Market Demand and Supply (part 2-Market Supply)

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The **market supply** of a product is the amount that **producers** choose to offer for sale at a given market price. For each possible price in the market, there is a different **quantity supplied**. The relationship between market price and the quantity supplied can be shown in a **supply schedule** or a **supply curve**. The supply of a product is the quantity of the good that producers are able and willing to sell at the market price.

Both the market supply schedule and the market demand schedule are the product of individual consumers' or producers' actions. At a given price each producer is willing to bring so many pounds of product to the market or each consumer is willing to buy so many pounds of the product in the market. The supply schedule is the total of all of the individuals' quantity supplied at that market price.

When we talk about the supply schedule for a product, we must define the product that we are interested in investigating. In our example the product is local cucumbers not imported cucumbers. For, our analysis imported cucumbers are a competing product. We must define the units of the product and time-frame - in our case pounds per week, and the market - Guam.

As the market price changes, the quantity that producers bring to the market changes. If the price of the product goes up and nothing else changes, then we normally expect that producers will increase the quantity of the product that they offer for sale. This is called a **movement along** the supply curve. We can use the same supply schedule and look-up the quantity supplied at the new price. The condition that the supply schedule is used when nothing else changes is an important one.

If other factors change then the quantity supplied by farmers at any single price will change, and we will have to adjust the supply schedule. This is called a **shift in supply**. If the supply shifts, then we need to use a new supply schedule - one that shows a different set of quantities supplied at each market price.

In agriculture, there are normally three types of changes that we think of as shifting the supply of a product. The first type of change is things that alter the ability of farmers to produce the product. This is called a shift in the **production function**. Again using the example of the local market for cucumbers, if there is a typhoon or a drought, then farmers will be able to bring fewer cucumbers to the market at any given price. The second factor effecting supply is a change of input prices. Inputs are anything that is used to produce a product such as labor, fertilizer, pesticides and seed. If the price of cucumber seed increases, then the **cost of production** will normally increase and farmers will bring fewer cucumbers to the market.

The third factor is the price of other products that the farmers could grow instead of cucumbers such as watermelon or bittermelon. If the price of watermelon increases, then some farmers will switch from growing cucumbers to growing watermelon, and there will be less cucumbers brought to the market at any given price. Growing watermelon or bittermelon is an alternative that must be given-up in order to grow cucumbers. Thus, they are giving-up an opportunity to grow watermelon or bittermelon. The price of giving-up the alternative is called the **opportunity costs** of growing cucumbers.

The market supply schedule is the sum of all of the individuals' quantity supplied at each market price. If the price of cucumbers changes, then we can use the supply schedule to look-up the new quantity supplied. Normally, we expect that if the price of cucumbers increases, then the quantity supplied will increase. If the production function, prices of inputs or the opportunity costs change, then we must use an adjusted supply schedule to look-up the quantities supplied at each price for cucumbers. Normally we expect that an increase in input costs or an increase in opportunity costs will decrease the quantities supplied at each price of cucumbers.

Please refer to the examples on the following page...

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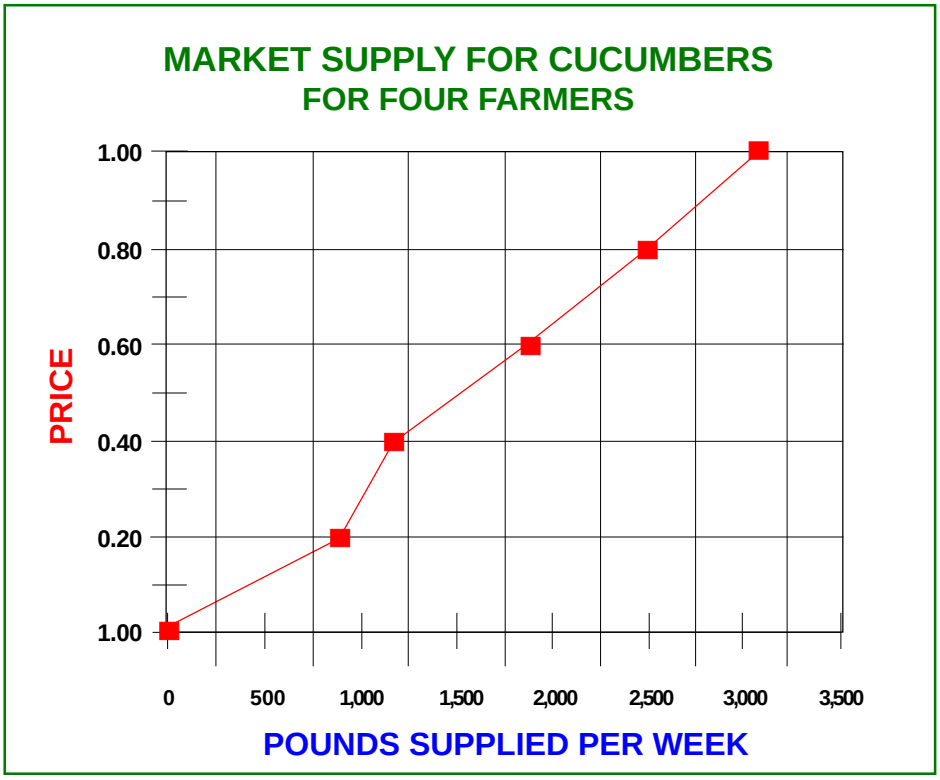
Pounds of cucumbers supplied per week

Price of Cucumbers	Frank Cruz	Bob Barber	Mel Torrez	Sarah Johnson	**Total Supplied**
1.00	1,000	500	800	750	**3,050**
0.80	800	499	700	500	**2,499**
0.60	600	498	600	250	**1,948**
0.40	200	497	500	0	**1,197**
0.20	0	496	400	0	**896**
0	0	0	0	0	**0**

Example 4. A supply schedule for cucumbers with four farmers producing them.



Example 5. A graph of the supply curve drawn from the supply schedule in Example 4.

Pounds of cucumbers supplied per week

Price of Cucumbers	**Pounds supplied when labor is $6.00 per hour**	**Pounds supplied when labor is $8.00 per hour**	**Pounds supplied when labor is $10.00 per hour**
$0.80	2,500	1,800	1,500
$0.60	2,000	1,500	1,200
$0.40	1,600	1,200	1,000

Example 6. Shifts in the supply schedule due to changes in input prices.