# TRADE CREATION AND TRADE DIVERSION

Trade creation occurs when a free trade area (FTA) leads to the emergence of new trade that would not have otherwise existed. This happens as goods and services are sourced from a more efficient producer within the FTA, resulting in increased efficiency and overall national welfare gains.

Conversely, trade diversion takes place when trade is shifted away from a more efficient supplier outside the FTA to a less efficient supplier within it. While this can sometimes lead to a decline in national welfare, there are cases where overall welfare may still improve despite the trade diversion.

**Assumptions:**

1. We assume in each case that there are three countries in the world: Countries A, B, and C.
2. Each country has supply and demand for a homogeneous good in the representative industry.
3. Countries A and B will form a free trade area [FTA]The attention in this analysis will be on Country A, one of the two FTA members.
4. We'll assume that Country A is a small country in international markets, which means that it takes international prices as given.
5. Countries B and C are assumed to be large countries (or regions). Thus, Country A can export or import as much of a product as desired with Countries B and C at whatever price prevails in those markets.

## I. TRADE CREATION

Figure 1 "Trade Creation" depicts a case of trade creation. The graph shows the supply and demand curves for Country A. $P^B$ and $P^C$ represent the free trade supply prices of the good from Countries B and C, respectively. Note that Country C is assumed to be capable of supplying the product at a lower price than Country B.

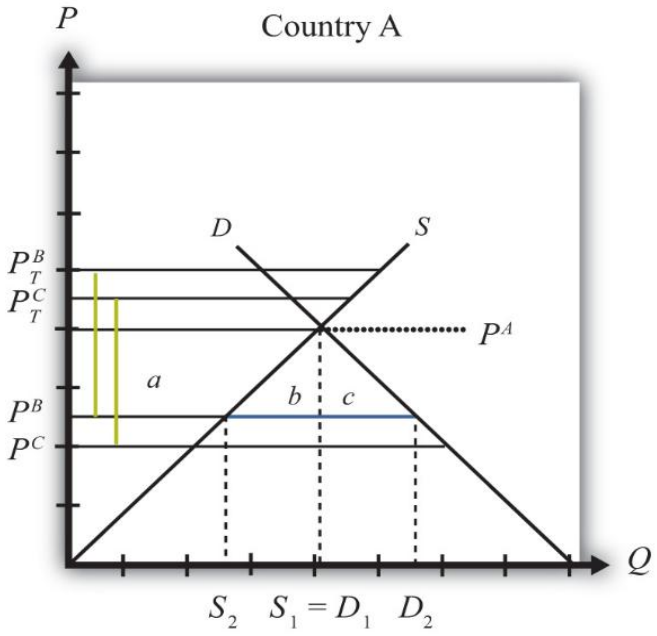


*Figure1. Trade Creation*

We assume that A has a specific tariff, $t^B = t^C = t*$, set on imports from both Countries B and C. The tariff raises the domestic supply prices to $P_T^B$ and $P_T^C$, respectively. The size of the tariff is denoted by $t* = P_T^B - P^B = P_T^C - P^C$.

Since, with the tariffs, the autarky price in Country A, labelled $P^A$ in Figure 1 "Trade Creation", is less than the tariff-ridden prices $P_T^B$ and $P_T^C$, the product will not be imported. Instead, Country A will supply its own domestic demand at $S^1 = D^1$. In this case, the original tariffs are prohibitive.

Next, assume Countries A and B form a free trade agreement (FTA) and A eliminates the tariff on imports from Country B. Now $t^B = 0$, but $t^C$ remains at $t*$. The domestic prices on goods from Countries B and C are now $P^B$ and $P_T^C$, respectively. Since $P^B < P^A$, Country A would now import the product from Country B after the FTA. At the lower domestic price $P^B$, imports would rise to the blue line distance, or $D_2 - S_2$. **Since trade now occurs with the FTA and it did not occur before, trade is said to be *created*.** The welfare effects are summarized in Table 1 "Welfare Effects of Free Trade Area Formation: Trade Creation Case".

Table 1. Welfare Effects of Free Trade Area Formation: Trade Creation Case

| | Country A |
|---|---|
| Consumer Surplus | + (*a* + *b* + *c*) |
| Producer Surplus | − *a* |
| Govt. Revenue | 0 |
| National Welfare | + (*b* + *c*) |

*Free trade area effects on Country A's consumers*: Consumers of the product in the importing country benefit from the free trade area. The reduction in the domestic price of both imported goods and the domestic substitutes raises consumer surplus in the market +(a+b+c).

*Free trade area effects on Country A's producers*: Producers in the importing country suffer losses as a result of the free trade area. The decrease in the price of their product in the domestic market reduces producer surplus in the industry (-a). The price decrease also induces a decrease in output of existing firms (and perhaps some firms will shut down), a decrease in employment, and a decrease in profit, payments, or both to fixed costs.

*Free trade area effects on Country A's government*: Since initial tariffs were prohibitive and the product was not originally imported, there was no initial tariff revenue. Thus, the FTA induces no loss of revenue.

*Free trade area effects on Country A's national welfare*: The aggregate welfare effect for the country is found by summing the gains and losses to consumers and producers. The net effect consists of two positive components: a positive production efficiency gain (*b*) and a positive consumption efficiency gain (*c*). This means that if trade creation arises when an FTA is formed, it must result in net national welfare gains +(b+c).

## 2. TRADE DIVERSION

Figure 2 "Harmful Trade Diversion" depicts the case in which trade diversion is harmful to a country that joins an FTA. The graph shows the supply and demand curves for Country A. $P^B$ and $P^C$ represent the free trade supply prices of the good from Countries B and C, respectively. Note that Country C is assumed to be capable of supplying the product at a lower price than Country B.

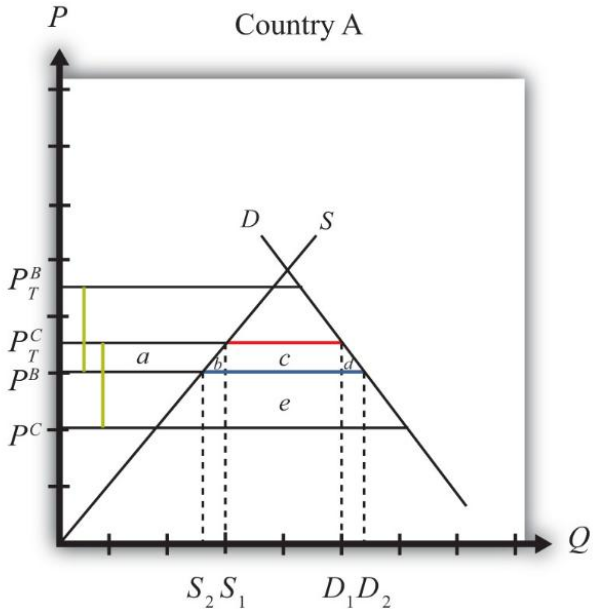


*Figure 2. Harmful Trade Diversion*

We assume that A has a specific tariff $t^B = t^C = t*$ set on imports from both Countries B and C. The tariff raises the domestic supply prices to $P_T{}^B$ and $P_T{}^C$, respectively. The size of the tariff is denoted by the green dotted lines in Figure 2 "Harmful Trade Diversion", which show that $t^* = P_T{}^B - P^B = P_T{}^C - P^C$. Since, with the tariff, the product is cheaper from Country C, Country A will import the product from Country C and will not trade initially with Country B. Imports are given by the red line, or by the distance $D^1 - S^1$. Initial tariff revenue is given by the area $(c + e)$, the tariff rate multiplied by the quantity imported.

Next, assume Countries A and B form an FTA and A eliminates the tariff on imports from Country B. Now, $t^B = 0$, but $t^C$ remains at $t^*$. The domestic prices on goods from Countries B and C are now $P^B$ and $P_T{}^C$, respectively. Since $P^B < P_T{}^C$, Country A would import all the product from Country B after the FTA and would import nothing from Country C. At the lower domestic price, $P^B$, imports would rise to $D^2 - S^2$, denoted by the blue line. Also, since the non-distorted (i.e., free trade) price in Country C is less than the price in Country B, trade is said to be *diverted* from a more-efficient supplier to a less-efficient supplier. The welfare effects are summarized in Table 2 "Welfare Effects of Free Trade Area Formation: Trade Diversion Cases".

Table 2 Welfare Effects of Free Trade Area Formation: Trade Diversion Cases

| | Country A |
|---|---|
| Consumer Surplus | + (a + b + c + d) |
| Producer Surplus | − a |
| Govt. Revenue | − (c + e) |
| National Welfare | + (b + d) − e |

*Free trade area effects on Country A's consumers*: Consumers of the product in the importing country benefit from the free trade area. The reduction in the domestic price of both the imported goods and the domestic substitutes raises consumer surplus in the market +(a+b+c+d).

*Free trade area effects on Country A's producers*: Producers in the importing country suffer losses as a result of the free trade area. The decrease in the price of their product on the domestic market reduces producer surplus in the industry. The price decrease also induces a decrease in the output of existing firms (and perhaps some firms will shut down), a decrease in employment, and a decrease in profit, payments, or both to fixed costs (-a).

*Free trade area effects on Country A's government*: The government loses all the tariff revenue that had been collected on imports of the product –(c+e). This reduces government revenue, which may in turn reduce government spending or transfers or raise government debt.

*Free trade area effects on Country A's national welfare*: The aggregate welfare effect for the country is found by summing the gains and losses to consumers, producers, and the government. The net effect consists of three components: a positive production efficiency gain (*b*), a positive consumption efficiency gain (*d*), and a negative tariff revenue loss (*e*). Notice that not all the tariff revenue loss (*c* + *e*) is represented in the loss to the nation. That's because some of the total losses (area *c*) are, in effect, transferred to consumers. *Because there are both positive and negative elements, the net national welfare effect can be either positive or negative.* Figure 2 "Harmful Trade Diversion" depicts the case in which the FTA causes a reduction in national welfare. Visually, it seems obvious that area *e* is larger than the sum of *a* and *b*. Thus, under these conditions, the FTA with trade diversion would cause national welfare to fall.

If conditions were different, however, the national welfare change could be positive. Consider Figure 3 "Beneficial Trade Diversion". This diagram differs from Figure 2 "Harmful Trade Diversion" only in that the free trade supply price offered by Country B, $P^B$, is lower and closer to Country C's free trade supply price, $P^C$. The description earlier concerning the pre- and post-FTA equilibria remains the same, and trade diversion still occurs. The welfare effects remain the same in direction but differ in magnitude. The consumer surplus gain is now larger because the drop in the domestic price is larger (Figure 3). Also notice that the net national welfare effect, ($b + d - e$), visually appears positive. This shows that in some cases, formation of an FTA that causes a trade diversion may have a positive net national welfare effect. Thus, a trade diversion may be, but is not necessarily, welfare reducing.

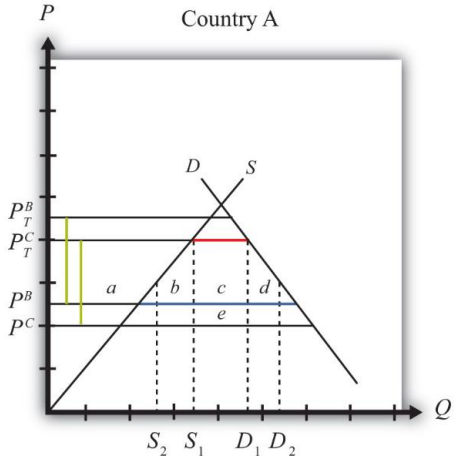

Figure 3. *Beneficial Trade Diversion*

In general, the larger the difference between the non-distorted prices in the FTA partner country and in the rest of the world, the more likely it is that trade diversion will reduce national welfare.

In a nutshell, a country entering an FTA may have some import markets in which trade creation would occur and other markets in which trade diversion would occur. The markets with trade creation would definitely generate national welfare gains, while the markets with trade diversion *may* generate national welfare losses. It is common for economists to make the following statement: "If the positive effects of trade creation are larger than the negative effects of trade diversion, then the FTA will improve national welfare." A more succinct statement, though also somewhat less accurate, is that "if an FTA causes more trade creation than trade diversion, then the FTA is welfare improving."