

“But if you know only economics and nothing else, you will be a bane to mankind, good, perhaps, for writing articles for other economists to read, but for nothing else.”

Friedrich Hayek, *The Trend of Economic Thinking: Essays on Political Economists and Economic History, vol. II, The Collected Works of F. A. Hayek*, W.W. Bartley III and S. Kresge, eds., p. 42.

An Introduction to Neoclassical Economics: Part I

I. Normative Foundation of Neoclassical Theory

From Classical Utilitarianism to Consequentialist Welfarism

1. Consequentialism	→	1. Consequentialism
2. Welfarism (utility)	→	2. Welfarism (utility maximization vs. preference satisfaction)
3. Sum-Ranking (“cardinal” utility, interval scale)	X	3. Pareto Comparisons (Pareto Optimality; Pareto Superiority; etc) (“ordinal” utility, ordinal scale) Kaldor-Hicks Compensation Test: A KH efficient relative to B if winners can fully compensate losers and still enjoy net benefit)

II. Self-Perception of Neoclassical Economics: Economics is a (largely) value-free science.

Economics is to be the physics of the social world. Economics aspires to be a fully objective, “positive” science. “Positive Economics” versus “Normative Economics”: The former comes first and drives the latter; policy judgments are derived from positive economics. To the degree possible, economic theory should proceed without making value judgments.

III. Assumptions/Essences, Naturalism, and Reductionism of Neoclassical Theory

NB: The first two assumptions concern *human* nature; the third concerns *physical* nature.

1. Humans endowed with ability to choose *rationally*.

Rationality implies:

Egoism: humans are self-interested:

It is not from the benevolence of the butcher, the brewer, or the baker that we expect our dinner, but from their regard to their own interests. We address ourselves, not to their humanity but to their self-love, and never talk to them of our own necessities but their advantages (Adam Smith, 1776)

“self-interest dominates the majority of men” (George Stigler 1975)

“the average human being is about 95% selfish in the narrow sense of the term” (Gordon Tullock 1976)

Preference orderings (structure: consistent; complete; LDMU: NB and don’t forget: “marginal” means “extra”)

Q: Does the LDMU imply that someone with 2 Cokes is less happy than someone who has only 1?

Preferences are “exogenous” to our economic activity (what does this imply for advertising?)

Preferences are not right or wrong: the economist must take all preferences as valid

Insatiability: We always want MORE!

Law of Diminishing Marginal Utility

Rationality implies that the human actor is a cost-benefit machine that constantly calculates which decision is best, given his/her preferences (a pleasure center wired to a computer, as one theorist has put it). Should I attend class? Should I get married/have kids/become a priest? Should I lie/cheat/steal or break the law in other ways? To be rational, I must compare the benefits of any activity with its “opportunity cost,” or *the value (measured how???) of the best option that must be forgone in order to pursue the activity.*

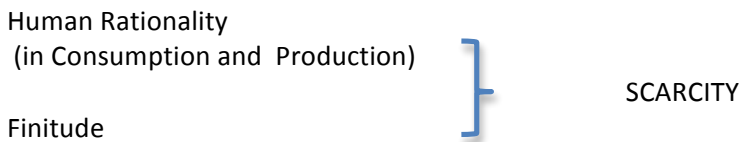
2. Humans are endowed with the ability to transform elements of nature into goods that meet human needs, and they do so *rationally*.

Rationality in this context implies “no waste.” Producers will choose the production process that minimizes the “opportunity cost” of production.

3. Finitude: All output requires inputs from nature, but since nature’s bounty is finite, output (over any given period of time) must also be finite.

This assumption implies that ***all activities entail an opportunity cost.*** To be human is to be condemned to a life of never-ending choices involving opportunity costs. No Garden of Eden, no “free lunches.”

Now, notice the joint implications of these three assumptions:



Why? Why do the three assumptions, taken together, imply “scarcity”?

Finally:

Q1: What view of economics do these three assumptions imply? ***What is economics, in the neoclassical view?***
“Economics is the study of...”

(see DeMartino, p. 48, on the Federal Reserve Bank of Minneapolis “Econ Literacy Test”)

Q2: What would happen to this definition of economics if, say, we dropped the assumption of insatiability?

4. Essentialism of Neoclassical Theory

As we proceed, pay attention to the driving force of these initial assumptions. Do they change in the course of the theoretical progression? What role do they play? And what form does explanation take in this account? We’ll return to all of this when we conclude our examination of neoclassical thought.

IV. Consumer Theory

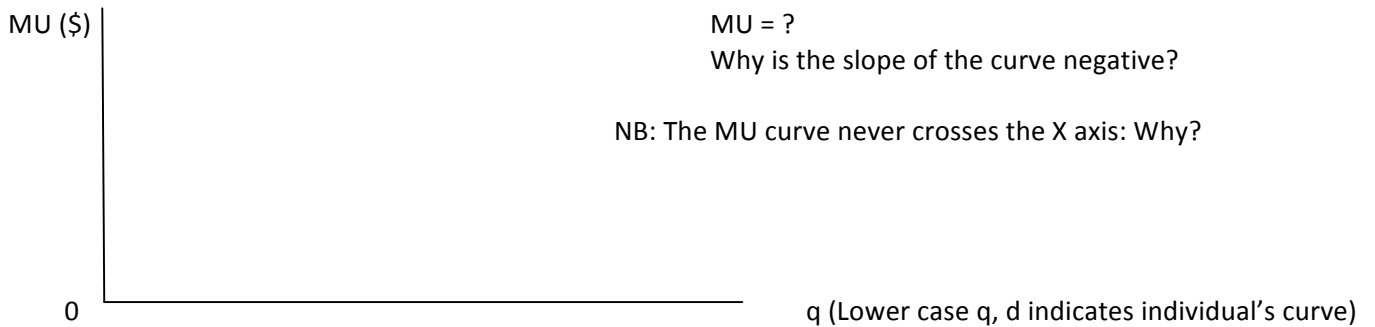
A. Neoclassical theory imagines an economy comprising markets, in which two kinds of transactors face each other: “consumers” and “firms.” To theorize the economy, then, requires that we theorize the behavior of these two actors in the abstract, and then theorize their interactions. So let’s begin with consumers. What can we say about the behavior of consumers, given our initial assumptions?

Recall rationality (insatiability; LDMU)

Thought Experiment: Thirsty, Hungry Hiker—Imagine you have \$50.00 in your pocket (that’s your “budget constraint”)

Q Cokes \$
1
2
3
4

Graphically:



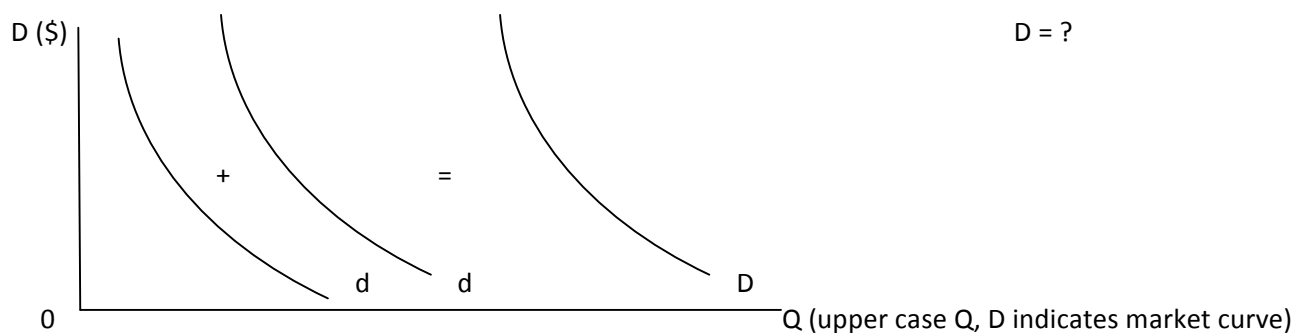
But this curve isn’t just the person’s MU curve: it is something much more. What is it? Be precise...

Demand Curve Defined: For any given price, the Demand Curve gives us the quantity that a consumer (or consumers) will demand.

A person’s demand curve depends on two things: his/her preferences, and his/her budget constraint. We’ll discuss the determinants of the budget constraint below.

(NB the notation: I’ll use “q” for an individual demand curve, and “Q” for the market demand curve)

From individual to Market D: How do we derive the “market” demand curve?



Q: Why is this curve downward sloping?

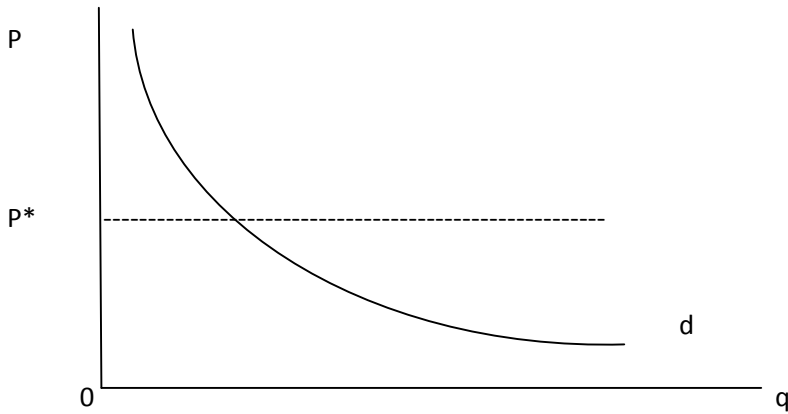
Now for a critical question: if the individual demand curve is equivalent to the individual’s marginal utility curve, what is the MARKET demand curve equivalent to???

B. Further Thoughts on Demand

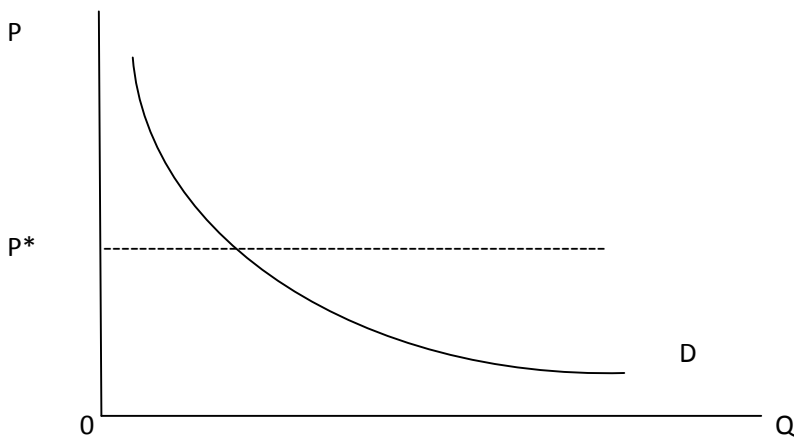
1. What happens to a consumer’s demand for a good as the price rises? Why?

2. What happens to the consumer's demand for *Pepsi* when the market price of *Coke* rises? Or for tea when the price of coffee rises? Now, how about the price of Hummers when the price of gasoline rises?

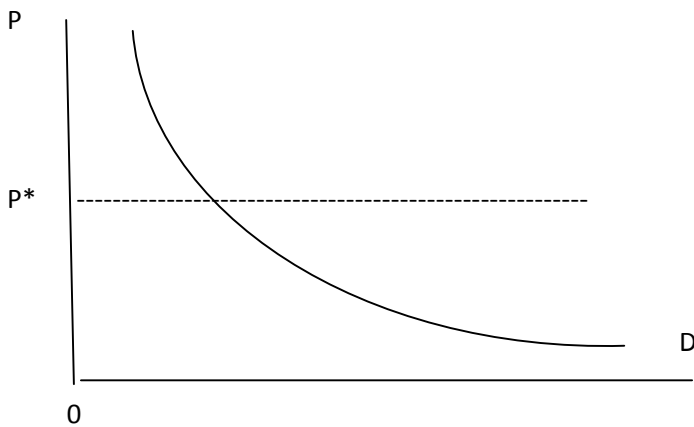
3. Does the consumer pay for every unit of utility that she receives from the *Coke* she buys? Why/why not? How would you show this "consumer surplus" on the graph?



And for all consumers in a market, Consumer Surplus is shown in the same manner:



Now, once the price of a good is set, which quantity will maximize consumer surplus? Show this graphically.



4. Finally, how might producers (try to capture this surplus for themselves? Examples? (Hint: Think airlines and sales...)

NB: **Shifts in D Curve** driven by changes in preferences, income, and prices of other goods.

Movement along D Curve driven by changes in price of this good only.

Question: this is a theory of behavior predicated on FREE CHOICE. What form does freedom take here? In what sense does the consumer “choose”?

An Introduction to Neoclassical Theory, Part II

V. The Theory of the Firm

a) Assume rationality in production: 1) no waste—minimum OC; 2) profit maximization as sole motivation.

Next, we have to say something about the environment in which the firm will operate: We have to describe the “market structure” since firms will behave differently depending on the intensity of competition they confront.

b) Assume “Perfect Competition

Attributes: Perfect info; Many small, identical producers; Homogeneous product; No barriers to entry or exit.

Implications of PC? Can a producer “name its price”? Why/why not? What decisions does it actually make?

One further assumption: LDMR

Short run: that period of time within which at least one input into production is fixed.

LDMR: in the short run, *marginal* output declines as *variable inputs* increase. Why? What is the intuition? (Imagine adding more and more labor to a small plot of land that you want to cultivate)

Firm: Paul’s Peanuts

# Workers	Total Output/hr	Marginal Output, or “Marginal Revenue Product” = Marginal Product x Price
0	0	0
1	\$20.00	\$20
2	36.15	
3	44.16	
4	48.25	
5	50.50	

Graph this:



If the wage that Paul must pay his workers is \$8, should he hire anyone and produce any peanuts? If so, how many workers should he hire?

What does this imply about this curve: is it just the MRP curve, or is it also something else? (Hint: what does it show us about the labor market?)

And what, in turn, does it suggest about the *fairness* of the wage? What determines the wage that workers receive? (We explore this in "Ethical Foundations"); NB: a consumer's budget constraint derived from the productivity of the input s/he supplies.

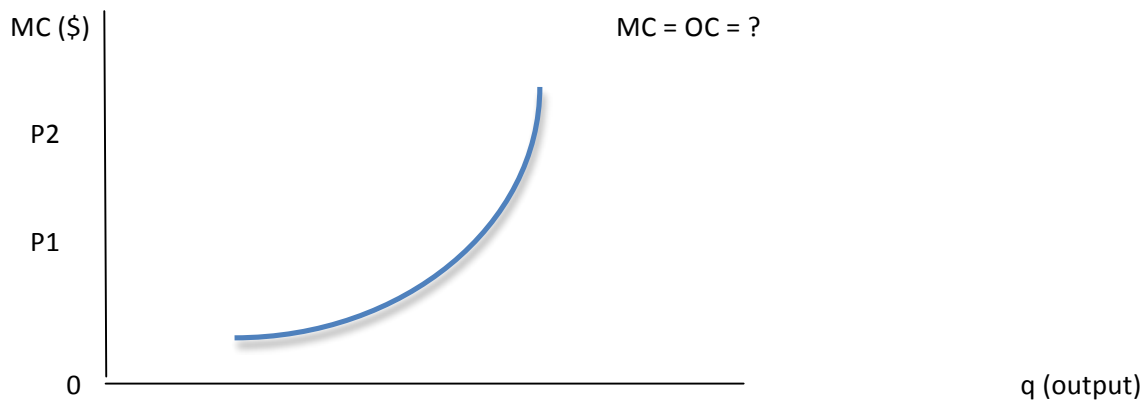
If we encounter a country or group of workers with a very low wage, what should we infer from this situation? Are they being ripped off or exploited, according to neoclassical theory?

John Bates Clark, 1899:

"It is the purpose of this work [his 1899 'Distribution of Wealth'] to show that the distribution of the income of society is controlled by a natural law, and that this law, if it worked without friction, would give to every agent of production the amount of wealth which that agent creates. However wages may be adjusted by bargains freely made between individual men [i.e., without labor unions and other "market imperfections"], the rates of pay that result from such transactions tend, it is here claimed, to equal that part of the product of industry which is traceable to the labor itself; and however interest [i.e., profit] may be adjusted by similarly free bargaining, it naturally tends to equal the fractional product that is separately traceable to capital."

Now, let's take this information and develop a new concept: Marginal Cost. Marginal cost is the *extra* cost (remember: marginal means "extra") associated with each unit of production. Think of it as the OC of producing each additional unit.

Graphically:



Why does this curve slope upward?

If the market price is some amount, say P1, how much output should the firm produce? Why? And how much if the price rises to P2?

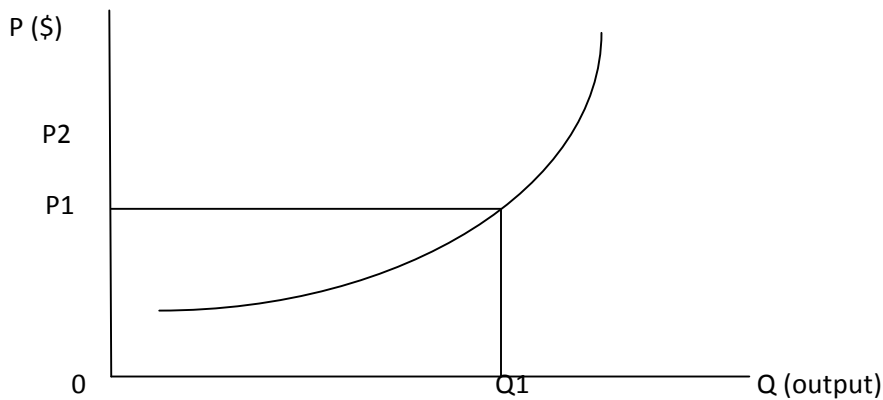
Now for a critically important question:

What do these findings imply about the significance of the MC curve? Hint: what is the firm attempting to do?

Answer: It is also the firm's _____!

Hmm. Remember Consumer Surplus? What was it? Can you identify "Producer Surplus" on the above graph? Where is it? *What* is it (conceptually)?

Next, how do we get from the individual firm's MC curve to the industry MC curve? And what is the significance of THIS curve? (Hint: what will the industry supply at P1? At P2?)



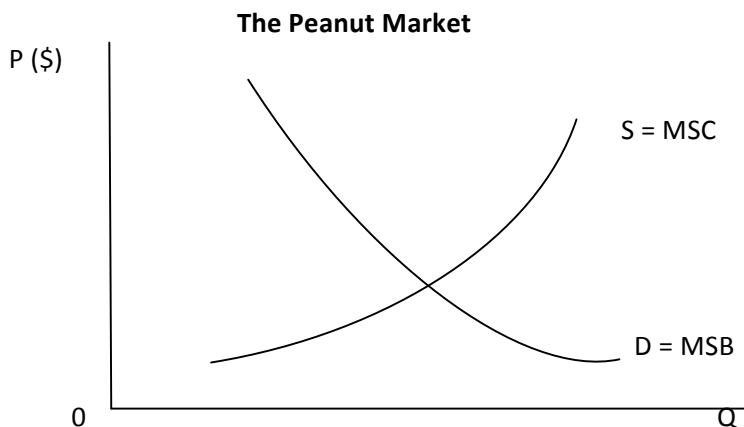
NB: The labor (and other resources) that go into this industry must be extracted from other industries (due to finitude); hence we can measure the opportunity cost of each unit of production in terms of *the value of other goods that must be foregone to produce it*. The industry MC curve then gives us a measure of the Opportunity Cost to society that is associated with this industry's production. Hence, the market Supply curve is also **Marginal Social Cost Curve**.

Next: identify the "Producer Surplus" for the entire industry on this graph...

Discussion: Marginal Social Cost and Marginal Social Benefit

Is it clear to you why the D curve is the MSB curve, and the S curve is the MSC curve?

Putting it all Together: The Market, which joins consumer and firm behavior:



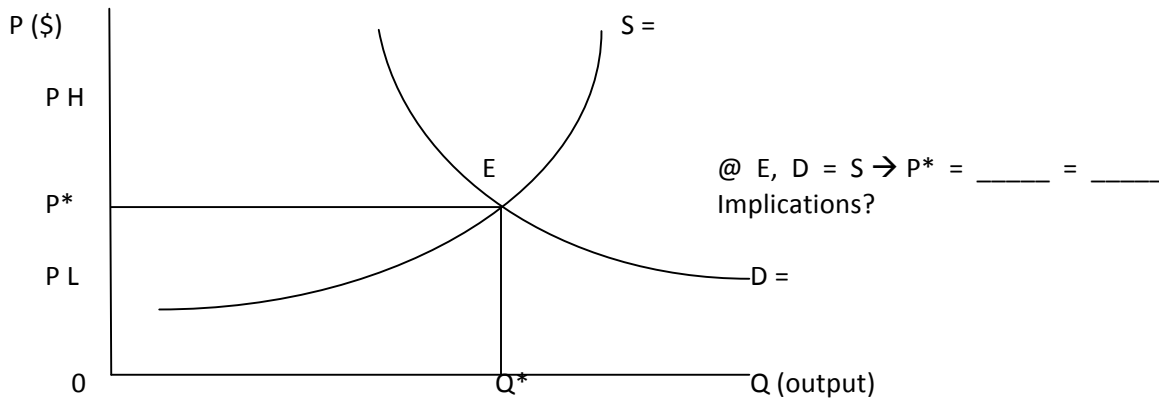
Looking Ahead: What might be the "optimal point," based on all the assumptions we've made up until now, combined with the normative commitments of neoclassical theory??? Why? Hint: identify the "social surplus" = consumer surplus + producer surplus on this graph. What point maximizes social surplus?

An Introduction to Neoclassical Theory: Part III

VI. The Market

A. The Market and Pareto Optimality

Now for the most important theoretical claim *ever made* in the history of the modern social sciences (20th century). We are about to find out *why* (given all the assumptions we've made so far) neoclassical theory takes the market equilibrium to be optimal.



Imagine that the price (for whatever reason) of this good is P High (PH). What will happen?

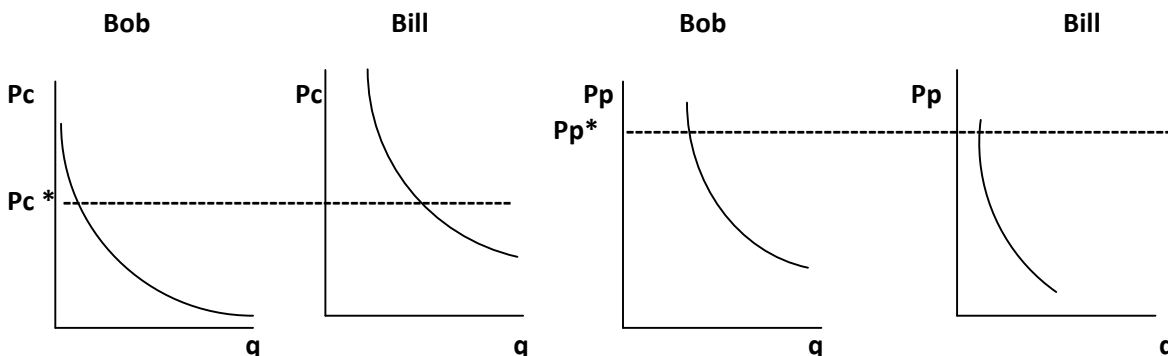
Now imagine that it falls to P Low (PL). What will happen now? Where does this process of adjustment end? Why?

NB: **There is NO TIME in this model.** It is a “**comparative static**” model: we presume an instantaneous jump from one equilibrium to another owing to any shift in either curve. This implies that there *is no non-equilibrium trading*. No dynamics here. But how can this happen? How do prices adjust to disequilibrium, if all actors are price takers? Walras: presume an omniscient “auctioneer”; tatonnement trading only. See: https://en.wikipedia.org/wiki/Walrasian_auction. Amartya Sen’s critique: paradoxically, this model of the *free market* presumes *central planning*!

Next: At E, D = S, AND MSB = MSC? And what does this then imply about MXSW???

What have we shown? That when left to its own devices, without government interference, the market achieves MXSW—at this point, no one can be made better off without making someone else worse off. E is therefore a Pareto Optimum point.

Consider Bob’s and Bill’s behavior when all markets are at E. Imagine just two goods, peanuts and cola.

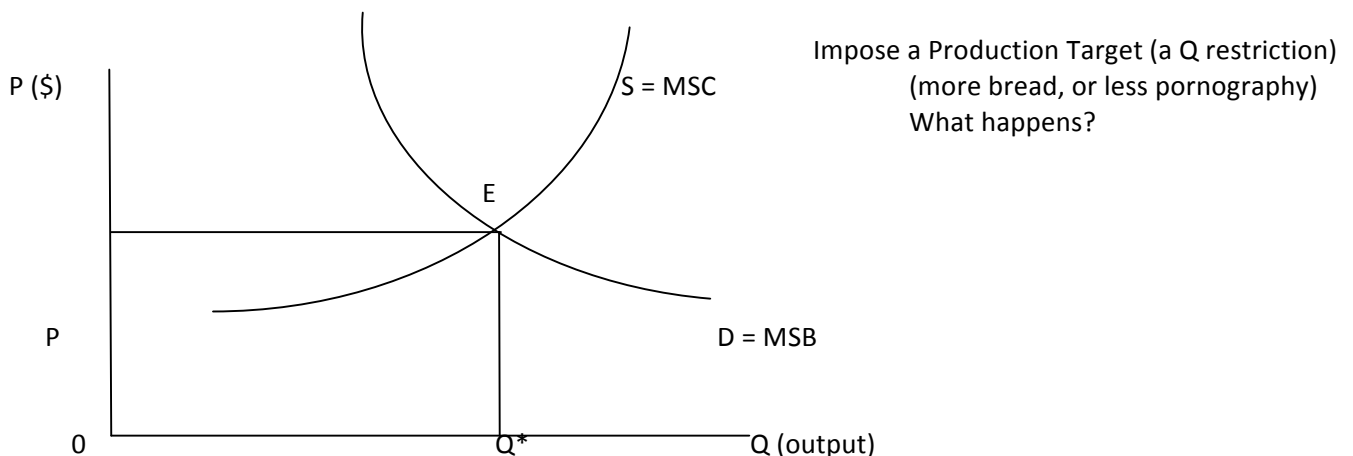
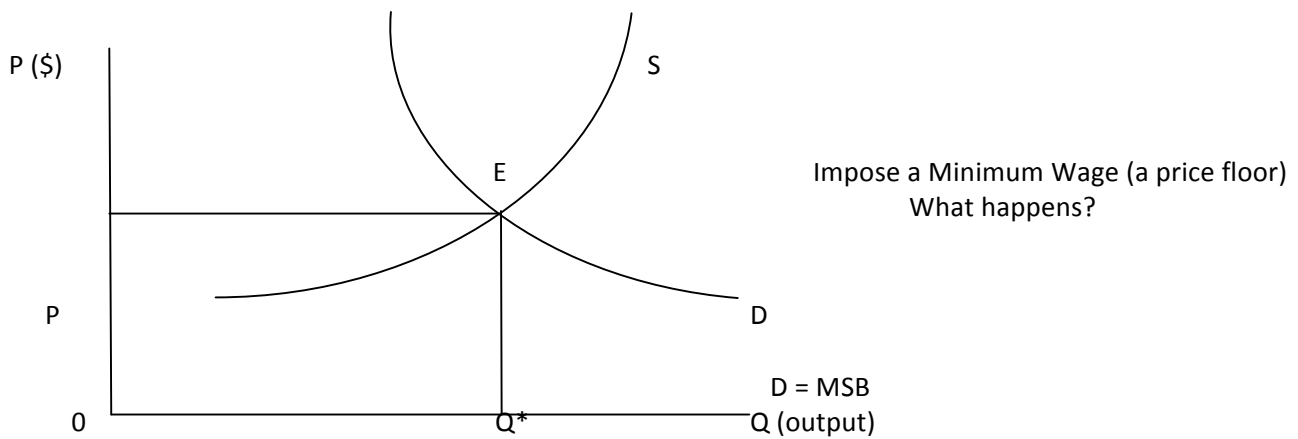
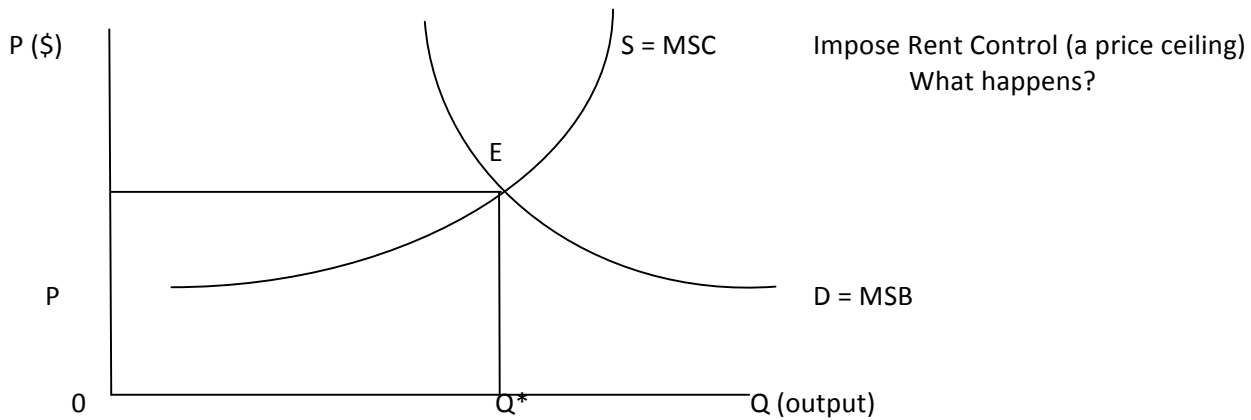


We find here that in each and every market, each consumer will allocate his/her budget so that the ratio of MU to P is equal across all industries: $MU_c/P_c = MU_p/P_p$. S/he can do no better by any other budget allocation. Moreover, each firm is producing a q where $P^* = MC$. Hence, for each consumer, $MU = P^* = MC$ of last unit produced.

Next: it can be shown that any government-imposed movement away from this “allocation of productive resources” (which yields this mix of goods) will yield a lower level of social welfare.

Unconvinced? Can't government do better by altering market outcomes? Consider these examples: rent control; the minimum wage; and a production target (either a maximum or minimum). What will be the effect on the market?

Try it here:



What have we shown? Any imposed movement away from E will result in a reduction in social welfare. ***So the market achieves the optimal point all by itself!***

*******When all markets are at E, we have achieved Pareto Optimality!*******

Q: Is all this consistent with value neutrality and with welfarist consequentialism? Why?

- 1. Is the economist passing judgment on what it is that people desire?**
- 2. Are we judging only by consequences?**
- 3. Are we referring only to welfarist consequences?**
- 4. Are we using Pareto criteria for assessment?**

And note, we've also shown that under all these conditions everyone receives a reward commensurate with what they contribute: Reward = Contribution. In that sense, the market outcome is also "fair."

B. Dynamic Efficiency

In economic terminology, we say that an outcome that is Pareto optimal is "economically efficient." Up until now, we've only been discussing "static efficiency," which refers to efficiency at any given moment in time. But now we have to ask, does the free market (under the assumptions we've made so far) also yield "dynamic" efficiency—does it maximize social welfare over time?

Neoclassical theory has relatively little to say about this, not least since dynamic efficiency would seem to require economic growth, and neoclassical theory has always had a very weak theory of growth (especially as compared with various heterodox theories, such as Marxian theory). In recent decades the "new growth theory" has emerged, and some economists see great hope in it. But for our purposes, what is notable is that even without a strong theoretical foundation, many neoclassicals have held to the belief/*hope* that the free market also generates dynamic efficiency. Intuitively, the idea centers on the notion of incentives: the free market is seen to give rational, egoistic actors an incentive to implicitly serve the public good while explicitly serving themselves. A person who seeks a college degree is a case in point. How/Why? The same goes for the firm: while merely trying to maximize profits, the firm has an incentive to seek technological innovation that reduces opportunity cost. Why? (See the World Bank quotation on p. 69 of *Global Economy, Global Justice*, for a nice account of neoclassical thinking).

C. Market Imperfections

OK, OK: You want to know what happens if the market is not perfectly competitive, or if there are other "market imperfections" that bear on firm behavior and/or on market outcomes. Let's discuss.

Four Types of Market Imperfections

a) Imperfect competition: Increasing Returns to Scale and monopolies and oligopolies.

Up until now we've implicitly assumed "Decreasing Returns to Scale," which implies that as firms get larger in the long run, the average cost of production rises. This was implied in our assumption that the industry was populated by many, many small firms. But what if large firms have the advantage, owing to diminishing average cost?

What kinds of industries might these be? Why?

In cases like this, it can be shown that the industry, left to its own devices, will NOT produce the social optimum level of output, and it will charge a price that reflects its market power.

b) Public goods: non-rivalrous in consumption; non-excludable (e.g., lighthouses; national defense)

Why will the market fail to produce them in sufficient quantity?

c) Externalities (positive and negative)

What are these, and why will their presence imply market failure to produce the right quantity, and to charge the right price?

d) Imperfect Information

Think of the market for used cars, where we have “asymmetric information.”

Implications of Market Imperfections?

Under neoclassical theory, it can be shown that each of these imperfections moves us away from Pareto Optimality. In the first and second cases, too little output is produced; in the third, too little or too much is produced, depending on whether the externality is (respectively) positive or negative. In the fourth, one side of the market is vulnerable owing to its relative ignorance, and so will overpay. And so it would seem that we have established a clear case for government intervention whenever market imperfections of these sorts exist.

NOT SO FAST, say the “new political economy” advocates (James Buchanan, Gordon Tullock, Ann Krueger, the 1980s Paul Krugman, many others). They argue that it is naïve to assume that the government can do better, even when market imperfections are known to exist. Indeed, the new political economy presents a strong theoretical case *against* government intervention in the economy. Why? What are the chief arguments? Be precise.

So, if government intervention is hardly ideal, how should government respond to market imperfections? And how should public services best be provided, in this perspective? (Think of the debate around the failure of the schools, for instance; or about health care reform, or Social Security reform; or think about how we should decide whether to produce a public good, and if so, how much of the amenity to produce...). Answer: 1. Privatize! 2. Introduce market incentives in public services; 3. Use cost-benefit analysis to determine level of public good provision; and 4. When in doubt, defer to the market (Friedman).

VII. The Essentialism/Reductionism of Neoclassical Theory

We are now in position to consider the **essentialism/reductionism** of neoclassical theory. Notice that in this account, the extraordinarily simple set of initial assumptions drive the theoretical outcomes (concerning human behavior, economic outcomes, etc.). Indeed, in this account, ANY economic phenomenon that needs explaining must be explained in these terms—by reducing the apparent complexity to the underlying simplicity given to us by the essences of human and physical nature. Indeed, neoclassical thought is a wonderful exemplar of reductionism in contemporary social science: the essences it identifies are taken as universal, invariant, and context-independent. Hence, Nobel Laureate Gary Becker could expand the range of economics into all sorts of non-market activity, such as decisions regarding marriage, childbearing, crime, and so forth. In his view, children are like refrigerators. What could this possibly mean???

How would this approach go about investigating questions like: Why does Bill volunteer to go to war? Why does Steve refuse to wear a motorcycle helmet? Why do young adults have unprotected sex, even when not trying to conceive? For guidance and inspiration in thinking like an economist, listen to this report on penalty kicks in professional soccer matches. It appears from the evidence that neither goalkeepers nor shooters in World Cup games are trying to maximize their team's chances of winning the game!

<http://freakonomics.blogs.nytimes.com/2010/06/10/freakonomics-radio-world-cup-edition/> (penalty kick discussion begins at 5:40 remaining in podcast)

Here, the economist continues to use rationality to reach his judgments about the apparently self-defeating behavior of these soccer players. Does the logic that the economist uses here to explain this conundrum apply equally well to other important decisions that people make in their lives, in your view?

But today there are signs of change (finally!) in economics. A new field has emerged recently, behavioral economics. This field investigates how people *actually* act in the world, without presuming rationality, and in many respects the findings from this research conflict with the predictions of neoclassical theory. See the work of Dan Ariely, for instance (e.g., his book *Predictably Irrational*); and if you have the time and want to have some fun take his MOOC on irrational behavioral: <http://danariely.com/tag/mooc/>).

Please see the handout **The Reductionism of Neoclassical Explanation** for a summary of the steps by which neoclassical thought builds from its initial essences to its powerful, universal conclusions.

VIII. Social Harmony despite Self-Interest

One of the most remarkable aspects of neoclassical theory is its ability to theorize social harmony despite its presumption of an ineradicable self-interested, even selfish human nature. You might think that a theory that presumes egoism among all agents would yield the conclusion that society must forever be fraught with unmanageable conflict. And yet, neoclassical theory purports to have discovered that there is a certain kind of economic arrangement that can generate social harmony. That kind of economy, of course, is the free market economy. The genius of the market is that it puts selfishness in service of the social good. We serve others despite ourselves, owing to the market's incentive structure.

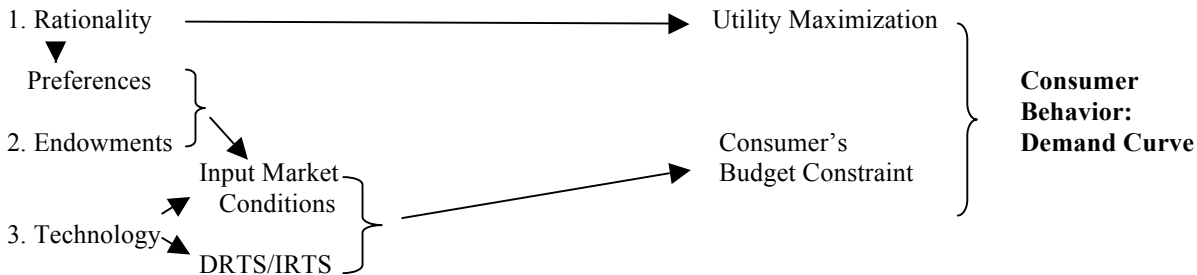
IX. Questions/Discussion

Questions, Thoughts, Reactions?

The Neoclassical Theory of the Consumer:

Ultimate determinants of Consumer Behavior

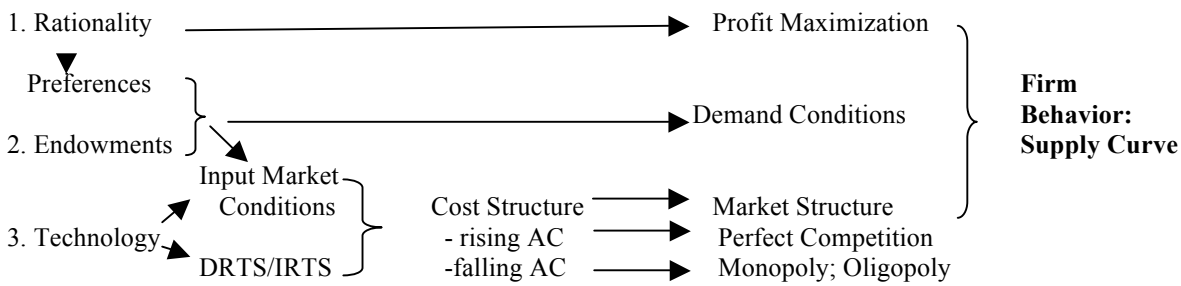
Proximate determinants of Consumer Behavior



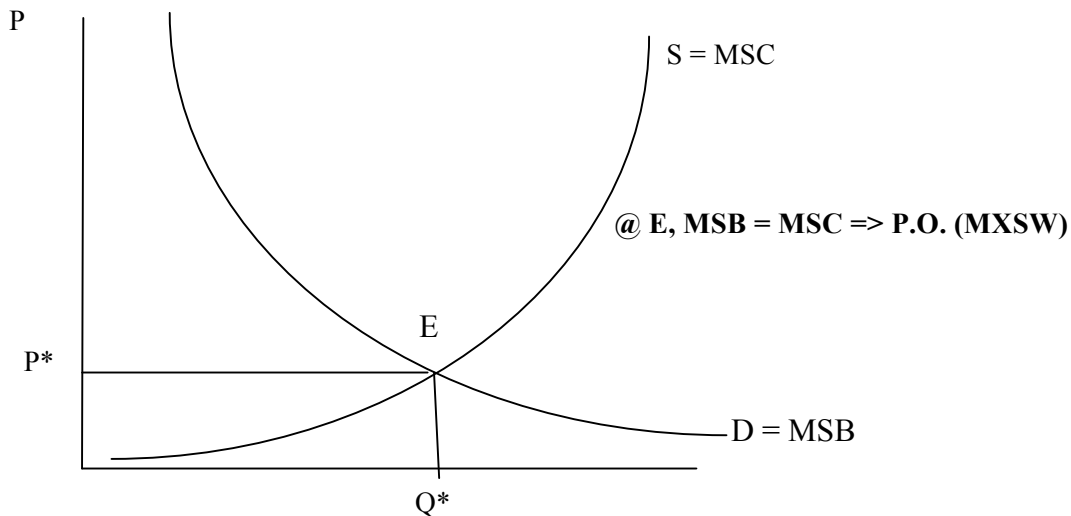
The Neoclassical Theory of the Firm:

Ultimate determinants of Firm Behavior

Proximate determinants of Firm Behavior



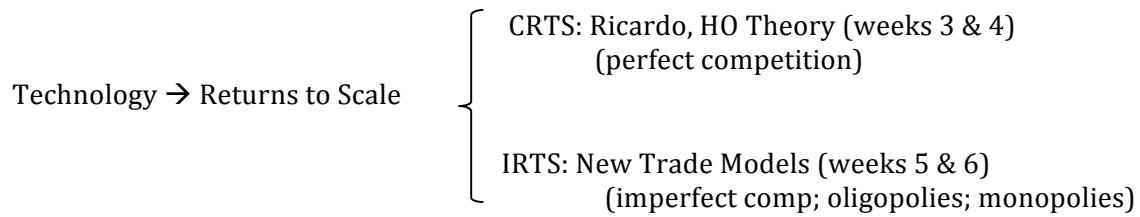
The Neoclassical Theory of the Perfectly Competitive Market



Neoclassical Essences, and Trade Theory Models

Human Rationality in Production: (Technology)

1. International Differences in Technology: Ricardian Model (week 3)
2. Returns to Scale:



Finitude of Nature: International Differences in Endowment – HO Theory (week 4)

Human Rationality in Choice: Distinct preferences, and the Fair Trade Debate (week 7)