

The basics of microeconomics...

... in 20 minutes!

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o. Economics: “soft” and proud



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Preliminaries:

- (1) Remember that the “laws” of supply and demand describe and explain *group* behavior, not individual behavior.

WARNING: Your intuitions about the former will probably help you—but your intuitions about the latter may mislead you.

- (2) Remember the four most important words in economic modeling: *all things being equal!*



1.1 Scarcity

Baron Robbins' definition of economics:

“Economics is the science which studies human behaviour as a relationship between ends and scarce means which have alternative uses.”

Why “*scarce means*”?

Lionel Robbins, *An Essay on the Nature and Significance of Economic Science* (London: Macmillan, 1932), p. 15



1.2 Scarcity

Which of these is scarce? Which not? Why?

grass

wheat

bread

sunlight

lumber

paper

seawater

fresh water

drinking water

rocks

pet rocks

rubies

Why is *scarcity* not the same as *rarity*?



1.3 Scarcity

Which of these two goods is more scarce?
How can you tell?

bread

rubies



1.4 Scarcity

Just how scarce is the following item? How can you tell?



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The Nobel Prize in Physiology or Medicine



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Need a hint?



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The Nobel Prize in Physiology or Medicine

Need a hint?

Maybe this will help:





DNA Laureate James Watson's Nobel Medal Sells for \$4.1 Million

Watson says he will donate some proceeds from the auction to support research



1.5 Scarcity

Summary:

The scarcity of a good is determined by
the relationship between
the supply *of* it
and the demand *for* it.

In practice, we measure a good's scarcity
by its *market price*.



2.1 Price

What do prices measure?



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What do prices measure?

In practice, the market price of a good depends on interactions between particular buyers and sellers—who may be weirdos.

But in principle, a good's market price is *the measure of its scarcity relative to other goods*.



2.2 Price

Don't take prices personally!

The market price of a good is *not* a measure of its absolute worth, or usefulness, or quality.

It is *simply* a measure of the good's relative scarcity as determined by the supply *of* it and the demand *for* it.



3.1 Demand

The First Law of Demand



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“Don’t talk about demand!”



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The First Law of Demand

“Don’t talk about demand!”

—Just joking.



3.1 Demand

The First Law of Demand

“All things being equal,
as the price of a good falls,
the quantity of the good
that is demanded by consumers
rises.”



3.2 Demand

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as the price of a good falls,
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3.2 Demand

The First Law of Demand

“All things being equal ...”

—This means that we’re *ignoring* the effects of, for example, consumer income, prices of substitute goods, prices of complementary goods, and expectations of future prices!



3.2 Demand

Why is it OK to ignore these “demand shifters”?

- consumer income
- prices of substitute goods
- prices of complementary goods
- expectations of future prices



3.3 Demand

When we ignore “demand shifters” and study consumer behavior in a particular marketplace, we obtain a *demand schedule*.



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Demand Schedule for Gasoline

Price (\$/gallon)	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2
Quantity demanded (thousand gallons per week)	30	28	26	24	22	20	18	16



3.3 Demand

When we ignore “demand shifters” and study consumer behavior in a particular marketplace, we obtain a *demand schedule*.

Demand schedules measure how much of a good consumers would demand if it were selling at a particular price (in a particular marketplace, at a specific point in time, etc.).



3.4 Demand

Normally, the study of demand schedules reveals the *demand functions* that explain their regularities.

Here's an easy sample demand function:

$$Q^d(x) = 1000 - 2 P(x) - 5 P(y) + 3 I + C$$



3.4 Demand

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In this easy sample demand function:

x and y are goods;

$Q^d(x)$ is the quantity demanded of good x ;

$P(x)$ is the price of good x ,

$P(y)$ is the price of good y ,

I is average consumer income,

and C is consumer confidence.



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3.4 Demand

$$Q^d(x) = 1000 - 2 P(x) + \text{Other Stuff}$$

Guess what happens when we ignore demand shifters?

Answer: We get a function that we can graph!

Suppose we set Other Stuff = 600. Then we obtain:

$$Q^d(x) = 1600 - 2 P(x)$$



3.5 Demand

Demand curves can be interpreted either

horizontally

(“How many cupcakes can I sell @ \$10/each?”)

or

vertically (in terms of “height”):

“How much, at most, will consumers be willing to pay for my 100th cupcake?”



3.5 Demand

The vertical interpretation is especially awesome, because it allows us to calculate **consumer surplus**—the gain accrued to consumers by participating in the market.

vertically (in terms of “height”):

“How much, at most, will consumers be willing to pay for my 100th cupcake?”



3.5 Demand

Consumer surplus tells us how much better off consumers are than they would have been if there were no marketplace, and they had to negotiate with each producer to produce the *first* of each good.

vertically (in terms of “height”):

“How much, at most, will consumers be willing to pay for my 100th cupcake?”



3.5 Demand

Consumer surplus tells us how much better off consumers are than they would have been if there were no marketplace, and they had to negotiate with each producer to produce the *first* of each good.

Scary example: bargaining for the only water bottle in town!



4.1 Supply

The First Law of Supply



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—Just joking.



4.1 Supply

The First Law of Supply

“All things being equal,
as the price of a good rises,
the quantity of the good
that is supplied by producers
also rises.”



4.2 Supply

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4.2 Supply

The First Law of Supply

“All things being equal ...”

—This means that we’re *ignoring* the effects of, for example, costs of production (including wages), prices of production substitutes, prices of production complements, and expectations of future prices!



4.2 Supply

Why is it OK to ignore these “supply shifters”?

- production costs (including wages)
- prices of production substitutes
- prices of production complements
- expectations of future prices



4.3 Supply

When we ignore “supply shifters” and study consumer behavior in a particular marketplace, we obtain a *supply schedule*.



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Supply Schedule for Gasoline

Price (\$/gallon)	1.7	1.8	1.9	2.0	2.1	2.2
Quantity supplied (thousand gallons per week)	8	12	16	20	24	28



4.3 Supply

When we ignore “supply shifters” and study consumer behavior in a particular marketplace, we obtain a *supply schedule*.

Supply schedules measure how much of a good producers would supply if it were selling at a particular price (in a particular marketplace, at a specific point in time, etc.).



4.4 Supply

Normally, the study of supply schedules reveals the *supply functions* that explain their regularities.

Here's an easy sample supply function:

$$Q^s(x) = 200 + 0.5 P(x) - 2 P(y) - 4 W - R$$



4.4 Supply

$$Q^s(x) = 200 + 0.5 P(x) - 2 P(y) - 4 W - R$$

In this easy sample supply function:

x and y are goods;

$Q^s(x)$ is the quantity of good x supplied;

$P(x)$ is the price of good x ,

$P(y)$ is the price of good y ,

W is wages and other production costs,

and R is the expectation that prices will rise.



4.4 Supply

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4.4 Supply

$$Q^s(x) = 200 + 0.5 P(x) - 2 P(y) - 4 W - R$$

Guess what happens when we ignore supply shifters?

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$Q^s(x)$ is the quantity of good x supplied;

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W is wages and other production costs,

and R is the expectation that prices will rise.



4.4 Supply

$$Q^s(x) = 200 + 0.5 P(x) + \text{Other Stuff}$$

Guess what happens when we ignore demand shifters?

Answer: We get a function that we can graph!

Suppose we set Other Stuff = 200. Then we obtain:

$$Q^s(x) = 400 + 0.5 P(x)$$



4.5 Supply

Supply curves can be interpreted

horizontally

(pick a price, check the quantity supplied)

or

vertically (in terms of “height”):

“I want to eat the 100th cupcake. How much will I have to pony up to get a cupcake maker to bake it for me?”



4.5 Supply

The vertical interpretation is especially awesome, because it allows us to calculate **producer surplus**—the gain accrued to *producers* by participating in the market.

vertically (in terms of “height”):

“I want to eat the 100th cupcake. How much will I have to pony up to get a cupcake maker to bake it for me?”



4.5 Supply

Producer surplus tells us how much better off producers are than they would have been if there were no marketplace, and had to try selling their goods from scratch (e.g., the *first* cupcake).

vertically (in terms of “height”):

“I want to eat the 100th cupcake. How much will I have to pony up to get a cupcake maker to bake it for me?”



5. Total Economic Welfare

Added together, consumer and producer surplus yield *total economic welfare*.

Total economic welfare tells us how much better off everybody is—*both* producers and consumers—than we would have been if there were no marketplace, and we were forced to try to buy or sell goods from each other from scratch (e.g., the *first* cupcake, the *first* clean water bottle).

