Arguments for and against Protection

4

Unit Highlights:

® Trade Equilibrium.

® Optimum Tariff.

® The Theory of Domestic Distortions.

® Infant Industry Argument.

® Other Economic Arguments For Tariff.

Lesson 1 : Optimum Tariff and Trade Wars

Lesson objectives

After studying this lesson, you will able to :

® have a clear idea about what protection is;

® understand what an offer curve means;

® understand how the equilibrium terms of trade is determined and

® derive the optimum tariff rate.

Protectionism has a long and a chequered history. The arguments for and against protection are many and varied. In Unit 3, we have discussed the effects of tariff nationally as well as for the world as a whole. A tariff, however, is only one of the many instruments of protecting domestic producers, and historically tariffs have also been motivated, by the consideration of raising revenue. From our earlier discussions, we know that for a small country, which must take the world price as given, a tariff reduces domestic as well as world welfare. Various empirical attempts at measuring national loss from tariff also tend to support this theoretical conclusion. It is, however, important to remember that the conclusion of the theoretical analysis are based on certain assumptions which are not always valid. The empirical estimates too are subject to several qualifications.

> A tariff, is only one of the many instruments of protecting domestic producers.

The conclusion that a tariff harms a nation is based, as we have seen, on a very crucial assumption - that the country imposing the tariff has no market power i.e. it cannot influence the international price ratio in its favour by its own unilateral action. What happens to national welfare if the tariff imposing country does have market power? Then the conclusion has to be reversed, as we shall soon see. But let us not jump to the conclusion that the small country assumption (that the tariff imposing country is a price taker) is totally absurd. This assumption is often, though not always, valid. Trade between countries is usually very competitive. It may be that within a given country a few sellers control a large proportion of the total supply of a commodity. But when they enter the international market, they have to face a competition from foreign sellers. Therefore, even though they are oligopolists nationally, they may well be competitive sellers in the international market, especially when the country accounts for a small share of the total world market.

Yet in some cases, a country may be so large a buyer (or seller) of some commodities in the international market that it can affect the international terms of trade by buying (or selling) more or less. Again, a country as a whole can have monopsony power (i.e. monopoly power on the buying side) even when within the country a large number of small farms take part in the trade of these commodities. For instance, as a large buyer of automobiles, the U.S. can force Japanese exporters of automobiles to U.S. to sell at a lower price (or move their production facilities to the U.S.A).

> The offer curve of a country is simply the supply curve of its exports, or equivalently, the demand curve for its imports.

Trade Equilibrium With The Help of Offer Curves

Thus far we have used the familiar demand and supply curves (or productions possibilities and indifference curves) to analyze the effects of tariffs on the country's welfare as well as the welfare of the world as a whole. An alternative

diagrammatic apparatus has been extensively used over a century and is still used in more advanced literature. The chief characteristic of this method is the use of what are called offer curves in explaining trade equilibrium. We shall first explain what offer curves imply and how they are derived. We then examine in the next section how a country with market power in trade can turn the international terms of trade in its favour by imposing a tariff and thereby raise national welfare above the free trade level.

The offer curve of a country is simply the supply curve of its exports (or, equivalently, the demand curve for its imports). At each international price ratio, we can find for a country how much it intends to import (import demand) and how much it has to 'offer' in exchange for its imports (export supply). The offer curve summarizes this information by showing graphically the quantity of exports and the corresponding quantity of imports at each possible terms of trade.
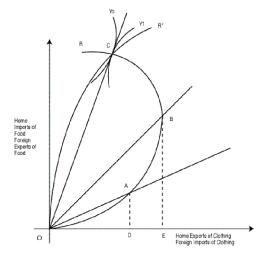

Fig 4.1. Free Trade Equilibrium With Offer Curves

In Fig 4.1, the relative prices are shown by slopes of the rays from the origin. For example, the ray OA shows one such relative price of clothing in terms of food $\frac{AD}{OD}$. At this price, the home country demands AD of food over and above the home production, implying its desire to import AD of food from abroad. And in order to be able to import this amount, the home country must be prepared to offer the foreign country clothing of equal value. In Fig. 4.1 this quantity is shown by OD.

Now suppose that the relative price of food falls to the level shown by the slope of ray OB. This causes the home demand for food to rise to BE for which the home country must 'offer' (export) OE of clothing. By noting the import demand (and the corresponding export supply) at each international price ratio and plotting import demand against export supply, we can trace out the home country's offer curve, OR. By the same procedure , the foreign country's offer curve, OR*, can also be constructed.

The terms of trade is in equilibrium when home country's import demand is exactly matched by the foreign country's export supply and vice versa.

The two offer curves intersect at C in Fig. 4.1. The slope of the ray OC gives the equilibrium terms of trade (i.e. international price ratio). This is so because only at this price home country's import demand is exactly matched by the foreign country's export supply and vice versa. In equilibrium, the level of welfare attained

by the home country is indicated by the indifference curve Y_o and Y_1 shows the same for the foreign country.

The elasticity of an offer curve will usually vary from point to point. For example, in the range AB, the home country's offer curve is elastic. Ray OB shows a lower price for food than does ray OA. As the price of food falls, the home country's demand for food rises, and it is prepared to give up a large quantity of its exports of clothing (OE>OD) to obtain more imports. In other words, as the price of food falls, total expenditure on food rises, and this clearly indicates that in the range AB the offer curve OR is elastic.

As the home country moves from B to C, more food is demanded in response to further falls in food prices. What happens to the total outlay on food? It declines because as we approach C from B, the quantity of clothing (export) the home country is willing to give up progressively declines. This is because the decline in food prices is so massive that it swamps any tendency for total outlay to increase on account of larger import demand. Since the total expenditure on food declines, as food prices fall, the offer curve must be inelastic in the range BC. Also note that the foreign offer curve OR*, as draw is elastic throughout.
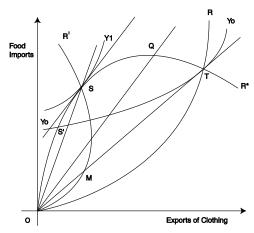
Optimum Tariff

Having described the trade equilibrium in the offer curve framework, we are now ready to see how a country with market power can raise its welfare above the free-trade level through tariffs on imports. In this section we shall also talk about the limit to which this policy can be pushed by introducing the concept of optimum tariff.

As we have seen, the home country's offer curve sets the limits on the bargain the foreign country can get and vice versa. For each terms of trade, we can find the highest possible level of welfare attainable by a country. For example, at the price ratio shown by the slope of ray OB in Fig. 4.1 we could have drawn on indifference curve for each country through B such that each is tangent to the ray OB. Compared to the terms of trade shown by the ray OC, the home country is obviously worse off than the foreign country at this terms of trade (slope of OB). From this we can say that there is an incentive for each country to get to the best possible point (in terms of welfare level) on its trade partners' offer curve. Is there anything the country can do to achieve this goal?

Yes, if the country has market power (a 'large' country). Let us look at Fig 4.2. We have drawn two offer curves OR (for the home country)- and OR* (for the

The elasticity of the offer curve varies from point to point.

The optimum tariff is one which leads to the highest possible level of welfare attainable by a country.

foreign country) - which intersect at T, establishing the slope of OT as the equilibrium terms of trade (the relative price of clothing). We have also shown two indifference curves for the home country. One of them (Yo) is tangent to OT at T and shows the highest possible welfare level attainable under free trade. The other indifference curve is Y_1, which, being tangent to the foreign offer curve OR* at S, indicates the highest possible level of welfare attainable, given the bargains allowed by the foreign offer curve.

The difference between the two prices (domestic and foreign) measures the (optimal) tariff.

Fig. 4.2 : Optimal Tariff for a large Country

If, by turning the terms of trade in its favour, the home country could trade with its partner, its welfare will rise above the free trade level. The slope of ray OQ in Fig 4.2 shows such an improved terms of trade (obviously the home country gains at the expense of the foreigners). Such improvements in terms of trade can be brought about by a tariff on imports. Why? We know that a tariff decreases the demand for import and the supply of exports at any given world terms of trade. This has the effect of shifting the home offer curve inward towards the origin. How far should this shifting be possible?

The answer is obvious. The most advantageous position of the tariff-ridden offer curve will be the one which ensures that it crosses the foreign offer curve at the point at which a home indifference curve is tangent to the foreign offer curve. In Fig 4.2, the best tariff ridden offer curve is OR'. As a result of tarrif, the world price of food (home country's import) has fallen. This we can confirm from the fact that the ray OS is steeper than the ray OT (free trade price). At the same time, the tariff has caused the domestic relative price of food to increase slightly (the slope of indifference curve Y_1 at S shows the domestic relative price of clothing after tariff). The difference between the two prices (domestic and foreign) measures the (optimal) tariff.

Note that if the tariff is raised beyond this (optimal) rate the nation's welfare level is reduced. For example, the terms of trade indicated by the slope of ray OS' (not drawn) is better than that shown by the slope of OS (corresponding to the optimal tariff) but the country is pushed back to the welfare level (Yo) attained under free trade. Obviously this happens because the gain from the terms of trade improvement brought about by a higher tariff has been offset by reduction in the volume of trade. In fact, these opposing tendencies of gaining from improved terms of trade and losing from reduction in the volume of trade are at the basis of optimum tariff rate.
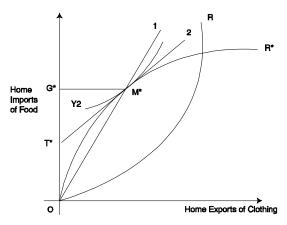
Fig. 4.3 : The Optimal Tariff Rate

A formula for the optimal tariff rate can be geometrically derived and is illustrated in Fig. 4.3. The optimal tariff shifts the home country's offer curve (OR) so that it intersects the foreign offer curve (OR*) at point M" where the indifference curve Y_2 in tangent to OR*. Line 1 shows the world terms of trade at which the world relative price of food is $\frac{M"G^*}{OG^*}$, denoted here by P*. The domestic price ratio is given by the slope of line 2 which is tangent to the indifference curve Y_2 at M". The domestic price of food is then $\frac{M"G^*}{T^*G^*}$ and will be denoted by p. Let t repressant the tariff rate so the we can write

$P = (1+t)p^*$

or, $^P/_{p*} = 1+t$

But, $\frac{p}{p^*} = \frac{M"G^*}{T^*G^*} \div \frac{M"G^*}{OG^*} = \frac{OG^*}{T^*G^*} = \left(1 + \frac{OT^*}{T^*G^*}\right)$

Therefore, $t = \frac{p}{p^*} - 1 = 1 + \frac{OT^*}{T^*G^*} - 1 = \frac{OT^*}{T^*G^*}$ .... (1)

We want to relate 't' to the elasticity of foreign offer curve. The offer curve elasticity is conventionally defined as the ratio of the percentage response of import demand to a percentage change in the relative price of imports. It can be shown that the elasticity of foreign offer curve at M" is given by the ratio of OG* to OT*. Therefore, from (1) above, the optimal tariff rate

$t = \frac{OT^*}{T^*G^*} = \frac{OT^*}{OG^* - OT^*} = \frac{1}{\frac{OG^* - OT^*}{OT^*}}$

or, $t = \frac{1}{\frac{OG^*}{OT^*} - 1} = \frac{1}{e^*-1}$ .... (2)

where e* is the elasticity of the foreign offer curve.

The offer curve elasticity's define as the percentage change in import demand divided by percentage change in price of import.

The formula for the optimal tariff rate shows that the lower the foreign supply elasticity, the higher the optimal tariff rate. On the other hand, if the foreign supply is infinitely elastic, the home country is faced with a fixed world price and it cannot force the foreigners to accept a lower price for their exports; and in that case, the optimal tariff rate is zero.

Trade Wars in the 1930s and 1980s

We have mentioned before that countries having market power can influence world prices unilaterally. On purely nationalistic grounds, they will oppose free trade since they stand to gain most by imposing optimal tariff. This conclusion, however, depends on an important assumption- that the foreigners do not retaliate against the home country's imposition of tariff (optimal or not). This assumption is often not valid. In fact, retaliation by foreign countries with their own tariffs is a distinct possibility. Any foreign tariff worsens the terms of trade for the home country. In that case, it is no longer clear that the home country can benefit. And in case competitive retaliation develops into an all-out tariff war even all countries may be worse off.

There are historical instances of this happening. In the 1930s, the US imposed high tariffs on imports from many European states, Australia, New Zealand and Canada. The commodities covered were grapes, oranges, onions, watches, shoes, timber and several other products. The foreign countries retaliated with their own tariffs on imports from US : Switzerland boycotted US exports and Canada tripled its tariffs. The inevitable happened- the volume of world trade shrank drastically and all countries were hit by high unemployment and low prices. Total world imports were estimated to have declined by about two-thirds between 1929 and 1933. Compared to this the boost given to US demand by tariffs was insignificant. The scenario was repeated again in the early and the mid-1980s when US raised trade barrier against steel and textile imports from China, Japan and other Asian nations. The latter responded by cutting down imports of US soybeans and other farm products. The US farmers paid for the protection enjoyed by manufactures. This is why free trade advocates stress that optimal tariff may be counter-productive. This is also behind the persistent attempts during the last half a century to reduce tariff on a multilateral basis.

Questions for Review

MCQ's (tick the correct answer)

1. Exporters may be oligopolists nationally, but
   A. competitive sellers in the foreign market
   B. monopolist in the foreign market
   C. price taken in the foreign market
   D. both (A) & (C) hold

2. When one of the offer curves shifts, the international terms of trade will
   A. change
   B. remain unaffected
   C. definitely rise
   D. definitely fall

3. Assume that in a certain range, the offer curve is elastic and that the price of food rises in that range. We can say that total expenditure on food
   A. will rise
   B. will fall
   C. will stay unchanged
   D. may either rise or fall, depending on circumstances.

4. If the foreigner retaliate with their own tariffs, the argument for optimum tariff
   A. totally collapses
   B. needs to be slightly modified
   C. remains as valid as before
   D. polemical.

5. A tariff-ridden offer curve is one
   A. which takes into account the effect of tariff
   B. which neutralizes tariff
   C. which is unaffected by tariff
   D. is none of the above.

Exercise

1. A tariff is an important instrument of
   a) trade
   b) protection
   c) revenue
   d) both (b) & (c)

2. The offer curve of a country is
   a) supply curve of its exports
   b) demand curve for its imports
   c) both (a) & (b)
   d) none of the above.

3. If optimum tariff rate is raised national welfare
   a) increases
   b) reduces
   c) remains same
   d) cannot be determined

Short Questions

1. The optimal tariff for a small country is zero. Why is it so?

2. Why is it said that the argument for free trade does not hold for a large country?

3. Optimal tariff is based on the assumption that the trading partner does not retaliate. What happens when it does?

4. How do the advocates of free trade justify their belief that the optimal tariffs may be counter productive.

5. What is a tariff-ridden offer curve?

Essay type Questions

1. Briefly discuss the various aspects of protection of domestic industries.

2. What is trade equilibrium? Explain trade equilibrium with the help of an offer curve.

3. What is an optimum tariff? How would you calculate it?

Answer (Exercise) : 1.a, 2.c, 3.b

Answer (MCQ) : 1.D, 2.A, 3.A, 4.A, 5.A

Lesson 2 : The Theory of Domestic Distortions

Lesson Objectives

After studying this lesson, you will able to understand

® the theory of domestic distortions;

® the importance of this theory in tariff policy and

® the logic of the infant industry argument.

The Theory of Domestic Distortions

We have argued before that free-trade is optimal for a small country, since it leads to Pareto-optimal allocation of resources. Once this is achieved, it is not possible to make, by any reallocation, to make one individual better off without making at least another individual worse off. But this will be true only if there were no distortions (i.e. no discrepancy, in the absence of tariff, between private costs and social costs on the one hand and private benefits and social benefits on the other). In this 'pure' world of no domestic distortions, the tariff itself is a (policy-inducted) distortion which leads to sub-optimality.

When domestic distortions exist we live in a second best world in which the conclusions of the first best world do not apply (e.g. the optimality of free trade). As an example of distortion, take the case of a domestic exporter of an agricultural product whose farm pollutes nearby rivers, but the costs of cleaning up are born by the 'society', and not by the farm owner (exporter). A part of his costs of production is external to the exporter's farm. In other words, there is a gap between private marginal costs and social marginal cost (in this case, the former is greater than the latter). Therefore, the exporter may be producing too much of the product compared to the socially optimal level (corresponding to the situation in which he has to bear the cost of clean-up). The discrepancy may even have distorted the patterns of trade in the sense that the exporter's comparative advantage in agricultural product may be solely due to the presence of distortion. If the distortion is removed by appropriate policy intervention, the pattern of trade may be reversed, with the country ending up importing (rather than exporting) the agricultural product.

> The exporter may be producing too much of the product compared to the socially optimal level.

Domestic distortions abound in many areas of the economy, particularly in the economies of the developing countries. These are broadly classified as endogenous distortions and policy-induced distortions. Endogenous distortions arise primarily from market imperfections- external economies, monopolistic and oligopolistic market structures. Policy-induced distortions, as the name suggests, are those brought into being by public interventions in the market mechanism such as tariffs, taxes, subsidies, quotas etc.

The pertinent question in the presence of domestic distortion is whether some sort of government intervention is necessary, and if so, whether the intervention in the form of tariff is the most appropriate response. Free trade in the presence of domestic distortions may reduce national welfare and government intervention of the appropriate kind will generally be welfare improving; but the use of a (single) trade policy instrument is never optimal. There is little we can say in the abstract about the net gains and losses from tariff. Each case must be judged by quantifying benefits and costs on a case by case basis. However, the theory of

> Free trade in the presence of domestic distortions may reduce national welfare.

domestic distortion suggests a general rule for appropriate intervention in a distortion - ridden economy. It may be called the specificity rule. It says:

From the range of policy tools available for government intervention, only those should be employed which can be targeted as closely as possible at the sources of distortions separating private and social benefits and costs.

In other words, the ideal tool (it may not always be available to the authority for one reason or another) is the one which strikes at the very source of the distortion.

These ideas underlying the theory of domestic distortions are illustrated graphically in Fig. 4.4. It is assumed that the agricultural sector imposes certain costs on the industrial sector (e.g. it pollutes river water which the industrial sector has to clean up before use). As a result, private cost of production of the agricultural product is lower than its social cost, and the relative price of the industrial product is higher than its marginal cost in product transformation.

In Fig. 4.4 TT^1 is the 'true' production possibility curve which reflects the social marginal rate of transformation. Because of the distortion (a negative externality emitted by the agricultural sector), production and consumption in the no-trade situation will be at point A on TT^1 and the indifference curve Y_1. At this point the slope of the production possibility curve (reflecting the opportunity cost of the industrial product) is smaller than the slope of line 1 (reflecting the market price of the industrial product), as it should be. But the optimal production and consumption point under autarky (no-trade situation) is E, the point of tangency between TT^1 and the indifference curve Y_2. This common slope would have indicated the pre-trade relative price of the industrial product (in terms of the agricultural product), if the distortions were corrected by imposing, for example, a tax on agricultural production.

Now suppose that the country is a small one and it has to trade at a given international price ratio indicated by the slope of line 3 or line 4 (which are parallel). Let us further assume that the world price is intermediate between the distorted price (slope of line 1) and the price that would have ruled in the absence of the distortion (the slope of the tangent to TT' at E).

> The true production possibility curve reflects the social marginal rate of transformation.
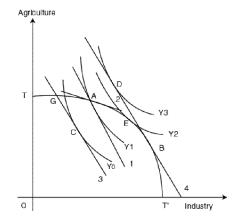

Fig. 4.4 : Trade Policy with Domestic Distortions

Comparing the distorted pre-trade price and the world price, we can see that the country has comparative advantage in the agricultural product which is more expensive in the international market. It free trade is allowed, the country will

choose to produce at G and consume at C (the country is a net exporter of the agricultural product). Before trade the country was on indifference curve Y_1, and after trade it finds itself on a lower indifference curve Y_0. Clearly it is worse off by free trade which has in this case accentuated the effect of negative externality.

A return to auturky by a prohibitive tariff (for example) will improve welfare (move back from C to A). A tariff leads to an improvement in this case, because the loss to consumers has been more than offset by gain on the production side (avoidance of some social cost entailed by the curtailment of negative externality generating agricultural production).

So we have a situation in which free trade with domestic distortion in place is inferior to no trade with distortion, and tariffs improve welfare. But it is also clear that the source of the problem is not in trade but in production which is distorted by externality. The externality problem can be directly attacked, perhaps by imposing a tax on pollution and then allowing free trade will maximize social welfare. An appropriate tax will move the production point in Fig 4.4 to B and the consumption point to D, representing a higher welfare (free trade with distortion) or A (no trade with distortion). This illustrates the point made by the theory of domestic distortion that an instrument tackling the distortion at source is superior to the one that does not.

Finally note that the situation described in Fig 4.4 is somewhat extreme because of the assumption that the world price lies between the domestic price ratio and the domestic opportunity cost ratio. This has ensured that trade reduces welfare (while tariff improves it). But we can think of situations in which tariff can in fact, lower welfare. Even then the essential point stands: the first best remedy for externality lies in taxes and subsidies and not in tariff (a second best policy).

> An instrument that strikes the distortion at source is superior to the one that does not.

The Infant Industry Argument

Historically the most persistent and widely shared view about the need for protection has centered around the so-called infant industry argument. Essentially what it says is simple. In many countries, especially in the LDCs, the infant domestic industry with higher costs of production than the established foreign manufacturers cannot successfully compete with the latter. It should, therefore, be protected by tariff for some time until it matures and can successfully compete with imports without protection. This argument, it is to be noted, is fundamentally different from the static optimal tariff argument or the domestic distortion argument. The infant industry argument is explicitly dynamic in the sense that the protection sought is only for a while which is in the end good for the home country as well as the world.

> The infant industry argument is explicitly dynamic.

Fig 4.5 provides a graphical illustration of the infant industry argument. TT^1 is the country's production possibility curve. At the world price shown by the slope of line T, it produces at point B and consumes at C on the indifference curve Y_1, exporting Y and importing X. This pattern of trade shows that the country has comparative advantage in Y. The country believes, however, that this advantage is of a short term nature and that its potential log-term advantage lies in X which it cannot at present realize because of infancy of the X-industry. Thus convinced, it decides to protect X-industry by imposing a tariff (assumed prohibitive for simplicity). As a result, the import of X is totally wiped out. The production point moves from B to A, as the relative price of X rises after tariff. A is also the

consumption point. Not surprisingly the country is worse off by tariff (A is on a lower indifference curve Y_0 than is C).
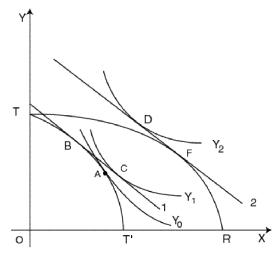

Fig. 4.5 The Infant Industry Argument for Protection

But this is a short-term price to pay. As all the supposed benefits of protection begin to accrue, the production possibility curve shifts outward, finally taking the position shown by TR in Fig 4.4. Now if the country is again thrown open to unhindered international trade at the same world price (shown by the slope of line 1 or of line 2 which are parallel), the country will produce at F on TR and consume at D which is on a higher indifference curve Y_2. In equilibrium, the country will now export X (which it used to import) and import Y (which it used to export). The country is better off with free trade after an initial period of protection than with eternal free trade. It should be carefully noted, however, that the conclusion (the country is eventually better off) remains valid even if in the end the country remains import-competing. The crucial point is that it can promote long-term efficiency using a short-term tariff.

Several questions may be raised with respect to the claim made in support of the infant industry protection. First, why are the costs of production high for the infant industry? And why are they expected to fall sufficiently as it matures under protection. Secondly, even if the industry becomes eventually competitive, should that be a sufficient basis for protection ? Finally, even if protection of the infant is taken to be justified, is tariff the most appropriate instrument to be used?

For an infant industry the cost of production may be higher than that of a mature (foreign) industry for several reasons. The most important one has to do with the process of learning often (though not necessarily) involving externalities. It takes time and investment to help workers in the acquisition of necessarily skills. The production of new knowledge about technology, management, marketing and finance also needs both time and investment. There is again a related appropriation problem. The pioneering industry may lose trained workers to new (late coming) industries even before recouping the cost of their training. Likewise, the new knowledge may be appropriated by others who did not pay for its creation. In either case, the private rate of return will be lower than the social rate, resulting in underinvestment. In many LDCs, the capital market is imperfect, limiting the slope for investment on borrowed funds. And low investment may stand in the way of realizing any economies of scale if imported goods capture a part of the domestic

> The country is expected to be better off with free trade after an initial period of protection than with eternal free trade.

> The private rate of return will be lower than the social rate, resulting in under investment.

market. All these reasons or their variants are usually cited in support of special protection of the infant industry.

Even when these arguments are accepted, do they entitle an infant industry to special protection? At a minimum, there must be a sound basis for believing that the infant industry will eventually grow so as to be internationally competitive (Mill's test). Moreover, the industry should be able, on maturity, to pay back the losses suffered by the society for the protection during its infancy. The Bastable's test is even stronger: it requires that the discounted sum of future benefits be no less than that of the losses incurred during infancy. In many instances, it is doubtful whether the protected industry will finally grow, and even when it does, whether the size of the protected market would be large enough to provide the scale required to bring down costs to the internationally competitive level. It is also likely that the protected industry will develop a vested interest in continued protection which will be difficult to remove.

Finally, if protection is to be given to an infant industry, what is the least costly way of doing it? In particular, it is of interest to know whether the infant industry is to be brought under tariff protection. Going by the theory of domestic distortions, tariff protection is manifestly a second best policy which should not be used when other first best (or better) options are available. For instance, if private entrepreneurs cannot appropriate the benefits of labour training a better policy would be to subsidize training or giving tax concessions. This method will help avoid the consumption loss associated with tariff. When information is the problem, the best way to overcome it is to take steps for the diffusion of information.

> The industry should be able, on maturity, to pay back the losses suffered by the society for the protection during its infancy.

Questions for Review

MCQ's (tick the correct answer)

1. If a trading country suffers from domestic distrotions, it
   A. cannot improve its welfare by tariff
   B. can improve its welfare by tariff
   C. can do neither.

2. Domestic distortion requires government intervention. The best form of intervention is:
   A. imposition of tariff
   B. tax the production of the relevant commodity
   C. subsidize production of the relevant commodity
   D. to use those tools which attacks the source of distortion as directly as possible.

3. Your country has domestic distortions. You are connected about its welfare. Would you say that for your country,
   A. free trade is better than no trade
   B. no trade is better than free trade
   C. some trade is better than no trade
   D. none of the above.

4. The infant industry argument seeks
   A. short term protection
   B. permanent protection
   C. no protection
   D. none of the above.

5. The best argument against protecting infant industries is
   A. that short-term protection is impracticable
   B. long term protection is unnecessary
   C. It short term protection may turn out to be a plea for long term protection
   D. none of the above.

Short Questions

1. Is free trade optimal for a small country which suffer from domestic distortions? If not, why?
2. "With domestic distortions we are in a second best world in which the conclusions of the first best world do not apply." Is that true? Would you say that a small country can improve its welfare by imposing tariffs? If so, under what conditions?
3. What are endogenous and policy induced destortions? Give example from your experience of Bangladesh.
4. Is it true to say that in the presence of domestic distrotions, the ordinary production possibilities curve will not reflect the true social marginal rate of transformation? Why?

Questions

1. What is domestic distortion? What major conclusions come out of the theory of distortions?
2. Examine the validity of the infant industry arguments. How far is it relevant for a developing country?

Answer: 1.B, 2.D, 3.B, 4.A, 5.C

Lesson 3 : Other Arguments For Tariff and Illegal Trade.

Lesson Objectives

After studying this lesson, you will be able to

® familiarize yourself with some other economic arguments for tariff;

® evaluate the arguments for protection to persue non-economic objectives and

® analyze the theory of illegal international trade.

Other Economic Arguments for Tariff

We have discussed before the merits and limitations of the optimal tariff argument and arguments for protection of the domestic infant industry. In this section, we look at some other economic arguments, some of which are without merit, while others have a grain of truth.

Cheap Foreign Labour

This argument runs like this, the wages of unskilled and semi-skilled workers in many densely populated LDCs are just a tiny fraction of what prevail in more economically advanced countries like USA. Therefore, imports from LDCs with high labour content will compel import competing industries in the developed countries to scale down production and employment. The standard of living of affected workers in the developed countries is thus exposed to risk. On close scrutiny, this argument is clearly fallacious. We know that mutually beneficial trade is possible even when a country has absolute advantage in all lines of production relative to other countries.

An extreme version of this argument is the so-called scientific tariff argument. It suggests tariffs on imports the size of which is equal to the difference between the cost of production of imports and that of domestic (import competing) product. The idea is to equalize the cost of production at home and abroad. Clearly such a policy will tend to destroy the very basis of trade and gain from international division of labour. At the same time, it cannot be denied that workers in some domestic industries will be hurt by imports. That the country as a whole gains more than what particular groups lose by trade is cold comfort to them. What is wrong with free trade then? Should the industry be protected by a tariff ? Economic analysis would obviously not recommend a tariff. A better course is, for example, to concentrate on measures in which a part of the national gains from free trade is diverted to help workers and other factors of production find employment (possibly with re-training and relocation) in expanding industries elsewhere in the domestic economy. These same measures have also been suggested in a different context- fighting the disruptive effects of technological innovation. True, many such attempts have not worked as effectively as expected; but attempts to make them work better should not be abandoned.

Tariff for Revenue

Protection is not necessarily the only motive behind tariffs. A tariff, unless prohibitive, yields some revenue, apart from restricting imports and providing protection. Some European countries, for example, impose tariffs on coffee and other tropical products very little of which is domestically produced. In other cases, imports and imports-competing domestic goods are taxed at the same rate.

In both cases, the motive is revenue, not protection. The revenue motive, is however, much stronger among the less developed countries. Raising revenues through tariffs at a few ports of entry is much easier for these countries at a reasonable cost. Their administrative resource base is weak and usually inefficient. Besides they have few alternative sources of revenue needed for building up a modicum of economic and social infrastructure. This is the main reason why tariff revenue constitutes a high proportion (often as high as a quarter) of total revenue receipts in many LDCs.

Keep Employment at Home

The point here is straightforward and naive - imports threaten employment in the relevant domestic industry and must be kept from dwindling by imposing tariffs. The argument is fallacious, because it focuses narrowly on the employment in the import-competing industry alone, leaving aside the question of what happens to employment elsewhere in the economy, especially in the country's export sector. It may be that the protected industry supplies an input to another domestic industry, which now faces a higher cost of production, shrinking profits and employment. Moreover a tariff by provoking exchange rate appreciation may adversely affect employment across a whole spectrum of industries in the home country.

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Strategic Trade Policy

It has been suggested that the terms of oligopolistic competition from abroad can be turned in favour of domestic firms by manipulating the trade policy. And this will supposedly allow diversion of considerable monopoly profits from foreign to domestic firms. James Brander and Barbara Spencer have recently argued along this line. They feel that production subsidy to the domestic industry in some cases may earn strategic advantage for it. Such recommendations have, however, come in for various criticisms most damaging of which is that they are beggar-thy-neighbour policies and that like the optimum tariff they are likely to evoke retaliatory response from trade partners resulting in uncertain outcomes for the country's welfare.

Non-Economic Arguments for Protection

Maximizing national welfare is not the only conceivable objective of a country, as we have assumed so far in judging the case for protection. There could be other equally, or more important, goals- political, cultural, social- the pursuance of which the country may consider in its national interest. The attainment of the following major objectives has been advocated at different times:

1. A certain level of production (perhaps inspired by the desire to strengthen national security) ;
2. A certain level of consumption (usually restricting the consumption of luxuries and other goods considered harmful on health or moral grounds) ;
3. A certain level of self-sufficiency (perhaps to reduce dependence on foreign supply which may be uncertain in times of war or other crises).
4. A certain level of employment of a factor of production such as labour (e.g. to preserve a traditional skill or a way of life symbolizing the cultural achievement of the society).

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Now the pursuance of these non-economic objectives involves violation of one or more Pareto optimality conditions and hence loss of welfare. The relevant question to be asked then is : which policy (or policies) can be recommended to minimize

this welfare loss? The lesson of the theory of domestic distortions has full relevance to this question. The basic rule is to choose those instruments, which can focus pointedly on the very objective that is to be attained. Then for the attainment of the production objective the least harmful policy is production subsidy, not a tariff. If consumption is to be restricted, it should be done by a consumption tax (again not tariff). When the level of employment of a factor is to be protected or promoted the appropriate (first best) remedy is direct subsidy for the use of that factor. If import of a commodity is to be restricted, then the appropriate response is, of course, tariff. If is clear that in each case, the recommanded (least costly) policy is the one which acts most directly on the objective concerned.

The Theory of Illegal International Trade

Illegal international trade roughly implies the use of illegal channels of importation and exportation or the use of legal channels with faked invoicing with the object of avoiding taxes and duties levied by the government. These illicit phenomena are widespread in (but not exclusive to) the less developed countries for several reasons :methods of enforcement are often lax; frontiers are long; and the rewards from illegal activity are high relative to returns from legal activity. The presence of these phenomena affect the international trade theory in several ways. They vitiate the accuracy of foreign trade statistics and make the evaluation of policy prescriptions difficult on the basis of their bearing on changes in national or group welfare. It is, therefore, necessary to integrate the analysis of illegal trade phenomena with the pure theory of international trade. This field is relatively neglected. A pioneering attempt is that of Bhagwati and Hansen (1973) as further extended by them and Harry Johnson.

Smuggling

The presence of smuggling has welfare effects which can be evaluated against two apparent standards. One looks at the issue from the perspective of the government whose tariffs give rise to smuggling. The other approaches the problem from the point of view of welfare as treated in the traditional international trade theory.

From the government's point of view, smuggling can be seen as bad, because it tands to reduce the government's (import) tax-revenue below what it otherwise would be. As a result, it may reduce the amount, or increase the cost, of public goods provided by the government. Secondly, the 'public good' in question may be the achievement of a given level of domestic production of import substitutes through tariffs, for example. But smuggling increases the social cost of provision of the public goods. Why ? Because while the smuggling of imports (as contrasted with legal imports on payment of tariffs) involves higher real costs of importation, it may not reduce the (tariff-determined) final price to the consumers. As a result, the social cost of providing the public good will go up. Finally, if the country is not 'small', smuggling may worsen the country's welfare by undermining its optimum tariff policy.

From the perspective of private welfare, tariff is an arbitrary government intervention in the efficient allocation of resources, and so, it is often thought, smuggling increases private welfare by eliminating (at least partly) the arbitrary distortion introduced by tariffs. This would obviously be the case if smuggling could be carried on costlessly. But since, in fact, smuggling involves extra costs over and above those of legal trade, this supposed welfare-enhancing property of smuggling is not necessarily valid.

This ambiguity can be fruitfully highlighted by comparing the smuggling sector with the formation of a customs union. In this scenario, the smuggling sector can be viewed as a partner country in the union trading with which generates both trade creation and trade division effects. If smuggled imports replace import-competing domestic production at a lower social cost, there is beneficial trade creation. On the other hand, if smugglers also bring in imports which replace low-cost legal imports, the resulting trade diversion will reduce welfare.

Analytically two extreme possibilities should be distinguished where:

(a) Smuggling involves no excess costs of importation over legal trade so that the results are pure trade-creating and hence beneficial ;

(b) Smuggling is subject to rising costs (for smugglers as a group) so that smuggling only replaces legal importation, but does not lower the cost of imports to consumers. Therefore, the social loss from smuggling will be lower, the lower the smuggled imports (i.e. the more steeply rising are the average costs of smuggling). The average costs are determined by government enforcement activities. Therefore, there is a trade-off between the costs of these enforcement activities and the benefits from reduced smuggling that they bring about. It should also be clear that the social loss from smuggling would be reduced if smuggling were monopolized, since the monopolist would equate his marginal (not average) cost of smuggled goods with their domestic tariff-inclusive price.

In between these two extremes, there are intermediate cases in which smuggling (by replacing legal trade) raises the social cost of import to the economy, but lowers the price to domestic consumers and producers. The 'de facto' lowering of tariff leads to gains in terms of production and consumption costs, but it also generates losses which are to be taken into account. The losses arise because of the fact that the erstwhile tariff proceeds are replaced by extra costs of smuggled imports. The effect on private welfare is, however, ambiguous, as in the case of joining a customs union. If the production and consumption gains from trade creation (lower prices) more than offset the losses from trade diversion (diversion of trade from lower-cost legal source to higher-cost smuggled source), welfare will increase. In the opposite case, it will decrease.

An intermediate case has been illustrated in Fig. 4.6 on the assumption that the excess costs of smuggling are constant. In the diagram the world price (WW) has not been shown for the sake of clarity and simplicity. The slope of the line P'S represents the cost-ratio when smuggling is present; slopes of lines 1 and 2 represent domestic price ratios under tariff; P and C are respectively production and consumption points with smuggling. In both cases (legal and illegal trade) the level of welfare achieved by the country is the same (u_t). From the diagram it should be clear that if the line P'S were steeper than shown (implying higher cost-ratios with smuggling) the country would lose welfare when legal trade is replaced by smuggling. On the other hand if the line P'S were flatter than shown (implying lower cost ratio with smuggling) smuggling would be beneficial for the country.

Finally note that with constant world prices and constant excess cost of smuggling, it would not matter whether smuggling were competitive or monopolistically organized.
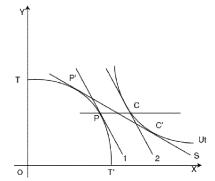
Fig. 4.6 : Welfare Effects of Smuggling

False Invoicing in Trade

Another form of illicit trade is importing through legal channels but using false invoicing - over-invoicing and under-invoicing.

Over-invoicing works like this. An importer will ask his foreign supplier (exporter) to inflate the value of the importables in his currency (or any other foreign currency). He will be tempted to do this if the official price of foreign exchange is lower than the black market (illegal) price. The next step is to use the invoice to obtain from the foreign exchange authorities the full amount of the foreign currency at the (lower) official rate. He then request the foreign supplier to deposit the additional foreign currency in a foreign bank which he can later sell at the (higher) black market rates. This represents the foreign exchange profits to the importer. He takes recourse to this subterfuge because the government has made it illegal to openly sell the foreign currency he has officially acquired.

Over-invoicing makes the exchange rate faced by the importer different from what the official rate is. The profits from over-invoicing is likely to distort investment in the direction of processes and products requiring more foreign inputs. Investment in new equipment will get a boost compared to the increase in capacity utilization of existing capital stock through proper balancing and maintenance. More important, the tendency to use more capital per unit of labur as well as output is likely to arrest the growth of employment and output.

Under-invoicing is, obviously, the opposite of over-invoicing. Here the importer asks the exporter to understate the value of imports in foreign currency and agrees to pay the additional amount to the exporter by buying foreign exchange in the black market (perhaps from another importer who has taken recourse to over-invoicing).

Under-invoicing is encouraged under two circumstances:

(i) imported commodity carries a high ad valorem duty;

(ii) import is strictly controlled, resulting in price premium in the domestic market.

A high ad- valorem duty encourages an importer to avoid it by under-invoicing. On the other hand, a high premium on foreign exchange in the black market should discourage such a practice. When the first tendency predominates, under-invoicing may result. In other cases, imports are strictly limited by quantitative controls. Under-invoicing then allows the importer the benefit of reaping the price premium that goes with quantitative control. It should, however, be noted that under-invoicing (and also over-invoicing) is attended with the risk of detection and punishment, and so the importer has to evaluate this risk and provide for it while engaging in fake invoicing.

List of Readings (Unit-4)

1. W. M. Corden, <u>The Theory of Protection,</u> London : Oxford University Press, 1971)
2. N. Vousden, <u>The Economics of Trade Protection</u>, (N. Y. : Cambridge University Press, 1990)
3. M. Szanbug, J. Lombardi, and E. Lee, <u>Welfare Effects of Trade Restrictions</u> (N. Y. : Academic Press, 1977)
4. J. N. Bhagwati, <u>Protectionism</u> (Cambridge, Mass : MIT. Press, 1988)
5. B. Balassa et al., <u>The Structure of Protection in Developing Countries</u> (Baltimore : John Hopkins University Press, 1971)

Questions for Review

MCQ's (tick the correct answer)

1. Cheap foreign labour is alleged to
    A. create fish unemployment in the home country
    B. throw existing workers out of employment in the home country
    C. accelerate inflation in the domestic economy
    D. create monopoly in the home market.
2. A tariff will bring revenue for the tariff imposing country. We can expect this outcome:
    A. always
    B. never
    C. sometimes
    D. none of the above.
3. The pursuance of non-economic objectives with the help of tariff leads to
    A. violation of all paveto optimality conditions
    B. violation of at least one pareto optimality conditions
    C. violation of no pareto optimality conditions.
4. Under-invoicing is encourged under the following circumstances:
    A. the imported commodity carries a high advalorem duty
    B. import is strictly controlled leading to price premium in the domestic market
    C. either or both A & B
    D. neither A nor B
5. The social Loss from smuggling will be reduced if smuggling is
    A. monopolized
    B. made more competitive
    C. less competitive
    D. both A & C

Exercise

1. Which one is the extreme form of cheap foreign labour argument is called
    a) good tariff management
    b) scientific tariff management
    c) infant industry tariff management
    d) revenue management
2. Non-economic arguments of protection are <u>intended</u> to

   a) increase production
   b) decrease production
   c) increase welfare
   d) decreases welfare.
3. Smuggling is a form of illegal international trade, and
   a) it increases national income
   b) it decreases national income
   c) worsens welfare
   d) its effect on welfare is uncertain.

Short Questions

1. Do you think that the cheap labour argument for tariff is untenable? Why?
2. Is tariff for revenue an economic argument? In what sense?
3. Why is the self-sufficiency argument a non-economic argument for tariff? Explain.
4. "True incentives for smuggling are to be found in the tax structure of the country as in the import policy." Evaluate the statement.
5. What is meant by beggar-they-neighbour policies in foreign trade? Give some examples.

Essay type Questions

1. Discuss the logic of cheap foreign labour argument for tariff protection.
2. What are non-economic arguments for protection? Explain with suitable examples.
3. Define smuggling. Does smuggling always reduce social welfare?
4. Briefly discuss the practice of false invoicing in international trade and its consequences for natural welfare.

Answer (Exercise): 1.b, 2.c, 3.d
Answer (MCQ): 1.B, 2.C, 3.B, 4.C, 5.A