

The Law of Demand states that when the price of a good rises, and everything else remains the same, the quantity of the good demanded will fall. In short,

$$\uparrow P \rightarrow \downarrow Q_d$$

Note 1: “everything else remains the same” is known as the “ceteris paribus” or “other things equal” assumption. In this context, it means that income, wealth, prices of other goods, population, and preferences all remain fixed.

Of course, in the real world other things are rarely equal. Lots of things tend to change at once. But that’s not a fault of the model; it’s a virtue. The whole point is to try to discover the effects of something without being confused or distracted by other things.

Note 2: Is the law of demand really a “law”? Well, there may be some exceedingly rare exceptions. But by and large the law seems to hold.

Note 3: I will use the word “normal” to refer to any good for which the law of demand holds. Please note that this is different from the book’s definition of normal.

A Demand Curve is a graphical representation of the relationship between price and quantity demanded (ceteris paribus). It is a curve or line, each point of which is a price- Q_d pair. That point shows the amount of the good buyers would choose to buy at that price.

Changes in demand or shifts in demand occur when one of the determinants of demand other than price changes. In other words, shifts occur “when the ceteris are not paribus.”

The demand curve’s current position depends on those other things being equal, so when they change, so does the demand curve’s position.

Examples:

1. The price of a substitute good drops. This implies a leftward shift.
2. The price of a complement good drops. This implies a rightward shift.
3. Incomes increase. This implies a rightward shift (for most goods).
4. Preferences change. This could cause a shift in either direction, depending on how preferences change.

Demand versus Quantity Demanded. Remember that quantity demanded is a specific amount associated with a specific price. Demand, on the other hand, is a relationship between price and quantity demanded, involving quantities demanded for a range of prices. “Change in quantity demanded” means a movement along the demand curve. “Change in demand” refers to a shift of the demand curve, caused by something other than a change in price.

IV. The Concept of Supply

A price ceiling is usually imposed to keep down the price of something perceived as too expensive. To have any effect, it must be imposed below the market price.

Example: Rent control on apartments.

What effect do we predict? As with any below-equilibrium price in the example above, we expect to get a shortage. But in this case, buyers can't raise the price by bidding against each other, because by law the price cannot rise.

Using the short-side rule, we discover that rent control actually reduces the amount of housing made available to the public.

Ironically, the price control may also raise the *de facto* price paid by consumers. From the demand curve, we can see that consumers would be willing to pay a very high price (much higher than the price ceiling or even the market price) for the reduced quantity (Q_s) available. They are willing to pay this money if they can just find a way to do so – and they do, in the form of bribes, key fees, rental agency fees, etc.

N.B.: If the price ceiling is imposed above the market price, it has no effect.

A price floor is usually imposed to keep up the price of something perceived as too cheap. To have any effect, it must be set above the market price.

Example: Agricultural price supports.

These are imposed, usually, because farm lobbies have convinced the legislature that they are not earning enough to stay in business.

What effect do we predict? As with any above-equilibrium price, we expect to get a surplus, this time persistent because sellers can't bid down the price. And for many years, that's exactly what the U.S. had. The government usually bought up the surplus (and dumped it on 3rd World markets).

Note: If the price floor is imposed below the market price, it has no effect.

Note: It's easy to get confused if you're not thinking clearly. An effective price ceiling is below the market price, while an effective price floor is above it. (Imagine a ceiling being too low and bumping your head, or a floor rising beneath your feet.)

VII. Analyzing Changes in Market Equilibrium

Consider first a rightward shift in Demand. This could be caused by many things: an increase in income, higher price of substitute, lower price of complements, etc. Such a shift will tend to have two effects: raising equilibrium price, and raising equilibrium quantity. [$\uparrow P^*$, $\uparrow Q^*$]