Elements of Microeconomics: Discussion Section 1

Rudy Kretschmar

Outline

Chapter 2: Thinking like an economist

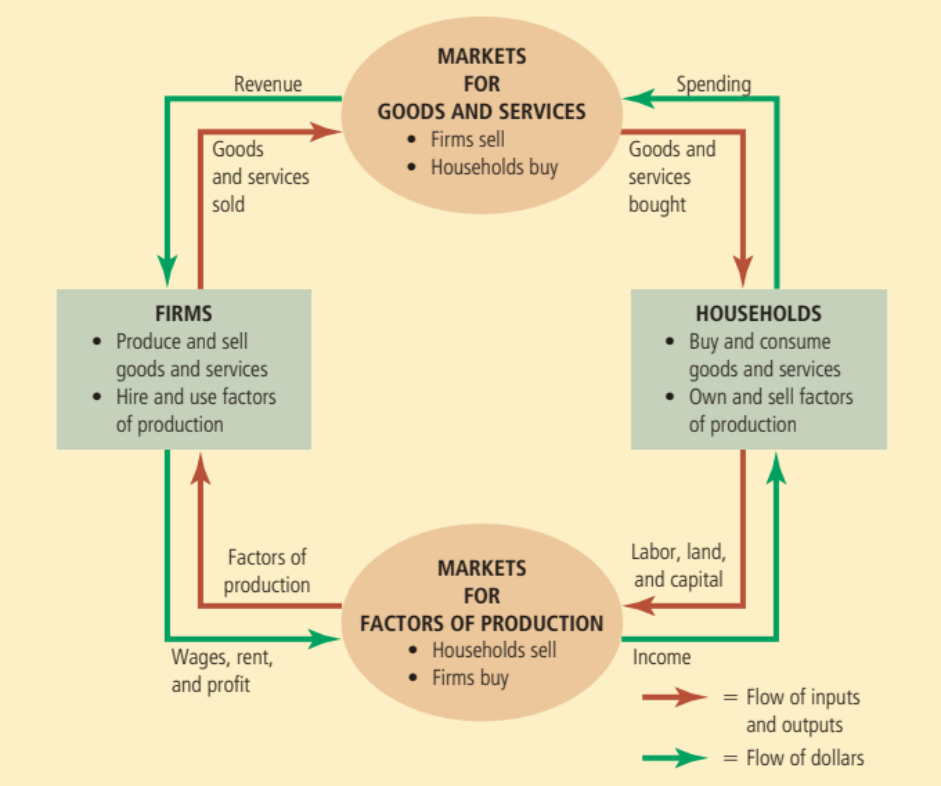
- How are economists like scientists?
- How are economists not like scientists?

Economists work with models; sometimes complicated though ideally simple. We'll start by looking at two foundational models.

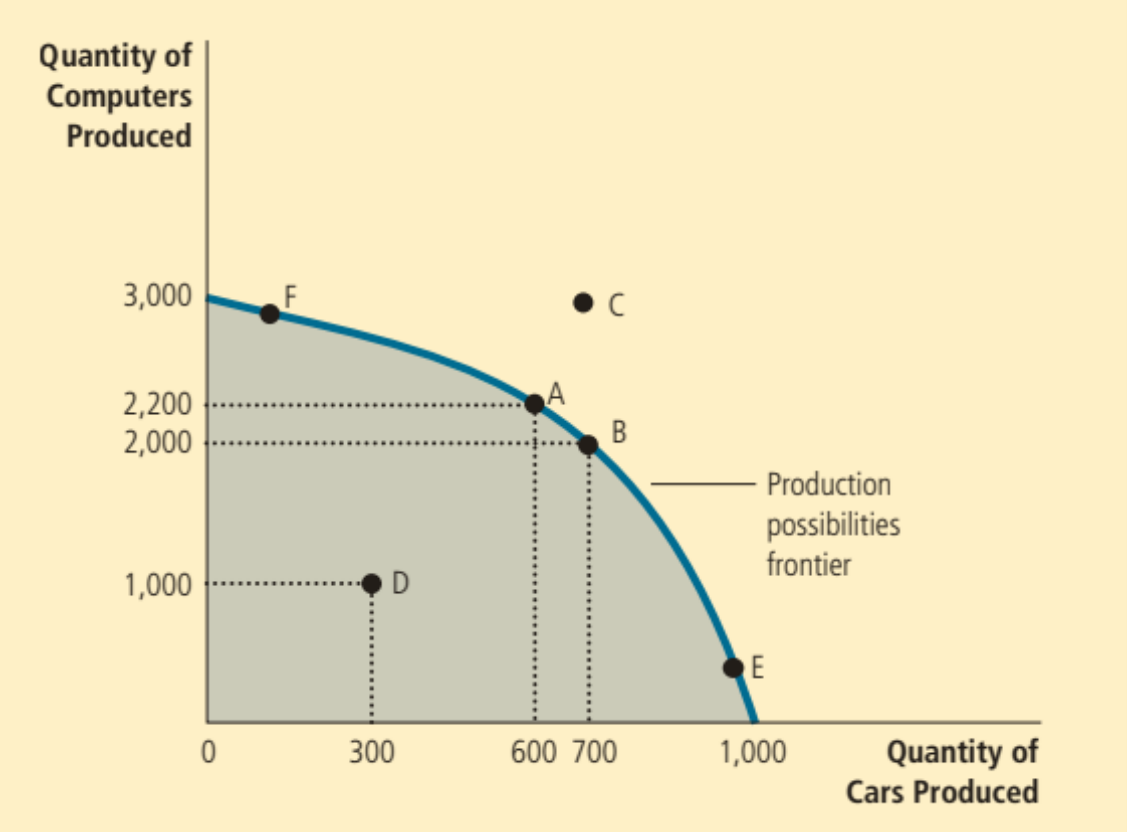
Chapter 3: Interdependence and Gains from Trade

- What is comparitive advantage? Absolute advaantage?
- How do these generate the benefits of specialization and trade?

Circular flow



Production possibility frontier



PPF of a firm

Let's start an Italian restaurant that makes pizzas and sandwiches.

1. What will our production possibility frontier look like?
2. Why will it take the shape that it has?
3. How can we read the opportunity cost? Does it matter which part of the PPF we look at?
4. Why might the shape change over time?

CPF of an individual

Now suppose we are *going* to the Italian restaurant with a group of friends, and we want to decide what to order. Pizzas are \$10, sandwiches are \$5, and we have \$100 to spend.

1. What will our consumption possibility frontier look like?
2. What is the opportunity cost of a pizza? Does it matter where on the CPF we are?
3. What will happen to the CPF if we have \$200 to spend?
4. What will happen to the CPF if the price of sandwiches increases to \$10?

Circular-flow diagram of the Italian restaurant economy

Suppose the entire economy consists of Italian restaurants: during half of the week we work in one, and during the other half we buy food from them.

- What does the circular-flow diagram look like?
- What is missing from our model?

Economists, economics, and economic reality

Economists are often asked to guide economic policy.

- What are positive and normative statements?
- Why might two economists make different suggestions?
- Why might politicians ignore economists' suggestions?

Thinking at the margin

Something we glossed over in last week's discussion:

Economists think at the margin.

More importantly, we believe that **firms and individuals do the same.**

This means when evaluating a decision, we think about what a small change in behavior will do to an outcome.

Absolute advantage

Absolute advantage describes the ability to produce more of a good given a fixed quantity of inputs.

Let's consider two restaurants: Franco's Trattoria and Grano Pasta. Both of them can produce two dishes: salads and pasta. Given 1000 minutes of labor time, they can produce the following amounts of each dish:

Restaurant	**Pasta**	**Salads**
Grano	100	20
Franco's	200	100

What is their (*cough, marginal) cost, in minutes, to produce pasta and salads?

Absolute advantage

Assume that there is a *constant transferability* from one dish to the other:

1. Draw the production possibility frontiers for the two restaurants.
2. Who has the absolute advantage in producing pasta?
3. Who has the absolute advantage in producing salads?

Comparative advantage

Before we discuss comparative advantage, let's think about the opportunity cost of each firm for each dish:

1. What are the slopes of the two PPFs?
2. What is Grano's opportunity cost for producing pasta and salads?
3. What is Franco's opportunity cost for producing pasta and salads?

In other words: what is the *trade-off* that each restaurant faces as they change their production from one dish to another?

Comparative advantage

The *opportunity cost* of producing salads is the amount of pasta they could have produced with the same input. In our example, this is constant.

A restaurant has a *comparative advantage* in producing pasta compared to their competitor if their opportunity cost is lower.

1. Can a firm have an absolute advantage in both goods?
2. Can a firm have a comparative advantage in both goods?
3. What is the relationship between the comparative advantage in good A and good B?

Comparative advantage

- The comparative advantage in producing good A is the *inverse* of the comparative advantage in producing good B.
- If the comparative advantage in good A is high, the comparative advantage for good B must be low.

Comparative advantage depends on the *opportunity cost*: these concepts are linked.

Comparative advantage

Since most customers like to order a salad with their pasta, Franco's and Grano both want to offer both salads and pasta (not necessarily in equal quantities).

If both spend half their resources on each dish, what is their output?

Now suppose the two restaurants can trade with each other. What is one set of productions, and one possible trade, which would leave them both better off?

Comparative advantage

When they both split their 1000 minutes 50/50 between the two dishes, their output is:

Restaurant	Pasta	Salads
Grano	50	10
Franco's	100	50
Total output	150	60

Table 1: 50/50 split

Now suppose the two restaurants can trade with each other. What is one set of productions, and one possible trade, which would leave them both better off?

Possible trade

There are many possible answers to this last question, but let's go back to our principle at the beginning of the discussion, and *think at the margin*.

- Grano produces 1 fewer salads and 5 more steaks
- Franco's produces 2 fewer steaks, and 1 more salad

Then their production is:

Restaurant	**Pasta**	**Salads**
Grano	55	9
Franco's	98	51
Total output	153	60

Table 2: Possible trade

Total production has gone up!

Possible trade

Which trade would leave them both better off?

Say Grano trades 3 pastas to Franco's in exchange for one salad:

Restaurant	**Pasta**	**Salads**
Grano	52	10
Franco's	101	50

Table 3: Gains of trade

They both have the same amount of salads as before, but more steaks! So we can say that they are each better off.

Should they continue to specialize?

Price of trade

Here we just asserted a trade that would make both parties better off in terms of the amount of each dish. But how can we know both parties will agree to the trade?

This is determined by the price of each good. In the example we gave, the "price" of one salad was 3 steaks.

1. What if the price of 1 salad was 3.5 pastas?
2. What if the price of 1 salad was 1 pasta?
3. What if the price of 1 salad was 6 pasta?

Price of trade

The first example would still leave both parties better off, but the second two would not.

We are not ready yet to discuss where prices come from, but we do have a general rule:

For trade to make both parties better off, the price must lie between the two opportunity costs.

Discussion questions

1. Should Kevin Durant wash his own car?
2. Should the U.S. trade with other countries?
3. Should a chef build his own house?
4. Should I make my own clothes?
5. Should you be teaching this class?

The main takeaway from this chapter:

Due to comparative advantage, specialization and trade can leave everyone participating better off.