

4th Class

1/28/11

review and extend basic points about markets from last class

Markets consist of one or more sellers (supply), one or more buyers (demand), and some interaction between them.

--price and quantity are jointly determined in freely operating markets.

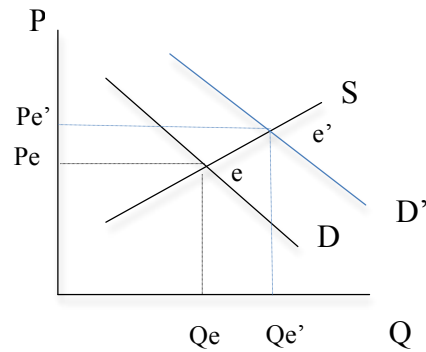
--price cannot be determined separately from quantity traded, or else shortages or surpluses arise (if price is set too low, or too high). If quantity is fixed, then either price rises or rationing system necessary. We'll go through some baseline cases of this today

--there is generally a unique solution at which quantity supplied equals quantity demanded. This is counter to people's believing that we can set prices at particular levels and still get desirable outcomes. Example: teacher salaries, child care worker salaries, gasoline prices. We'll spend a lot of time in class developing the ideas of supply and demand, but today let's do some basic manipulations of them.

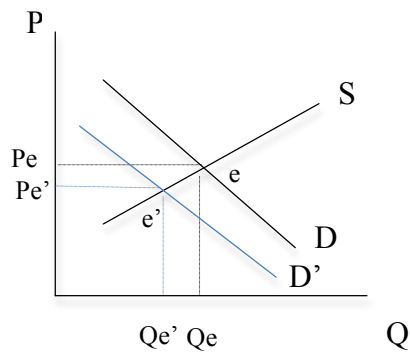
go through answers to last time's practice problems

--important distinction between shift of curve and movement along curve; go through four possible shifts and consider P and Q changes in each case (and the corresponding movement along the other curve):

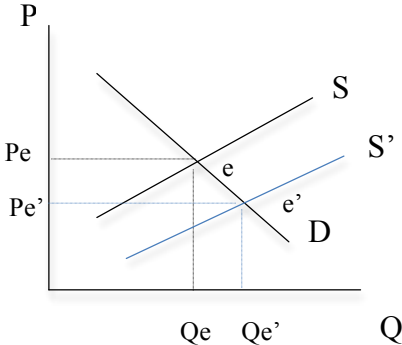
Demand increases (D shifts upward/rightward): P and Q both increase



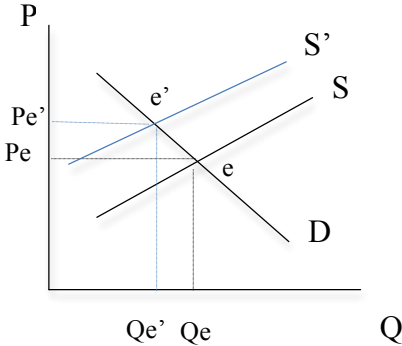
Demand decreases (D shifts downward/leftward): P and Q both decrease



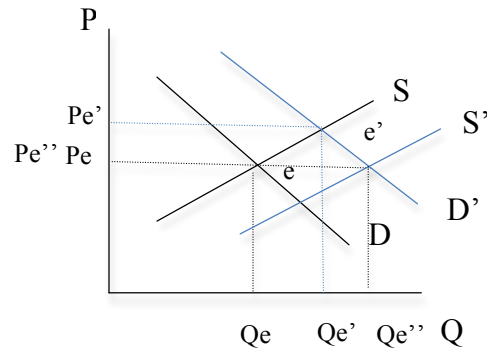
Supply increases (S shifts downward/rightward): P decreases, Q increases



Supply decreases (S shifts upward/leftward): P increases, Q decreases



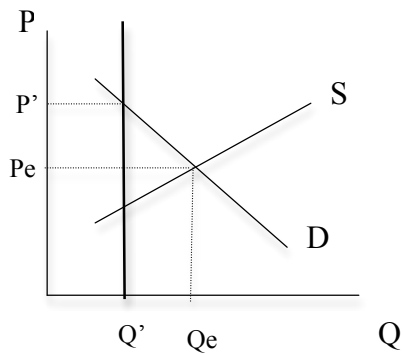
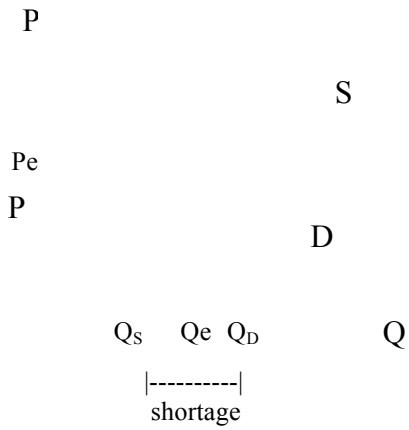
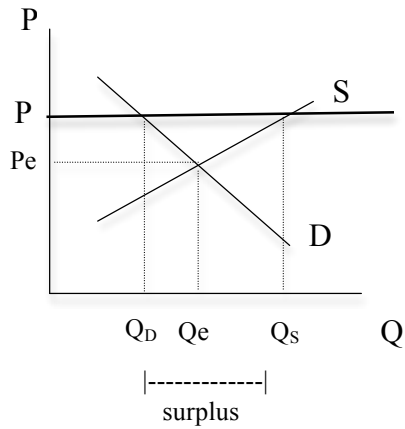
consider what happens if two curves shift at once; can either amplify or moderate effects on P and Q. Do a couple of examples (e.g., gas case, when supply decreases in response to falling demand)



now let's consider restraints on markets

show price ceiling, price floor, quota (discuss nonbinding and binding cases)

(note: I'm having some trouble getting the shortage picture to print correctly and need to fix it)



why can't you have the opposite of a quota? discuss

some examples

price ceiling (at zero): market for kidneys: demand outstrips supply

http://online.wsj.com/public/article/SB118901049137818211.html?mod=todays_free_feature

price floor: minimum wage laws

federal minimum wage currently (ask) \$7.25; CT minimum wage currently (ask) \$8.25

variation pretty great across U.S. states and some cities: highest state is Washington (\$8.55);

highest city is Santa Fe (\$9.85)

http://en.wikipedia.org/wiki/List_of_U.S._minimum_wages

quota:

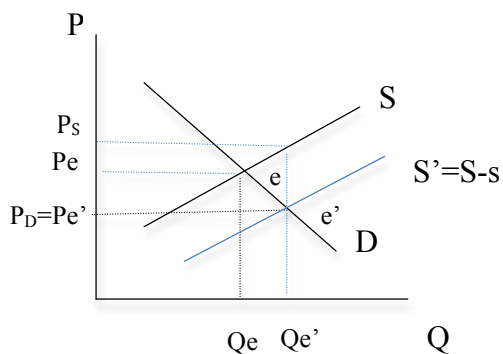
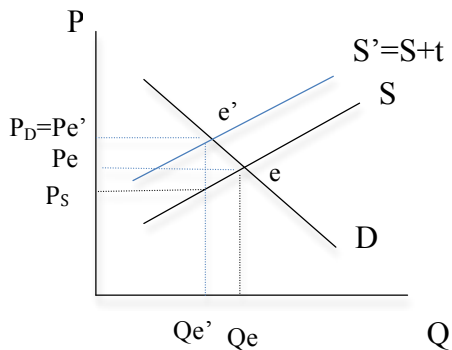
imported car quotas

<http://www.nytimes.com/1990/01/12/business/japan-seen-extending-auto-quotas.html>

fishing quotas (tradeoff between more today and more tomorrow?)

http://en.wikipedia.org/wiki/Individual_fishing_quota

show taxes and subsidies



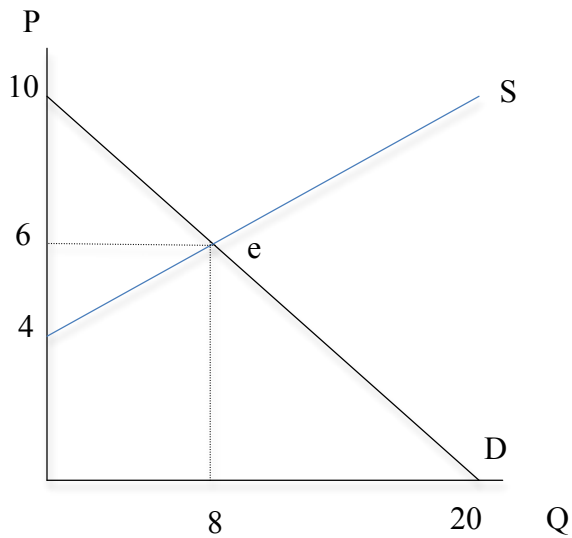
discuss briefly the “extreme” cases for demand and supply: completely vertical and completely horizontal in each case (next class we’ll start by thinking of examples of such cases)

Answers to Practice Problems from 1/26/11

I. 1) 10; 20

2) 4

3) and 4)



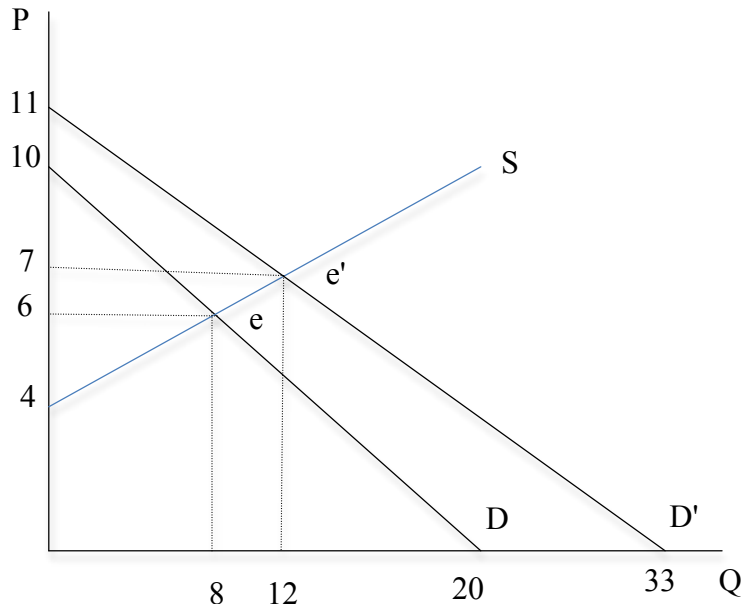
substitute the first two equations into the third and solve for P:

$$20 - 2P = 4P - 16, \text{ so } 6P = 36, \text{ so } P = 6$$

then substitute P into either the demand or the supply equation to solve for Q:

$$20 - 2(6) = 4(6) - 16 = 8 = Q$$

II. $33 - 3P' = 4P' - 16$, so $7P' = 49$, so $P' = 7$; $33 - 3(7) = 4(7) - 16 = 12 = Q'$



Practice Problems 1/28/11

I. Consider the same market from our last round of practice problems:

Demand: $Q_D = 20 - 2P$

Supply: $Q_S = 4P - 16$

- 1) Suppose the government imposes a price ceiling on this market such that the price cannot exceed 5. Sketch the market diagram, including the price ceiling. Now what will P , Q_D , and Q_S be?
- 2) Suppose that instead the government imposes a price floor on this market such that the price cannot fall below 7. Sketch the market diagram, including the price floor. Now what will P , Q_D , and Q_S be?
- 3) Suppose that instead the government imposes a quota on this market such that the quantity sold cannot exceed 4. Sketch the market diagram, including the quota. Now what will P , Q_D , and Q_S be?
- 4) Suppose that instead the government imposes a price ceiling on this market such that the price cannot exceed 7. Now what will P , Q_D , and Q_S be? Suppose that instead the government imposes a price floor on this market such that the price cannot fall below 5. Now what will P , Q_D , and Q_S be? Suppose that instead the government imposes a quota on this market such that the quantity sold cannot exceed 9. Now what will P , Q_D , and Q_S be?

II. Again with our same market.

- 1) Suppose the government imposes a unit tax of \$3. Sketch the market diagram. Now what will P and Q be? How much tax revenue is collected by the government?
- 2) Suppose the government imposes a unit subsidy of \$3. Sketch the market diagram. Now what will P and Q be? How much does the subsidy cost the government?