2016-10-24 From the preparatory notes for Class 25 of the introductory course on political economy: 'The evolution of property and how it rules the world'.

Supply, Demand & the Price Mechanism

We have spoken about production (which takes place in enterprises) and about the exchange of the products they produce for money (which happens in the market). Now we are going to examine how, in theory at least, products come to be exchanged at the prices they do in the market.

First of all, we are going to look at **the price** that a particular product might fetch in the market **in relation to** two things:

(1) **the quantity of that product producers would be willing to supply at various prices**,

and

(2) **the quantity of that product consumers would be willing to buy (or 'demand') at various prices**.

Consider this: If you were the owner of an enterprise producing shoes — how would you determine the price at which to offer the shoes for sale? What factors would you consider?

* Perhaps you'd look at other similar products in the market;
* You would want to sell all of your goods/stock;
* You would want to cover your costs of production; and
* You would want to make as great a profit as possible. [Discuss why.]

There is a market for every type of product one can think of. Let's consider one textbook example: The market for gasoline (what we call petrol) in the United States.

Let's begin with the supply side in the exchange of petrol for money.

Supply Schedule for Gasoline (petroleum)[1]

Price Per gallon ($)	Quantity Supplied (millions of gallons)
1.00	500
1.20	550
1.40	600
1.60	640
1.80	680
2.00	700
2.20	720

[1] In 2015, the United States had a daily average consumption of about 384.74 million gallons per day (United States Energy Information Administration)

1 gallon = 3.7 litres

These illustrative figures are for the whole market.

In the left-hand column we have a range of prices at which petrol might be supplied. In the other column we have the quantity of petrol that suppliers taken as a whole **would be willing to supply** at each of those prices. (The heading 'Quantity Supplied' might suggest that those quantities would actually be sold at those prices. But, as we shall see shortly, that cannot be taken for granted.)

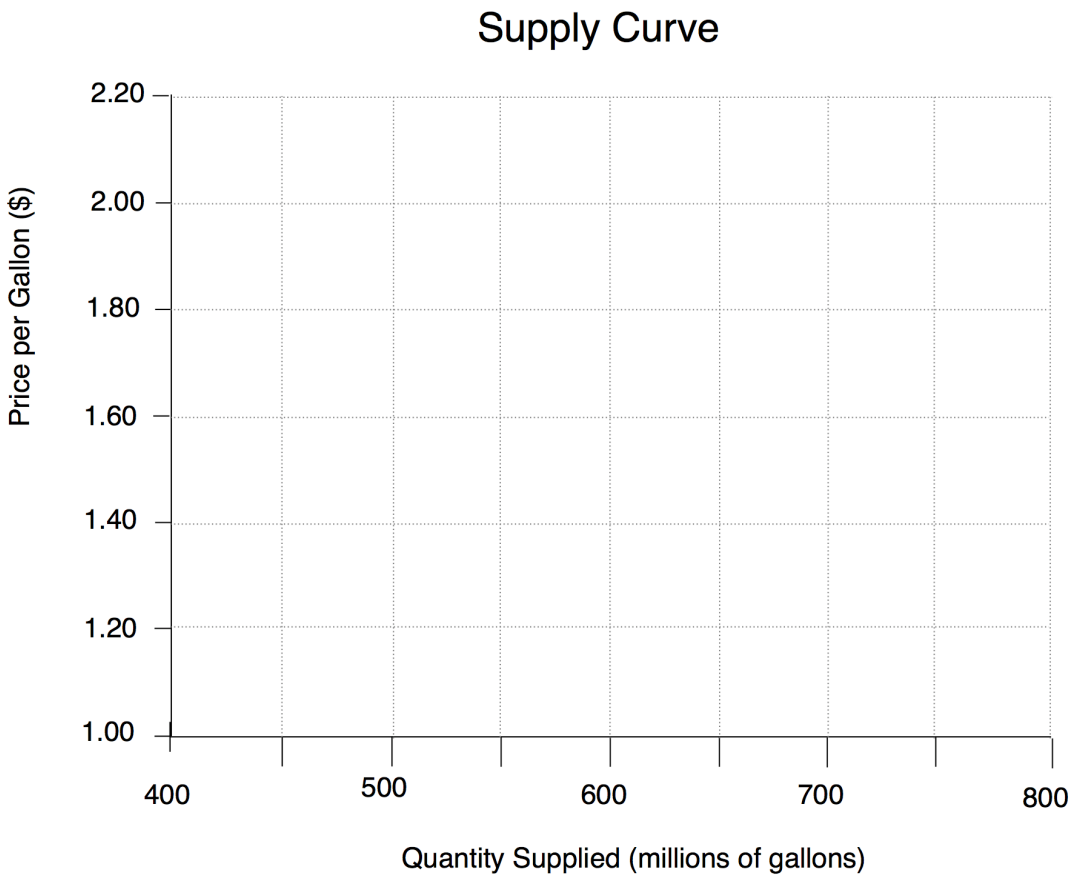
What do you notice about the relationship in the Supply Schedule between the price and 'Quantity Supplied'?

In considering this question, please note that we are only concerned at this point with **the relationship between price and quantity** (and only on the supply side of the exchange of petrol for money). *'Ceteris paribus'* — everything else is assumed to remain **unchanged**. In real life other changes will be happening simultaneously, but if we bring those changes into the picture now we'll confuse the analysis.

Let's present the relationship between the price and quantity figures in the Supply Schedule

as a diagram or picture, by way of points plotted on a graph.

[Hand out the blank Supply Curve graph and explain the axes]



Mark off the points on your graph according to the Supply Schedule.

The 'law of supply':

> The law of supply states that a **higher price** leads to a **higher quantity supplied** and that a lower price leads to a lower quantity supplied.

Do you agree? Why?

Remember that the supply curve is drawn on the assumption that NOTHING changes to affect quantity supplied except the price.

Now let's turn to the demand side in the exchange of petrol for money.

Demand Schedule for Gasoline (petroleum)

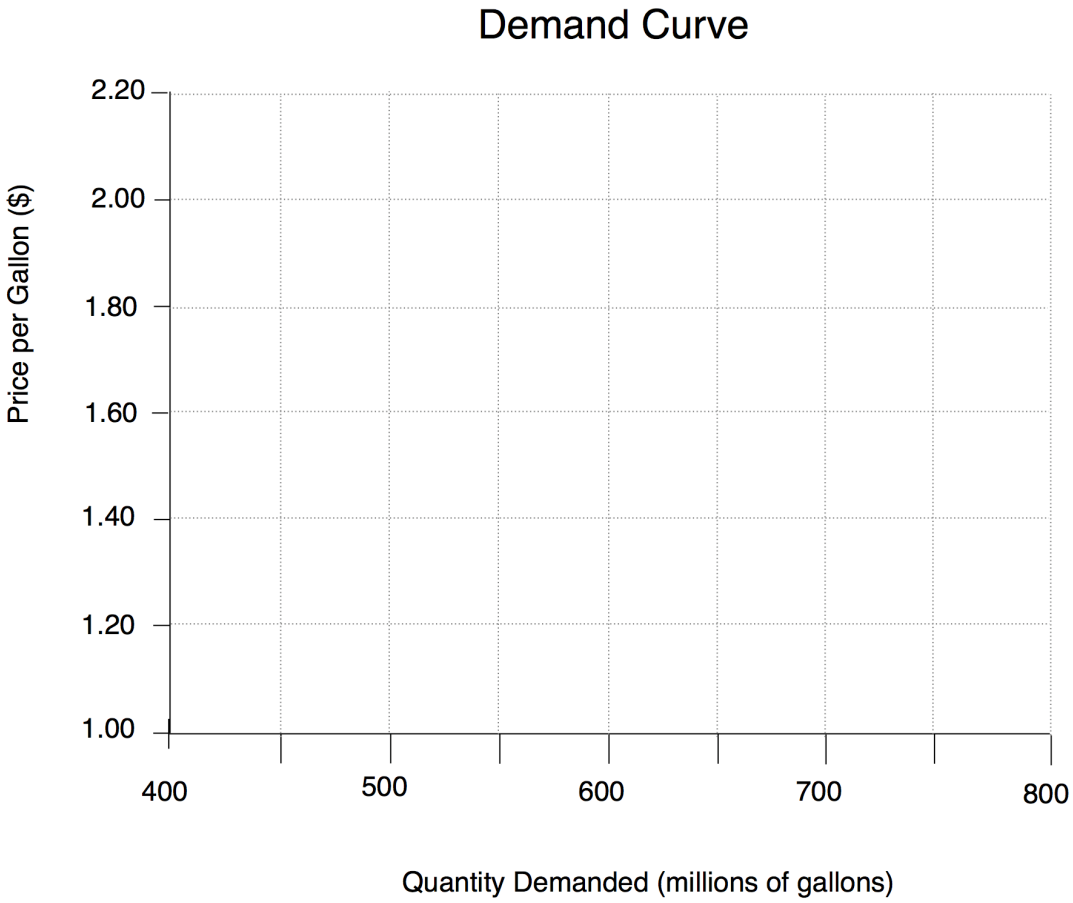
Price Per gallon ($)	Quantity Demanded (millions of gallons)
1.00	800
1.20	700
1.40	600
1.60	550
1.80	500
2.00	460
2.20	420

In the left-hand column we have a range of prices at which petrol might be purchased. In the other column we have the quantity of petrol that customers taken as a whole **would be willing to purchase** at each of those prices. (The heading 'Quantity Demanded' suggests that those quantities would actually be purchased at those prices. But again, that cannot be taken for granted.)

What do you notice about the relationship in the Demand Schedule between the price and 'Quantity Demanded'?

Note again that the *ceteris paribus* assumption (all other things remain unchanged) is applied at this stage of the analysis. This means the only factors that account for the changing relationship are 'quantity' and 'price'.

[Hand out the blank Demand Curve graph and explain the axes]



Mark off the points on your graph according to the Demand Schedule.

The 'law of demand':

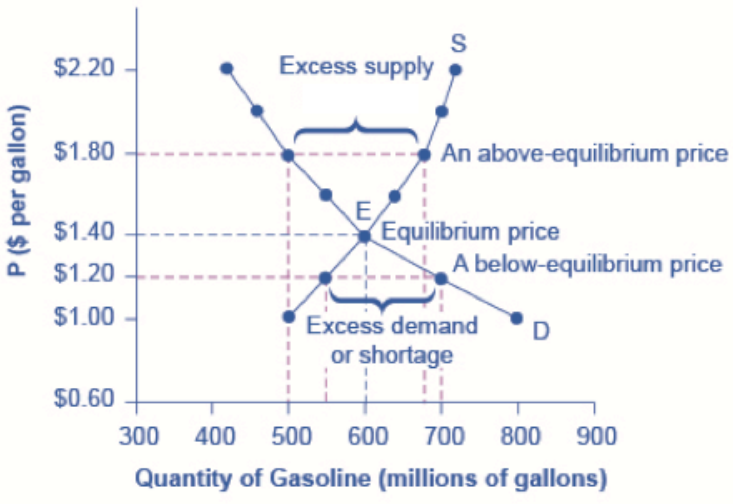
The law of demand states that a **higher price** leads to a **lower quantity demanded** and that a lower price leads to a higher quantity demanded.

Do you agree? Why?

Equilibrium Price

Ask the class to hold their graph papers up to the light, placing the one over the other so that the axes fit exactly over one another. The point where the two curves intersect is called the 'equilibrium price'. What is the equilibrium price for petrol?

Equilibrium Price



An **equilibrium price** is the notional or 'ideal' price at which there is exactly **enough demand** to ensure all goods supplied in the market will be sold, and **enough supply** to ensure that all demand for such goods is satisfied. On this basis, the market is said to 'clear'.

This state of balance only exists in the theoretical imagination; it never exists in fact. However, depicting the price mechanism in this way helps us to understand the way in which price, supply and demand are constantly adjusting in response to each other.

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So far we have assumed that nothing changes except quantity and price. Now we will consider one other thing changing — namely the cost of production of a gallon of petrol.

Changes in 'Quantity Supplied' at the same price

Go back to the supply graph and consider the case if the cost of production of petrol were to increase. What do you think will happen to the quantity producers as a whole would be willing to supply at the old prices?

The whole supply curve shifts to the left ← . In other words, a smaller quantity would be supplied at each indicated price. This is because, if it costs more to produce the good, some will find production and sales at the old price unprofitable, while others too will move their

capital to some other branch of production where the rate of profit has not fallen at all, or at least not to the same degree.

What if the cost of production of gasoline were to decrease, which way would the supply curve shift?

The curve would shift to the right →. Producers as a whole would be willing to produce a greater quantity at the old prices, because more profit per gallon could be obtained. In all likelihood, some capital from other branches of production would now move into petrol production because the rate of profit there has risen.

Changes in 'Quantity Demanded' at the same price

This will not be affected directly by changes in the cost of *supply*. But there are various factors which might affect how much is *demanded* at any particular price.

* Eagerness to purchase the good or service.

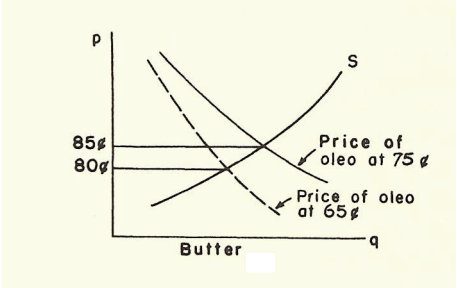
* Ability to purchase — the question whether you have enough money to buy what you want.

* Size of population.

* Ability to obtain the same or similar utility from another product.

When either the supply curve or the demand curve shifts, the effect is that the notional 'equilibrium' point (where the two curves intersect) has also shifted. In other words, there would be a new price-quantity 'equilibrium' — a new point of notional balance between price, supply, and demand.

In his textbook on *Price Theory*,[1] Milton Friedman provided an example of **the effect on the price of butter** consequent upon **a change in the price of margarine** ('oleo'). If the price of margarine goes down, say from 75 cents (US) to 65 cents, some people will switch from butter to margarine. The quantity of butter demanded at the old price will fall. To clear the market for butter, the price of butter would have to fall, say from 85 cents to 80 cents. The shift of the demand curve for butter is shown on the graph, and with it the new point of intersection with the old supply curve.



[1] Friedman, Milton. *Price Theory*. Transaction Publishers, 2007, p. 24.

The graph does not show the further consequences that might follow by way of an adjustment of the butter supply downward in response to the lower price (a shift of the supply curve to the left), and thereafter an adjustment of the butter price upward again in response to the reduced supply, resulting in another new 'equilibrium' point for butter.

Nor does the graph show what might also be going on subsequently in the market for margarine.

Indeed, it is important to bear in mind that because:

(a) capital is able to move from one branch of production to another, and

(b) consumers are constantly allocating and reallocating their spending power between different products,

imagining an 'equilibrium' in any branch of production has to involve assuming that all else is constant **not only in that branch of production but everywhere else that could impact on it as well**.

While the process of adjustment via the price mechanism is vital to understand, we have to bear in mind that, in reality, 'equilibrium' itself never comes about.

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The class continued with a brief introduction to **competition**, how it is carried on, and its relation to the operation of the price mechanism. This covered:

* Competition between buyers. E.g. Uber during public emergencies, etc.

* Competition between sellers. Rival suppliers, rival products.

* Collusion and market-fixing.

Market power where competition is ineffective:

* dominance over competitors / monopoly;

* captive suppliers or captive customers.

How competition brings about constant adjustments in the equilibrium point, by shifting the supply and demand curves.

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Class 25 then continued with an introduction to the theory of value. The preparatory notes for that have been consolidated with the notes for Class 26 and will be distributed separately.