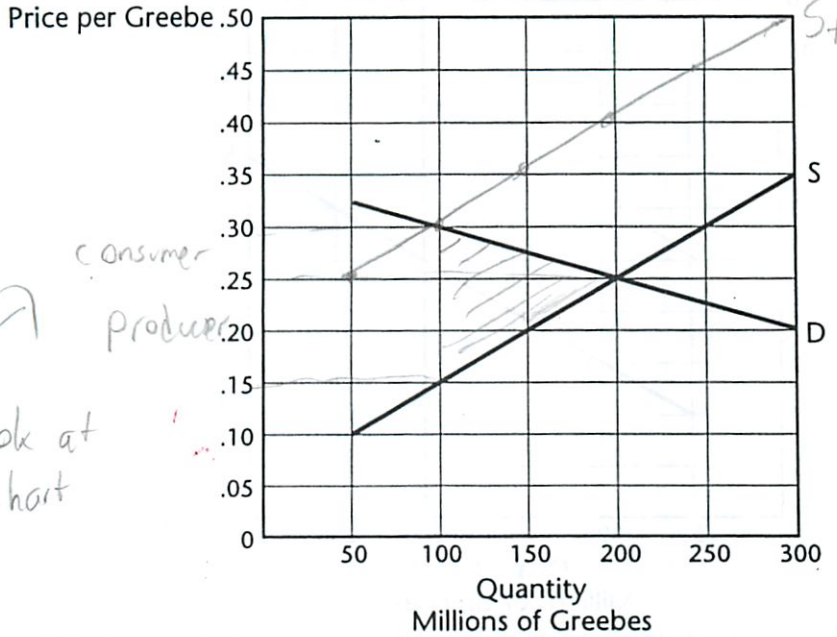
*Satisfaction given up*

**Unit 5**

**ACTIVITY 73 continued**

**Part B.**

**Relatively Elastic Demand for Greebes**



1. On the graph *Relatively Elastic Demand for Greebes*, the equilibrium quantity of Greebes is 200 million.
2. On the graph, the equilibrium price of Greebes is \$ 0.25 per Greebe.
3. Buyers are spending a total of \$ 50 million on Greebes.
4. Sellers are receiving a total of \$ 50 million from selling Greebes.
5. If an excise tax of \$.15 per Greebe sold is levied on the sellers of Greebes, the equilibrium price paid by buyers ( $P_b$ ) will differ from the equilibrium price received by sellers ( $P_s$ ) by the amount of the tax. This \$.15 goes to the government. Under these circumstances:
  - a. The new equilibrium quantity of Greebes would be 100 million.
  - b. The new equilibrium price paid by buyers would be \$ 0.30 per Greebe.
  - c. The new equilibrium price received by sellers (after tax) would be \$ 0.15 per Greebe.
  - d. Buyers would spend a total of \$ 30 million on Greebes.
  - e. Sellers would receive a total of \$ 15 million (after tax) from selling Greebes.
  - f. The government revenue from this tax would be \$ 15 million.
  - g. \$ 5 million of this revenue would be paid by buyers in the form of higher prices.
  - h. \$ 10 million of this revenue would be paid by sellers in the form of reduced income.
  - i. As a result of the tax, buyers might buy a smaller quantity than before the tax. If so, the sellers would also have a loss of revenue that is not collected by the government. In this case, the "uncollected revenue loss" would be equal to \$ 25 million.

? other way

100 \* 0.25 = normal price  
25

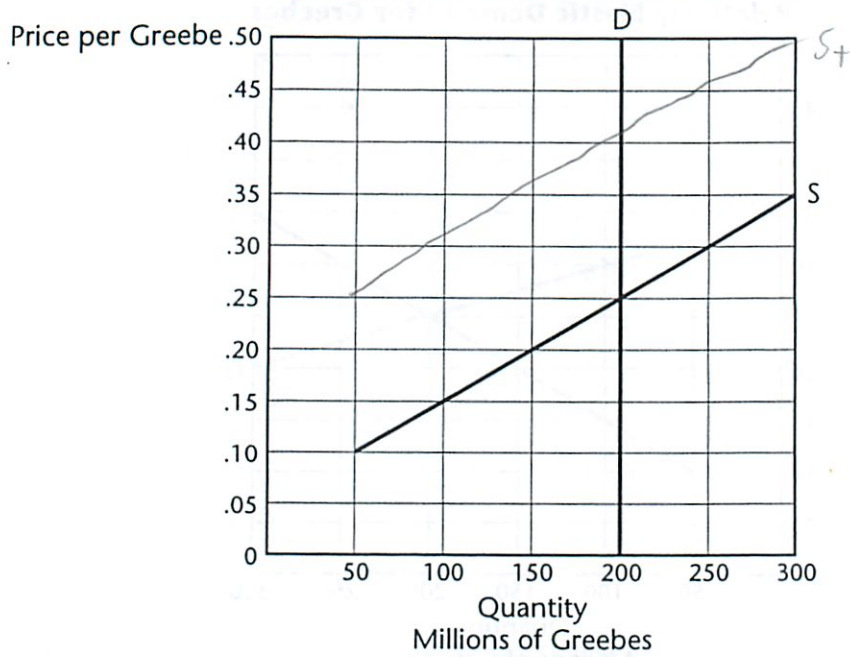
\$ 30

**Unit 5**

**ACTIVITY 73 continued**

**Part C.**

*7 Consumers*  
**Perfectly Inelastic Demand for Greebes**



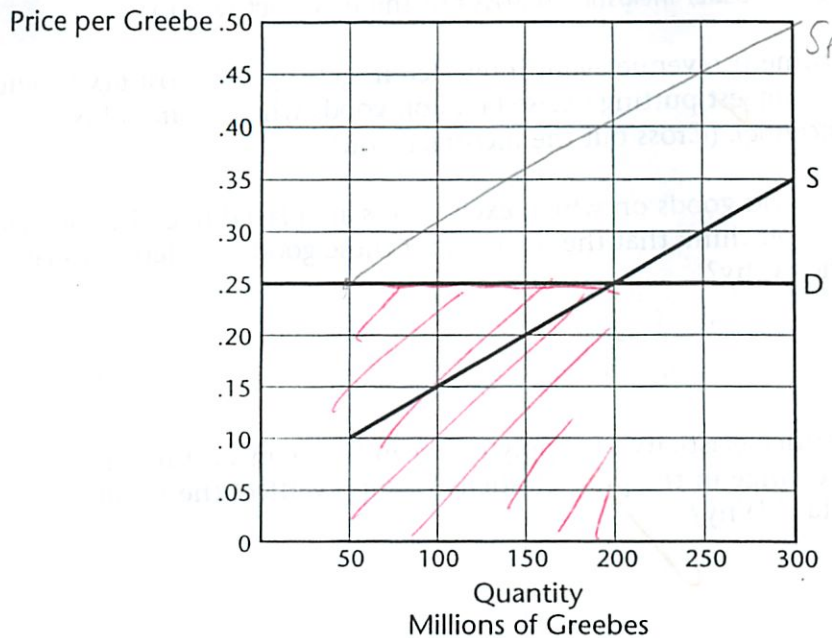
1. On the graph *Perfectly Inelastic Demand for Greebes*, the equilibrium quantity of Greebes is 200 million.
2. On the graph, the equilibrium price of Greebes is \$ .25 per Greebe.
3. Buyers are spending a total of \$ 50 million on Greebes.
4. Sellers are receiving a total of \$ 50 million from selling Greebes.
5. If an excise tax of \$.15 per Greebe sold is levied on the sellers of Greebes, the equilibrium price paid by buyers ( $P_b$ ) will differ from the equilibrium price received by sellers ( $P_s$ ) by the amount of the tax. This \$.15 goes to the government. Under these circumstances:
  - a. The new equilibrium quantity of Greebes would be 200 million.
  - b. The new equilibrium price paid by buyers would be \$ .40 per Greebe.
  - c. The new equilibrium price received by sellers (after tax) would be \$ .25 per Greebe.
  - d. Buyers would spend a total of \$ 80 million on Greebes.
  - e. Sellers would receive a total of \$ 50 million (after tax) from selling Greebes.
  - f. The government revenue from this tax would be \$ 30 million.
  - g. \$ 30 million of this revenue would be paid by buyers in the form of higher prices.
  - h. \$ 0 million of this revenue would be paid by sellers in the form of reduced income.
  - i. As a result of the tax, buyers might buy a smaller quantity than before the tax. If so, the sellers would also have a loss of revenue that is not collected by the government. In this case, the "uncollected revenue loss" would be equal to \$ 0 million.

Unit 5

ACTIVITY 73 continued

Part D.

Perfectly Elastic Demand for Greebes



1. On the graph *Perfectly Elastic Demand for Greebes*, the equilibrium quantity of Greebes is 200 million.
2. On the graph, the equilibrium price of Greebes is \$ .25 per Greebe.
3. Buyers are spending a total of \$ 50 million on Greebes.
4. Sellers are receiving a total of \$ 50 million from selling Greebes.
5. If an excise tax of \$.15 per Greebe sold is levied on the sellers of Greebes, the equilibrium price paid by buyers ( $P_b$ ) will differ from the equilibrium price received by sellers ( $P_s$ ) by the amount of the tax. This \$.15 goes to the government. Under these circumstances:
  - a. The new equilibrium quantity of Greebes would be 50 million.
  - b. The new equilibrium price paid by buyers would be \$ .25 per Greebe.
  - c. The new equilibrium price received by sellers (after tax) would be \$ .10 per Greebe.
  - d. Buyers would spend a total of \$ 12.5 million on Greebes.
  - e. Sellers would receive a total of \$ 5 million (after tax) from selling Greebes.
  - f. The government revenue from this tax would be \$ 7.5 million.
  - g. \$ 0 million of this revenue would be paid by buyers in the form of higher prices.
  - h. \$ 7.5 million of this revenue would be paid by sellers in the form of reduced income.
  - i. As a result of the tax, buyers might buy a smaller quantity than before the tax. If so, the sellers would also have a loss of revenue that is not collected by the government. In this case, the "uncollected revenue loss" would be equal to \$ 0 million.

ACTIVITY 73 continued

Part E.

1. A famous Supreme Court justice once said: "The power to tax is the power to destroy [sellers]." This is more likely to be true the more the demand for the product taxed is relatively (~~elastic~~ / inelastic). (Cross out the incorrect word.)
2. If you were a government revenue agent interested in getting the most tax revenue possible, you would suggest putting excise taxes on goods whose demand is (elastic/unit elastic/~~inelastic~~). (Cross out the incorrect word.)
3. Think of some real-world goods on which excise taxes are placed (e.g., liquor, cigarettes, gasoline). Do you think that the demand for these goods is relatively elastic or relatively inelastic? Why?
 

- lowest inefficiency

Elastic: liquor + cigarettes - can quit them } perhaps  
Inelastic: Gas - must use
4. In this problem the price elasticity of supply has been held constant in all four cases. How might a change in the price elasticity of supply affect the results of imposing an excise tax? Why?

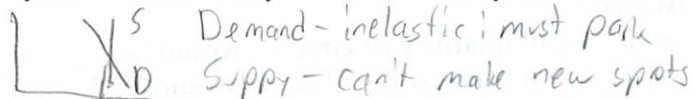
The more inelastic the supply, the more the tax is borne by the producers.  
- elastic supply forces large price ↑ and this paid by the consumer

Part F.

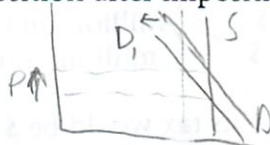
Consider the newspaper quotation and the questions that follow. You do not have to write out answers to the questions, but you should thoughtfully consider them for class discussion.

"The city is planning to place a 10% tax on auto parking. The tax would fall on every motorist who uses a space in either the garages and the lots operated by the Public Parking Authority or in privately operated lots and garages."

1. Draw the demand curve and the long-run supply curve for parking lots. Explain why each has the shape you show, i.e., why each is relatively elastic or inelastic.



2. Given the curves you have drawn in 1, show the effect of introducing a 10% tax; i.e., how does the equilibrium position after imposition of the tax compare with the initial equilibrium position?



3. The newspaper quotation implies that the "burden" of the tax will fall entirely upon the driver. Is this true for the case you have developed in 1 and 2 above? Under what circumstances would it be true?

No the more inelastic the supply the more it is borne by the producer

does not seem to fit it

washingtonpost.com

## Dreams on a Collision Course

By Ruth Marcus  
Wednesday, April 30, 2008; A19

Some people play fantasy baseball. I've got a thing for fantasy budgets.

Every four years, presidential candidates serve up a glittering array of policy proposals. Middle-class tax cuts! Universal health care! Alternative energy! They dangle these goodies before voters like a shiny set of keys in front of a grasping infant and say with the straightest of faces that this is all eminently affordable.

Every four years, after the election, those high-flying campaign plans collide with the reality of separate branches, entrenched interests and the relentless math of real-world budgets. Campaigns don't have to cope with Congressional Budget Office scores or Senate filibuster rules.

Still, fantasy budgeting is an important exercise. It offers insights into candidates' priorities and commitment to fiscal discipline. It shows how they reconcile responsible policy and winning politics. After all, one of the fantasy budgets of 2008 will have to be transformed quickly into an actual budget.

And so, I've spent an embarrassing amount of time recently constructing spreadsheets and squinting at tax tables to understand how the proposals of John McCain, Barack Obama and Hillary Clinton add up and whether they've put forward credible ways to pay for them.

Short version: Each candidate's plans would incur new costs, for tax cuts or spending initiatives, in the hundreds of billions of dollars annually. The Democrats go through the exercise of showing, on paper anyway, how these would be financed. McCain offers up a cornucopia of new tax cuts that dwarfs the Democrats' spending plans, and he scarcely pretends that he would find offsetting savings.

Meanwhile, back in the real world, Congress has been demonstrating just how fantastical the candidates' budgetary aspirations are. This cold bucketful of reality comes in the bloated form of the pending farm bill.

Farm income is up. Commodity prices are at record levels. What better moment for Congress to cut back on wasteful subsidies that flow to wealthy farmers, stymie trade talks and drive up global food prices?

Dream on. In Washington, if you want money for your pet program and I want some for mine, the inevitable solution is to give us both more. So those advocating extra funding for food stamps and conservation got their money, but at the price of continuing and expanding benefits for farmers.

The result: a bipartisan pork -- and rice and cotton and corn -- festival that will cost \$300 billion over the

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next five years. Under the measure, farmers would continue to get nearly \$5 billion a year in crop subsidies, even if prices are soaring. As for President Bush's proposals to cap subsidies at \$250,000 and provide them only to those earning less than \$200,000? Dead on arrival.

Thanks to Democratic Sens. Kent Conrad (N.D.), and Max Baucus (Mont.), farmers in their drought-stricken states would benefit from a new, \$3.8 billion program called permanent disaster relief -- this on top of subsidized crop insurance. Just wondering, but if the disaster is permanent, maybe that area is not a good place to farm?

Thanks to Republican Sen. Mitch McConnell of Kentucky, the racehorse industry would get quicker depreciation and lower capital gains taxes for horses, a purse worth \$489 million. Thanks to Democratic Sen. Blanche Lincoln of Arkansas, the timber industry would get a \$435 million tax break.

In other words, regional self-interest and political self-preservation know no partisan boundaries.

Forgive me, then, if I'm a tad skeptical about Obama's claim that he would "stop funding wasteful, obsolete federal government programs that make no financial sense." Or Clinton's pledge to "take back at least \$55 billion per year from special interests including the drug companies, oil companies, and firms that ship jobs overseas." Or McCain's incoherent plan to eliminate \$100 billion in spending that originated in earmarks.

What are their chances? Just ask the president, who every year sends up a budget that proposes eliminating scores of programs he deems wasteful and every year has seen the bulk of his suggestions ignored.

Or just consider the farm bill, and the positions of the senators who would be president. McCain, to his credit, is opposed. But when the Senate passed its even porkier version of the farm bill last year, Clinton and Obama expressed disappointment about the absence of some reforms -- and proceeded to praise it.

"An important step towards renewing our nation's commitment to our farming communities," said Obama.

"A safety net for America's farmers," said Clinton, who had gone to bat for Upstate New York milk producers.

Proving my point: Fantasy budgeting is the easy part.

*marcusr@washpost.com*

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May 2, 2008

OP-ED COLUMNIST

## The Cognitive Age

By DAVID BROOKS - Conservative

If you go into a good library, you will find thousands of books on globalization. Some will laud it. Some will warn about its dangers. But they'll agree that globalization is the chief process driving our age. Our lives are being transformed by the increasing movement of goods, people and capital across borders.

The globalization paradigm has led, in the political arena, to a certain historical narrative: There were once nation-states like the U.S. and the European powers, whose economies could be secured within borders. But now capital flows freely. Technology has leveled the playing field. Competition is global and fierce.

New dynamos like India and China threaten American dominance thanks to their cheap labor and manipulated currencies. Now, everything is made abroad. American manufacturing is in decline. The rest of the economy is threatened.

Hillary Clinton summarized the narrative this week: "They came for the steel companies and nobody said anything. They came for the auto companies and nobody said anything. They came for the office companies, people who did white-collar service jobs, and no one said anything. And they came for the professional jobs that could be outsourced, and nobody said anything."

The globalization paradigm has turned out to be very convenient for politicians. It allows them to blame foreigners for economic woes. It allows them to pretend that by rewriting trade deals, they can assuage economic anxiety. It allows them to treat economic and social change as a great mercantilist competition, with various teams competing for global supremacy, and with politicians starring as the commanding generals.

But there's a problem with the way the globalization paradigm has evolved. It doesn't really explain most of what is happening in the world.

Globalization is real and important. It's just not the central force driving economic change. Some Americans have seen their jobs shipped overseas, but global competition has accounted



for a small share of job creation and destruction over the past few decades. Capital does indeed flow around the world. But as Pankaj Ghemawat of the Harvard Business School has observed, 90 percent of fixed investment around the world is domestic. Companies open plants overseas, but that's mainly so their production facilities can be close to local markets.

Nor is the globalization paradigm even accurate when applied to manufacturing. Instead of fleeing to Asia, U.S. manufacturing output is up over recent decades. As Thomas Duesterberg of Manufacturers Alliance/MAPI, a research firm, has pointed out, the U.S.'s share of global manufacturing output has actually increased slightly since 1980.

The chief force reshaping manufacturing is technological change (hastened by competition with other companies in Canada, Germany or down the street). Thanks to innovation, manufacturing productivity has doubled over two decades. Employers now require fewer but more highly skilled workers. Technological change affects China just as it does the America. William Overholt of the RAND Corporation has noted that between 1994 and 2004 the Chinese shed 25 million manufacturing jobs, 10 times more than the U.S.

The central process driving this is not globalization. It's the skills revolution. We're moving into a more demanding cognitive age. In order to thrive, people are compelled to become better at absorbing, processing and combining information. This is happening in localized and globalized sectors, and it would be happening even if you tore up every free trade deal ever inked.

The globalization paradigm emphasizes the fact that information can now travel 15,000 miles in an instant. But the most important part of information's journey is the last few inches — the space between a person's eyes or ears and the various regions of the brain. Does the individual have the capacity to understand the information? Does he or she have the training to exploit it? Are there cultural assumptions that distort the way it is perceived?

The globalization paradigm leads people to see economic development as a form of foreign policy, as a grand competition between nations and civilizations. These abstractions, called "the Chinese" or "the Indians," are doing this or that. But the cognitive age paradigm emphasizes psychology, culture and pedagogy — the specific processes that foster learning. It emphasizes that different societies are being stressed in similar ways by increased demands on human capital. If you understand that you are living at the beginning of a cognitive age, you're focusing on the real source of prosperity and understand that your anxiety is not being caused by a foreigner.

It's not that globalization and the skills revolution are contradictory processes. But which

paradigm you embrace determines which facts and remedies you emphasize. Politicians, especially Democratic ones, have fallen in love with the globalization paradigm. It's time to move beyond it.

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May 2, 2008

OP-ED COLUMNIST

## Party of Denial

By PAUL KRUGMAN*- Hillary supporter*

During Barack Obama's Sunday appearance on Fox News, the interviewer asked him for an example of "a hot-button issue where you would be willing to buck the Democratic Party line" and say that Republicans have the better idea.

Mr. Obama's answer was puzzling because he gave credit where it isn't due — and thereby undermined what could be a very effective Democratic line of argument.

In particular, Mr. Obama attributed to Republicans the idea that regulation can be flexible rather than a matter of "top-down command and control," and in particular for the idea of controlling pollution with a system of tradable emission permits rather than rigid regulations.

Well, that's not at all what actually happened — and the tale of what really did happen has a lot of relevance to current events.

It's true that the first President Bush established a market-based system for controlling sulfur dioxide emissions, which has been highly successful at controlling acid rain. But by then the idea of markets in emission permits had long been accepted by economists of all political stripes.

And it had also been accepted by leading Democrats. The Environmental Protection Agency began letting cities meet air-quality standards using emissions-trading systems during the Carter administration — which also led the way on deregulation of airlines and trucking.

Furthermore, the sulfur dioxide scheme actually marked a sharp change in policy from the Reagan administration, which — committed to the belief that government is always the problem, never the solution — spent eight years opposing any effort to control acid rain.

Rather than admit that pollution is a problem the government has to solve — even as the consequences of acid rain became ever more alarming, not to mention as America's failure to act provoked a near-crisis in relations with Canada, which was suffering the effects of U.S.-

generated sulfur dioxide — the Reaganites insisted that there was no problem at all. They denied the evidence, questioned the science, called for more research and did nothing. Sound familiar?

And that, surely, is the line the Democrats should be pushing in this election: Republicans have become the party of denial. If a problem can't be solved with deregulation and tax cuts, they pretend it doesn't exist.

Climate change is the obvious contemporary parallel with acid rain. But if the Democrats really want to pin the denialist label on John McCain, health care is the place to focus.

The health care situation, in case you haven't noticed, is going from bad to worse. Many smaller companies stopped offering benefits between 2000 and 2005. In the past, health coverage has tended to improve when the economy recovers from recession — but the "Bush boom" brought at best a temporary stabilization.

And now that the economy is weakening again, another plunge is in progress: last week UnitedHealth warned investors that its business is suffering because fewer employers are offering coverage to their workers.

The Democrats have been offering real plans in response; they're not perfect, but they are serious.

The G.O.P., by contrast — and this goes as much for Mr. McCain as for the Bush administration — hasn't even tried to address concerns about coverage. Instead, it has all been about costs, which Republicans insist (wrongly) can be dramatically reduced by a policy of, you guessed it, deregulation and tax cuts.

Until a few days ago, the only answer the McCain campaign offered to those worried about lack of coverage was the vague, implausible assertion that the magic of the marketplace would make health care cheap enough for everyone to afford.

Now Mr. McCain has admitted that maybe a government program is needed for those who can't get private insurance. This appears to be a response to criticism from Elizabeth Edwards, who has been pointing out that deregulated insurers would deny coverage to anyone with, say, a history of cancer — a category that includes both her and Mr. McCain himself. But the way Mrs. Edwards has rattled the McCain campaign is evidence of just how vulnerable he is on the issue.

The point is that the health care issue could be Exhibit A for a Democratic campaign based on the argument that they are the party of pragmatic solutions, while modern Republicans won't even acknowledge problems that don't fit into their rigid ideological framework.

But are Democrats ready to make that case?

To be clear, both Democratic candidates have been saying things they shouldn't; Hillary Clinton shouldn't have endorsed the bad idea of a gas tax holiday.

But I think Mr. Obama is doing much more harm to the Democratic cause by echoing Republican attack lines on such issues as insurance mandates and Social Security. And now he's demonstrating his post-partisanship by giving Republicans credit for good ideas they never had.

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# 32 Antitrust Policy Regulation

665-666

Industrial Concentration: Beneficial or Harmful? 5/6

## Case Againsts

### Insufficient Resource Allocation

- produce ↓ output at  $T$  prices
- maximizes profit at  $MR=MC$  not  $P=MC$
- under allocation of resources

### Unnecessary for Econ of Scale or Progress

- for funeral homes etc - having large size does not really help →
- concentration does not ↑ efficiency after have 5% of market share
  - or perhaps the factories not the firms attain the efficiency
  - larger firms don't have incentive to innovate and sometimes suppress tech

### Income Inequality

- contributes to income inequality
- entry barriers create economic profits
- stock holders + executives often in upper-income groups

### Political Dangers

- Corps express too much influence over gov
- get special tax breaks + contracts

## Defense Againsts

### Superior Products

- consumers choose to buy their goods
- have "earned" it

### Underestimate Competition

- firm faces competition from other <sup>interindustry</sup> industries
- face foreign competition
- firms keep prices low to deter potential competition

→ some are Natural monopolies  
make society more efficient

## Economies of Scale

- does actually help economy
- large firms have ↓ prices

## Technological Progress

have \$ and incentive to innovate

- to keep other firms out
- to compete for future markets
- can still try to beat other oligopolies

Ford; not much innovation - falling apart  
now that its main sellers collapsed

# 32 Anti Trust Policy + Regulation

## US Anti Trust Laws 666-668

5/6

- not clear-cut or consistent

### Historical Background

Rockefeller →  
Standard Oil

- US always into free markets
- but after Civil War people started to not trust the big business "trusts" 1870s + 1880s
- trusts used questionable methods
- Regulation used when natural monopoly
  - only I can efficiently do it
- Antitrust laws - prevent growth of monopolies

### Sherman Act 1890

- no trusts *collusion or combination in*
- no monopolies or "restraints of trade" ↪
- could be sued by Justice Dept or people
- if found guilty, could be broken up or prohibited from doing some things
- fines + imprisonment possible
- parties could sue for 3x damages
- early court decisions found it weak

### Clayton Act of 1914

Rockefeller  
told trains to charge →  
his competitor more

- outlaws price discrimination not based on product differences
- forbids "tying" contracts
  - promise to buy multiple goods
- prohibits from buying stock to control companies to ↓ competition
- prohibit interlocking directorates
  - managers working at multiple firms
- sharpened definition of a monopoly
- punished existing monopolies

JP Morgan's favorite →  
tricks



## Federal Trade Commission Act 1914

flexibility

- FTC created to enforce (w/ Justice Dept) antitrust
- hold public meetings
- issue cease + desist orders

manage  
- not break up

- expanded by Wheeler-Lea Act 1938 to police deceptive acts + practices in commerce  
- false + misleading advertising

## Celler-Kefauver Act 1950

- prohibits buying physical assets of competition to inhibit competition
- expanded from stock owning

# 32/ Antitrust Policy + Regulation

Issues + Impacts 668-672

5/8

- effectiveness comes from court interpretations + vigor of enforcement
- courts have been inconsistent
- some Administrations weaken laws or ↓ enforcement

## Issues of Interpretation

### Behavior vs Structure

- 1920 US Steel Case applied rule of reason
  - Ok to be a monopoly as long as did not use illegal methods to get power or unreasonably used that power
- A lea (1945) - <sup>simply</sup> owning 90% of market is a violation
- structuralist'd say any concentrated industry will be monopoly-like
- behaviorist - say relation between size and performance is unclear
  - may be technologically progressive and sell at moderate price
  - could be serving society well
- since 1945 - gov returned to rule of reason

### Relevant Markets

- if the market is defined more broadly - companies market share is smaller
- Supreme Court not consistent
- 1956: Court found that DuPont although it had 100% of cellophane market was not a monopoly in the flexible wrapping materials market

8/2  
What is more important?

## Enforcement: Trade - Offs

- promoting competition is only 1 goal
- Balance of Trade - breaking up a monopoly will ↓ competitiveness with firms abroad
- may ↑ trade deficit

Defense Cutbacks - should defense firms merge to cut losses from defense spending cutbacks?

- or let bankruptcies sort things out
- in 1994 - Defense Dept decided to allow many mergers - and many then happened

Emerging New Tech - new technology allows a new breed of products + services

- some "mega mergers" of content + tech providers
- should gov allow these mergers to encourage adaptation of new tech?
- and allow us to export these
- selective enforcement is bad
- must balance these issues

## Effectiveness

### Existing Market Structures

- gov generally allows firms which have grown naturally to stay there
- 1982: gov broke up AT&T for using anti-competitive practices to keep marketshare

### Mergers

- 3 types
- Horizontal - similar products in same geo area
- Vertical - firms at diff stages of production
- Conglomerate - firms in different industries or different areas

## Guideline: Herfindahl Index

- sum of squared % of market power
- 4 firms each w/ 25%:  
 $25^2 + 25^2 + 25^2 + 25^2 = 2500$
- gov concerned with  $> 1800$  and increasing score  $> 200$  points
- allowed if 1 firm suffering losses
- other factors like foreign competition considered
- most vertical mergers make it
  - though large firms in concentrated industries might be investigated
- Conglomerate mergers generally allowed, since no  $\Delta$  in market share

## Price Fixing

- treated strictly
- per se violations
  - no rule of reason here
- needs to show was conspiracy
  - not that it happened or worked or caused damage
- fix prices, rig bids, or divide up market

## Tying Contracts

- can't bundle stuff
- for example: requiring "genuine" ink to be used in a printer

\* Not effective with internal expansion but blocks mergers + prosecutes price fixing + tying contracts  
- moderately effective

Vertical merger  
- sum of upward to market power  
- 11 firms each 1.2%  
- 25% + 25% + 25% = 75%  
- 20% combined with 1/800 and increasing  
- 500 points  
- 10% of firm selling losses  
- other factors the large competition standard  
- and vertical merger with  
- though large firm in concentrated industry  
- might be investigated  
- (and limits merger generally allowed since  
- no Δ in market power)

Price fixing  
- treated strictly  
- per se violation  
- no rule of reason here  
- need to show was competitive  
- not that it happened or would  
- cause damage  
- for price fixing, or kinds of price

Price control  
- not per se violation  
- for example, requiring "open" bid to  
- be used in a price  
- All efforts with control agencies but also  
- massive + practices price fixing thing control  
- regulatory failure

## 32 Anti Trust Policy + Regulation

### Natural Monopolies 672-674

5/8

- market where economies of scale so great - a single firm can supply the entire market at a lower unit price than having multiple competitors

- public utilities generally

- competition = uneconomical

- higher prices for everyone + society

- public ownership or public regulation

↑

Post office

Amtrak

Mass transit

- public regulation is preferred method in USA

- sets prices

- with deregulation this control is ↓

### Public interest theory of regulation

- so consumers get good service at good price

- so monopoly can not abuse its power

- so consumers benefit from the econs of scale

### Problems

Costs + Inefficiencies - if it has a set normal profit it has no incentive to ↓ costs

- would have to ↓ prices

- higher costs just get passed on

- would have nice working conditions

- b/c cost doesn't matter

- high X-inefficiency

- may make bad sub of capital for labor

### Commission Deficiencies

- staff might used to have worked in the industry so may help company not the people
- may guarantee a firm a profit by blocking competition

### Regulation of Competitive Industries

- trucking + airlines would be relatively competitive
- the regulation hurts industry  $\uparrow$  prices +  $\downarrow$  output
- losers are public + new firms

### Legal Cartel Theory

- some firms want to be regulated
- regulators could divide up market or expanding the cartel
- gov's cartel is because of rent-seeking behavior
- competition may be severe + destructive
- Occupational licensing is included

## 32 AntiTrust Policy + Regulation

Deregulation 674-675

5/8

- inefficiencies + legal cartel theory led to a wave of deregulating starting in the 70s

### Controversy

- Some say it would ↓ prices since it would end legal cartels
- others say firms would slowly monopolize
  - public interest theory
  - some thought it would bring instability
  - or end service to smaller places
  - competition might force some firms to ↓ safety

### Outcomes

- clearly benefited consumers + economy
- adding ~\$50 billion/year
- big ↓ in airlines (1/3), trucking (1/2) + railroads (1/2) in prices
- Unleashed new wave of technology



2/8

Antitrust Policy + Regulation

Regulation and Antitrust

regulation + legal control theories do a worse job of describing what is in the 50s

controversy

since so, it would ↓ price since it would  
and legal controls  
others say firms would start monopolies

public interest theory

- some thought it would bring reliability  
- or and some to ensure price

- competition might force some firms to ↓ prices

Outcomes

- clearly benefited consumer economy

- added ~\$20 billion/year

- did ↓ in welfare (1/3) from 1980 to 1990

↑ welfare: new wave of technology

# 32 Anti-Trust Policy + Regulation

## Social Regulation 775-777

5/10

condition under which products + services are produced  
impact of product on society  
physical qualities of goods themselves

Fed gov does most with states doing some

- FDA
  - Employment
  - Occupational Health + Safety
  - EPA
  - CPSC
- applies to more firms than industrial regulation
  - intrudes more into day-to-day operations
  - expanded rapidly at the expense of industrial regs
    - 20 new agencies 1970-1980
  - to improve quality of life

### Over-Regulation?

- some say current level is not optimal
- some think it hurts society more
- others think it has worked very well

### Costs

- administrative costs to pay workers + costs of the regulatory agency
- compliance costs - companies pay in order to make sure they meet requirements

### Uneconomical Goals

- many poorly written
- standards + goals not clear
- marginal costs not considered

## Inadequate Info

- tests on animals might not translate to humans
- global warming might not be caused by that sort of pollution

## Unintended Side Effects

- for example fuel standards  $\downarrow$  weight of car  $\downarrow$  safety  $\uparrow$  accidents

## Overzealous Personnel

- agencies attract workers who hate pollution
- may avoid MB-MC analysis
- may find more "problems" to regulate

## Economic Implications of Over Regulation

### Higher Prices - costs get passed on

- $\downarrow$  labor productivity as investments are put into compliance tech not productivity  $\uparrow$
- agencies compete for resources

### Slower Innovation

tech advance is stifled

new drug might not get passed FDA

### Reduced Competition - greater burden on small firms

- causing a  $\uparrow$  per unit cost
- forcing small firms out of business

Support - problems agencies confront are serious + costly  
large costs superseded by larger benefits  
- which may be non-obvious + in long run

# 32 AntiTrust Policy + Regulation

## Industrial Policy <sup>+ Last Word</sup> 678-681

5/10

\* government action to promote the economic vitality of certain firms or industries

whereas other policies restrict firms this promotes them

### Antecedents

gov helping industry has long history  
mercantilism gave out monopolies, allowed raw materials to be imported and set high tariffs on importing finished goods to help firms

US 1800s gave land to railroad companies

Gov subsidizes agriculture

Gov spending built up defense industries

### Recent Emphasis

Some think US is losing industrial superiority due to many imports from China

Japan subsidizes exporting industry

gov should provide subsidies + low-interest loans

Auto Industry - bailed out Chrysler 1979

limited imports

provides subsidies for fuel research

Synfuel - in response to oil crisis

to make oil from oil shale

\$1.3 billion disaster

ethanol subsidy

Export-Import Bank - offers credit insurance to those who buy exports

Sematech - allowed chip manufacturers to be immune from anti-competitive laws

Flat-Glass - \$1 billion for computer screens 1994  
- said it was for national defense

### Controversy

- some think it is good at creating economic growth
- has worked in some Japanese industries
  - recovered very well from WW2
  - but some failures because gov set policy wrong
- also mixed in Europe
- gov not very good at deciding where to invest
  - bureaucrats are spending the taxpayers \$
- funds may be used as a political favor
  - bringing inefficiencies
- may lead to "lemon socialism" - gov's ownership of dying technology + companies

### Last Word: Airline Deregulation

- still adjusting after 2 years
- downward pressure of fares
  - not uniform
  - due to competition
  - ↓ in profits
  - hub + spoke ↓ costs
  - new non union airlines ↓ wages + ↑ productivity
- many less complaints
- more people flying
  - but ↑ stopovers + congestion
- less deaths + less highway deaths
- some worried about ↑ concentration
- had for new firms to enter market
- \* mostly positive

# 33/ Agriculture: Economics + Policy

Economics 684-689

5/16

- agriculture is one of the largest industries
- without intervention can be perfectly competitive
- provide evidence of intended + nonintended effects of gov policy
- very tied to world markets
- good example of rent seeking behavior + special interest effects

## Short Run Problems: Price + Income Instability

### Inelastic Demand for Agriculture

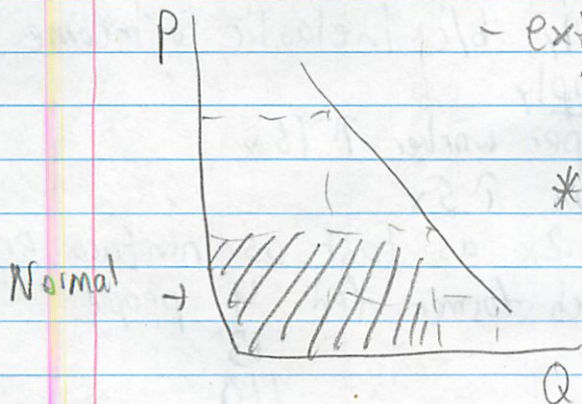
- developed nations  $\Rightarrow$  elasticity  $\sim .20-.25$
- substitution effect modest for food
- rapid diminishing utility for food
- after a certain amount people don't want to eat more food

### Fluctuations in Output

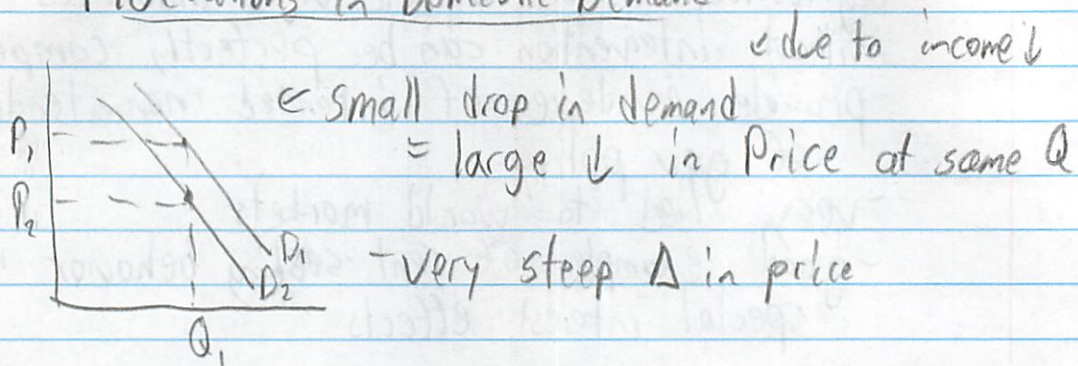
- many natural events beyond control of farmer
  - floods
  - droughts
  - insects
- independent farmers choose their own what crops to plant

- extra crop or poor crop hurts  
 $\uparrow$  more than proportionate price  $\downarrow$  = profit  $\downarrow$

\* Best for stable market



## Fluctuations in Domestic Demand



- some argue that some farmers may not produce, ↓ output, fixing problem
- but reality not that nice
- mostly fixed not variable costs
- so better off still working

## Unstable Foreign Demand

- subject to change due to weather + crop production in other countries
- cyclical worldwide income  $\Delta$
- foreign politics matter
- affected by foreign currency

## Long Run: Declining Industry

- over time supply ↑ due to tech
- demand ↑ slowly b/c inelastic to income

### Technology + Supply

capital per worker ↑ 15x

land/person ↑ 5x

advanced 2x as fast as nonfarm econ

1826: each farmer fed 4 people

1947

13

1997

110

- because of gov sponsored R+D

## Lagging Demand

- failed to keep pace w/ supply  $\Delta$

Income Inelastic Demand - after you are full you spend your extra \$ elsewhere

- econ growth in US does not lead to proportional farm spending  $\Delta$

- not very sensitive to income

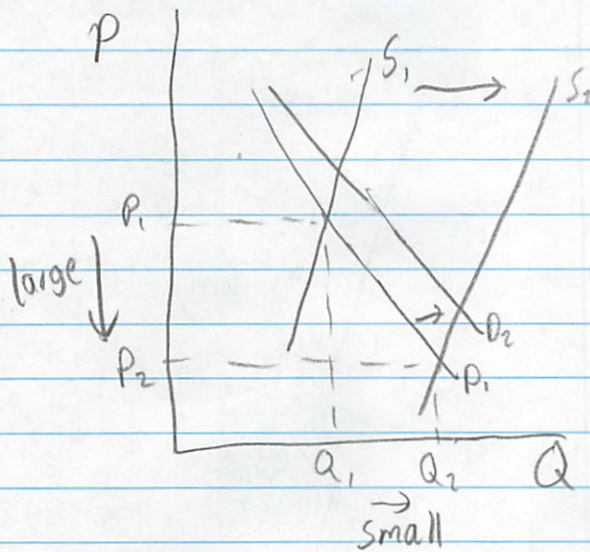
- some products even income inferior

- as income  $\uparrow$ , purchasing  $\downarrow$

Population Growth - growth of farm industry

is linked to population growth

- pop growth in US is low



$\uparrow$  in supply relative to demand creates downward price pressures

## Consequences

- triggered massive exit of industry

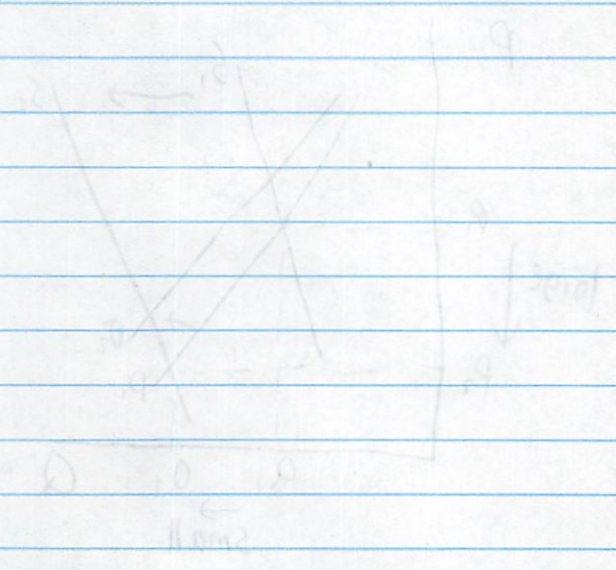
- firms consolidated + created agribusiness

- net farm income per farm household  $\uparrow$



- pop growth in US is low  
 - (used to population growth)  
 - growth of farm industry  
 - as income ↑, purchased ↓  
 - some products even income inelastic  
 - not very sensitive to income  
 - proportional farm spending ↓  
 - Econ growth in US does not lead to  
 you spend your extra \$ elsewhere  
 - Transferring Demand - other products  
 - called to keep pace w/ supply ↓  
 - increasing demand

- price pressures  
 - demand creates downward  
 - in supply relative to



- not farm income per farm household ↑  
 - firms consolidated + created ag. business  
 - triggered massive exit of industry  
 - consolidation

# 33 Agriculture: Economics + Policy

## Economics of Farm Policy 689-693

5/10

- subsidized since 1930s
- support for farm prices, income + outputs
- soil + water conservation
- agriculture research
- farm credit
- crop insurance
- subsidized sale of farm products in world market
- mostly "price supports" to keep prices + incomes ↑
- 1996 gov ended many farm payments

### Rationale

- farmers are poor + need public's help
- farming is an American way of life
- farmers have lots of hazards
- buying of supplies is from oligopolies while products are sold in a competitive market

### Background: Parity Concept

- a certain amount of crop buys a certain item
- example: bushel of corn = shirt - now + 100 years ago
- if price of shirt 3x, price of corn should 3x  
↑ 100 parity
- last 100 years prices paid ↑ 14x  
prices received ↑ 7x

Parity ratio =  $\frac{\text{prices received}}{\text{prices paid}}$

47% in 1996 vs 1910-1914

## Economics of Price Supports

- minimum prices
- usually above equilibrium
- usually to establish parity

Surplus Output - gov must buy

Gain to Farmer - revenue?

Loss to Consumer - higher price  
lower Q

could be up to 2x

disproportionate to poor

Resource Overallocation - Economic inefficiency

price > marginal cost

- higher taxes (see shaded area)

+ storing extra output

- high admin costs

- thousands of gov workers

- rent-seeking behavior

- lots of campaign contributions

## Environment

pressure to grow more means more chemicals are used

Creates disincentive for crop rotation

- which is nonchem pest control

more farm land used

- that has a ↑ MC

uses more water

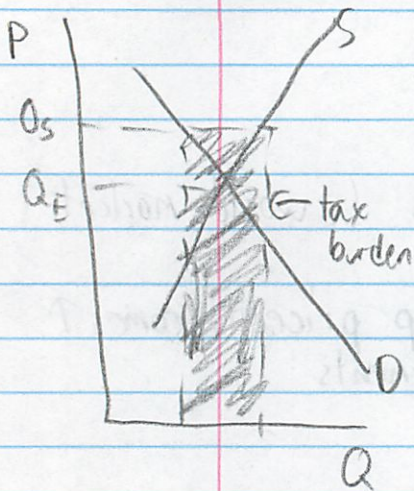
## International

makes US more attractive to import into

so we set tariffs or quotas

- restricting efficient foreign producers

and subsidizing ineffective domestic ones



we also dump excess onto world markets  
↓ incomes of other nations  
hurting developing countries

## Reduction of Surpluses

### Restrict Supply

- acreage allotment program
  - in return for guaranteed prices had to only plant crops gov said to
- but not proportional ↓, as farmers gave up their worst lands
- cultivated remaining land more intensively
- non participating farmers ↑ supply

### Bolster Demand

- New uses
  - ethanol research
  - modestly successful
- Domestic + Foreign Demand
  - Food stamps
  - Food for Peace aid
  - advertising overseas
  - reduces other countries tariffs

we also bump prices up with market  
incomes of other nations  
in the developing countries

Restoration of supplies

Product Supply

- encourage allotment programs
- in return for guaranteed prices for
- to only get crops you need to
- but not proportional to as farmers
- give up their worst lands
- cultivated remaining land more intensively
- not participating farmers & subs

Global Demand

- from 1992
- ethanol research
- modestly successful
- Domestic Foreign Demand
- food stamps
- food for peace aid
- diverted to overseas
- (from other countries) for

# 33 Agriculture: Economics + Policy

Criticism, Politics, + Reform <sup>+last word</sup>  
694-698

5/13

## Criticisms

Symptoms, Not Causes - root cause is misallocation of goods in econ - too many farmers  
public policy did not address too many farmers  
- kept people from moving to non-farm jobs

Misguided Subsidies - should help the low-income farmers, but they don't make much

1996: 16% of farms got 46% of subsidies  
poorest 61% got 6%

should go to people not products  
supports make land more valuable

- since ~50% rent this helps rich landlords

## Policy Contradictions

- new tech ↑ supply
- acreage allotment ↓ supply
- ↑ corn prices = ↑ costs to cow farms
- tobacco is subsidised
- sugar sets import quotas
- conservation ↓ farming
- price supports ↑ farming

## Politics

- farmers engage in rent seeking behavior + special interests
- create PACs + donate to politicians
- no one campaigns against farm subsidies
- food stamps are rural-urban coalition
- 100,000 federal employees related to farms
- costs are hidden + indirect

(changing Politics)

## Changing Politics

↓ political support - urban politicians 9:1 rural  
much less people are farmers now  
politicians look at grocery bills

Budget Deficits - bring scrutiny

Program Excess - reported more + more

World Trade excess supply caused by US+EU  
programs ↓ prices where is no farm program  
- mostly undeveloped nations  
- even if it would be cheaper there  
- US made strong stance to ↓ prices

## Recent Reform: Freedom to Farm (1996)

ended price supports + acreage allotment  
farmers can decide what to grow  
guaranteed 7 year transition payments

expected to ↑ efficiency  
allows flexibility w/ different crops

---

## Last Word: Sugar Program: A Sweet Deal

Domestic Costs \$ ~1.5 billion to few farmers  
recessive tax

Import Quotas - set to not allow price undercutting

Developing Countries - hurts them

↓ their exporting revenue  
further ↓ world prices

Global Resource Misallocation -

can't shift production to where most efficient

Substitutes + Jobs - shifted demand

to corn syrup + artificial sweeteners

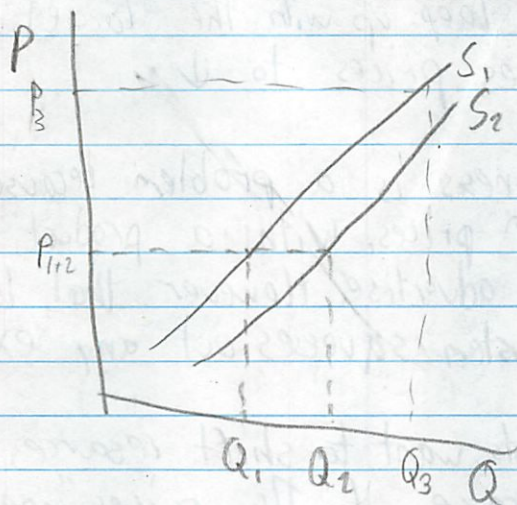
7000 jobs lost as refineries + candy companies closed

# 33 Agriculture: Economics + Policy

## Study Questions

5/10

1. No, small changes in supply cause large change in prices



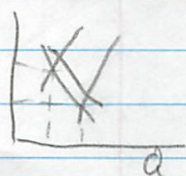
However a large  $P \uparrow$  only has a modest  $Q \uparrow$

Exports  $\uparrow$  the instability of demand, since demand now varies on foreign incomes, economies, their domestic outputs, currency markets, foreign subsidies,

2. If a farmer's costs are inelastic, a small  $\downarrow$  in demand causes a big price drop. However the farmer's costs stay the same. If the farmer decides not to work, he will only save a small amount of cost, since most of his cost is fixed.

3a. The inelasticities of demand mean that a small change in demand can cause a large drop in prices, thus income for the farmer. This is instable.

b. The rapid technological progress will cause outputs to increase faster than demand. This will make the price go down like fig 33.4





c) The modest long run demand growth is a problem because it can not keep up with the large supply growth. This causes prices to ↓

d) The competitiveness is a problem because nothing can be done to ↑ prices, with a product not easily substitutable. One could advertise, however that is not an option as the system squeezes out any extra cost.

4. Many economists want to shift resources away from farming because if the prices "need" support since they are too low, there is already an overproduction of goods in society. Thus the <sup>farm</sup> economy as a whole would be better served if the overproduction was corrected.

5. Price trends do not indicate where prices could be without any supports. Farm prices are being held up, even if prices are falling. This has nothing to do with subsidizing industry.

6. No, the people who use more farm goods should pay a larger share of farmer's incomes. Government is also inefficient as much of the tax money goes to admin costs or overpayments. Lastly it compensates farmers wrongly and makes them inefficient.

7. 
$$\text{Parity Ratio} = \frac{\text{price received}}{\text{price paid}} = \frac{120}{165} = 73\%$$

This means that relative to the base period, the farmers can now buy less goods for harvesting the same amount of crops.

8. Minimum prices, or price supports are economically inefficient. Too much of the product is made. This provides a gain to farmers and a loss to consumers. Also this is inefficient because too many resources are allocated to farming leading to an overproduction of goods.

Also people pay higher taxes, pay admin costs for the aid, and are further hurt as the farmers use rent seeking behaviors to get even more subsidies.

The higher prices encourages more land to be used for farming (and thus water). Also methods to increase yields, such as pesticides and fertilizers may be used - hurting the environment.

Globally it locks out more efficient foreign producers and ↓ the incomes of poor countries.

Part 1's price received = 150  
 price paid = 125  
 = 23%

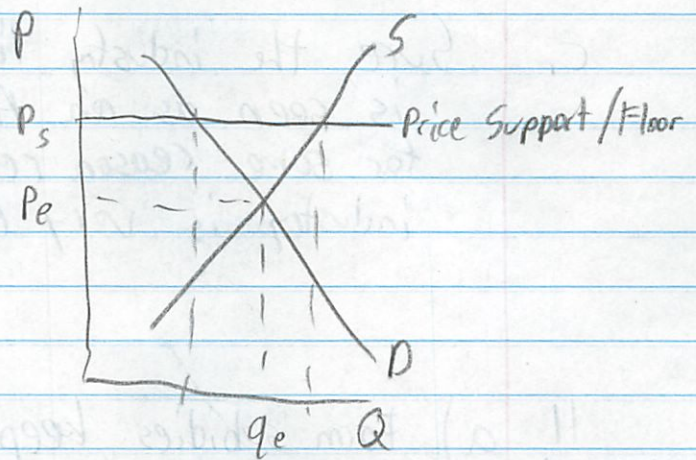
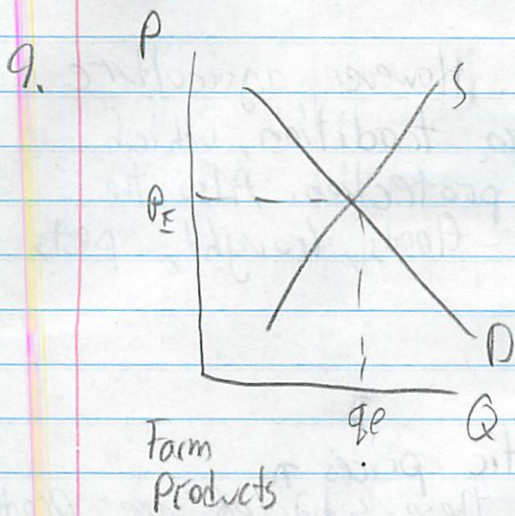
This means that relative to the base period, the farmer can now buy less goods for purchasing the same amount of crops.

8. Minimum prices, or price supports are government efforts to keep the price of a good above the market price. This provides a gain to farmers and a loss to consumers. Also this is inefficient because too many resources are allocated to farming leading to an overproduction of goods.

Also people pay higher taxes for admin costs for the program and are further hurt as the farmer use land seeking producers to get even more subsidies.

The high price programs may lead to be used for farming (and thus water). Also methods to increase yields such as pesticides and fertilizers may be used leading to environmental

damage. It leads to more efficient foreign production and ↓ the income of poor countries.



To get rid of the surplus the gov could  $\downarrow$  supply or  $\uparrow$  demand. To  $\downarrow$  supply it could pay people not to plant - however this is not perfectly effective. It could try to  $\uparrow$  demand by creating new uses,  $\rightarrow$  advertising, or giving it to the poor through foodstamps. It could even buy it and give it away as aid, or accept local currencies (Food for Peace)

↳ dairy cows

10. a) There are too many farmers, but this is the fault of the farmers, not the gov

↳ in those countries

b) It could, but then no one would buy, further  $\downarrow$  prices. It would work if they wouldn't buy anyway. It would also be expensive and hurt their industry, putting people out of work and dependent on handouts.

c. Sure, the industry likes it. However agriculture is seen as an American tradition, which for some reason requires protection. Also the industry is very risky - floods, drought, pests

11. a) Farm subsidies keep domestic prices  $\uparrow$   
b) keep world prices  $\downarrow$  as these subsidized are produced overallly creating a surplus  
c) Inefficient as we ignore a foreign seller who could make it cheaper (less resources), instead we prop up inefficient domestic producers

12. The subsidies must have gotten so large, or driven the prices of the grocery store up that people began to notice and call their Congressman...

13. The intent is to remove subsidies for many crops. Yes I think it is good to make it more like a market. However there is still plenty of help from Uncle Sam like crop insurance + fallow fields payment + demand enhancers like food stamps  
 $\downarrow$  international consumers

14. The sugar growers and politicians benefit. Domestic consumers and international sugar farmers are hurt. Also helped are sugar substitutes producers (corn syrup) and hurt are manufactures who buy sugar + lay off employees to move overseas

# 35 Economics of Health Care

## 2 Problems: Costs + Access 721-722

5/15

- Cost high and increasing
- more services used
- many Americans have little or no access
- almost dual system
  - those w/ it get very good care
  - those w/o it get little to no care

2/12

Health Care  
Costs + Access  
2014-2015

- Cost high or increasing  
- More people used

- Many American have little or no access  
- shared dual system

- There's not a right way to care  
- There's who it gets little to no care

# 35 Economics of Health Care

## High + Rising Costs 722-725

5/15

- Spending in US is high + rising absolutely, as 4% of GDP, and Per capita

Out

- 36% hospitals
- 25% Misc (Dental, Vision, Home Health)
- 20% Doctors
- 11% Admin + Research

In

- 31% private health care
- 19% Copays + deductibles
- 14% Medicaid
- 19% Medicare

deductibles - amount you pay each year before insurance pays

Copayments - % or amt. paid each visit

- hospitalization
- doctor
- drugs

Medicare - Federal payments for those w/ disabilities

Medicaid - low income people  
- shared Federal and state

actually works pretty well  
- lower costs

1995: 13.6% GDP

2007: much higher

only gets worse w/ Baby Boom

highest per capita spending of any nation

US healthcare perhaps best in the world

- life expectancy T.S. years 1960-1997
- but TB resurged + AIDs killed many
- but scores low on many life expectancy indicators



## Economic Implications of Rising Costs

- reduced access to care
  - # who are uninsured is growing
- slower wage growth for employees
  - less \$ since companies have to pay higher premiums
- use of part time + temp workers
  - who don't get benefits
- fastest growing segment of gov's budget
  - must ↑ taxes, ↓ other spending or ↑ borrowing

## Problems

- industry is inefficient
  - way it is financed
  - asymmetry of information
  - paperwork
- requires lots of capital + skilled labor
- perhaps using more than  $MB < MC$ 
  - could use scarce resources elsewhere

# 35 Economics of Healthcare

## Limited Access 725-726

5/15

1996: 16% had no health insurance for entire year

mostly the poor who earn "too much" for  
Medicaid but not enough to afford private coverage  
- about 50% of uninsured

both the most and least healthy uninsured

workers at smaller firms less likely to be insured  
- admin costs spread out  
- large companies take tax breaks

low wage workers less likely to be insured

a few uninsured people pay out of pocket

others wait until very sick to go to the  
hospital

- other patients have to pay for this "free"  
care

- \$10 billion

Economics of Healthcare  
Lindberg Access 1st-1st

2/18

1990s, 1990s had no health insurance for entire year

mostly the poor who gain too much  
benefit by not enough to attract private coverage  
- about 20% of uninsured

both the most and least healthy uninsured

workers at smaller firms less likely to be insured  
- large companies take tax breaks  
- some costs spread out

low wage workers less likely to be insured

retirees uninsured people pay out of pocket

others with "soft" coverage to go to the

hospital when patients have to pay for this

care  
- \$10 billion

# 35 Economics of Healthcare

Why the Rapid Rise in Costs? 726-731

5/15

- health care is considered by many to be an ethical right or entitlement
- patients don't have the info on their procedure
  - supplier tells consumer what to buy
- spillover benefits
  - vaccines help everyone
  - healthy labor force is more productive
- consumers don't pay much out of pocket
  - may just want talk

## Increasing Demand

### Rising Incomes; Elasticities

pay for poor's care when can't pay

right or entitlement?  
means or else?

- normal good
- elasticity (income)  $\sim 1$
- so health care is proportional to income
- price elasticity  $\sim 1.2$ 
  - price  $\uparrow$  don't cause a big  $Q \downarrow$
- spending  $\uparrow$  as income  $\uparrow$
- necessity not luxury
- few substitutes
- done during emergency
  - no time for MC-MB comparison
- prefer long term doctor relationship
  - don't shop around
- insurance pays

long-term relationship

## Aging Population

will be a greater % of pop  $> 60$   
older people have a greater healthcare demand

around 2030-2035

$\uparrow$  Baby Boomers

most expensive at end of life  $\rightarrow$

"It's my body, I'll do what I want"  
- but if we all pay for it  
- insurance + taxes

## Unhealthy Lifestyle

- substance abuse
- alcohol contributes ~ 25-40% of patients
- not wearing seat belts

## Role of Doctors

### Supplier-Induced Demand

sellers tell you what to buy  
are paid fee-for-service so have  
incentive to over treat

- those w/ radiology machines do 4x  
procedures vs referring to other doctor
- ~ 1/3 of tests + procedures are not needed

### Defensive Medication

↓ super expensive

- doctors are very open to malpractice suits
- they practice defensive medicine by  
ordering unnecessary tests

### Medical Ethics

- doctors must use "best practices" not MB=MC
- human life should be maintained as long  
as possible - even if terminally ill

## Role of Health Insurance

- insurance protects against surprise high costs

### Moral Hazards Problem

→ Less Prevention - may be more inclined to do  
risky behavior

Overconsumption - may go to doctors more + get  
more tests done than needed  
- removes budget restraint

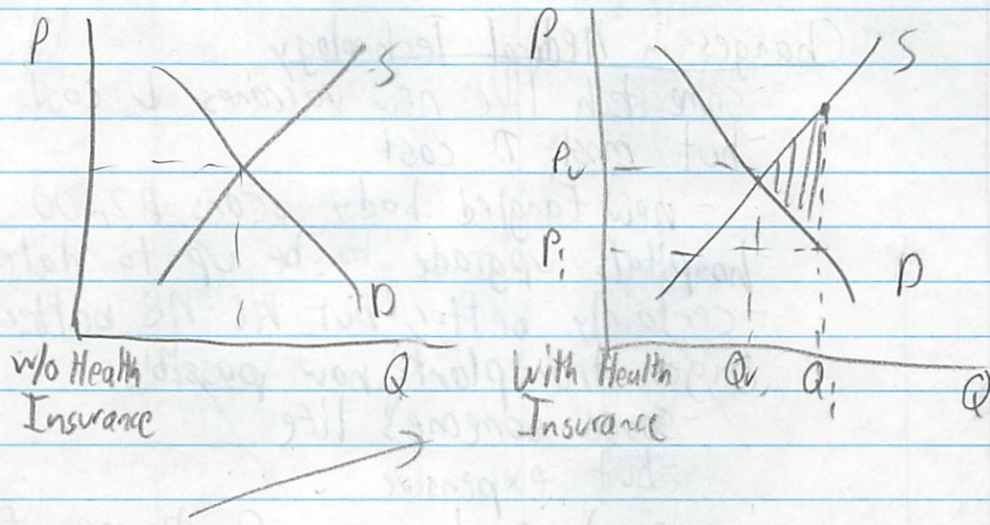
Gov Tax Subsidy - no Social Security tax on health  
care costs to encourage health  
- spending ~ 10-20% higher

still have

- job loss
- pain
- suffering
- uncertainty
- family trauma

not just \$

big cost to gov



$\uparrow$  price to society  
 $\downarrow$  price to user  
 $\uparrow$  Q

- the greater availability of healthcare (since we believe it is a right for everyone) leads to an overallocation of it
- would be even worse if healthcare was free to everyone

### Supply Factors

Supply has grown slower than demand

Physician Supply - rapidly rising cost of a medical education

- opportunity costs have risen too
- high rate of return on edu - but below lawyer and business admin

### Slow Productivity Growth

- hard to  $\uparrow$  productivity for a service
- competition not brisk enough to try and lower costs
- consumers might not even look for lowest price

## Changes in Medical Technology

- some tech like new vaccines ↓ cost
- but most ↑ cost
  - new fangled body scans \$2,500
- hospitals upgrade to be up-to-date
- certainly better, but MC = MB better?
- Organ transplant now possible
  - saved someone's life
  - but expensive
- insurers have to pay for the new tech
  - people demand they do
- regardless of MC

- way system is structured now - guaranteed  
it will cost more

# 35 Economics of Health Care

Health Care System Reform 732-736

5/20

trade off between access for all + containing costs

- + everyone wants "best" care
- and wants to pick their own doctors
- self interest groups happy the way things are
- so much is at stake

## Universal Access

"Pay or Pay" - all employers must provide healthcare  
or pay into a program for uninsured workers  
may ↓ wages + ↑ unemployment

Taxes + Credits - to help poor pay for health  
insurance (tax subsidy)

NIT - gov provides health care to everyone

- still private hospitals who employ doctors
- private insurers would cover additional people

## Pros

- simple + direct
- pick own physicians
- reduce admin costs
- US 17% - Canada 5%
- separate from employment
- so available to unemployed
- gov sets what will be paid

## Cons

- doctors would spread care into multiple visits  
which could be done all at once
- long wait times
- less equipment
- Federal gov not good at maintaining costs
- cause overconsumption
- if through income tax would further redistribute  
income



- would help employees in auto manufacturing
- hurt fast food + min. wage jobs

## Cost Containment; Altering Incentives

### Deductibles + CoPays

- deductible - certain amt. of each years cost before insurance pays
- co-payments - an extra % or per visit fee

### Managed Care

- medical services controlled by insurance
- PPOs - require hospitals to offer discounts patient pays less @ certain doctors
- HMOs - employ own physicians + contract w/ service providers - have incentive to ↓ care + give preventive care
- doctors won't do unneeded tests since have fixed income - not pay for use
- doctors get incentive \$ to ↓ costs
- but might have wait list
- may ↓ costs too much

### Medicare + DRG

- hospital gets fixed fee per diagnosis
- restrict resources used
- has ↓ stay lengths
- but quality may have ↓

## Status Report

### - 1993 Clinton Health Security Act

- universal coverage
- employer mandated
- unemployed covered by regional health alliance
- complex + bureaucratic
- undue harm to employers

### - 1996 Portability Act

- could continue insurance if switched jobs
- prohibited from dropping coverage of sick employees

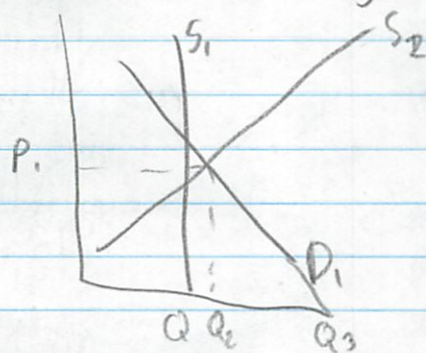
### - Medical Savings Accounts

- tax deductible contributions
- traditional insurance for catastrophies
- earnings tax free
- but take healthiest people from insurance market

PPOs + HMOs are already changing health care

## Last Word: Market for Human Organs

- may remove shortage



Q ↑  
P ↓  
← supply now ( $S_2$ ) perfectly inelastic

- money may go to family or charity
- more people willing to donate
- but people don't think humans should be commodities
- might not be that many more willing to sell
- would further ↑ cost of transplant

State Report

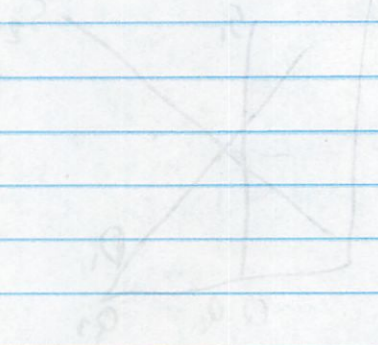
1993 Clinton Health Security Act

- universal coverage
- employer mandated
- unemployed covered by regional health offices
- complex structure
- end + hand to employer
- The Portability Act
- could contain insurance if switched jobs
- prohibited from dropping coverage of self/employees
- Medical Savings Accounts
- tax deductible contributions
- traditional insurance for categories
- funding tax free
- for the uninsured people for whom market

1990: HMOs are already changing health care

Last Year: Market for Health Insurance

and other changes



(P)  
Q  
Supply curve (S)  
Demand curve (D)

- more pay go to family or charity
- more people willing to donate
- not people that their business should be considered
- right not be that many more willing to sell
- right not be that many more willing to sell

Class Exercise

**"John Q" Infinitfilm: "Fighting for Care Documentary (34 minutes)**

*DIRECTIONS: Watch the "Fighting for Care Documentary" and be ready to share the answer to the questions that you are assigned. [The numbers correspond to the location of the scene in the Infinitfilm.]*

7. Find out how hospitals decide who need transplants.
8. Hear about the financial evaluation of organ transplant patients
9. a) Find out more about the organ waiting list.  
  
b) Hear about insurance problems facing many Americans.
10. a) Learn more about Medicaid coverage for transplants.  
  
b) Hear more about how insurance companies make a profit.
11. Find out more about COBRA and other insurance issues.
12. a) Hear about the difficulty in qualifying for federal aid.  
  
b) Find out why fundraising for most transplant patients is necessary.
13. Hear doctors talk about the single payer system.
19. a) Hear about the high expense of drugs for transplant patients  
  
b) Hear from actual transplant patients waiting for organs.
20. Hear the filmmakers discuss the health care issues in "John Q."
21. Find out how HMO's can insist on re-location of transplant patients.
22. Hear doctors talk about the disadvantages of HMO's.
23. Hear filmmakers talk about the job of hospital administrators.
25. Hear about the high cost of immunosuppressant medications.

26. Hear about the overwhelming bureaucracy involved in getting a transplant.

27. Hear about the impact of drug patents.

30. Hear about the process of waiting for a transplant.

*-waiting period, donor shortage*

33. Hear about the possible federal solutions to the healthcare crisis.

34. Hear doctors talk about the weaknesses of U.S. public healthcare.

35. Watch patients get matched with organ donors.

39. Find out the importance of becoming an organ donor.

moderate levels of care

## HEALTH MATTERS Jerry Adler

# Are Kidneys a Commodity?

AS OF LAST WEDNESDAY AT 5:44 P.M., ACCORDING TO THE minute-by-minute count on the Web site of the United Network for Organ Sharing, there were 75,629 people awaiting kidney transplants in the United States. Here's roughly what we can expect to happen over the next 12 months, based on the experience of recent years. About 10,000 of them will receive transplants from deceased strangers,

awarded by UNOS roughly in order of waiting time. An additional 6,000 or so on the waiting list will get a transplant from a living donor, almost invariably a close friend or relative. About 5,000 will either die or become too sick to qualify for a transplant.

Most of the rest will still be waiting a year from now. They might want to consider talking to Lloyd Cohen.

Cohen is a professor of law at George Mason University who for two decades has been fighting for the right to sell off his major organs—or to buy one from someone else, should he need it. These are practices currently prohibited by U.S. law, and widely reviled by doctors, who like to believe they occupy one of the last bastions of selfless altruism in the American economy. Last week Cohen took his case to Intelligence Squared U.S. (IQ2), the Oxford-style debating society with a fondness for provocative libertarian issues, such as legalizing a market for human organs. Cohen has made his case at length in articles and books, but he can summarize it in a dozen words: "If you pay people for something, they will provide more of it." This, he says, is as true of body parts as anything else.

How far is Cohen willing to push this argument? Well, he's publicized a codicil to his will that forbids his survivors from donating his organs for transplant, except to relatives, or if some third party, such as an insurance company, pays for them. At a minimum, he'd like to legalize such arrangements, so anyone could contract to sell his or her organs after death for the benefit of survivors. In an ideal world—well, I'm not sure where he'd draw the line. He believes healthy people should be allowed to sell a kidney at whatever price the market will bear. But I lost my nerve before asking if he

thinks they should be allowed to sell *two*.

Give Cohen credit; he's thought through the unsettling implications of this idea in 21st-century America: the Internet auctions, the reality-TV shows ("American Kidney"? "Survivor: Dialysis"?), legal battles over custody of a kid on life support. That's the price society would have to pay for the goal of getting more kidneys into people. As for the ethical objection that poor people shouldn't be tempted into selling spare body parts for cash, running a small but measurable risk to their health, he suggests a comparison with other valued commodities that are dangerous to obtain, like tuna fish. People risk their lives on fishing boats because they're paid for it. By the same token, says Sally Satel, a resident scholar at the American Enterprise Institute who debated on Cohen's team at the IQ2 U.S. event, "we don't think firemen are any less heroic because they are paid to save us."

Satel knows what she's talking about: in 2004 she was diagnosed with kidney failure. Most likely she'd still be waiting on dialysis, but for a friend, Virginia Postrel, who in 2006 volunteered one of her kidneys for transplant. Clearly, Satel would have been willing to pay whatever sum might have induced a stranger to do the same. In a free market she would have been one of the winners, by the luck of being relatively affluent. But there's just as much luck involved in having friends like Postrel. Nothing in life is entirely fair, and a billionaire in need of a kidney is a poor man if he can't buy one at any price. And, in case someone like that is wondering, Cohen's kidneys aren't for sale, even if the law changes. At least while he's alive. He is 61, is in excellent health and doesn't need the money.



**Cohen thinks people should have the right to buy or sell major organs, an idea reviled by docs.**

## PODCASTS

# Name That Technology

THE IPOD'S DOMINATION of the portable-media world is causing headaches for one misunderstood group: podcasters. To escape Apple's shadow (and its cease-and-desist letters) many creators of downloadable audio and video programs are trying out new names for the technology, with the aim of communicating that their work is compatible with a variety of media players, not just iPods. Last month the leading podcast network, PodShow, changed its corporate name to Mevio, while Tim Bourquin—founder of the largest podcasting trade show, the New Media Expo—avoids the word altogether when courting potential exhibitors. Other podcasters have experimented with the words "Netcast," "Webcast" and "blogcast" to avoid sounding like Apple-only programmers. "I just call it Internet radio," says Steve Webb, who hosts 13 shows about Christianity, "because when you say 'podcast,' people think, 'Oh, I don't have an iPod,' and they shut off."

But some say the effort is futile: ABC, NBC, NPR and even Apple's archcompetitor Microsoft all use the term "podcast." Besides, as Rob Walch, coauthor of "Tricks of the Podcasting Masters," points out, it's never going to be easy. "Subscribing to content via RSS 2.0 with media enclosure tags," he says, "is a tough concept to tell your grandma about." —STEVE FRIESS



**APPLE TURNOVER:** Podcasts are compatible with more than iPods

- what would you pay? - would further T cast, perhaps kill + capture kids for kidney Turban legend

now i can give but can't sell

# MAKING THE MOST OF YOUR MONEY

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COMPLETELY REVISED AND UPDATED  
FOR THE TWENTY-FIRST CENTURY

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Jane Bryant Quinn

Simon & Schuster

# 1.

## What Archimedes Would Have Done

### Where You Stand on the Money Cycle

*The finest of all human achievements—  
and the most difficult—is merely being reasonable.*

All of our deepest beliefs about money are formed in the years when we grow up. We learn the great lessons of our era and set out to put them all to work.

But time is a trickster. Just when you think that you've learned all the rules, some hidden umpire changes the game.

Think about the Depression Kids. Those woeful years left a legacy of fear. Forever after, the generations marked by the thirties saved compulsively. A loan made them feel sick to their stomachs. They took no risks. When the Great Prosperity swelled around them, they mistrusted it. They knew in their hearts it wouldn't last.

Now think about the Inflation Kids, raised in the 1960s and 1970s. They saw in a flash that a dollar saved was a dollar wasted because inflation ate it up. A dollar *borrowed* was a dollar saved. You could use it to buy a car or a stereo before the price increased.

The Inflation Kids felt sorry for the codgers who saved so fruitlessly and lost so much. In the 1970s, the value of fixed savings, pensions, and insurance policies fell apart.

But what do the Inflation Kids—otherwise known as the Baby Boomers—know about money, in their hearts? They, too, are wedded to some of their earliest beliefs. For example, they're waiting for real estate to soar again. They still think it's smart to borrow because inflation—or *something*

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—will whisk the repayment burden away. They're wrong, but to think differently goes against their grain. The boomers born later in the cycle replaced real estate with stocks as their dream way of getting rich in a hurry.

The new turn of the wheel is bringing us the Compression Kids, Generation X. They're seeing a very different world. Jobs, chancier than people used to think. Real estate, boring. Wages, not rising very fast. Stocks, paying remarkable returns. As they see it, the rules for living are: save early and often, learn to invest, and let the rising value of stocks carry the burden of debt away.

Can the Inflation Generation change *its* approach to money any better than the Depression Generation could? How soon will the Compression Kids get trapped by the orthodoxies they proclaim today? Can we all find a better place to stand? On the answer to those questions, everything depends.

### A CYCLE OF SPENDING AND SAVING

Money comes and goes in your life at different times. Mostly goes, when you're young. Those are the spent years. Maybe the *misspent* years. But never mind. As you grow older, the urge to save creeps up on you. Here's the typical cycle of wealth:

*mostly spending*

Ages 20 to 30. You establish credit, buy your first furniture and appliances, take your first auto loan, learn about insurance and taxes. Maybe (here I'm dreaming) you save a little money, in the bank or in company retirement accounts. Retirement accounts are money machines for young people because you have so many years to let them grow untaxed. By the end of the decade, you get married, have a baby, buy a house. (You save for a house the old-fashioned way—by borrowing some of the down payment from your parents.)

Ages 31 to 45. You don't know where your money goes. Bills, bills, bills. College is a freight train headed your way. Maybe (here I'm dreaming again) you start a tuition savings account. Money still dribbles into retirement savings, but only if your company does it for you—by taking it out of your paycheck before you get it to spend. When you're pressed, you open a home-equity line and borrow money against your house. This is a good time to start a business or get more education. Invest in yourself and hope for a payoff.

Ages 46 to 55. You *do* know where your money goes: to good old State U. At the same time, you get the creepy feeling that maybe you won't

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16 Making the Most of Your Money

live forever. You thrash around. You buy books about financial planning. You have an affair. When all else fails, you start to save.

<sup>bad idea financially</sup>  
Ages 56 to 65. These are the fat years. You're at the top of your earning power, the kids are gone, the dogs are dead. Twenty percent of your salary can be socked away—which is lucky because you will need extra money for your children's down payments (kids never really go away). Consider long-term-care insurance.

Ages 66 to 75. How golden are these years? As rich as your pension, Social Security, and the income from the money you saved. Start out by living on the first two. Let the income from savings and investments compound for a while, to build a fund for later life.

Ages 76 and Up. Quit saving. Spend, spend, spend! Forget leaving money to your kids—they should have put away more for themselves. Dip into principal to live as comfortably as you deserve. This is what all those years of saving were for.

WHEN YOU FALL OFF THE CYCLE

You say you can't find your place on the cycle? That's no surprise. Almost no one lives exactly to order anymore. There are a million ways of getting from birth to death and they all work. If you fall behind financially during any decade, you'll need a plan for catching up.

You Have Your Children in Your 30s. It seemed like a smart idea at the time—diapers tomorrow but never today. No one told you that in your 50s, you'd be paying for college just when you were trying to save for your own retirement. (And even if they told you, you'd never have believed you would ever be that old.) You might have to choose between sending your children to a low-cost college or shortchanging your own future. Maybe your children will have to pay for their education themselves. The moral, for those who can think ahead: save more in your 20s, using the discipline of tax-deferred retirement plans. These plans penalize you for drawing money out, so you're more likely to leave it in.

You Get Divorced and Start Over. Divorce costs you assets and income, with the greater loss usually falling on the woman. She rarely can earn as much money as her ex-husband takes away. For the man, a new wife and new babies might mean that college-tuition bills will arrive in the same mail as the Social Security checks. Unless you're rich or remarry rich, divorce is a decision to cut your standard of living, sometimes permanently.

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**You Don't Marry.** You lack the safety net that a second paycheck provides. On the other hand, there's usually no other mouth to feed. You can start saving and investing earlier than most.

**You're Married, with No Children.** You've got nothing but money and plenty of it. You are one of the few who really can retire early, not just dream about it.

**Life Deals You an Accident.** A crippling illness. Early widowhood. A child with anguishing medical problems. A family that has always saved can make it through these tragedies. A family in debt to the hilt cannot.

**You're Downsized.** That's today's euphemism for getting fired. The money in your retirement plan goes for current bills. Your next job pays 20 percent less, with no health insurance or retirement plan. The millennium plays hardball. But you can still secure your future by downscaling your life to match your income. There's honor at every monetary level of life.

**You Get the Golden Boot.** A forced early retirement. Sometimes you see it coming, sometimes it catches you blindsided. You get a consolation prize, in a lump-sum payout or a higher pension for a retiree of your age. But you lose five to ten years of earnings and savings. This risk is the single strongest argument for starting a retirement-savings program young. At your age, a new job will be hard to come by, but you can't afford to retire for real. So it's project work, part-time work, unexpected work like clerking, to pad out your early-retirement check.

**Memo to All Workers:** Employers don't care that you've worked hard and late, that you haven't been sick in a dozen years, or that every supervisor you've had thinks you're hot stuff. They ask only: What have you done for me lately? Is your job essential to business today? Are your skills the right ones for business tomorrow? Few people *hold* a job anymore. Instead, we have talents that we sell to employers for various projects, some longer term than others. In this kind of world, nothing is more important than continuing education and upgrading skills.

Value now

### WHO NEEDS WHAT WHEN

The number of financial products on the market today—bank accounts, insurance policies, annuities, mutual funds—I estimate conservatively at two zillion point three (\$2.3Z). Most of them nobody needs but buys any-

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## EVALUATING A USED CAR

(NOTE: Exotic cars are more expensive to maintain and repair than common models.)

**RESEACH BEFORE YOU SHOP:** Go to Edmunds.com and explore under "Used Cars" and "Discussion Groups." The more you know about a model in which you are interested, the better a deal you can negotiate.

**Step 1. At First Glance:** (Do not shop for used cars on a rainy day; the rain will hide a bad paint job and discourage you from doing what you need to do.)

\_\_\_\_\_ Beware of newly painted cars—could be a cover-up of problems

\_\_\_\_\_ Has it been parked outside? That is hard on the paint job.

\_\_\_\_\_ Are there many dents or mismatched areas of paint or poorly fitting body parts? If so, this car could have been in an accident.

\_\_\_\_\_ Look in the glove compartment for signs of water damage—could have been in a flood. If so, do not buy it!

\_\_\_\_\_ Look inside for wear on seats, headliner, and pedals. Could mean future repair bills.

**Step 2. Look at the Tires and Underneath the Car:**

\_\_\_\_\_ Are tires and spare unevenly worn? Could be a problem with the suspension. At minimum, you will need to buy tires.

\_\_\_\_\_ Look underneath for any drips. Where are they coming from?

What color, feel, and smell does the fluid have? (clear is water probably from air conditioner or the windshield washer; oil means a leak—a problem; green and sweet smelling is coolant—a problem; red is transmission fluid—forget it! Transmissions cost \$1 to \$2k to fix.)

\_\_\_\_\_ Look underneath for rust: rust on the body will only get worse (a new pain job will cover it but won't fix it); rust on the frame--forget it.

\_\_\_\_\_ Inside of the wheels for signs of leaking brake fluid—a problem to fix.

\_\_\_\_\_ Stand up; bounce the car at a corner (stand on the bumper and jump off).

If it bounce more than twice the shocks will probably need replacing.

\_\_\_\_\_ Look at the exhaust pipes and the muffler? Do you see holes or metal flakes? If so you may need to repair or replace it soon. Lower your offer by at least \$200.

### Step. 3 Check Under the Hood:

- \_\_\_\_\_ Look for mismatched bolts—it means that a part has been replaced. Not necessarily bad.
- \_\_\_\_\_ Look at underside of the hood for signs of sprayed fluids. What is leaking?
- \_\_\_\_\_ Look for an oily and possibly dirty film—there is an oil leak somewhere.
- \_\_\_\_\_ Look at the belts and hoses for cracks and fraying—a minor problem *but* will need replacing or they will cause a breakdown on the road.

### Step. 4 Listening Test:

- \_\_\_\_\_ Sit in driver's seat with car in park. Turn key the on—does it start right up? If not, why not? If it needs a tune up, have the old owner do it and call you back then.
- \_\_\_\_\_ Have a friend watch the tail pipe for smoke as you start the car and it warms up. White smoke that quickly dissipates is normal—water vapor in exhaust system. Blue smoke is the worst—burning oil, meaning there is a bad oil leak. If so, forget this car.
- \_\_\_\_\_ With the hood open and the motor running do you hear clicking sounds? Could be a valve problem or a bearing--neither is good!

### Step. 5 Check Oil and Brake Fluids:

- \_\_\_\_\_ With engine warm, shut it off and let it sit for a few minutes for the fluids to settle.
- \_\_\_\_\_ While you wait, check the break fluid reservoir—is it above the “MIN” line? If not, DO NOT take for a test drive—it may be unsafe.
- \_\_\_\_\_ Now you are going to check the oil;
  - \_\_\_\_\_ a. Pull the dipstick and wipe it off on a rag or a paper towel.
  - \_\_\_\_\_ b. Before reinserting, study the markings on the dipstick to be sure that you understand how to read it.
  - \_\_\_\_\_ c. Reinsert it and read the level; if is low , assume that the car has not been well maintained.
  - \_\_\_\_\_ d. Dirty oil is not a useful indicator of any thing other than the possible need of an oil change; frothy oil may mean a leak somewhere; metal fragments in oil--walk away now! This is a sign of major engine failure.

### Step 6. Check All Lights to see if Ready for Safe Operation:

- \_\_\_\_\_ Test all lights, signals, and the horn to be sure that they work.  
(This is again where you need a friend to help you.)

## Step 7. Controls and Displays

- \_\_\_\_\_ Return to the drivers seat and check the following before starting the engine:
  - \_\_\_\_\_ Play in the steering wheel--it should move no more than about 2 inches without hitting resistance.
  - \_\_\_\_\_ Play in the clutch--if it goes too far before engaging, the clutch needs to be adjusted if not replaced.
  - \_\_\_\_\_ Play in the brake pedal--if it is squishy rather than firm and there is plenty of brake fluid in the reservoir (Step 5 above), the master cylinder may need replacing, a repair costing 100s of dollars.
  - \_\_\_\_\_ Fasten your seat belt.
  - \_\_\_\_\_ As you start the engine, look at the instrument display to be sure that warning lights blink on and then go off--you are trying to get an idea if all the indicators work.
  - \_\_\_\_\_ If there are gauges, verify that they are all operating in the safe range.

## Step 8. Pre-Test Drive Tests:

- \_\_\_\_\_ Test everything—radio, tape, CD, AC, the heater (when the engine is warm), all windows, the wipers, the window washers, the trunk (is it wet? This would be caused by a leak somewhere—hard to find.), the spare (is it inflated and usable?), are all the things there needed for changing a tire?
- \_\_\_\_\_ Turn off the radio and air conditioner once you know that they work—test the car with the windows open and then closed so you can hear the sounds of the car.
- \_\_\_\_\_ Set the emergency brake and put the car in gear. Does the emergency brake restrain the car? If not it may need adjusting or the car may need the brake pads replaced. (cost: 100s of dollars)
- \_\_\_\_\_ Release the emergency brake and let the car roll at idle speed--do not touch the accelerator--then test the brakes. Do they stop the car satisfactorily? If not, DO NOT DRIVE IT! It is UNSAFE!

### Step 9. The Test Drive:

- As you drive, as soon as it is safe test the brakes again at about 15 mph:
  - Do they pull to one side? If so, they need to be adjusted--not necessarily a major problem, but it should be taken care of or the price should be reduced.
  - Do they screech? The brake shoes are worn and need replacing. This is moderately expensive but is a normal repair.
  - Do the brakes fade (stopping range varies)? Could mean the brake shoes are worn and need repair.
  - Do they shudder? This suggests an uneven brake rotor, a costly repair.
  - Repeat these tests at 30 mph and 50 mph.

### Step 10. Further Testing the Suspension:

- Does the steering wheel shake as you make a turn? This indicates a suspension problem, a more expensive repair.
- Does the steering wheel vibrate as you accelerate to expressway speed? If so, there could be an alignment problem, a less expensive repair.

### Step 11. Testing the Transmission:

- Does the car have a manual transmission? Clutches eventually do go bad and are expensive to replace.
  - Is it tough to shift--stick or feel stiff?
  - Does it slip out of gear especially right after shifting? Clutch problem.
  - Is there a grinding sound? That means clutch or transmission problems.
    - If it grinds just in one gear, it is most likely in the transmission.
- Does the car have an automatic transmission?
  - Does it jerk as it moves from gear to gear?
  - Does it seem to remain in one gear too long?
  - Does it fail to accelerate as you rev the engine? (Watch the tachometer.)Any of these could mean the need for adjustment or repair—both risky and possibly expensive. Get an estimate for repair before buying.

### Step 12. Testing the Engine Compression:

As you drive on the open highway, find a moderate hill to climb.

\_\_\_\_\_ Does the car climb the hill easily or does it require a lot of acceleration?

(Watch the tachometer.)

\_\_\_\_\_ As you go down hill, remove your foot from the accelerator to see if the car slows on its own? If not, carefully down shift and try again? If the answer is no in either case, this could mean the need for repair of the rings, a major expense. A mechanic could easily give you a more definite answer.

\_\_\_\_\_ As you go down a hill with the windows down—and the transmission in neutral, If safe to do so—listen to the sound of the car. Any squeaking not related to whether you press the accelerator or not, is in the wheels. Squeaking may mean a bearing in a wheel need to be replaced. After stopping, feel the hub--if it is too hot to touch, that is another sign of a bad bearing.

### Step 13. Testing the Differential:

\_\_\_\_\_ After you stop, put the car in reverse, accelerate and stop several times. Did you hear a clunking sound? That would be the differential—an expensive repair.

**ONCE YOU OWN THE CAR--**You may want to visit <http://www.jonko.com/>--for car repair tips.

### POWER LIBRARY TIP

**EBSCO Publishing - Auto Repair Reference Center - THE 2004 INFORMATION WILL BE ADDED INTO THE DATABASE AT THE BEGINNING OF 2005. Supplied by Point 5 Technologies with complete automotive repair information supplied by Nichols Publishing, publisher of Chilton© information. Most major manufacturers of domestic and imported vehicles are listed. Repair information is available for most manufacturers as far back as 1954.**

**GOOD LUCK!** Buying a used car is always a risk but should be cheaper than buying a new one.



Jane Bryant Quinn. "Kids Will Be ... Daytraders?" Newsweek March 1. 2004

Internet games are a fun way to get students interested in stocks. But then what? Let's teach them diversification, not the art of short selling

Who are those kids hanging out by the school computers and shouting, "Buy Cisco, sell Intel"? They might be yours, using play money to bet on stock prices in class. During the stock-market bubble, young gunslingers sometimes skipped school to trade the hot tech stocks with real bucks. Now they're back mowing lawns, but stocks remain a vivid presence in many classrooms. Kids as young as 8 are learning that KO is the ticker symbol for Coke.

But should they? Or are there smarter ways of teaching the young about markets, business, profits and economics?

The focus on stocks springs from zippy Internet games, used by some 750,000 students last year, mostly in the upper grades. Kids love them. They organize teams, get a virtual \$100,000 to invest, then trade stocks as if they were baseball cards. At the end of 10 weeks, the team with the biggest profit wins, usually T shirts or small cash prizes from local sponsors. The most popular programs: the Stock Market Game, from the Securities Industry Association, a trade group for brokerage firms and investment banks; and the Stock Market Simulation, from Stock-Trak, a company in Duluth, Ga.

The kids are daytrading, of course—whisking in and out of stocks. It's the only possible choice in a short, exuberant game. Along the way, teachers use textbooks or downloaded lesson plans to explain how the stock market works and its place in the economy. Some schools offer stand-alone finance and econ courses; others embed the material in history or social-studies classes. The games also turn up in math classes, to help teach percentages, decimals and fractions. "The play gets the hook in," says Bob Duvall, head of the National Council on Economic Education. "Then can come the important concepts."

Ah, the concepts. There's the rub. The economics lessons look great. The better that students learn how to use economic reasoning, the sharper voters and savers they'll be.

Advertisement

*Making the Most of Your Money* by Jane Bryant Quinn

Other books by Jane Bryant Quinn When it comes to investing, however, the teaching takes a wrong turn. I've looked at the textbooks and lesson plans and found little or no discussion of mutual funds, diversification, asset allocation or holding for the long term. Instead, they glamorize stocks, stocks, stocks—going so far as to explain short selling and margin buying to 16-year-olds. What's the point, when the first investment young workers will

face is a choice of funds in a 401(k)? "The games get kids interested," says John Morton, vice president of curriculum development for the NCEE, "but then they teach them the wrong things."

When Morton taught classes, he says, he always had students create a dartboard portfolio—picking stocks by throwing darts at the newspaper listings. One year it beat the stockpickers for the state championship. (For himself, Morton buys index mutual funds.) Fred Floss, a professor at Buffalo State College in New York and co-director of the Buffalo Center on Economic Education, tells kids that to win in 10 weeks they'll have to "do the opposite of what's good investing in real life." (Floss buys index funds, too—is there a message here?)

Viewed through an academic eye, stock-market games expose kids to a critical part of the economy that their parents may not know much about, says Jim Charkins, head of the California Council on Economic Education, "but you don't want to give kids a false impression of investing."

Getting the story right depends on the teachers who choose the materials the class will see. It also depends on state councils and centers for economic education that help train the teachers and write the lessons they'll probably use.

Both the schools and the centers seem to be taking the daytrading critique to heart. The NCEE is rewriting its basic textbook to add, for the first time, a section on mutual funds and diversification. The Florida Council on Economic Education wrote a basic financial-planning guide for both students and parents. In Idaho, one of just seven states to require high-schoolers to study some personal finance, the council is preparing a test to assess how well basic principles are being taught. Even the SIA's manual and Web site will add mutual funds this spring, although not as a core investment. "You can say what a mutual fund is, but there's not much more to be learned," says Don Kittell, the SIA's executive vice president. (I can think of a few things, but let that pass.)

John Morton's dream teaching tool would be a mutual-fund game, where kids create portfolios for a certain objective, such as income, security or growth. They'd win if their plan succeeded over various historical periods. Memo to the Investment Company Institute, the mutual-fund trade association: These kids are your next customers. Why are you ceding their hearts to sellers of stocks?

Still, it's nice to see *some* nod to finance and economics in the schools. Most school boards don't consider it a priority, says Dara Dugay of the JumpStart Coalition, which promotes financial literacy. They figure that kids can learn about money at home. Memo to parents: for lesson plans, try the clearinghouse at [jumpstart.org](http://jumpstart.org) or [aaii.com](http://aaii.com). You may learn something, too.

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# Learning the Tools of Investing

PAUL A. SAMUELSON (1st American Noble Laureate, Economics)  
Professor Emeritus, Economics, MIT

W hen asked why the great financial house of Morgan had been so successful, J. Pierpont Morgan replied, "Do you suppose that's because we take money seriously?"

Managing our personal finances is a serious business, and something we all must learn to do. We begin life dependent on someone else's income and capital. But after we become independent, it is a remorseless fact of nature that we must not only support ourselves for the present but must also start saving money for retirement. The best theory of saving that economists have is built upon this model of life-cycle savings: You must provide in the long years of prime working life for what modern medicine has lengthened to, potentially, decades of retirement. This life-cycle model won a 1985 Nobel Prize for my MIT colleague Franco Modigliani, and it points up the need to learn the rudiments of personal finance.

Earning to acquire wealth, however, is only part of the story. We must also learn to avoid losing what we have acquired. There is an old saying that "life insurance is sold, not bought." The same goes for stocks and bonds. In each case, the broker is guaranteed a profit, whether or not the customer benefits from the transaction. Knowledge is the customer's only true ally in the world of finance. Some gullible victims have lost their lifetime savings to unscrupulous sales promoters. One chap buys the Brooklyn Bridge. Another believes a stranger who asserts that gold will quickly double in price, with no risk of a drop in value. Such "con" (confidence) rackets get written up in the newspapers and on the police blotters every day.

I am concerned, however, about something less dramatic than con artists: something that is not at all illegal, but that costs ordinary citizens a thousand times more than outright embezzlement or fraud. Consider two families, neighbors who could be found in any town. They started alike. Each worked equally hard, and had about the same income. But the Smiths have to make do with half of what the Joneses have in retirement income, for one simple reason: The Joneses followed prudent practice as savers and investors, while the Smiths tried to make a killing and constantly bought and sold stocks at high commissions.

The point is, it does matter to learn how financial markets work, and how you can participate in them to your best advantage. It is important to know the difference between common and preferred stocks, between convertible and zero-coupon bonds. It is not difficult to find out what mutual funds are, and to understand the difference between the successful Fund A, which changes no commission, or "load," and the equally successful Fund B, which does charge the buyer such a fee.

All investing involves risk. When I was a young assistant professor, I said primarily to my great Harvard teacher, Joseph Schumpeter: "We should speculate only with money we can afford to lose." He gently corrected me: "Paul, there is no such money. Besides, a speculator is merely an investor who has lost." Did Schumpeter exaggerate? Of course he did, but in the good cause of establishing the basic point of financial management: Good past performance is no guarantee of the future.

That is why diversification is the golden rule. "Don't put all your eggs in one basket. And watch all those baskets!" However, diversification does not mean throwing random darts at the financial pages of the newspaper to choose the best stocks in which to invest. The most diversified strategy of all would be to invest in a portfolio containing all the stocks in the comprehensive Standard & Poor's 500 Stock Index. But rather than throw random darts at the financial pages to pick out a few stocks, why not throw a large bath towel at the newspaper instead? Buy a bit of everything in proportion to its value in the larger world. Buy more General Motors than Ford, because GM is the bigger company; buy General Electric as well as GM because the auto industry is just one of many industries. That is called being an index investor. Index investing makes sense because 70 out of 100 investors who try to do better than the Standard & Poor's 500, the sober record shows, do worse over a 30-year period slow, steady.

Do not take my word for this. The second lesson in finance is to be skeptical of what writers and other experts say, and that includes being skeptical of professors of economics. So I wish readers Bon voyage! on their cruise to command the fundamentals of investing. On your mainship flag, replace the motto "Nothing ventured, nothing gained" with the Latin words Carat emptor. Let the buyer beware.

## Two Ways to Make a Million

Do you sincerely want to be rich? You're not alone. While the American dream is little more than "lottery delusions" for most folks, it needn't be. There is a way, and it isn't a get-rich-quick scheme. Using the power of compound interest, practically anyone can pile up a million by retirement. All it takes is a modest willingness to save and reasonable investments.

These charts show two ways to amass a million bucks. One is the lump-sum approach, and the other way is to sock it to 'em periodically. The first example presupposes you're 30 years old with \$10,000 in a tax-free IRA. If you make your investments grow at a 15 percent average annual rate, which is impressive but not impossible, you will have \$1.3 million when you're 65. Amazed? Such is the awesome power of compound interest.

What if you don't have \$10,000? The second chart assumes you're 30 years old and sock away \$1,000 each year into your IRA. You again make your boodle grow at 15 percent annually. At age 65 you will have just over a million bucks. Is this realistic? I think so, but it involves some "ifs." The 15 percent rate isn't impossible. The S&P 500 has averaged better than that over the last decade. But the example doesn't account for inflation. If inflation averages 4 percent annually, you will need 19 percent annually (15 plus 4) to amass the million dollars of real purchasing power. This is tougher, but not impossible. More than 30 mutual funds have grown faster than that over the last decade.

Even if you consider that to be too much, think again. There is still another obvious way, which these charts imply but

don't clearly state. Try combining the two effects and starting a few years earlier. If you start at age 25 and sock away \$2,000 a year into your IRA (lots of folks are doing it), you will have built the \$10,000 by the time you're 30. If you keep socking away \$2,000 a year, and the whole kit and kaboodle grows at 15 percent annually, you will have amassed a whopping \$4 million by age 65. To end up with a mere million bucks, you only need to get a 10 percent annual return—hardly a high-falutin' goal. The average stock on the New York Stock Exchange has done that well averaged out over the last 60 years (see Chart 12).

So, almost everybody in America can be a millionaire. We of the younger generation need not be concerned about a bankrupt social security system if we plan individually for our own future. This conclusion assumes that tax laws will continue to allow us to invest money tax-free in IRAs and other tax-deferred retirement/pension plans. Let's hope the politicians don't strip this "tax dodge" away from us, because if they do, the American dream of being a millionaire will return to pipe-dream status for millions of everyday Joe Lunch-buckets.

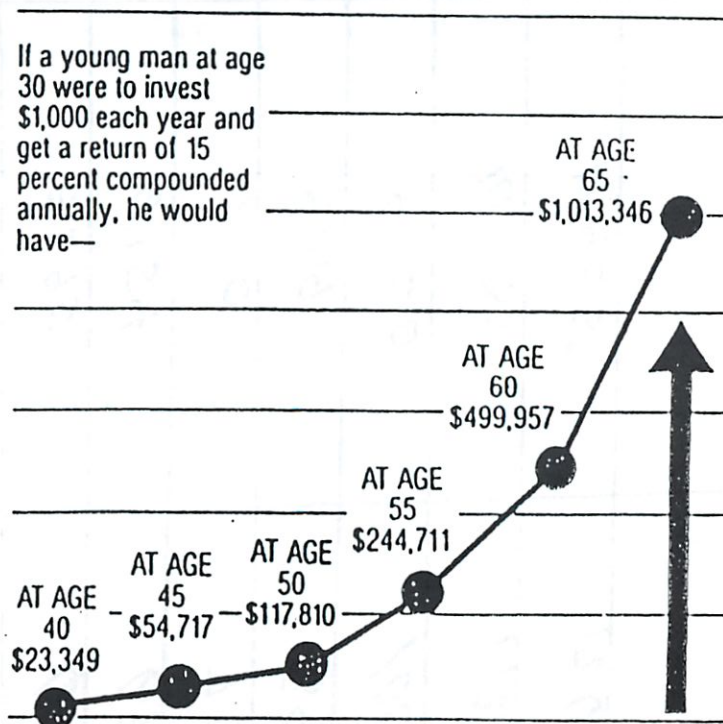
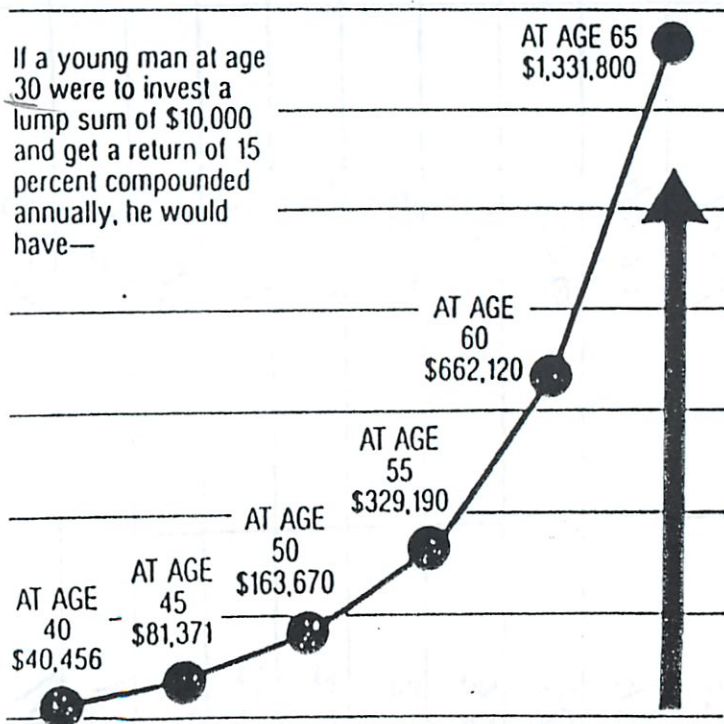
Source

Kenneth Fisher, The Wall Street Waltz (NY: Contemporary Books, 1987) p 90-1.

15% - reasonable - not impossible

Start early y

## Two Examples of the Power of Compound Interest



Note: Examples assume reinvestment of all dividends and payment from other income of taxes due on annual dividends.

deposit

interest 10%

total

deposit	interest 10%	total
① 2000	200	2200
② 2000 + 4200	420	4620
③ 4620 + 2000 = 6620	662	7282
④ 7282 + 2000 = 9282	928	10210
⑤ 10210 + 2000 = 12210	1221	13431
⑥ 13431 + 2000 = 15431	1543	16974
⑦ 16974 + 2000 = 18974	1897	20871
⑧ 20871 + 2000 = 22871	2287	25158
⑨ 25158 + 2000 = 27158	2716	29874
⑩ 29874 + 2000 = 31874	3187	35061
⑪ 35061 + 2000 = 37061	3706	40767
⑫ 40767 + 2000 = 42767	4277	47044
⑬ 47044 + 2000 = 49044	4904	53948
⑭ 53948 + 2000 = 55948	5595	61543
⑮ 61543 + 2000 = 63543	6354	69897
⑯ 69897 + 2000 = 71897	7190	79087
⑰ 79087 + 2000 = 81087	8109	89196
⑱ 89196 + 2000 = 91196	9120	100,316
⑲ 100,316 + 2000 = 102,316	10,232	112,548
⑳ 112,548 + 2000 = 114,548	11,455	126,003

year 2011

Interest 10%

Total

1) $126,003 + 2000 = 128,003$	12,800	140,803
2) $140,803 + 2000 = 142,803$	14,280	157,083
3) $157,083 + 2000 = 159,083$	15,908	174,991
4) $174,991 + 2000 = 176,991$	17,699	194,690
5) $194,690 + 2000 = 196,690$	19,669	216,359
6) $216,359 + 2000 = 218,359$	21,836	240,199
7) $240,119 + 2000 = 242,119$	24,212	266,331
8) $266,331 + 2000 = 268,331$	26,833	295,164
9) $295,164 + 2000 = 297,164$	29,716	326,880
10) $326,880 + 2000 = 328,880$	32,888	361,768
11) 361,768	36,177	397,945
12) 397,945	39,794	437,739
13) 437,739	43,774	481,513
14) 481,513	48,151	529,664
15) 529,664	52,966	582,630
16) 582,630	58,263	640,893
17) 640,893	64,089	704,982
18) 704,982	70,498	775,480
19) 775,480	77,548	853,028
20) 853,028	85,303	938,331
21) 938,331	93,833	\$ 1,032,164

Deposit for 30 years - \$60,000 total

# HOW HIGH SCHOOL MATHEMATICS CAN CONTRIBUTE TO YOUR CAREER

IF YOU HAVE TAKEN THESE HIGH SCHOOL SUBJECTS

- ELEMENTARY ALGEBRA
- INTERMEDIATE ALGEBRA
- MODERN GEOMETRY
- MATH. ANALYSIS

THEN YOU HAVE ENOUGH MATHEMATICS FOR THESE COLLEGE COURSES

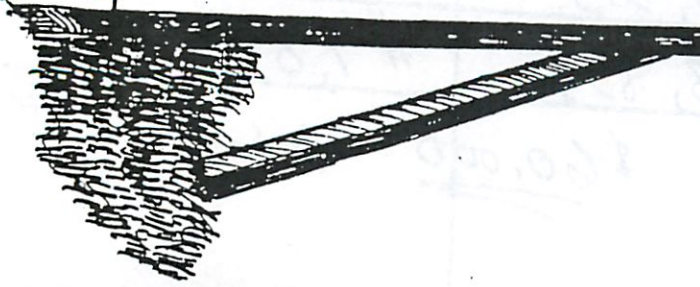
- STATISTICS USED IN PSYCHOLOGY, EDUCATION, SOCIAL SCIENCE AND ECONOMICS
- FINANCIAL AND INSURANCE MATHEMATICS
- CHEMISTRY
- PHYSICS
- ABSTRACT ALG., ANALY., GEOM., CALCULUS, STAT.
- HIGHER MATHEMATICS WITH APPLICATIONS IN PHYSICS, CHEMISTRY, ENGINEERING, ADV. STAT.

WHICH ARE IMPORTANT IN THESE CAREERS

- CAREERS IN INVESTMENT, INSURANCE AND MANAGEMENT
- MEDICINE, DENTISTRY, PHARMACY, LABORATORY TECHNICIAN
- FORESTRY, CONSERVATION, VETERINARY MEDICINE, AGRICULTURE
- TEACHING HIGH SCHOOL MATHEMATICS AND SCIENCE
- ENGINEERING
- SCIENTIFIC RESEARCH IN INDUSTRIAL DESIGN AND DEVELOPMENT

FOR DETAILS, CONSULT THE CATALOG OF THE COLLEGE TO WHICH YOU INTEND TO GO.

MEANS NECESSARY  
MEANS DESIRABLE





Chart

# 12

## Wealth Indexes for Classes of Securities, and the Winner Is . . .

36

Stocks or bonds—which is better? While gentlemen prefer bonds, stocks have been the best buy. Will it always be so? For an answer, consider this classic chart. It comes from the well-known Ibbotson/Sinquefeld study published by the Financial Analysts Research Foundation (available in most libraries). The study measured rates of return provided by classes of securities. This study, along with the equally well-known Fisher/Lorie study, proved that stocks have done better than the other investments.

Starting in 1926, which eliminates any temporary distortions from the Great Depression, the study showed that a dollar invested in the average of all New York Stock Exchange (NYSE) stocks in 1926, including appreciation and dividends, would have become \$211.20 by 1985—a 9.3 percent annual rate of return. This return is far higher than the 3 percent average annual inflation rate. But the return generated by T-bills and long-term government bonds just matched inflation. Even more interesting, they found a phenomenal 12.2 percent average annual return from so-called small stocks. This is now well documented and called the “small-firm effect.” Interestingly, it isn’t about small firms—just ones that aren’t worth much in the market. Small stocks are defined as the 20 percent from the NYSE that each year have the smallest total market value (price times total existing shares of stock). These “small stocks” did much worse than everything else during the Great Depression but later made up for it, plus a lot more.

Why did stocks do better than bonds, and small stocks better than stocks in general? There are conflicting views. Folks who

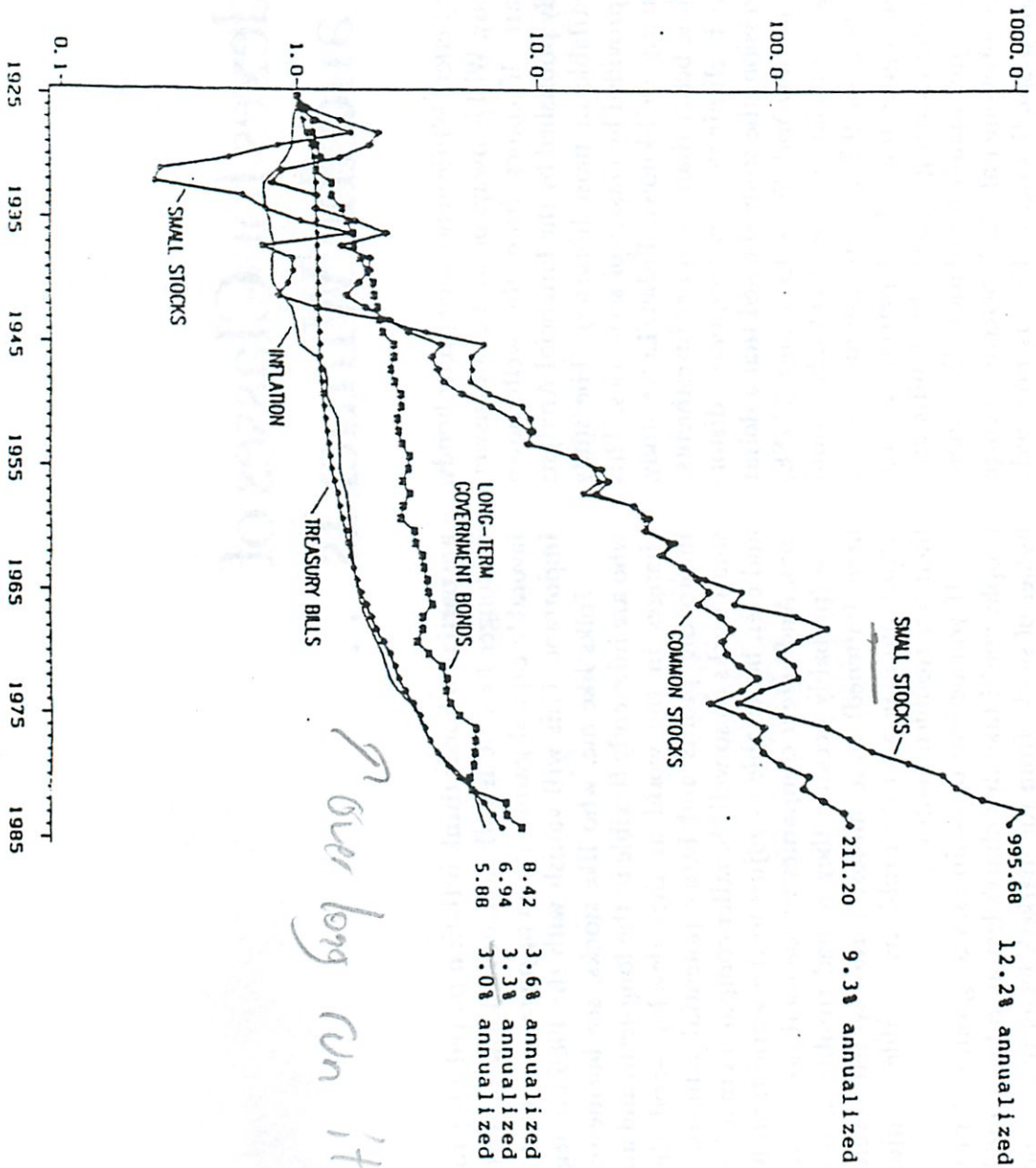
are partial to bonds think inflation played a key role, which may no longer be true if inflation stays dormant. Others think the favorable capital gains rate on appreciation of stock prices was important. This will vanish with the 1986 tax legislation.

Folks like me, who like stocks, see businesses as people—who are inherently flexible in the long-term and able to adjust to changes in the world as they develop—and thereby provide improving profits and better potential returns. Why did the small stocks do so well? Smaller companies may be more flexible and even better able to adjust to the world than bigger companies. And bigger companies whose total stock market values are low (probably because they’ve had troubles and the stock has been flattened) have almost certainly felt severe pressure to adjust and may, after the problems, be able to adjust better than their less troubled brethren.

If you believe in businesses as groups of problem-solving people, you’ll take this chart’s lesson to heart and be a life-long holder of stocks from the market’s lesser names (not necessarily the most speculative stocks—remember, all the stocks studied here were on the NYSE). But skeptics can take heart from other, longer charts (see Chart 51) and conclude that many trends lasting 55 years and longer finally turn and dust their previous beneficiaries. Maybe in the next 55 years stocks won’t adjust so well.

# Wealth Indexes of Investments in the U.S. Capital Markets, 1925-1985

YEAR-END 1925 = 1.00



Source: Roger G. Ibbotson and Rex A. Sinquefeld, *Stocks, Bonds, Bills, and Inflation: The Past and the Future*, 1985 Edition, Monograph Number 15, The Financial Analysts Research Foundation, University of Virginia.

## Nine Major Stock Market Cycles

64 Have you ever wondered how often bull markets come around? How about bear markets? These two charts tell it all in a very simple fashion. They come from Martin J. Pring's book *Technical Analysis Explained: An Illustrated Guide for the Investor*, which is a great source of charts. What you see is that between 1929 and 1977 there were nine major bull market trends and nine major bear markets. That means that over the 48 years shown, a full boom/bust cycle has occurred about every 5.3 years (48 divided by 9 is 5.3).

This chart also describes the relative length of the major bull market and bear market trends. A quick glance shows that the 1929 decline lasted about two and a half years. The 1937-1942 downtrend was the longest at a monstrous five years. The 1946-1949 decline lasted three years, and the 1953 decline only one year. The 1956-1957 decline, while more of a plateau than a bust, lasted two years. The 1962 and 1966 declines each lasted just one year. The 1968-1970 decline was about one and a half years, and the 1973-1974 decline was two years.

When you tally them, you see that out of 48 years only about 19 years were periods of major downtrends, or about 40 percent of the time. Those 9 bear market trends lasted a little more than 2 years each on average (19 divided by 9 equals 2.1).

Interestingly, if you disregarded the exceptionally long 1937-1942 decline, the result wouldn't be much different. There would then be 14 years representing 8 major downtrends, and the average downtrend would have lasted 1.75 years (14 divided by 8).

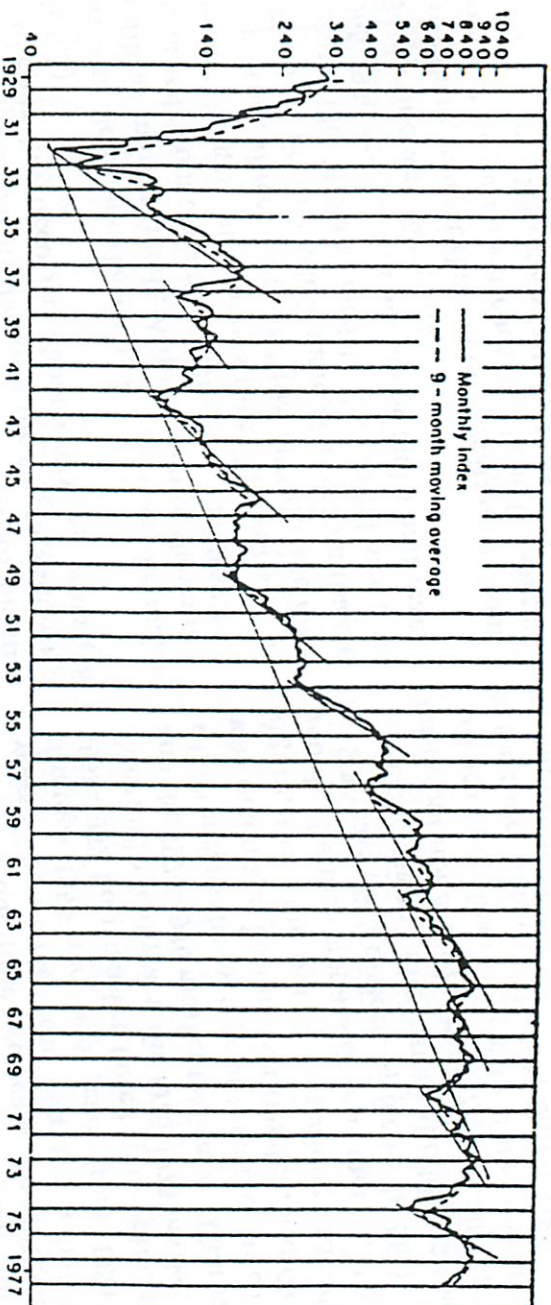
So anyway you figure it, bear markets averaged just about 2 years per bust.

By contrast, the bull markets averaged about three years apiece. The 1932-1937 market rose for five years, and the 1938-1939 not quite two years. The 1942-1946 market lasted four years. The market rose two and a half years from mid-1949 through 1951 and two years from 1954 through 1955. The 1958-1962 bull market lasted four years, the 1962-1966 market three and a half years, the 1970-1973 market two and a half years, and the 1974-1976 market two years. That is a total of 27½ years, which means the average bull market lasted 3 years. The market was in a major bull market trend almost 60 percent of the time. Again, throwing out the superlong 1932-1937 bull market, as you did for the comparable bear market, the average would still be 2.8 years (22.5 divided by 8 equals 2.81).

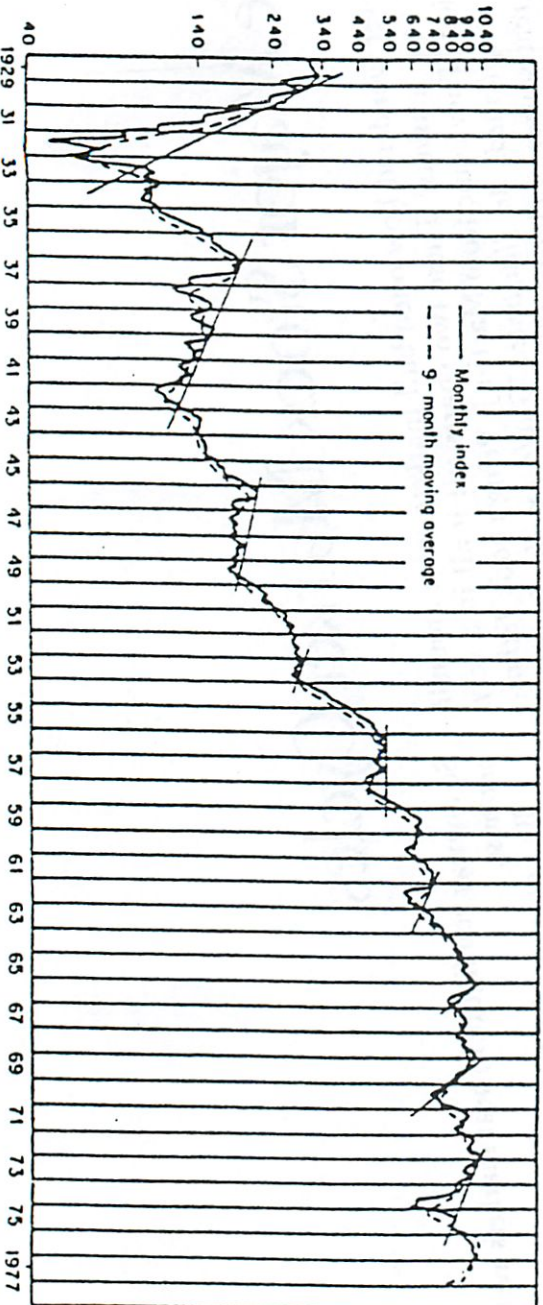
Conclusions? The historical odds are stacked against pessimists, but not overwhelmingly. You can expect that the market will be rising about 60 percent of the time and falling 40 percent of the time. Note that the 1987 bull market, which started rising in August 1982, is a full four years old at the time of this writing—quite old by historical standards. Only three of these nine bulls lasted as long. None lasted still another year. That indicates caution.

# Long-Term DJIA Showing Bull and Bear Trendlines, 1929-1977

Long-term Dow showing important bull-market trendlines.

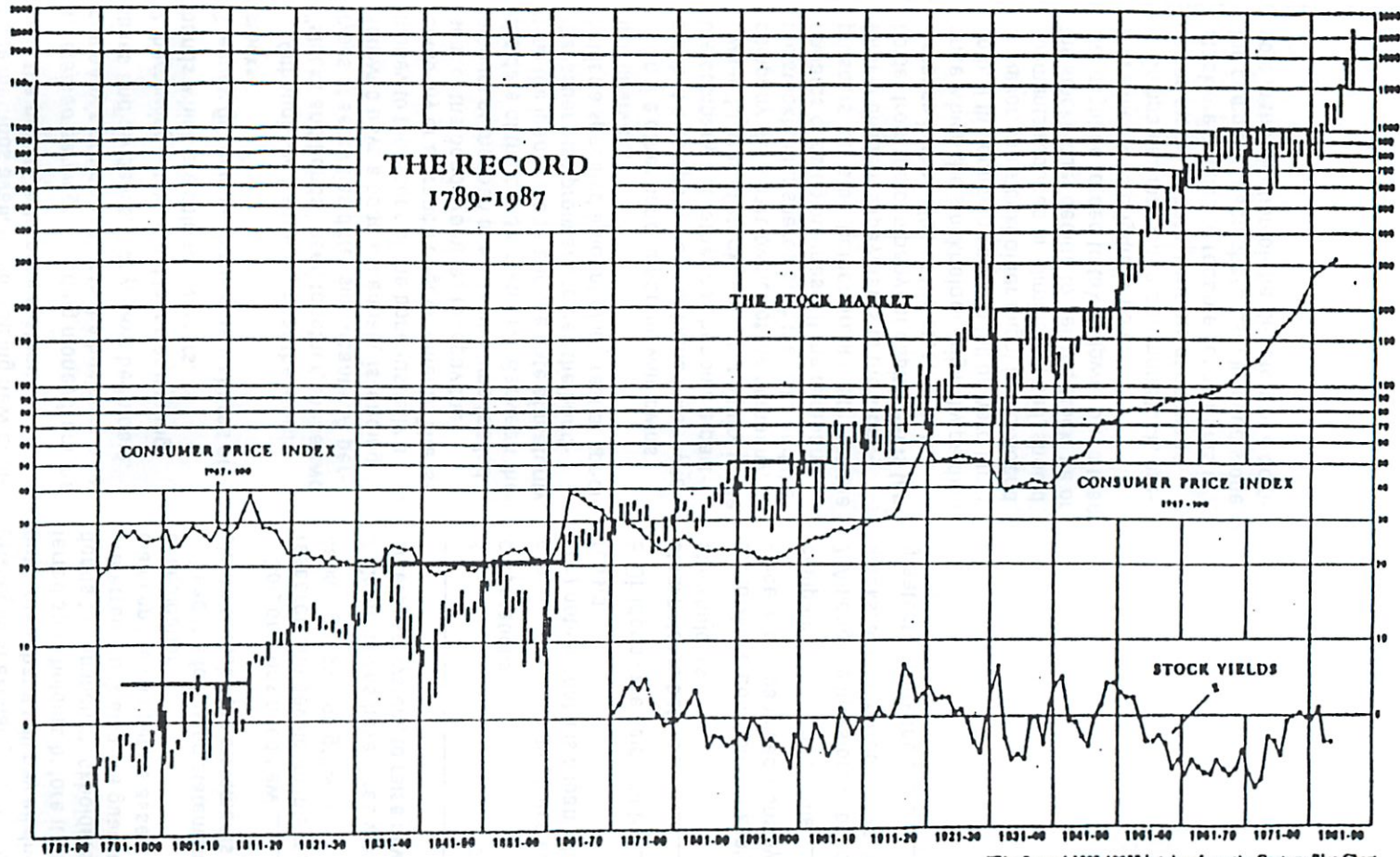


Long-term Dow showing important bear market trendlines.



Source: Martin J. Pring, *Technical Analysis Explained*, First Edition, New York: McGraw-Hill Book Company, 1979.

+ 135,000% ... A Great Continuing Growth Story



bond -  
loan to  
a company

Source: William J. O'Neil, *How to Make Money in Stocks* (NY: McGraw-Hill Book Co., 1988), p. 242

"The Record 1789-1987" is taken from the Century-Plus Chart, Courtesy of Securities Research Company, a Division of Reisman-United Investment Advisors, Inc., Boston, MA

Success in a free country is simple.  
Get a job, get an education, and  
learn to save and invest wisely.  
Anyone can do it.

↑ bull  
↓ bear

O'Neil, William J.  
How to make money in stocks: a winning system in good times or bad

Corporations need, on an on-going basis, money to continue research and development of goods and services, to purchase and replace tools and machinery and to expand their production capabilities. Corporations have three methods available for raising new capital in the private enterprise system:

1. *retained earnings*—putting money from the company's profits back into the business after taxes and dividends, if any, have been paid.
2. *borrowing*—taking out loans or issuing bonds which are sold to investors.
3. *equity financing*—issuing new shares of stocks.

Although we frequently hear the words "stocks and bonds" used together, these two types of securities differ significantly. A person who buys a bond essentially is lending money to the issuer of the bond (usually a company or a branch of government). The issuer of the bond promises to repay the amount of the loan at a specific time (called the date of the bond's maturity). Between the time the loan is made and the date of maturity, the issuer also promises to pay the bondholder a specified amount of interest at specified intervals.

On the other hand, a person who owns stock in a company has not loaned money to the company but rather has become a part-owner. Shares of stock represent equity in the company. As a part-owner of the company, the stockholder shares both the risks and the rewards of doing business. If the company prospers, the stockholder profits, either in the form of dividends (payments to the stockholder from the company) or capital gains (an increase in the value of the stock over the price which the stockholder originally paid) or both. If the company should fall on hard times, however, the stockholder might find dividend payments reduced or eliminated, and, should the stockholder decide to sell the stock, he or she might be forced to take a lower price than that which was originally paid.

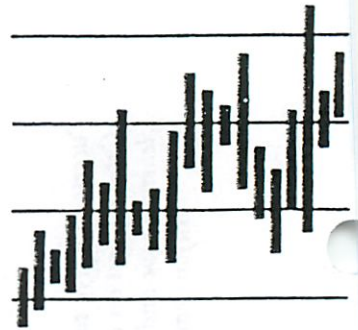
Companies may issue common stock, preferred stock, or both. Owners of common stock are entitled to receive voting rights in the company; each share usually equals one vote in the election of the directors of a com-

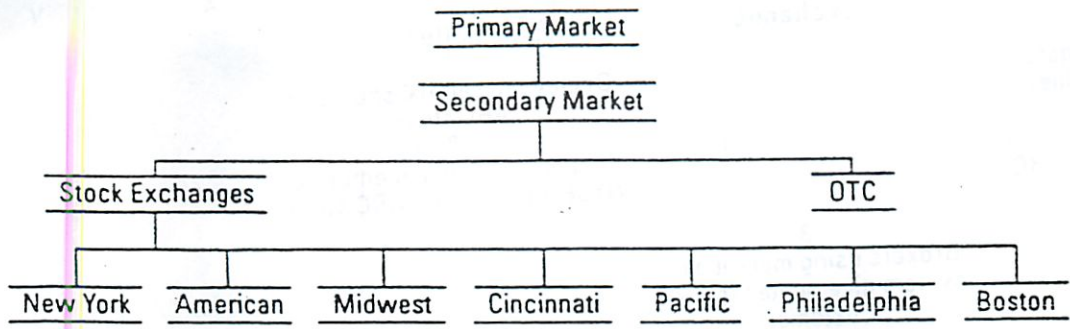
pany and on some issues. Stockholders also may receive dividends, with the amount and frequency determined by the board of directors. Owners of preferred stock accept a fixed dividend and may have reduced voting privileges in exchange for the company's guarantee that it will pay all dividends to preferred stockholders before it pays any dividends to common stockholders. Owners of preferred stock also are guaranteed prior claim on the company's assets in the event of liquidation.

Read the following statements and fill in the blanks to make the statements true.

1. Corporations need new \_\_\_\_\_ for research and development, improvement of capital goods, and growth.
2. Corporations have three ways, in the private enterprise system, to raise new capital:  
\_\_\_\_\_
3. \_\_\_\_\_ own equity in the corporations.
4. A \_\_\_\_\_ is much like an IOU or promissory note in that it is a loan which should be repaid.
5. Dividends are paid first to \_\_\_\_\_ stockholders before \_\_\_\_\_ stockholders.
6. Individual common stockholders have a voice in company decisions by voting on some company \_\_\_\_\_ and for the \_\_\_\_\_.
7. Among the investors in bonds, common stocks, and preferred stocks, those taking the greatest risk are the \_\_\_\_\_.

**Securities in the American Economy**





By studying the diagram illustrating the organization of the stock market, you can begin to appreciate the complexity of the market and the wide variety of options available to the investor.

*Primary markets* are those markets where stocks are offered for sale the first time. When a new or expanding company decides to offer new shares of stock to raise capital, the company normally will solicit the services of investment bankers, who, after determining that the stock is worthwhile, will buy a large block of the stock and offer it for sale to the public at a price the investment bankers believe to be fair. After this initial sale, all subsequent transactions take place in the *secondary markets*.

A stock exchange is simply a marketplace where listed stocks (those which have been approved by the exchange for transaction) can be bought and sold. Through the exchanges, representatives of buyers and sellers can meet to trade on behalf of their customers. Exchanges function as auction markets. When these representatives, called members of a particular exchange, agree on a price, a transaction is made. Prices are determined by an open auction market in which buyers try to buy at the lowest possible price and sellers try to sell at the highest possible price.

The exchanges themselves do not own the stocks that are traded, nor do they influence or set the prices on the stocks. The exchanges do, however, provide a marketplace which is highly competitive and which offers investors the advantage of liquidity (the ability to buy and sell quickly). Because of the accessibility to the stock exchanges through the nationwide network of brokerage firms, investors in remote towns have the same access to securities as the investor on Wall Street.

By far the largest of the stock exchanges is the New York Stock Exchange (NYSE). Established in 1792 to facilitate securities transactions, the NYSE now provides the marketplace for most of America's leading corporations.

Trading of small companies or relatively new stocks as well as bonds often occurs in the "over-the-counter" (OTC) market rather than on the stock exchanges. Dealers repre-

senting individual investors throughout the country trade mostly over the telephone among themselves. Because dealers negotiate directly with other dealers, the OTC is described as a negotiated market, as contrasted with the auction market that exists on stock exchanges.

In order to help you appreciate the vital role of the exchanges in the American economy, the following questions ask you to consider the impact upon the economy if there were no stock exchanges.

1. What difficulties would companies encounter in offering stocks to the public?

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2. What difficulties would individual investors encounter when they wished to buy or sell stocks?

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3. How would the flow of capital in the economy be affected?

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4. How would a reduced flow of capital affect the standard of living?

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List at least two differences between the stock exchanges and the OTC.

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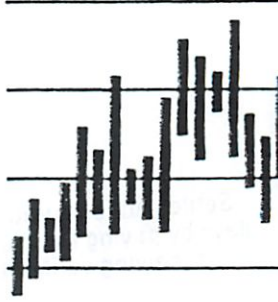
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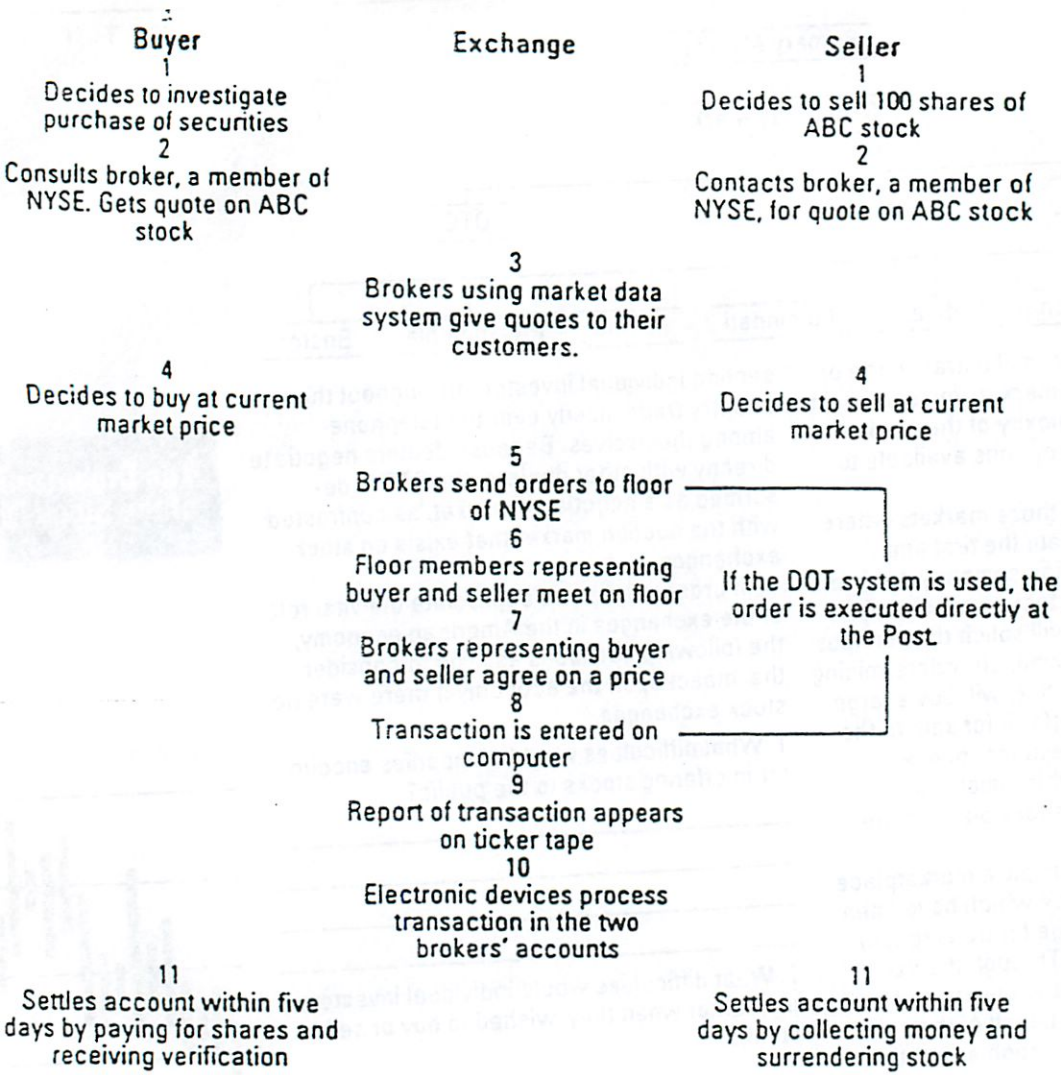
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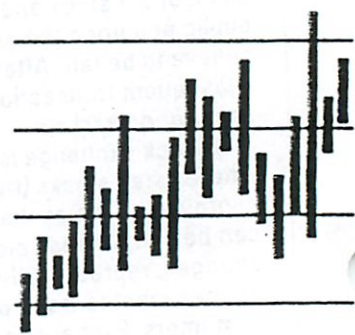
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**The Organization of the Stock Market**





### The Process of Trading a Stock



An investor deciding to buy or sell stock could give the broker specific instructions, called "orders." Some of the most common types of orders are:

**market order or at the market**—an order to buy or sell at the best price available.

**limit order**—an order to buy or sell at a specific price or better. The broker will try to get the best price possible for the customer, but the broker cannot sell below or buy above the limit figure.

**STC (good til cancelled) order**—an order at a specified price which remains good until the broker executes or the investor cancels it.

**round lot order**—an order to buy or sell stock in multiples of 100 shares.

**odd lot order**—an order to buy or sell stock in numbers of shares less than 100. Note that round lot and odd lot orders can be combined with any other type of order.

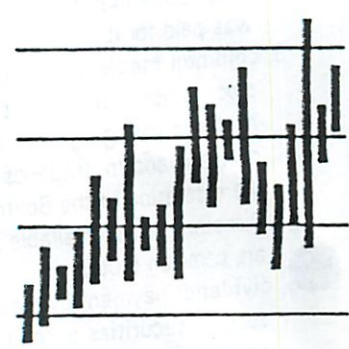
- In each of the following cases, indicate which of the first three types of orders listed above the investor has issued to the broker. Then label the order as an example of round or odd lot.
1. Barbara Chavez tells her broker that she wants to buy 100 shares of ABC stock but that she is not willing to pay more than 39½.  
\_\_\_\_\_
  2. Phillip Matthews tells his broker he wants to sell 200 shares of ABC at 32¼ until he notifies him otherwise.  
\_\_\_\_\_
  3. Wendell Walker tells his broker that he wants to buy 25 shares of ABC stock at the best price currently available.  
\_\_\_\_\_
  4. Felicia Johnson tells her broker to sell 135 shares of ABC stock at 20.  
\_\_\_\_\_



New York Stock Exchange Transactions  
Monday, January 23, 1984

Stock	Div.	P/E Ratio	100's	High	Low	Close	Chg.
ATT	5.40	9	11476	66 $\frac{1}{8}$	65 $\frac{1}{8}$	66 $\frac{1}{8}$	+ $\frac{1}{2}$
CocaCl	2.68	13	1135	52	51 $\frac{1}{4}$	51 $\frac{1}{2}$	- $\frac{1}{2}$
Exxon	3.20	7	5626	38 $\frac{1}{2}$	37 $\frac{7}{8}$	38 $\frac{3}{8}$	+ $\frac{1}{4}$
G Mot	2.80 <sup>e</sup>	9	5914	77 $\frac{1}{2}$	76 $\frac{1}{2}$	76 $\frac{3}{8}$	- $\frac{3}{8}$
G Mot pf	3.75	-	11	37 $\frac{1}{2}$	37 $\frac{1}{4}$	37 $\frac{1}{2}$	+ $\frac{1}{4}$
IBM	3.80	13	13327	117 $\frac{1}{8}$	116	116 $\frac{1}{8}$	- $\frac{7}{8}$
McDnld	1.00	13	2232	69 $\frac{1}{2}$	68 $\frac{1}{4}$	69 $\frac{1}{4}$	+ $\frac{1}{2}$
RCA pf	3.50	-	z80	34	33	33	- 1
Sears	1.52	11	3518	37	36 $\frac{1}{4}$	36 $\frac{3}{8}$	-

Newspaper  
Stock Tables



1. Abbreviated name of the corporation issuing the stock. Stocks listed are common unless an entry after the name indicates otherwise.
2. Rate of annual dividend—for this stock, \$2.68. The amount is an estimate based on the last dividend payment.
3. Letters following the dividend number indicate additional information. Here, the "e" designates the stated amount as declared or paid so far this year. Other symbols are explained in tables accompanying the stock tables.
4. The "pf" following the name of the stock indicates a preferred stock.
5. The price of a share of stock divided by earnings or profit per share for the last 12-month period.
6. Number of shares traded for the day expressed in 100's excluding odd lots—for this stock, 223,200. The letter "z" preceding an entry indicates that the number is the actual number of stocks sold.
7. The highest and lowest prices paid for the stock during the day's trading—here, the highest, \$69.50, the lowest, \$68.25.
8. The last sale of the day was at this price. (The amount here, \$33.00, is \$1.00 lower than the preceding day's closing price.)

In interpreting the stock tables, you will notice that stock prices are given not in dollars and cents but in points and fractions of points. However, one stock point equals one dollar. Thus, a quoted price of "40 $\frac{1}{2}$ " means that the price of the stock is \$40.50. A stock which closed at "22 $\frac{3}{8}$ " sold in the last transaction of the day for \$22.625 per share. How much is  $\frac{1}{8}$  of a point worth? \_\_\_\_\_

In the blanks following each question, provide the correct answer from the newspaper table printed above.

1. What is the rate of dividend for Sears stock? \_\_\_\_\_
2. How many shares of General Motors common stock were sold on this date? \_\_\_\_\_
3. How much did the price of McDonald's change during the day (expressed in dollars and cents)? \_\_\_\_\_
4. At what price (expressed in dollars and cents) did McDonald's close? \_\_\_\_\_
5. How has the price of IBM changed since the previous day (expressed in dollars and cents)? \_\_\_\_\_
6. Which of these stocks paid the highest dividend last year? \_\_\_\_\_
7. Which stock(s) had the highest P/E ratio last year? \_\_\_\_\_

## Activity One

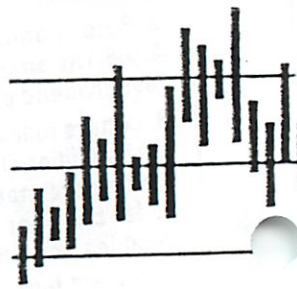
- bond:** An IOU issued by a corporation or branch of government to a person who has loaned it money. The bond is a promise to repay the loan at a specified time and to pay a specified rate of interest at intervals.
- capital gains:** the profit from the sale of a security sold at a higher price than that which was paid for it.
- capital goods:** the machinery, tools, equipment, etc., used in production. (The word *capital* used by itself may mean goods as defined here or money.)
- capital loss:** the loss from the sale of a security sold at a lower price than that which was paid for it.
- common stock:** a type of stock which entitles the stockholder to voting rights in the company and to dividends (at the discretion of the Board of Directors). Most available stock are common stocks.
- dividend:** *payment* by the issuers of securities to the holders of the securities.
- equity:** ownership in a company. New stock issues are called equity financing because they enable companies to raise money by selling shares of ownership or equity in their companies.
- maturity:** the date when the amount loaned to the issuer of a bond is to be paid back to the bondholder.
- preferred stock:** a type of stock which guarantees the stockholder a fixed rate of dividend to be paid before dividends are paid to common stockholders. Additionally, owners of preferred stock have prior claim against the company's assets in case of liquidation.

- retained earnings:** profits retained by a company, after taxes and dividends, to be put back into the company's operations.
- securities:** commonly refers to stocks and bonds.

## Activity Two

- investment bankers:** those who initially buy new stock or bond issues for sale to the public.
  - liquidity:** the ease with which assets can be bought and sold.
  - listed stock:** those stocks of companies approved to be traded on a particular securities exchange.
  - over-the-counter (OTC):** a term referring to stocks and bonds not traded on a stock exchange. These transactions occur basically between brokers and dealers who contact each other via telephone.
  - primary market:** the first market in which new issues — bonds, preferred stock or common stock — are sold by companies to acquire new capital.
  - secondary market:** a market in which stocks are bought and sold after their primary issue. The New York Stock Exchange is such a market.
  - stock exchange:** a marketplace in which representatives of buyers and sellers can meet to try to get the best possible prices for stocks of listed companies for their customers.
- Consolidated Tape:** an electronics communications system which reports transactions on all major markets immediately.
  - DOT (Designated Order Turnabout):** a system for transmitting orders directly between a broker's office and the trading post on the floor of the New York Stock Exchange for speedy execution.
  - GTC (Good Til Cancelled) Order:** an order to buy or sell stock at a specified price which is good until the customer cancels it.
  - Intermarket Trading System (ITS):** an electronic link of seven stock exchanges across the country that allows brokers and dealers to "shop" more efficiently in various markets across the country for the best prices for their customers.
  - limit order:** an order to buy or sell stock at a specific price.
  - Market Data System:** a complex electronic system giving instant access to the computer that stores current prices bid and asked on all stocks listed on the NYSE, as well as statistical and historical data about those same companies. MDS also transmits records of trades to the ticker tape almost instantaneously.
  - margin buying:** a method of buying stocks which allows the broker or lending institution to provide the buyer part of the money needed to pay for the stock.
  - market order:** an order to buy or sell stock at the best possible price when the order reaches the trading post.
  - National Clearance and Settlement System:** a system for providing fast, accurate processing of completed transactions for brokers and dealers.
  - quote:** the highest bid and lowest offer for a stock at any moment.
  - selling short:** a stock transaction in which investors sell shares of stock they do not

## Vocabulary



own, borrowing the stock to complete the transaction. If they are able to buy the stock later at a lower price than that at which they sold the borrowed stock the difference between the two prices is profit.

12. **trading post:** an assigned area on the trading floor of a stock exchange where a designated company's stock are traded.

### Activity Four

1. **close:** the last price at which a stock was transacted on a particular day.
2. **high:** the highest price paid for a stock on a particular day.
3. **low:** the lowest price paid for a stock on a particular day.
4. **net change:** the difference between a particular day's closing price and the closing price on the preceding market day.
5. **P/E ratio:** the price of a share of stock divided by earnings (profit) per share for a 12-month period.
6. **point:** for stocks, one point equals one dollar; for bonds, one point equals ten dollars; for market averages, a point has no dollar equivalent — it is just a point on a scale.
7. **portfolio:** various securities owned by an individual or an institution.
8. **round lots (100's):** the number of shares of stock sold in a day, usually expressed in 100's.

### Activity Five

1. **auction market:** the system of trading securities through brokers or agents on an exchange such as the New York Stock Exchange. Buyers compete with other buyers while sellers compete with other sellers for the most advantageous price.
2. **bear market:** a market in which prices are low or declining.
3. **bull market:** a market in which prices are high or rising.
4. **demand:** stock wanted at a particular time and price.
5. **supply:** stock available for sale at a particular time and price.

### Activity Six

1. **National Market System:** a cooperative venture within the securities industry linking all of the various securities markets through electronic devices which enable brokers and dealers to shop nationwide for the best prices for their customers.

2. **regulatory pyramid:** the various levels of protection for the securities customer. From bottom to top the pyramid consists of, the individual member firms of the New York Stock Exchange; the New York Stock Exchange; the Securities and Exchange Commission; the Congress.

3. **Securities and Exchange Commission (SEC):** the governmental regulatory agency which oversees the securities industry.
4. **self-regulation:** the policy of an industry to diligently monitor its own activities to assure its customers of the best possible service (the securities industry embraces such a policy).

2. **employee stock purchase plan:** an opportunity for employees to purchase their company's stock at a favorable price during their years of employment.
3. **growth stock:** a stock which expected to increase in price over a period of time, even though it may provide no immediate income.
4. **income stock:** a stock which has a history and prospects of paying good dividends, even though its market price may remain relatively constant.
5. **investment goals:** the decisions investors make about how they want investments to work for them (by increasing in value, for example, or by providing regular income).
6. **routine expenses:** recurring expenses for which one must provide in a budget. (Food, clothing, shelter, medical care, taxes and transportation are examples of routine expenses.)
7. **yield:** in stocks and bonds, the return on the investment. Yield is computed by dividing the annual dividend or interest by the current price of the security or by the price originally paid for the security.

### Activity Seven

1. **annual report:** reports issued annually by corporations, detailing the preceding year's financial status and plans for the coming year.

In his new book, Swensen opens the door to investment success for the average investor



HE HAS MADE BILLIONS FOR YALE AND SAYS MUTUAL FUNDS ARE A RAW DEAL FOR MOST FOLKS

# Money Master

**David Swensen** is easily the best money manager in higher education. He may be the best, period. In 20 years of running Yale University's endowment, which has \$15 billion, he has delivered average annual returns of 16.1%—blowing away the typical college endowment's return of 11.6%. Swensen, 51, author of *Unconventional Success* (Free Press), spoke with *TIME*'s **DANIEL KADLEC** on how mutual funds fail the average Joe, why Peter Lynch is misguided and how you should invest.

**TIME** Your book trashes the fund industry for its high fees and misleading ads and advises folks to stick with index funds. Didn't John Bogle at Vanguard beat you to this drum by, oh, a couple of decades?

**Swensen** If you want to distill my book into two pages, yes, it's about indexing being the best way for individuals to invest. The costs are low, and you can get true diversification. But it's not just about that. It's also about investor behavior. Most people buy a fund after it's gone up and sell after it's gone down. You can't make money that way. My hope is that people will understand how to do the right thing—and stick with it.

**TIME** What is the right thing? What is the key to your success at Yale?

**Swensen** A truly diversified portfolio and strong orientation toward equity or equity-like investments. That part translates very well to individuals, who can buy a broad range of funds, including real estate. The other part, though, is getting strong active-management results. The individual just cannot do that. They don't have access to the same managers that institutions use, and they don't have the resources to properly evaluate what is available to them.

**TIME** Peter Lynch, the legendary market-beating fund manager at Fidelity, says anyone can beat the pros by paying attention at the mall and asking a few simple questions.

## CEO SPEAKS

**Swensen** He is so wrong, and I'd be happy to tell him that. It's really, really hard to beat the market. You can't do it by spending a few evenings each week and a few hours on weekends putting together a portfolio. The few people who can beat the market tend to be obsessed.

**TIME** What assets should be in every investor's bag?

**Swensen** Domestic, foreign developed and emerging-market stocks, REITS, government bonds and inflation-indexed bonds—all through low-cost index funds. Regardless of what happens to interest rates and currencies, you ought to get a decent result.

**TIME** On average, how much do investors in actively managed funds lose from fees?

**Swensen** We found that the after-tax shortfall of actively managed funds compared to an index was 2.8% per year over 20 years. Put another way: your chance of picking a managed fund that will beat an index is less than 1 in 7—and that doesn't factor in sales commissions.

**TIME** Some might say you underestimate the individual investor.

**Swensen** Individuals absolutely cannot get it right. Most of us feed our winners and kill our losers. But with investments, if something is going well, we need to think about paring back. If it's going poorly, we need to think about nurturing it. The evidence that people chase winners is overwhelming. It's not all their fault. Mutual funds advertise funds that have done well—just before they start to lag.

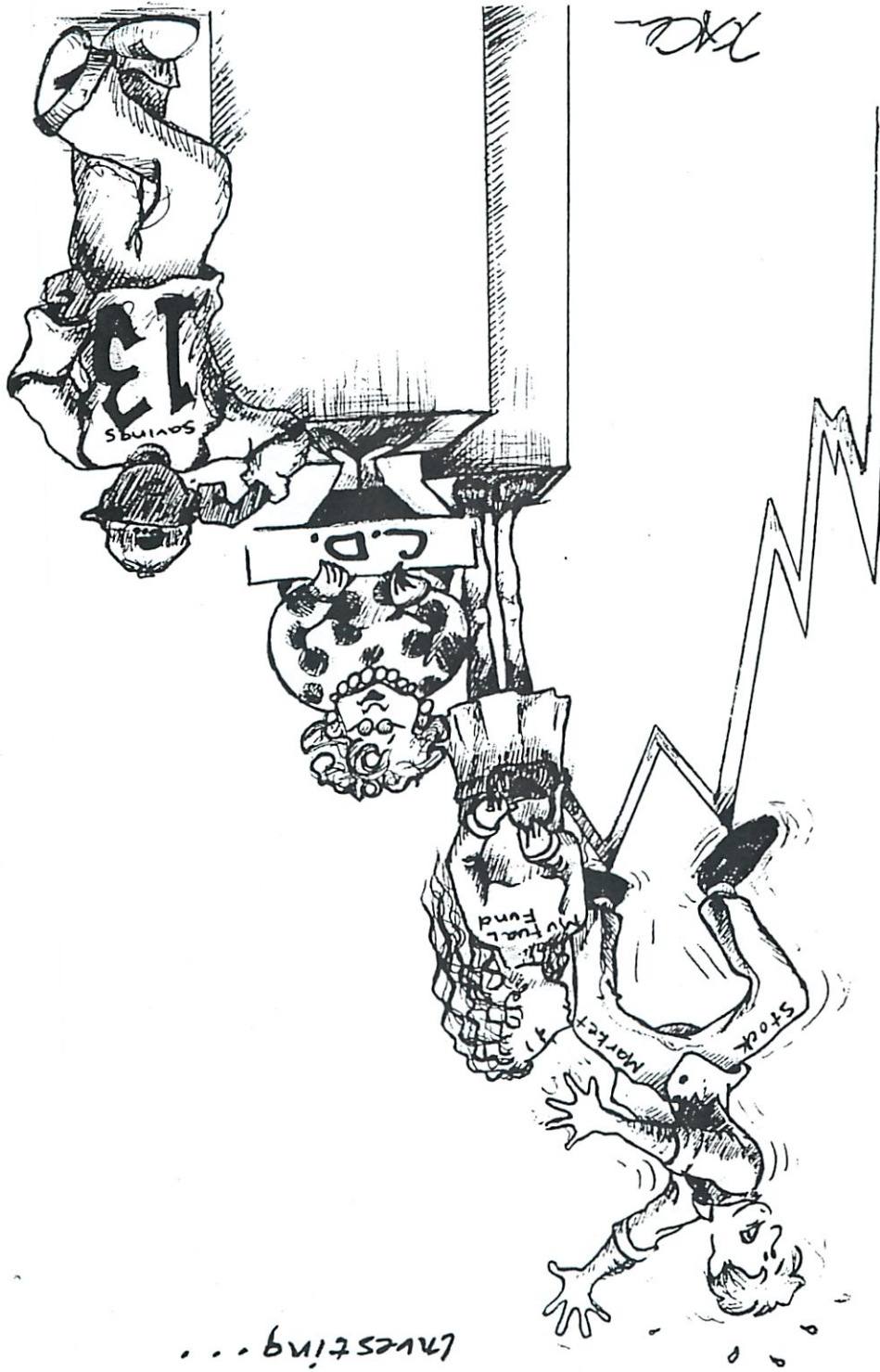
**TIME** You could make \$100 million a year running a hedge fund. Why not jump?

**Swensen** I love it here. There's more to life than accumulating a pile of money.

**TIME** Good thing. If you're right about mutual funds, most of us have no shot.

**Swensen** If individuals follow a simple recipe and stay diversified with index funds, they've got a fighting chance. You won't talk about it at cocktail parties, but you should have success. ■

Doc - From Time  
R.11



Investing...

Economics

Researching Stocks and Mutual Funds

- OBJECTIVES:**
1. Learn how to research individual stocks on the internet
  2. Learn how difficult it is to evaluate stocks.
  3. Learn how to gather information on mutual funds.

**Directions for researching stocks:**

1. In the computer lab logon to the internet.
2. Go to [www.yahoo.com](http://www.yahoo.com)
3. Click on "Finance" in the middle of the page.
4. Click on "Symbol Lookup" in the middle of the page.
5. Enter the name of the company you wish to research and click on "search."
6. When the four letter symbol is displayed, write it down for later use, then click on the highlighted symbol.
7. Look near the bottom of this homepage for the link "Profile" and click on it; read the Profile to be sure that this is the company for which you were looking.
8. Use the Equations for Basic Financial Analysis to evaluate this company.
  - a. Working Capital--
  - b. Current Ratio-- click on the companies name on the homepage; then scroll down the left side of the page and click on "Key Statistics." It is called "Price to Book" 1.37
  - c. Book Value-- " 71.61 "
  - d. Return on Equity-- " 14.49% "
  - e. Profit Margin-- " 6.54% "
  - f. Price/ Earnings Ratio-- " 9.91 "
9. Remember, you need to invest in a total of at least 8 but not more than 15 companies in a variety of industries to achieve the safety of diversification. If this is too hard and too risky, go to 10.

**Directions for researching mutual funds:**

10. Return to [www.yahoo.com](http://www.yahoo.com).
11. Click on "Finance" in the middle of the page.
12. Scroll down and click on "Mutual Funds."
13. Click on "Fund Screener," scroll down to "Fund Performance" and enter 15% return for all time periods.
14. Scroll down to "Purchasing & Fees;" for Front Load select "No Load;" for "Total Expense Ration" select ""less than,3."
15. Search and record names of funds for further research.
16. Go "back"
17. Scroll down to "education." Click on "Mutual Fund Basics." Start learning more; you have a lot to learn.

P.S. Visit the Morningstar.com site. Learn about its service. You can consult this source for free at Ludington Library in Bryn Mawr.

## Basic Financial Analysis

$$\text{Working Capital} = \text{Current Assets} - \text{Current Liabilities}$$

(If it is not positive, forget this company)

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

(Should be between 2 and 5)

$$\text{Book Value} = \frac{\text{Shareholder's Equity}}{\# \text{ Shares Outstanding}}$$

(Compare this to current price)

$$\text{Return on Equity} = \frac{\text{Net Earnings}}{\text{Stockholder's Equity}}$$

(Should be  $> 10\%$ )

$$\% \text{ Operating Income of Revenue (Profit Margin)} = \frac{\text{Operating Income}}{\text{Net Sales}}$$

(Should be  $> 8\%$ )

Price / Earnings Ratio

(Low is better than high but consider other factors too.)

# Important Notice: PAYMENT SCHEDULE CHANGE

can eliminate 7-10 years and \$16,750 in interest charges off your \$50,000 loan.

\*based on 30 year loan

Nationwide Biweekly Admin.  
855 Lower Bellbrook Road  
Xenia, OH 45385

L  
T

Could have just signed the right loan

RE: Bi-Weekly ID:  
Customer ID#

I Fee: \$500 + 2,50/payment

Dear

We have evaluated your \$50,000 loan and we are notifying you that you are losing out on being able to eliminate 7-10 years of payments and \$16,750 in interest charges off your loan. In addition, your equity is currently growing at half the rate it should be. You do not have to increase your monthly payment, just switch to a bi-weekly payment (pay half the amount every 2 weeks). This proven solution is saving our customers billions of dollars in interest charges.

With the bi-weekly program, you will also be able to save a large amount of interest on all your other loans - 2<sup>nd</sup> Mortgage, Credit Cards, Student Loan, Auto Loan, etc. Do you realize how much you're losing in interest charges every month on all your debts? Have you ever looked at one of your statements showing how much of your payment goes to interest and the small amount that goes to principal? **Do not let anyone convince you that a traditional monthly payment is in your best interest.** It's your money...and you should be able to keep more of it!

SAMPLE COMPARISON (payment amount and figures are estimates)					
*payment amount may be lower.	Payment Amount	Years To Pay	Interest Savings	Equity Buildup 5 years	Equity Buildup 10 years
Monthly:	\$330	30	\$0	\$2,934	\$7,094
Bi-Weekly:	\$165	23.8	\$16,750	\$4,890	\$11,823
The effect of adding a little extra to your payments:					
	Payment Amount(+)	Years To Pay	Interest Savings	Your Savings is 100% GUARANTEED	
Bi-Weekly:	\$165 + \$10 <i>extra principle</i>	19.8	\$27,000		

← Poor Equity Growth  
← Rapid Equity Growth

No Refinancing Required

\*Sample Figures: \$50,000, 30 year term, \$330 monthly payment

- **Additional Loss in Savings:** By adding a little extra to your bi-weekly payment, you could be reducing your loan to **19.8 years** and eliminating **\$27,000 in interest** charges. That's over a 10 year savings!
- With a bi-weekly program, the **equity** in your home will grow nearly **TWICE as FAST!**
- Our bi-weekly program is setup with over **2,100** Lenders, Banks, Credit Unions. **GUARANTEED** Transferability.
- We are helping over **170,000 families** save over **\$5 Billion** in interest charges.

To switch to a weekly or bi-weekly payment for your \$50,000 loan or to get information on how much money you will save and how many years you will eliminate, call us at **1-800-317-1756**. Please respond no later than **June 19, 2008**. Be sure to have this letter and your **monthly mortgage statement** or coupon book available when you call. The weekly and bi-weekly programs are offered by **Nationwide Biweekly Administration, Inc.** All funds are handled by a fully Licensed Federally Regulated Commercial Bank and remitted to Charter One Bank monthly on or before the loan's monthly due date. No changes are made to your existing loan. All extra funds collected are directed toward the principal of your loan.

## HELPING MILLIONS SAVE BILLIONS

Nationwide Biweekly Administration, Inc. is located at 855 Lower Bellbrook Rd., Xenia, Oh 45385 and is not affiliated, connected associated with, sponsored, or approved by the lender. Information concerning your loan was obtained from public record. Reference to the lenders name is made strictly for loan identification purposes only. © Nationwide Biweekly Administration, Inc. Sept 2004.



Michael Plasmeida



Cell

Economics with Dr. Reilly

Name:

Date:

WEBWORK: Credit Cards and Checks

OBJECTIVES:

1. To provide an overview of the uses and costs of credit cards.
2. To provide an overview of the uses and costs of checks.

CREDIT CARDS: they can be a useful tool in your financial life or a contributor to a financial major disaster. You can skip the tedious but useful exercise that follows--I am sure the issuers of credit cards hope you will skip it--or you can learn how the system works and how to benefit from it. The choice--just like the bills--will be yours.

1. Go to <http://www.italladdsup.org>
2. Click on the picture of a credit card at the bottom of the page; this should take you to a game entitled "Getting and using a Credit Card." Click on "Start This Module" in the lower left corner of the screen to begin.
3. Write a paragraph on the back of this page summarizing what you have learned about credit cards.

- Don't spend more than you can afford to pay each month.
- Pay off your entire balance each month
- Late fees suck
- Get a low APR + no annual fee
- know how much you spent by checking online
- Notify company when there are unauthorized charges

## WEBWORK: Could this be true? URBAN LEGENDS

## OBJECTIVES:

1. To foster a healthy skepticism about "news" stories
2. To introduce you to sources that can help you quickly investigate dubious "news" stories.
3. To provide you a strategy (TRIANGULATE) for confirming the validity of "news" stories.

We have all heard stories that are simultaneously compelling and outrageous. Often they urge you to take some immediate action--send an email, delete something from your computer, buy a product or service, sell some asset. These could be what are called "urban legends"--stories that circulate widely but have no basis in fact.

How should you respond to such stories--whether you hear them from an acquaintance, read them as an email, read in the printed media or heard it from the broadcast media?

Question, research, and reach your own conclusion before acting.

1. Jot down the most outrageous "urban legend" that you have heard.

*Boycotting gas for a day & prices*

2. Go to one of the following websites and look for information on your "urban legend."  
<http://www.snopes.com/>

<http://www.scambusters.org/>

Make brief notes on what you have learned. Your teacher will ask you to share them with the class.

*No way*

3. How can we protect ourselves from urban legends?

A. Get in the habit of "triangulating"--do not believe unusual stories unless you have seen them reported in at least three different sources, one of which at least should be a reputable source. This is especially true of stories you encounter on the internet.

B. Ask yourself why you are being presented this information? Motives could be innocent enough--to entertain--but they could be more manipulative such as

- 1) To get you to respond to an email that may simply be a nuisance for others.
- 2) To support some cause you may not fully understand.
- 2) To sell you some good or service that will profit others, perhaps at your loss.

Be skeptical! Think before you act!

Continued on verso

John Fried of The Philadelphia Inquirer writes a column on the "Technology" page entitled "FAQ (Frequently Asked Questions)." His entry under "Hoaxes" can be consulted at <http://inquirer.philly.com/newsroom/faq/pages/index.html>.

Hoaxes may be checked out at:

[www.purportal.com](http://www.purportal.com)

<http://f-secure.com/virus-info/hoax/>

The above address, which you should type into your browser without any spaces and without the traditional "www," refers to virus information; however, the site lays bare the truth about all sorts of dumb alarms on the Internet.

But because virus hoaxes also abound in e-mail chain letters, you should also check the following site for the lowdown on which viruses are a real threat and which are fictitious. This address should also be copied without spaces:

<http://www.symantec.com/avcenter/hoax.html>

# Final

G/4

- market structure or something we studied
- lifetime time financial skill
- How to buy a used car?
- How can a national health care system help America?
  - Compare/contrast perfect competition with pure monopoly
  - How should society resolve spill over costs
  - What is gov's role in econ
    - related to Monopoly
  - AP style question
  - How is marginal analysis important and show how it is reflected

Page 1

1/1

Project started in 1980s with 100000  
liters of water per day

How can we protect health care system  
from a virus?

Answer: (1) prevent contact with  
contaminated water

- How about social factors? Different  
cultures

- What is going on in  
Africa? For example

The old program  
was in danger of collapse

