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«ЗАПОРІЗЬКИЙ НАЦІОНАЛЬНИЙ УНІВЕРСИТЕТ»
МІНІСТЕРСТВА ОСВІТИ І НАУКИ УКРАЇНИ

Nontariff Trade Barriers: financial methods

National governments sometimes grant subsidies to their producers to help improve their trade position. By providing domestic firms a cost advantage, a subsidy allows them to market their products at prices lower than warranted by their actual cost or profit considerations. Governmental subsidies assume a variety of forms, including outright cash disbursements, tax concessions, insurance arrangements, and loans at below-market interest rates.

Domestic Subsidy

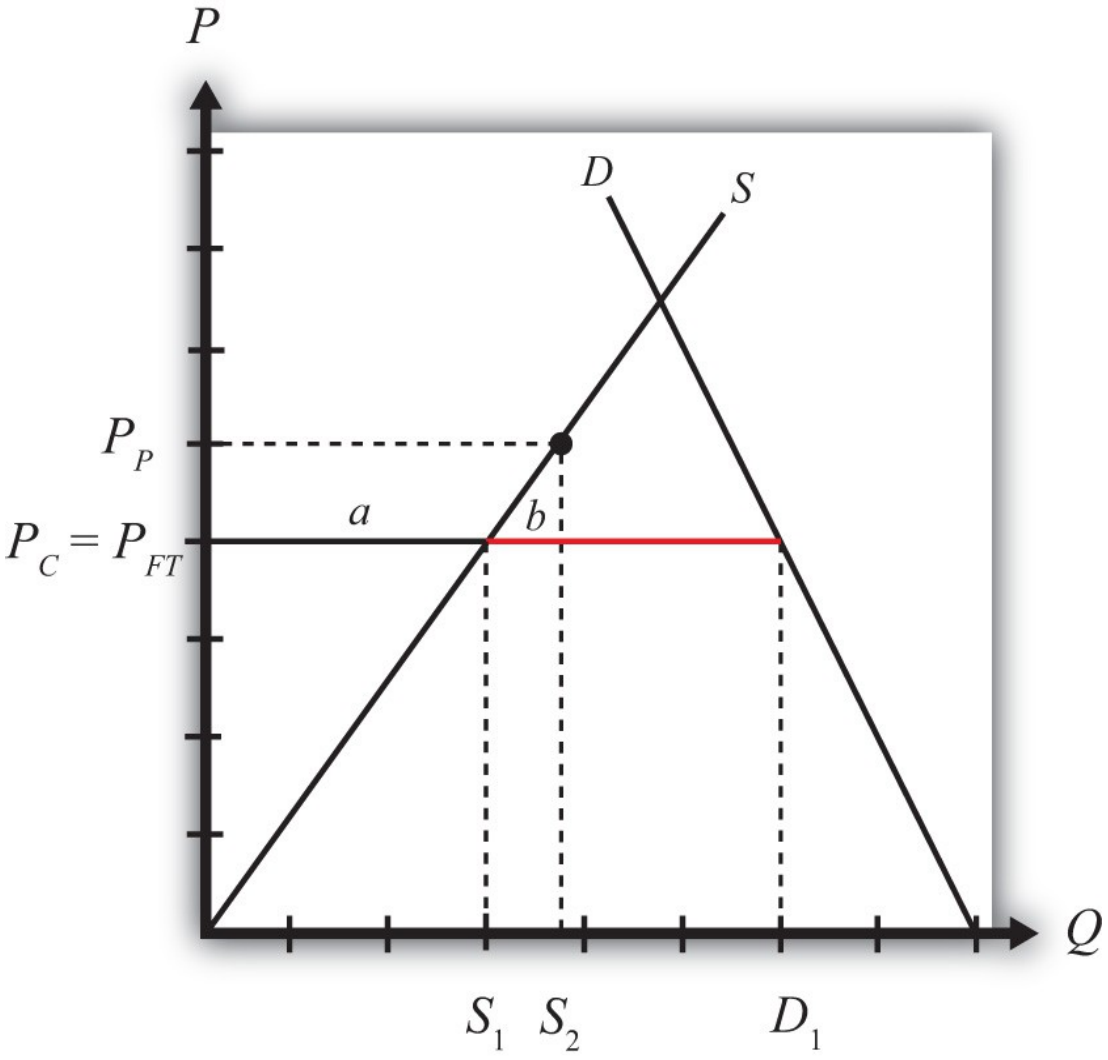
A domestic production subsidy is a payment made by a government to firms in a particular industry based on the level of output or production. The subsidy can be specified either as an ad valorem subsidy (a percentage of the value of production) or as a specific subsidy (a dollar payment per unit of output). A production subsidy provides a payment based on all production regardless of where it is sold.

Domestic production subsidies are generally used for two main reasons. First, subsidies provide a way of raising the incomes of producers in a particular industry. This is in part why many countries apply production subsidies on agricultural commodities: it raises the incomes of farmers. The second reason to use production subsidies is to stimulate output of a particular good. This might be done because the product is assumed to be critical for national security.

This argument is sometimes used to justify subsidies to agricultural goods, as well as steel, motor vehicles, the aerospace industry, and many other products. Countries might also wish to subsidize certain industries if it is believed that the industries are important in stimulating growth of the economy. This is the reason many companies receive research and development (R&D) subsidies. Although R&D subsidies are not strictly production subsidies, they can have similar effects.

We depict this equilibrium in Figure 1 "A Domestic Production Subsidy in a Small Importing Country". The free trade price is given by *PFT*. The domestic supply is *S*1, and domestic demand is *D*1, which determines imports in free trade as *D*1 − *S*1 (the length of the red line).

Figure 1 A Domestic Production Subsidy in a Small Importing Country



When a production subsidy "*s*" is imposed, the domestic producer price rises by the subsidy value to *PP*. Because free trade is maintained and the importing country is small, the domestic consumer price remains at *PFT*. Thus the effect of the subsidy in this case is to raise domestic supply from *S*1 to *S*2 while domestic demand remains at *D*1. As a result, imports fall from (*D*1 − *S*1) to (*D*1 − *S*2).

The welfare effects of the production subsidy are shown in Table 1 "Static Welfare Effects of a Production Subsidy". The letters in Table 1 "Static Welfare Effects of a Production Subsidy" refer to the areas labeled in Figure 1 "A Domestic Production Subsidy in a Small Importing Country".

Table 1 Static Welfare Effects of a Production Subsidy

	Importing Country
Consumer Surplus	0
Producer Surplus	+a
Govt. Revenue	- (a+b)
National Welfare	-b

Consumers are left unaffected by the subsidy since the domestic consumer price remains the same. Producers gain in terms of producer surplus. The subsidy causes the price producers receive to rise to *PP*, which in turn stimulates an increase in output from *S*1 to *S*2. The government, however, must pay the subsidy, and that

means someone must pay higher taxes to fund it. The total amount of the subsidy payments is given by the product of (*PP* − *PFT*) in Figure 1 "A Domestic Production Subsidy in a Small Importing Country" (which corresponds to the subsidy rate) and the quantity produced, *S*2. Since the cost of the subsidy exceeds the benefits to producers, the net national welfare effect of the production subsidy is negative. Although one segment of the population benefits—namely, those connected with the import-competing industry—there remains a production efficiency loss, given by area *b*.

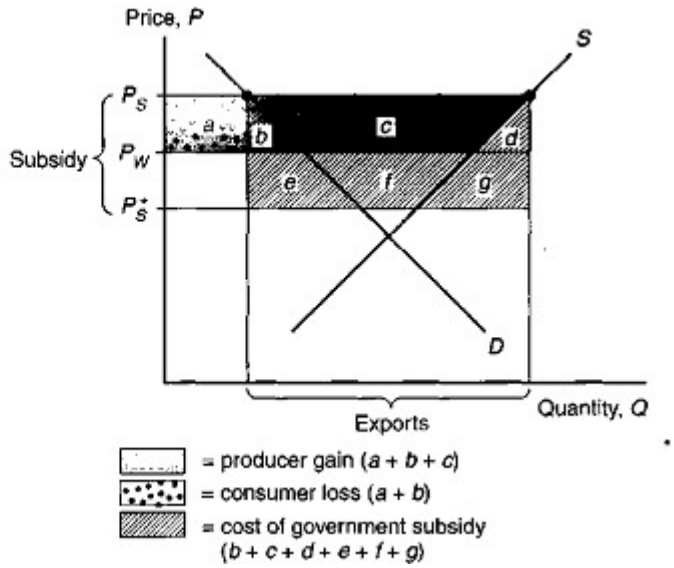
In the rest of the world, the small country assumption implies that this domestic policy (the production subsidy) would have no noticeable effects. Foreign prices would remain unchanged, and although their exports to this country would fall, these changes in trade volumes are too small to be noticed in the rest of the world. Thus the welfare effects on the rest of the world are said to be nonexistent, or zero.

Export Subsidies

An export subsidy is a payment to a firm or individual that ships a good abroad. Like a tariff, an export subsidy can be either specific (a fixed sum per unit) or ad valorem (a proportion of the value exported). When the government offers an export subsidy, shippers will export the good up to the point where the domestic price exceeds the foreign price by the amount of the subsidy.

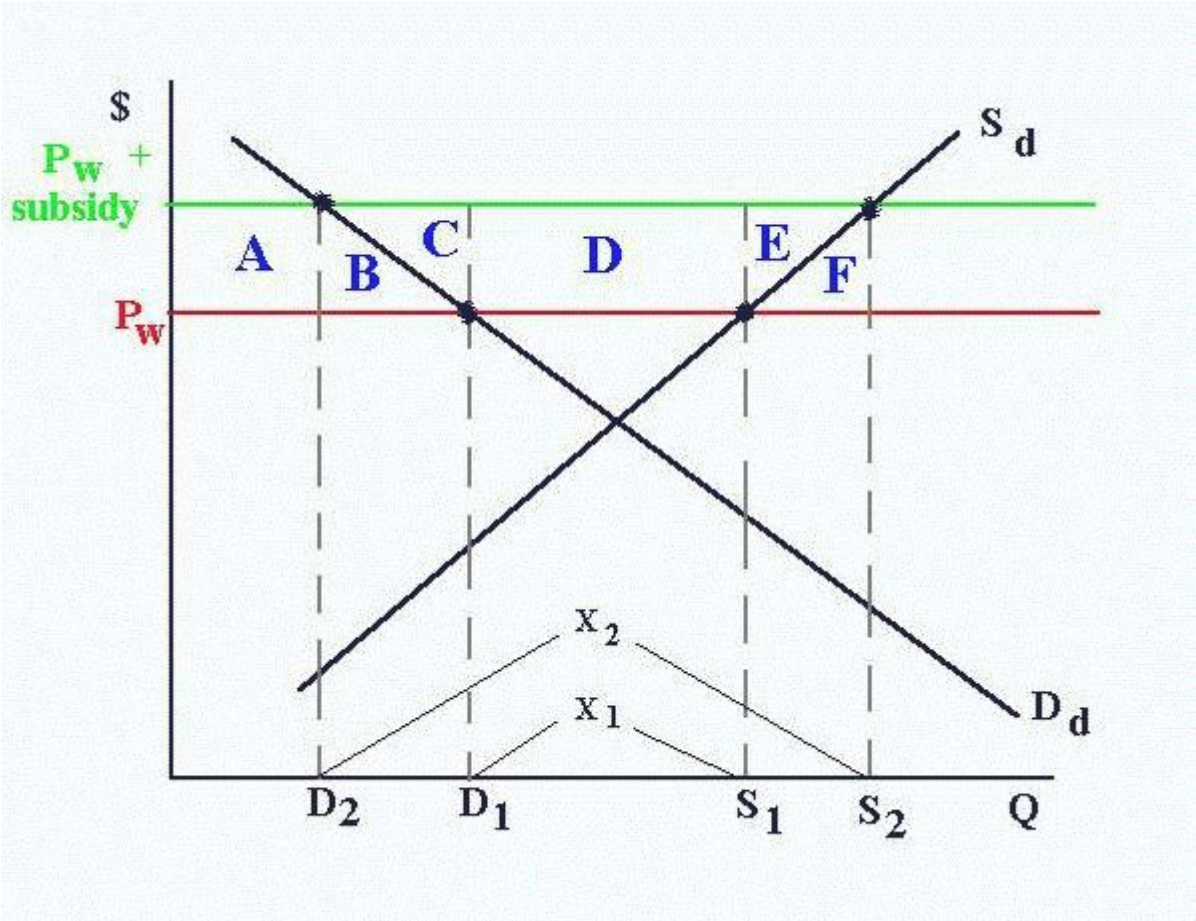
The effects of an export subsidy on prices are exactly the reverse of those of a tariff (Figure 2).

An export subsidy raises prices in the exporting country while lowering them in the importing country.



The price in the exporting country rises from Pw to Ps, but because the price in the importing country falls from Pw to P*, the price rise is less than the subsidy. In the exporting country, consumers are hurt, producers gain, and the government loses because it must expend money on the subsidy. The consumer loss is the area a + b; the producer gain is the area a + b + c; the government subsidy (the amount of exports times the amount of the subsidy) is the area b + c + d + e+f+g. The net welfare loss is therefore the

sum of the areas b + d + e+f+g. Of these, b and d represent consumption and production distortion losses of the same kind that a tariff produces. In addition, and in contrast to a tariff, the export subsidy worsens the terms of trade by lowering the price of the export in the foreign market from Pw to P*. This leads to the additional terms of trade loss e + f + g, equal to Pw — P^*_S times the quantity exported with the subsidy. So an export subsidy unambiguously leads to costs that exceed its benefits.



An export subsidy raises the domestic price above the world price by the amount of the subsidy because domestic firms would be unwilling to sell at home for less than they would receive if the product was exported. As a result, consumers lose areas A and B. Producer surplus rises by areas A+B+C+D+E. The cost of the subsidy to the government equals areas B+C+D+E+F. Overall, th ere is a net national loss equal to areas B+F.