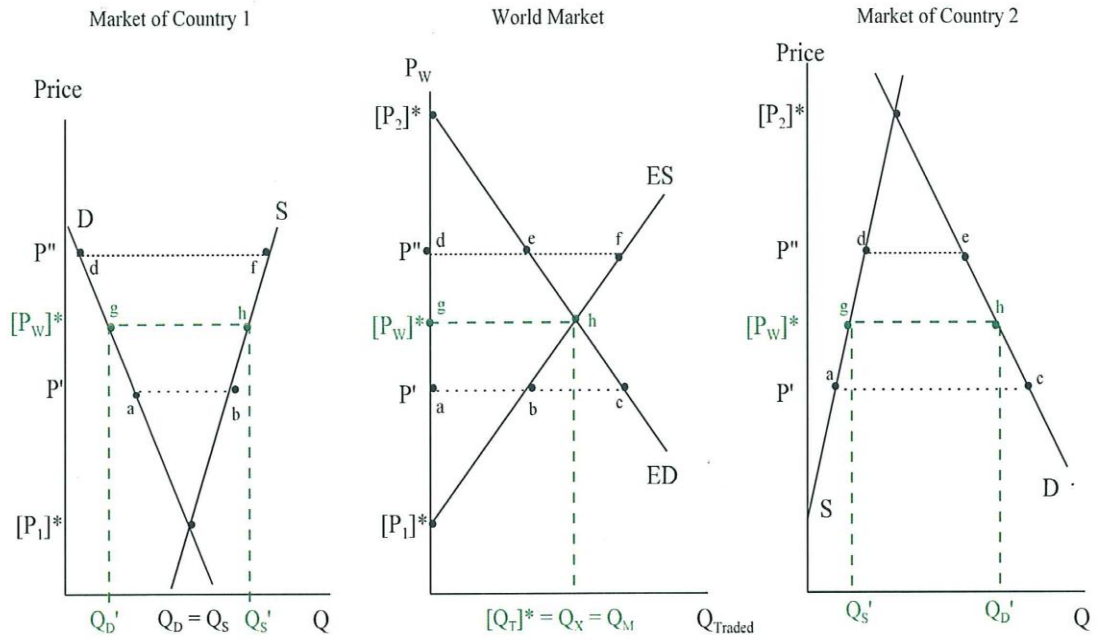
Partial equilibrium analysis: Why do nations trade?



This is an example of a two-country, one-product trade model. The market situations in country 1 and 2 are shown in the left and right panel, and the world market in the center panel. To analyze the world market situation, it is important to determine the excess supply (ES) and excess demand (ED). Equating ES and ED will give one the equilibrium world price, P_W, and quantities traded (Q_T). (Note: another way to determine the world market price would be to add the demand of both countries and to add the supply of both countries, and then equating total world demand and total world supply. But it is better to derive ES and ED because it will be more useful later in the semester.)

ES: excess supply or the exportable surplus

The willingness of the exporting nation to take various quantities of a specific commodity to the world market, per unit of time, at all relevant prices (e.g., all prices greater than P*, or $[P_1]^*$ in the left panel, which is the autarky price in country 1).

To derive the ES curve, subtract demand from supply in the exporting country, that is: ES = [S – D] of country 1.

ED: excess demand or the import demand

The willingness of the importing nation to take various quantities of a specific commodity off of the world market, per unit of time, at all relevant prices (e.g., all prices less than P*, or $[P_2]^*$ in the right panel, which is the autarky price in country 2).

To derive the ED curve, subtract supply from demand in the importing country, that is: ED = [D – S] of country 2.

LOOP: Law of one price

There is one price in which all markets are in equilibrium. At $[P_W]^*$ the quantity exported is equal to the quantity imported. This condition is expected to occur under the following assumptions: (1) markets are competitive; (2) the good is identical in all markets; (3) there is no government policy or regulation affecting prices; and (4) there are no transactions or transportation costs.