

Definitions that you'll never, ever see again

Economics – insert your favorite definitions. According to O'Sullivan, Economics is the study of the choices people make in the face of scarcity. That is, it is about the choices people make given the constraints they face. It is about incentives they have. It is about the trades people make. It is about markets and competition.

Microeconomics – unit of analysis is the individual. Looking at one person's behavior, one firm's choice, do you have a job, the price of a pez dispenser, how many hours you work a week, how many juiced baseballs does Rawlings produce, etc. Here we look at the trees.

Macroeconomics – considers economy-wide aggregates. Looks at the overall unemployment rate, the overall level of output (GDP), the average price level in the economy, how fast the price level is increasing (inflation), etc. Here we look at the forest.

A bit on the methodology of Economics. How do we do economics? Economists do it with models?!?!

With models? Not the economists I know, Mick, Arnold, and Elway aside. Economic models are simplified representations of the world (theories). The world is a complicated place, so it would be nice to use some models to attempt to simplify and understand it. Economics is a social science, thus it attempts to explain people's behavior. Unfortunately we can't do too many controlled lab-type experiments on people (as those in the natural sciences do). We can't put people in a test-tube and subject them to experiments like lab rats because people object to this. Consider the experiment I have in mind to take away half of your wealth and give it to your roommate and then see who buys more steak dinners. Would you be in favor of this? (Incidentally, those experiments that are actually done are done on college students and lab rats.) As such, economists try to learn about the world by using models - making assumptions, developing a model, then testing the model statistically, to determine if it accurately predicts. If it works, we keep them, if not we toss them out. All social sciences use models. Models can be mathematical, graphical, or verbal.

Desirable characteristics of models (Economic models, that is)

1. Simple – easy to understand
2. General – apply to a number of situations
3. Useful – accurately predict observed behavior

Simple is straightforward. It doesn't make any sense to make up a model that you don't understand. General means that it applies to a number of situations. If a model only works at 9:00 AM on Thursdays when it's raining and the Dukes of Hazard is on TV, its not going to be too helpful. Useful means that it predicts behavior correctly.

Of course, to simplify matters, we will have to make assumptions. You may take exception to some of the assumptions we'll make. Ultimately, we will judge our models not based on how realistic the assumptions are, but instead based on how well they predict observed behavior. A good model is a model that predicts behavior correctly. All other things being the same, of course, we would prefer the most realistic of assumptions. But again, if a model predicts behavior accurately, it's a good model.

Economists often assume that people are **rational**. It proves to be an extremely valuable assumption. In short, we can define rationality in the following fashion. People do the best they can based on their own values and information, under the circumstances they face. Notice this allows for people to have different values and different perceptions. People maximize their own welfare (happiness) as they conceive it. Are criminals rational? Crack addicts? Methodists? We'll read a chapter about criminals in Miller, Benjamin, and North. Ask me about ACC basketball players after you read that chapter.

Rationality doesn't preclude people making bad choices from time to time. People make choices based on limited information. Assuming that people are rational suggests that people learn from their mistakes and

don't repeat the same simple mistake (Homer and Butterfingers). At the time, based on your limited information, it may have been a wise decision to sign up for an 8:00 class, but this may have turned out to be a mistake. This would not make you irrational. Repeatedly signing up for 8:00 classes however, and thus making the same mistake over and over again, would be irrational.

Your textbook talks about self-interest. Very much akin to rationality is the assumption that people are motivated only by their self-interest. Also, we'll assume firms maximize profits. You can make your own decision about whether or not these assumptions are reasonable, but nonetheless, they'll be very helpful. They'll give us models that predict well.

Supposing we were trying to develop a model that predicts scores on the final exam in Econ 211, how would an economist go about it? First, we would then think about and collect the relevant data (variables) to include in consideration of our model. We'd ask – what types of things would effect 211 grades? Things that might help would be the number of hours you studied, whether or not you did the homework, your blood alcohol content (in which direction I don't know), your major, sex (females at Clemson have higher GPRs than men), and whether or not I was in a good mood when I wrote it? We probably wouldn't expect the color of your socks, the relative humidity to be relevant, and thus we wouldn't worry about these variables.

We take all the variables, maybe assume that people try to maximize their grade, make up a model, stir it up, and there you have it. If it predicts scores well, we'll keep it. If not, back to the drawing board.

Finally, some real Economics – have you seen this before?? But still a few more definitions

Scarcity ⇒ Conflict ⇒ Choices ⇒ Costs (Opportunity costs)

Scarcity – limited resources, but unlimited wants.

If I were Czar of Clemson, my office is getting bigger, will have more windows, and a bar (for serving juice). Sistine would have a batting cage in the basement with live pitching (perhaps Mitch Williams could serve up some BP), I'd have 3 assistants, and Don Rickels would be my greeter. I'd also have a green room. And certainly class wouldn't be at 8:00. There wouldn't be as much room for computer labs and classes, but hey, those are the breaks. Waitresses on roller-skates, anyone? And how about leather recliners for my students? The first floor could be an elaborate miniature golf course. Get the drift?

When I talk about unlimited wants, I mean that everyone wants the right to allocate productive resources (decide how the various resources are used, as I did above).

When I talk about limited resources, I think this is obvious, but precisely what we mean is that there are limited amounts of factors of production. There is only so much of this stuff to go around, so we can produce all of the goods and services every one wants.

Scarcity is a fact of life. If there were enough resources for everyone to get everything they wanted, economics would be really easy. As it isn't, we need to learn to deal with scarcity, thus the study of Economics.

Scarce good -

If good X is a scarce good for you, than you are willing to give up something of value in exchange for more of good X (need not be money). Could be time, a baseball hat, a friendship, etc.

Another way you can ask the question is the following – would you want more of the good than you have now if it was freely available? If so, the good is scarce. Most everything you can think of, at least from a societal point of view, is a scarce good. Exceptions might be air and water, though clean air and clean water are scarce. Some of you may also think of things like trash and pollution. We call trash and pollution **economic “bads”** as opposed to **economic “goods”**. While surely trash isn't scarce, we would

consider “trash removal” and “pollution abatement” goods, and thus they are scarce. Labor is an economic bad. Leisure is an economic good. More later.

What might be a scarce good for you might not be a scarce good to me. You might be willing to give up \$15 for a Brittany Spears album, thus for you the BS album is scarce. However, I would not give up anything of value for a BS album, and thus for me, BS albums aren't scarce. BS calendars however, are a different story.

The unlimited wants and limited resources (**scarcity**) put our respective wants in **conflict** (my ideas vs. your ideas vs. Billy Bob Thornton's ideas), and thus we must make **choices** about how we will use our resources.

Somewhere in the middle of all this we should talk about **competition**. We have all of this conflict about how we are going to use resources. My plan to put a batting cage in Serrine is in conflict with your plan to turn it into a roller derby arena, which is conflict with Billy Bob Thornton's plan to make it a tattoo parlor. How do we make the choices? Competition is the process of conflict resolution. Take for instance, A's in Econ 212. A's are a scarce resource. Everyone wants one and is willing to give up something of value to obtain one. However, unfortunately, there are only so many to go around. How do I decide who gets them? You all compete for them. We could have the competition occur many different ways. Competition determines the rules of the game. I could give them away based on height. We could have a footrace to decide who gets the A's. We could play cricket on the dartboard in my office. Or rock scissors paper? Whoever slips the most money under my office door (I like this one). Or perhaps we could have quizzes and tests – that's sounds like a good way, let's do that? Markets will be key here in real world US.

Opportunity cost – the highest valued foregone alternative. To determine the opportunity cost of activity X, answer the following: What would I have done instead if I hadn't done X? Or what did I give up by doing activity X?

Every time a choice is made, a cost (opportunity cost) is incurred. The cost need not be monetary, and usually won't be. What's the opportunity cost of buying a baseball hat? Maybe it's a sandwich and a movie ticket. What is the opportunity cost of coming to class? It is likely an hour of sleep for many of us. Maybe it was going to the gym and working out. Maybe it is an hour of work at your job. We don't add up all the alternatives, only the highest valued (the one we would have chosen). The opportunity cost of an action is the real cost we should consider. Only you know your opportunity cost, as only you can tell what activities you would have engaged in.

What is the opportunity cost of you coming to college? What does it include? Tuition, books. Is there more you give up by going to college?

Factors of production – resources used to produce goods and services

1. **Natural resources (land)** – are created by acts of nature. Land, oil, minerals, water, etc... They are used to produce goods and services. Natural resources are scarce. There is only so much oil on the earth, so much bauxite, so much water. Natural resources are sometimes called **land**.
2. **Labor** – human effort, both physical and mental used to produce goods and services. As there is a limited number of people and only 24 hours a day to labor, labor is a scarce resource.
3. **Physical capital (capital)** – stuff made by humans to aid in the production of goods and services. Machines, buildings, hammers, forklifts, computers, roads. When I get sloppy I will sometimes call physical capital simply “capital”.

4. **Human capital** – knowledge and skills a worker acquires through education and experience, used to produce goods and services. Surgeon – knowledge of anatomy, cabbie – knowledge of city streets, orchestra member – ability to play a fine trumpet.
5. **Entrepreneurship** – effort to coordinate sales and production of goods and services. Usually involves committing money, but more importantly taking risks.

All of the **factors of production** are scarce resources that are used to produce goods and services. If you wish to produce a good, you must first purchase some factors of production. Consider a pizza shop. To produce pizza, you'll have to purchase/rent a building and a pizza oven (capital). You'll have to hire some workers (labor). You'll need some knowledge of how to make pizza (human capital). Implicitly, you'll use of some clean water (natural resources) and energy (from coal?). The entrepreneur fronts some cash, shakes them all up, and we'll have pizza. Pizza is the good produced.

In Econ 212, we'll focus on labor and physical capital (and mostly ignore the rest). One of the things you might guess, of course, is if we increase the amount of labor, capital, human capital, etc, we will be able to produce more stuff. This is **economic growth**. Much more later...