Dis(Equilibrium) — Who Sets Prices Anyway?

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SUBJECT(S): Economics

GRADE LEVEL(S): 9, 10, 11, 12

OVERVIEW:

This lesson uses students' knowledge of supply and demand curves to explain equilibrium prices. Using the article "How About Free? The Price Point that Is Turning Industries on Their Heads," students will consider what happens to markets when there is excess supply and excess demand. This lesson will also introduce students to the concepts of a price ceiling and a price floor.

NBEA STANDARD(S):

- Economics, I. Allocation of Resources
- Economics, IV. Markets and Prices

WHARTON GLOBAL YOUTH PROGRAM ARTICLE:

- "Insights from the Fall of Aleppo"

Common Core Standard(s):

- Mathematics (N-Q), "Reason quantitatively and use units to solve problems"

Objectives/Purposes: The purpose of this lesson is to introduce students how *price* emerges from *aggregate supply and demand*.

- Students will be able to explain the *excess supply* and *excess demand.*
- Students will be able to explain the why *equilibrium prices* exist.
- Students will consider how *price ceilings* and *price floors* affect markets.

Knowledge@Wharton Article: "How About Free? The Price Point That Is Turning Industries on Their Heads"

Other Resources/Materials:
For Teachers:

- Internet Access (Outside of the Classroom)
- Printer/Copier
- Access to Chalkboard/Whiteboard

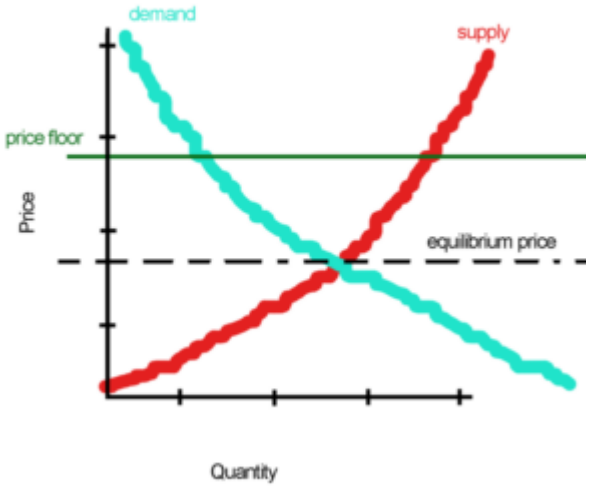
Activity:

The lesson is divided into five parts: (1) Introduction, (2) Guided Reading, (3) Class Discussion, (4) Exploration Activity, and finally (5) Closing

1. Introduction (5-10 mins)

Begin the lesson by asking students about the *law of supply* and the *law of demand*. Have a volunteer draw a standard supply and demand curve on the chalkboard/whiteboard for the class.

Figure 1



To make things more concrete, tell students that they are in charge of a restaurant. Re-label the supply and demand curves on the board to include “Price of Food” and “Quantity of Food.” Next, draw a dotted line horizontally through the curves, somewhere above the *equilibrium price* (above where the curves intersect). Ask students what this situation means. What is going on when the price of food reaches this point? Eventually, define this situation as *excess supply.* At any price above the intersection, more food is being supplied than customers are demanding.

Next, draw another dotted line horizontally through the curves, somewhere *below* the intersection of the two lines. Ask students to describe this situation. How much food do customers want? How much food does the restaurant want to sell? Define this situation as *excess demand*. At any price below the intersection, more food is demanded than is offered.

Once students grasp *excess supply and demand*, ask them what they think would happen in either case. For example, if there is excess supply, what does that mean for the restaurant owner? What will the owner do with the extra food? Ask the students what they would do in that position. Similarly, ask the students what would happen in a period of excess demand. If everyone wants your food, what will you do? Use both of these examples to show students why prices tend towards the intersection of supply and demand. This is an *equilibrium price.*

2. Guided Reading (5-10 mins)

Students should read through an excerpt of the article “How About Free? The Price Point That Is Turning Industries on Their Heads,” (e.g. the first two sections). As students read, encourage them to think about what happens to supply and demand when a product is free (when price is equal to zero).

3. Class Discussion (5-10 mins)

Once students have finished reading, ask students to briefly summarize the article. Next, have a volunteer come to the board. Echoing our example from the previous lesson, have the volunteer draw supply and demand curves for a common household product (e.g. bottles of water) based on the *laws of supply and demand*. Make sure the volunteer asks students how much they would demand (or supply) when price = 0. Students should realize that demand is high and supply is low. Ask them why supply is low. As a follow-up, ask why companies would still give things away for free.

Next, ask students to imagine what would happen if price could *not* fall below a certain level. For example, what if the price of water bottles was above equilibrium, but the government mandated that prices could not be lower? Who would this benefit? Who would this hurt? Draw Figure 1 on the board so that students can visualize this scenario.

4. Exploration Activity (5-10 mins)

In this activity, students will work in small groups on the problem outlined above (i.e. price floors). Break students into groups of three or four. Give each group a copy of Worksheet 4: Price Floors.

5. Closing (1-5 mins)

Once students have finished the worksheet, ask students to explain their findings. Ask students to explain why an equilibrium price exists. Ask students who benefits and who suffers when prices cannot reach this equilibrium.

Tying It All Together

Assessment & Extension

During the lesson, use the group activity to measure student understanding of equilibrium prices. Students should be able to see that a price floor will initially benefit suppliers by letting them supply at a higher price. However, students should also see that over time this will lead to less demand, and therefore excess (or surplus supply). A good follow-up question is to ask students if they think a price floor is sustainable over time.

Practice Outside of the Classroom:

Outside of the classroom, students should look for examples of “free” pricing. Why is this product/service free? What is the demand for this product/service? What would the demand be if the price changed to $.01?

What Worked and What I Would Do Differently:

If you are pressed for time, leave out the price ceiling example. I found it more beneficial to reinforce the idea of excess supply and excess demand. Give the students some real-world examples. Why would price fall if supply is greater than demand? If you have a huge supply of fresh fruit and no one wants to buy it, what happens to that fruit? It spoils. Inventory is costly. Instead of dealing with inventory, companies are likely to lower the price and at least get *some* money for their products, instead of nothing.