

# Non-Tariff Barriers to International Trade

# 5

## **Unit Highlights:**

- Ⓜ Export Taxes
- Ⓜ Export Subsidies
- Ⓜ Quantitative Restrictions (QRs)
- Ⓜ Comparing Quotas with Tariffs
- Ⓜ Voluntary Export Restrictions (VERs)
- Ⓜ International Cartels

® Dumping

## Lesson 1 : Export tax and export subsidies

### Lesson Objectives

After studying this lesson, you will be able to

- ® understand the why export taxes are used;
- ® discuss the effects of export taxes and
- ® explain the nature and consequences of export subsidies.

A tariff is not the only instrument of restricting imports, though it is the most common device. Import or export quota, export taxes and subsidies are well-known examples of non-tariff trade restricting devices. There are also not-so-obvious methods. An importing country may set health standards which the exporting country may not be able to meet (e.g. Argentine beef finds it difficult to meet US health specification); it may impose moral standards on the exporter (e.g. export goods must not be produced by child labourers or prisoners); it may impose 'mixing' standards in which the importer is required to buy a given amount of high cost import-competing goods for each unit of import. Other examples are state monopolies in foreign trade, various buy-at-home rules in government procurements, all kinds of administrative red-tape and delaying tactics to discourage foreign sellers etc. Some of these, of course, form an essential part of the country's normal regulatory regime which happen to interfere with trade, but others are deliberately conceived for the primary purpose of discriminating against foreign sellers. All these devices are collectively known as non-tariff barriers (NTBs) to trade which are significant in view of the commitment of nations to reduce tariff barriers through multilateral trade negotiations. In this section, we will examine some of these non-tariff barriers.

Import or export quota, export tax and subsidies are well-known examples of non-tariff barriers.

### Export Taxes

Nations can restrict international trade flows by creating barriers to exports as well as to imports. Export taxes (which encourages sales at home rather than abroad) are rare in the developed industrial world (in US they are indeed prohibited by the constitution). They are however, not uncommon in many LDCs which export primary products. For example, Thailand and Myanmar often impose export taxes on rice; Ghana on cocoa; Brazil and Colombia on coffee; Ivory Coast and Liberia on timber; Sri Lanka on tea. The principal motives behind export taxes are (i) raising revenue (ii) improving the terms of trade (whenever possible) and (iii) encouraging domestic processing of raw materials (rather than exporting raw materials themselves).

A partial equilibrium analysis of an export tax is presented below with the help of Fig. 5.1. Let us suppose that a rice exporting country can sell any amount of rice at the prevailing world price (\$70 per ton). The horizontal line GW reflects this small country assumption. DD and SS are respectively the domestic demand and supply schedules for rice. The pre-trade equilibrium price of rice is \$35, as indicated by point A (at the intersection of DD and SS curves). With free trade, the domestic price will go up to the world price (i.e. \$70 per ton). Any price lower than this is unsustainable, because the producer-exporter can always buy at such a price locally and then sell (any amount) to the foreigners at \$ 70 per ton. Therefore, under free trade, it produces 2,000 million tons of rice of which 400 million tons (=GB) are sold locally and 1,600 million tons (=BC) are sold abroad.

An important motive behind export taxes is improving the terms of trade.

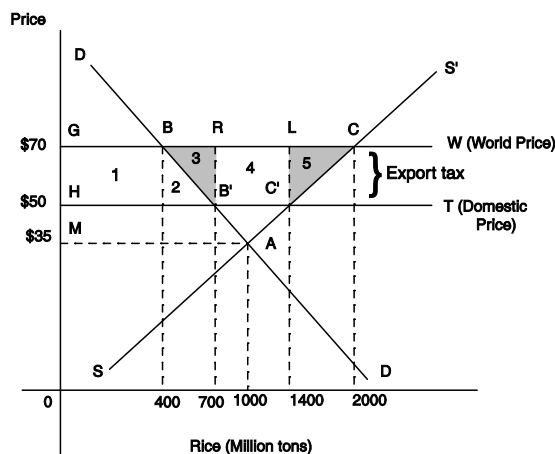


Fig. 5.1 : Welfare Loss of Export Taxes

The change leads to a redistribution of income from the producers (of exports) to the consumers and the government.

Now if an export tax of \$20 per ton is imposed, the net revenue received by the exporter will be \$50 (the world price minus tax). The domestic price of rice must fall to \$50 as a result, because at any higher price exporting (after paying taxes) becomes unprofitable. This is also the price faced by the domestic consumers. The post-tax domestic price is shown by the height of the horizontal line HT. At this lower price, domestic consumers buy 300 million tons more than before (a move from B to B' along DD), while the producers reduce their production by 600 million tons (a move from C to C' along SS). As a result, exports fall from 1,600 million tons to 700 million tons (BC vs B'C'). The change leads to a redistribution of income from the producers (of exports) to the consumers and the government.

The loss in producer surplus is given by the sum of the areas 1, 2, 3, 4 and 5 of which areas 1 and 2 represent gain to consumers and area 4 represents the tax revenue collected by the government. On balance, the society loses by the extent of the sum of areas 3 and 5. Area 3 represents loss due to domestic over consumption, while area 5 is the loss due to underproduction. Both represent dead-weight loss. It may be noted that the dead weight loss of an export tax is similar to that of an import tax.

### Export Subsidies

Effects of an export subsidy are the opposite of those we expect from an export tax.

Exports are usually subsidized more often than taxes. They are intended to increase foreigners spending on domestic goods. As explicit export subsidies often violate international agreements, governments have invented many ingenious ways of dodging the provisions of such agreements. One example of this is the US Export-Import Bank which provided easy credit to US exporters and their foreign buyers, while denying the same facility to US importers or their foreign suppliers. Another is the practice of undertaking by the government of export promotional expenditures by advertising the products abroad or by supplying cheap information about export possibilities.

The microeconomics effects of an export subsidy (which is equivalent to a negative export tax) are the opposite of the corresponding effects of an export tax as illustrated in Fig. 5.2. Let us suppose that Korea (the home country) exports

steel to US (the foreign country) and that Korea faces a given world price of  $P_w$ . DD and SS are respectively the Korean demand and supply curves of steel. If there is free trade in steel (at the world price  $P_w$ ), Korea will produce ON amount of steel, of which it will consume OM and export MN amount of steel.

Now suppose that a subsidy raises the domestic price faced by producers to  $P^*$ . This is also the price which domestic consumers have to pay because at any lower price the producers could sell any amount to foreigners and receive  $\$P^*$  per ton of steel (world price plus subsidy). At the higher price ( $P^*$ ) domestic consumption falls from OM to  $OM'$ , while production rises from MN to  $M'N'$ , thereby raising the volume of exports from MN to  $M'N'$  (or from BT to  $B'T'$ ). The gain in producer surplus from the subsidy induced (domestic) price hike is the sum of the areas 'a', 'b' and 'c' which must be set off against areas a and b representing loss in consumer surplus. The net gain in producer surplus is the area c. However, the subsidy costs the taxpayers an amount equal to the sum of areas b, c, and d. The net (dead weight) loss to the society is, therefore, equal to the sum of area b (consumption loss) and d (production loss).

The net dead weight loss to the society is equal to the sum of consumption and production losses.

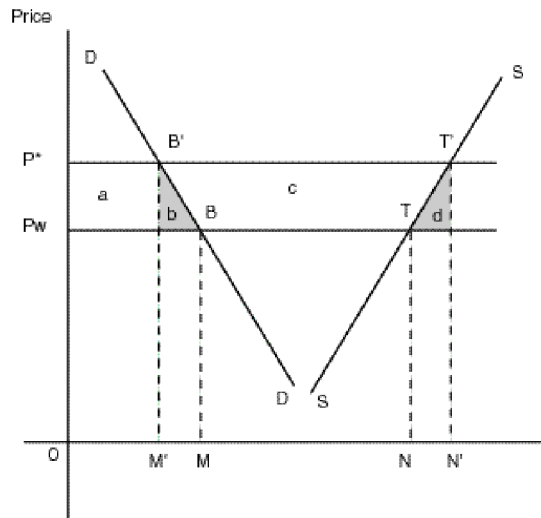


Fig 5.2 : Partial Equilibrium Welfare Effects of an Export Subsidy

We have seen earlier that an export tax too leads to a net loss to the society. This reaffirms the general result that for a small country interfering with free trade will lead to lower national welfare than attainable under free trade.

## Questions for Review

### Exercises

1. Non-tariff barriers (NTBs)
  - a) can provide protection
  - b) can be set up through export taxes & subsidies
  - c) can interfere with trade
  - d) can do all of the above.
2. The principal motive behind export taxes is to
  - a) raise revenue
  - b) restrict export
  - c) increase import
  - d) support domestic industries.
3. The net dead weight loss to the society is equal to the sum of
  - a) consumption loss and revenue collection
  - b) consumption loss and production loss
  - c) production loss and revenue collection
  - d) consumer surplus plus producer surplus
4. The principal motive behind export subsidies is
  - a) to increase foreigners' spending on domestic goods
  - b) to decrease foreigners' spending on domestic goods
  - c) to neutralize the effect of export taxes
  - d) none of the above.
5. Explicit export subsidies are
  - a) encouraged by international agreements
  - b) discouraged by international agreements
  - c) are disguised in other ways in view of (A)
  - d) none of the above
6. Which of the following is (are) example (s) of non-tariff barriers?
  - a) state monopolies in foreign trade
  - b) various buy-at-home regulations
  - c) all kinds of administrative red-tape
  - d) all of the above.

### Short Questions

1. What are non-tariff barriers? Why are they so called? Give examples.
2. Examine how export taxes can encourage sales at home rather than abroad.
3. Show, in a partial equilibrium framework, that an export tax tends to redistribute income from the producer of exports to the consumers and the government.
4. Examine how export subsidies encourage the foreigners to speed move on domestic goods.
5. In what sense is an export subsidy a negative export tax?

### Essay type Questions

1. What is an export tax? Discuss the effect of an export tax on national welfare.
2. What is the economic significance of export subsidy? Analyze the welfare effects of export subsidies.

**Answer:** 1.d, 2.b, 3.b, 4.a, 5.c. 6.d

## Lesson 2 : Quantitative Restrictions

### Lesson Objectives

After studying this lesson, you will able to

- Ⓜ compare the import taxes and import quotas;
- Ⓜ understand why the allocation of licenses is an important issue and
- Ⓜ explain why export quotas are sometimes preferred to other forms of trade restrictions.

### Quantitative Restrictions (QRs)

The tariff is a price-based measure of import restriction. It restricts the volume of imports by raising the domestic price faced by producers (who are encouraged to produce more) as well as by consumers (who are encouraged to consume less). Both contribute toward restricting the volume of imports. Multilateral tariff reduction agreements have limited the ability of national governments to apply tariff in response to the pressure from the domestic protectionist lobby. Non-tariff barriers offer them a way out. Two such important devices are import and export quotas, which specify the quantity of imports or exports allowed per period of time. A quota is said to be binding if the amount of permitted imports (or export) is smaller than the corresponding amount in the absence of the quota. Since quotas tend to restrict the volume of imports (or exports) in quantitative forms (rather than by manipulating prices, as in the case of tariffs), they are known as quantitative restrictions.

A quota is said to be binding if the amount of permitted imports (or export) is smaller than the corresponding amount in the absence of the quota.

### Equivalence between Import Taxes and Import Quotas

In many ways the welfare effects of a quota are identical to those of a tariff that would allow as much imports as does this quota. This is illustrated in Fig. 5.3.  $D_d$  curve represents the domestic demand schedule for radios, while  $S_d$  shows the number of radios supplied domestically at alternative prices. It is assumed that the home country can import, if it wishes, any number of radios at the given world price of \$60 per unit. At the world price, the domestic demand is  $OD_0$ , while the domestic supply is  $OS_0$ . If there is no trade restriction,  $SoDo$  units will be imported.

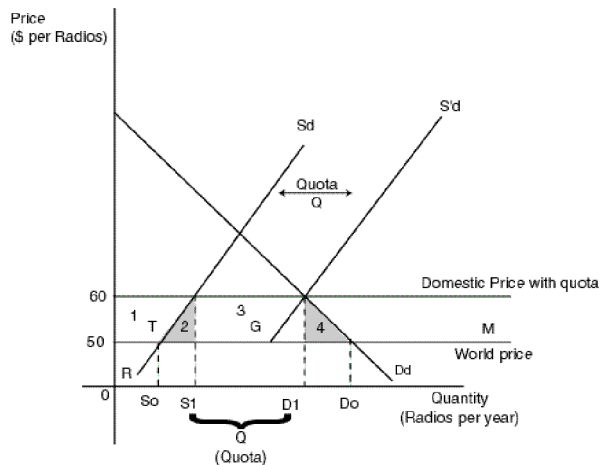


Fig 5.3 : Tariff Equivalent of a Quota

An import quota is said to be binding if it restricts imports below the free trade level.

Now suppose that the total quantity to be imported is restricted by a quota to  $S_1D_1$ , which is clearly binding, since the quota ( $S_1D_1$ ) is smaller than free trade imports (SoDo). What does the supply curve facing domestic consumers look like after the imposition of the quota? Note that the 'effective' supply curve under free trade is given by RTGM, with domestic suppliers meeting entire domestic demand at prices below \$50. At a price of \$50, the supply curve is horizontal. Under the quota regime, the total demanded at \$50 remains at  $OD_0$ , as before; but the available supply is only  $O S_0$  (domestic source) plus TG. (=quota of  $S_1D_1$ ). Since demand exceeds supply at this price, domestic price will tend to rise. Rising prices will bring forth additional supplies from domestic suppliers only. Therefore, for prices higher than \$50, the relevant supply curve is  $GS'_d$  which is parallel to the domestic supply curve  $S_d$ , the horizontal distance between them representing the quota (=  $S_1D_1 = TG$  etc.).  $S'_d$  and  $D_d$  curves intersect at H, indicating an equilibrium post-quota price of \$60.

The welfare effects of a quota can now be easily demonstrated. The loss in consumer surplus equals the sum of areas 1, 2, 3 and 4, while the gain in producer surplus is the area 1. Area 3 represents the scarcity rent from price markup (= \$10) which goes to whoever gets the licence to import. This is an internal (within the country) distribution of income from consumers to licence holders or others (depending on how licences are issued). Therefore, the deadweight loss to the society equals the sum of area 2 (production loss) and area 4 (consumption loss). Note that the same results would follow if, instead of the quota of  $S_1D_1$ , a tariff of \$10 per unit were imposed. In this sense, it is said that for every quota is a corresponding (equivalent) tariff.

### Comparing Quotas with Tariffs

It seems reassuring that trade restriction by quotas is no worse than doing the same by an equivalent tariff. Sometimes, however, quotas can create monopoly. Moreover, the allocation of quota may lead to unnecessary and avoidable inefficiency. In either case, a quota is worse than an equivalent tariff.

### Quotas can Encourage Domestic Monopoly

The monopolist is in a stronger position with a quota than with an equivalent tariff.

An import-competing domestic monopoly firm, under a free trade regime, cannot raise the price of its product above the world price. A tariff allows it to earn some rent, but it remains a price-taker all the same. Any attempt to charge a price which is higher than the world price plus tariff will be doomed to failure, because the buyers have the option of shifting their demand to foreign suppliers. Not so with a quota. The monopolist is in a stronger position with a quota. Why? It is now left with a downward sloping demand curve, because buyers have to buy any amount exceeding the quota from the domestic source. The point is illustrated with the help of Fig. 5.4.

At the fixed world price  $P_0$ , the domestic production of the monopolist is  $P_0M$ , total import being  $MK$ . A tariff of  $P_0P_1$  raises domestic production to  $P_1M^1$  which



along with reduction of demand causes imports to fall from MK to M'K'. If now a quota of M'K' is set, the imports will stay at M'K', but the domestic price will be P<sub>2</sub>, which is higher than the post-tariff price (P<sub>1</sub>). Let us see why?

A quota of M'K' effectively shifts the domestic demand curve inward for price above the world price, P<sub>0</sub>, which now becomes GH. The marginal revenue curve corresponding to GH segment of the kinky demand curve is shown as MR. The monopolist will maximize profits by choosing an output level at which his marginal revenue equals his marginal costs. Therefore, the output produced domestically will be P<sub>2</sub>N (which is smaller than P<sub>1</sub>M, the post-tariff quantity) which will be sold at price P<sub>2</sub> (which is higher than P<sub>1</sub>, the post-tariff price). The quota has enabled the potential monopolist to become an actual monopolist. Therefore, to the usual deadweight loss (areas 'b' and 'd') associated with a quota (or its tariff equivalent) is now added the deadweight loss due to monopoly (the shaded area 'g'). In this case, the country is made worse off by quota than by an equivalent tariff.

A quota can be the cause of a domestic monopoly.

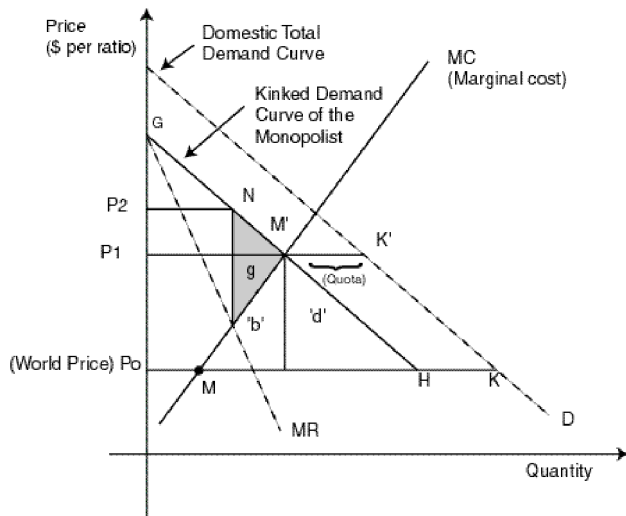


Fig. 5.4 : A Quota can turn a potential monopoly into a real monopoly

**Potential Inefficiency in Allocation of Import Licences**

The government must issue licences against which imports can be made under a quota. The principles and the processes by which licences are issued assume considerable significance in view of the fact that they determine to a large extent which groups appropriate the scarcity rents generated by the quota. Quite apart from the question of rent appropriation, they also determine whether there is inefficiency in the allocation of licences. There are several ways of allocating licences.

(a) Competing Auctions : This method is potentially the least costly and perhaps the fairest of all. The government may auction off licences through competitive bidding. Then it is likely that the price of licence for each unit of import will closely approximate the price markup (the difference between the domestic price and the world price). Should this be true, the government is able to collect the entire scarcity rent. The revenue from licence auction is essentially (equivalent)

The government may try to capture the scarcity rent by auctioning off import licenses.

tariff revenue by another name. The government may use this revenue to cut other taxes or to provide public goods of equal value to the society.

(b) Selective Favouritism : Those who used to import prior to imposition of the quota (or the replacement of a tariff by a quota) may find some grounds for complaint, if a quota leads to a curtailment of imports (for a binding quota this must be the case). In such cases, governments may issue import licences free of charge to these erstwhile importers without any competition or negotiation. The procedure may even be greatly simplified by making the share in the quota the same as the share in total imports before the quota was imposed. The importers may then be tempted to organize themselves into a monopoly in an effort to reap the entire scarcity rent in which they are likely to be successful if the foreign exporters remain unorganized.

A quota may be worse than an equivalent tariff when there is inefficiency in the allocation of licences.

(c) Allocation through Application : Here people are required to apply for licences, but they compete on some non-price basis. The authority decides upon one or more non-price criteria for allocation of licences. One alternative is to distribute licences on a first-come, first served basis; this is obviously quite cumbersome and inefficient as it uses up people's time in queues which they can perhaps productively use in other pursuits. Sometimes licences are issued on the basis of the share of productive capacity dependent on imported inputs. This method too may be wasteful if it encourages creation of idle capacity so as to qualify for more licenses.

Compared to the other two methods (which basically involve internal redistribution of income), the application procedure breeds inefficiency by wasting resources in the allocation process. Therefore, a quota may be worse than an equivalent tariff when there is inefficiency in the allocation of licences.

### Who prefers Quotas to Tariffs and Why

Governments and import-competing producers often prefer quotas to tariffs; but economists prefer the opposite. While imposing fresh tariffs is difficult because of international agreements (except where certain escape clauses permit), the governments are relatively free to use quantitative restrictions. This is one reason why they prefer import quotas to tariffs. Secondly, quotas may be preferred by governments because they could be more potent in dealing with the balance of payment problems by strictly limiting the volume of imports. If productivity shifts and foreign competition lowers the price of imports, tariffs (if unchanged) would allow more imports to come in and their value may rise if the home demand is elastic. This will make the balance of payments position worse, other things being equal. A quota on the other hand, is insensitive to all economic changes that call for more imports. For example, when import prices fall, quotas will ensure that expenditures on imports fall, thus improving the balance of payments.

Quotas are politically easier to administer than tariff.

Thirdly, quotas are politically easier to administer than tariff. A high tariff is visible to consumers, while the tariff equivalent of a quota (though quite high) is not easy to calculate. When economic growth steadily shifts demand and supply schedules to the right, the tariff equivalent of a given quota goes up which may go unnoticed by consumers. This is one important reason why import-competing producers too may prefer quotas to tariffs. In addition to this, they are protected against uncertainty about future economic changes that will encourage larger imports under the tariff regime.

Finally, quotas may be attractive to domestic importers if they believe that they can obtain import licences free by political manipulation or even by bribing corrupt government officials, thereby capturing the scarcity rent.

### **Export Quotas**

Countries may, sometimes choose to impose export quotas especially when they think they have monopoly power (since they control a large share of the world market) which they can exploit to their advantage. Export quotas directly restrict the volume (or value) of exports permitted per period. Export licences are usually issued to the extent of the quota.

Export quotas, like export taxes, tend to raise the price of exportables in the foreign market and lower in the home market. The difference between these two prices may be captured by the government of the exporting country, in the form of licence fees by the consumers or producers in the home country or even by the foreign consumers.

Not surprisingly, for every export-quota there is an equivalent export tax. This, along with the earlier observation that for every import quota there is an equivalent import tax, gives rise to a symmetry between export and import quotas.

Export quotas  
directly restrict  
the volume of  
export.

## Questions for Review

### Exercise

1. Quotas directly restrict the
  - a) volume of traded good
  - b) price of traded
  - c) balance of payments
  - d) non of the above.
2. An import quota
  - a) is never binding
  - b) is always binding
  - c) can be binding as well as non-binding
  - d) is none of the above.
3. Quotas
  - a) can create monopoly in the domestic market
  - b) encourage competition among domestic suppliers
  - c) have nothing to do with competition or monopoly.
  - d) can lead to both A & B depending on circumstances.
4. The scarcity rent generated by quotas is usually appropriated by-
  - a) the license holders
  - b) the consumers
  - c) the government
  - d) the politicians.
5. Export quotas
  - a) raise the price of exportables in the foreign market
  - b) lowers the price of exportables in the home market
  - c) both A & B
  - d) none of the above
6. Quotas are politically casier to administer because
  - a) they are less visible (than tariffs) to consumers
  - b) importers prefer them to tariffs
  - c) import competing producers may also like them
  - d) all of the above.

### Short Questions

1. If an import tariff can lead to the same import restriction as an equivalent quota, why is the latter sometimes preferred by the politicians and the importers?
2. Show that trade restrictions by quotas are no worse than those by equivalent tariffs.
3. Is it true that the allocation of quota, may lead to unnecessary and avoidable inefficiency? How? Explain briefly.
4. Explain why a quota can lead to the creation of domestic monopoly. Can you say that the some holds for tariffs?
5. What is an export quota? Who benefit move from the administration of quotas?

### Essay type Questions

1. What are quantitative restrictions? Illustrate with example from your own experience.
2. In what sense are import taxes and import quotas equivalent? Explain.
3. Why is it necessary to issue import licenses? What are these consequences on efficiency? Explain.



Fig. 5.5: Welfare loss under VER Quota

In any case, VERs often do not work well, because the exporters invent ways of going around the restrictions by switching over to unrestricted category of goods, setting up factories in unrestricted countries and by other means.

An international cartel is formed when a number of firms in several countries band together with the aim of acquiring monopoly power.

### International Cartels

We have mentioned earlier that a country with monopoly (or monopsony) power can restrict trade by tariff, quotas, export taxes etc. and profit by doing so. Monopoly power need not, however, reside in a single country. A number of countries (or even private corporations in different countries) may band together with the aim of acquiring monopoly power and exploit it to their advantage in international trading. History records many such cartels (fabricated monopolies) in goods and services such as bauxite, diamond, coffee, sugar, airlines and railways. But none, private or government, could match the spectacular success of the Organization of Petroleum Exporting Countries (OPEC) formed in 1960 by a treaty among five oil exporting countries, later joined by several others. In 1973, in a few months' time, 13 members of the OPEC could raise four fold the dollar price of crude oil, creating billions of dollar worth of export surplus.

The economic theory of monopoly sheds light on what makes such feats possible. In Fig. 5.6, MC is the cartel's marginal cost curve of the export commodity (supply curve under perfect competition) which is, in fact, a horizontal summation members' individual marginal cost curves. DD, on the other hand, shows the demand for imports (excess of total domestic consumption over total domestic production) from the rest of the world at alternative prices. DR is the marginal revenue curve corresponding to DD.

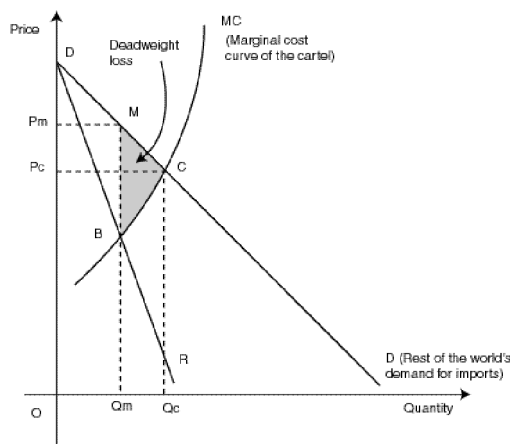


Fig. 5.6 : Cartel as Profit maximizing Monopoly

Under competitive conditions, the member countries will together supply  $OQ_c$  at price  $P_c$  (price equals marginal cost). But when they act like a monopolist, they will maximize joint profits by supplying  $Q_m$  and selling at price  $P_m$  (at  $Q_m$  marginal revenue equals the marginal cost). It is thus in the interest of the cartel to export less and charge a higher price than if the cartel members acted alone, thereby increasing profits.

How do we know that profits increase through cartelization? Notice that in the output range,  $Q_c - Q_m$  the marginal cost is higher than the corresponding marginal

The economic theory of monopoly can shed light on cartel's behaviour.

revenue. Therefore, in this range, for each unit of output not produced, the cartel loses less (marginal revenue) than what it saves (marginal cost). This must raise his total net profit. The scope of increasing profits by reducing output is exhausted once the output level reaches  $Q_m$ . Further reduction in output will lower profits, because the marginal revenue will then exceed marginal costs. Total profits in monopoly equilibrium (at B) will be higher than competitive equilibrium (at C) by the size of area RBC in Fig. 5.6. In short, the cartel can add to its profits by lowering exports to  $Q_m$ .

A cartel imposes a deadweight loss on the world.

What are the welfare implications of cartelization? Note that the extra profits of the cartel (area RBC) is merely a transfer of income from consumers of the rest of the world and imply no net gain. The cartel, of course, imposes a deadweight loss on the world to the extent of the area MBC in Fig. 5.6. Why? Because the  $Q_m Q_c$  amount of output of which the consumers have been deprived is worth more (by area MBC) than what it would cost the cartel members themselves to produce. In other words, the cartel members have gained less than what the world lost.

**How far can a Cartel go?**

The theory of monopoly teaches us that Cartel's power to earn profits is limited by the elasticity of demand it faces. It can be shown that the optimal price markup ( $t$ ) is given by

$$t = \frac{\text{Optimal price} - \text{marginal cost}}{\text{Price}} = \frac{1}{|e_d|}$$

Where  $|e_d|$  is the absolute value of elasticity of demand that cartel faces for its product. Therefore, the more (less) elastic the demand in the relevant price range, the lower (higher) the optional price markup. And if the demand is infinitely elastic at the world price, the price markup is zero, making the cartel useless. The elasticity demand facing the cartel is determined by the following factors:

- (a) the elasticity of demand for total world consumption (not just that of demand for imports);
- (b) the elasticity of competitors' supply from non-cartel sources; and
- (c) cartel's share in the world market.

**Erosion of Cartel's Monopoly Power**

To begin with cartel members may demonstrate extraordinary solidarity needed for the formation of a monopoly. But theory teaches that over-time cartel's very success is likely to carry the seeds of its weakening, if not complete disintegration.

The very success of a cartel carries the seeds of its weakening.

Firstly, the high price will strengthen the motive in the rest of the world (including non-importing countries) to look for ways of increasing domestic supply and of discovering its substitutes. For agricultural products like coffee and sugar this may take form of allocating more land to their cultivation or improving the technology. For mineral products like bauxite and oil more intensive efforts at prospecting and exploration may be called for. If such drives succeed, the long run elasticity of demand facing the cartel will fall, weakening its capacity to raise prices.

Secondly, the cartel's market share may dwindle over time as non-member countries expand their output and importing countries discover substitutes and reduce consumption.

A cartel,  
through  
weakness, may  
long survive.

Finally, each member is exposed to the temptation of cheating. Cartel's price is higher than the marginal cost of production of some (or all) members. Each member can then increase its profits by secret price-cutting, provided others stick to their bargain. But soon this may prove to be an illusion, for others have the same incentive. Moreover, the division of the output quota may emerge as a bone of contention. All this may eventually strike at the root of the cartel's solidarity.

It should be noted, however, that the force stated above may weaken and erode the power of the cartel, but may or may not lead to its demise; at least in theory joint venture. (rather than solitary action) remains more profitable and holds up the prospect of amassing vast fortunes for cartel's members at the expense of the rest of the world.



## Questions for Review

### MCQ's (tick the correct answer)

1. Exporting countries agree to restrict exports because they-
  - A. expect retaliation by the importing country in the form of tariffs and import quotas.
  - B. hope to increase profits by doing so
  - C. want to help the importing country in overcoming its balance of payments difficulties
  - D. want to expand its export markets abroad
2. VER's can be likened to
  - A. import quotas by the importing country
  - B. export quotas by the importing country
  - C. export subsidy by the importing country
  - D. none of the above.
3. VER's do not work well because the exporters
  - A. find other ways of overcoming them
  - B. can switch over to unrestricted category of goods
  - C. can set up factories in the importing country
  - D. can do all of the above.
4. The elasticity of demand facing the cartel is determined by
  - A. elasticity of demand for total world consumption
  - B. elasticity of competitor's supply from non-cartel sources
  - C. cartel's share in the world market
  - D. all of the above
5. A cartel can survive for a long time because
  - A. it can enjoy total loyalty of its members
  - B. it can enjoy enough loyalty of its members
  - C. it is threatened by other cartels
  - D. its profits go on increasing year after year.

### Short Questions

1. "Strictly speaking, VER's are not at all voluntary". Do you agree? Give reasons.
2. Explain why in practice the VER's have not been found to work well.
3. Diagrammatically show how VER quotas lead to welfare loss.
4. The theory of monopoly can predict cartel behaviour. Is that true? Is that surprising?
5. A cartel's power is not unlimited. Why?
6. A cartel's power is undermined by its own success. Do you agree? Why?

### Essay type Questions

1. Explain how voluntary export restrictions (VERs) work. Use diagrams if necessary.
2. What is a cartel? How do international cartels work in the world market? Discuss.
3. Discuss how and why a cartel tends to lose some of its monopoly power in course of time.

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

## Lesson 4 : Dumping: International Price Discrimination

### Lesson Objectives

On completing this lesson, you will be able to-

- ® know what dumping is;
- ® understand the effects of dumping;
- ® understand why this is not approved by international law and
- ® understand how government procurement can be an instrument of trade restriction.

### Dumping

Dumping is international price discrimination in which the exporter sells his goods in a foreign market at a lower price than in other (usually the home) markets (Reverse dumping is its opposite- the foreign buyers are charged more than domestic buyers).

### Types of Dumping

Economists have distinguished among three types of dumping : sporadic dumping, persistent dumping, and predatory dumping.

Charging foreign buyers less than domestic buyer is known as dumping.

Sporadic dumping occurs when the seller resorts to dumping only on occasions perhaps due to overproduction at home. And overproduction may result from excess capacity or simply from bad forecasting and production planning. Selling the entire output at home by lowering the domestic price may appear to be spoiling the market. This could be one reason why the firm may decide to sell abroad at a lower price (on which it has little or no control) than at home. Clearly the principal motive here is not profit maximization through price discrimination.

Persistent dumping arises when dumping is continued year after year with the deliberate intention to maximize profits by price discrimination.

Predatory dumping is motivated by the desire to eliminate foreign rivals either in the importing country or in other export competing countries. For a short period, the dumper sells at a price low enough to drive competitors out of business. Later it raises the price of exports substantially by exporting its newly acquired monopoly power. Obviously this is the most harmful form of dumping.

Dumping pays for the same reason as price discrimination pays. Note that dumping is merely international price discrimination.

### Why Dumping Pays

Dumping could not occur in a purely competitive market where the seller will sell his entire output at a price dictated by the market. He can charge no other price. On the other hand, a profit-maximizing seller with some monopoly power (he need not be a pure monopolist) will try to benefit from international price discrimination or dumping.

To see why, consider the situation faced by a domestic monopolist depicted in Fig 5.7. His domestic demand curve is  $D$  and the corresponding domestic marginal revenue curve is  $MR_d$ . If he wants to maximize profits by selling at the home

market alone, he will produce OH units (where his  $MC=MR_d$ ) and charge a price,  $P_m$ . In the international market, he faces an infinitely elastic demand at price,  $P_w$ . He can also sell profitably in the international market, because over a substantial range of output the world price is higher than his marginal costs. If he decides to produce for the foreign market alone (and behave like a competitive seller) he will do best by producing OT units (he equals his MC with foreign marginal revenue,  $MR_w=P_w$ ). But he can do better by selling a part of his output at home by virtue of his monopoly power at home (but not abroad). In fact, he would like to sell OH units at home and the rest (HT units) abroad. Why?

For each unit sold at home upto OH units, the revenue ( $MR_d$ ) exceeds marginal cost (which stays at  $MT=P_w$ ). So his total profits continue to increase until OH units are sold at home at price  $P_d$ . If he wants to sell more at home, he will lower his profit (because then his  $MR_d < MR_w = P_w$ ). The rule for the most profitable allocation of his output between domestic and foreign market is that the allocation must satisfy the condition :  $MR_d = MR_w = MC$ . This rule dictates that he charges domestic consumers more ( $P_d$ ) than foreign consumers ( $P_w$ ).

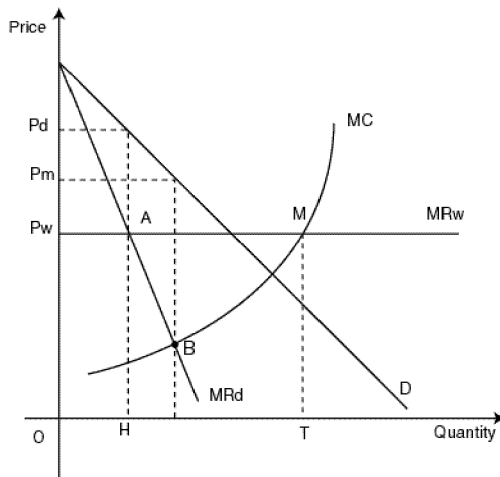


Fig. 5.7: Dumping : International Price Discrimination

We can now set forth the conditions which make dumping possible as well as profitable. First, of course, the exporter must have some monopoly power at home. Secondly, the elasticities of demand for the product at home and abroad must be different in the relevant price range. For foreign price to be lower, the foreign demand must be more elastic because equalization of marginal revenues across markets requires that higher price be charged in the less elastic market. Finally, conditions must be such that the two groups of buyers (domestic and foreign) cannot eliminate the price differential by trading among themselves. This condition is usually satisfied in foreign trade because tariff barriers, the cost of travel or transport etc.

**Dumping and International Law**

It should be clear that export subsidies too are a kind of (officially sponsored) dumping because it lower the price paid by foreigners. Since dumping is

For successful dumping, the exporter must have some monopoly power at home.

Dumping is prohibited under international fair trading rules.

prohibited under international fair trading rules, so are export subsidies (except where subsidies are used as rebates for indirect taxes).

Evidence suggests that dumping is widely practiced which has often provoked retaliatory anti-dumping measures from the importing countries. Many countries are armed with anti-dumping laws which allow them to take preemptive actions against dumpers. For example, the Trade Act of 1974 empowers the US government to use countervailing duties or other restrictive measures if (i) the US department of Treasury's investigation reveals that dumping is actually taking place and (ii) the International Trade Commission (erstwhile US Tariff Commission) certifies that US industries are being, or likely to be, injured by dumping.

Dumping violates Pareto optimality conditions and hence is welfare reducing.

### Is Dumping Bad?

Dumping in all its forms is based on the exercise of monopoly power. Since monopoly implies violation of Pareto optimality conditions, dumping leads to lower world welfare than achievable under competitive trading conditions. The predatory type of dumping is undoubtedly the most damaging.

If dumping is bad for world welfare, is it bad for the importing country too? If a foreign firm wants to sell at a cheaper price, should not the consumers in the importing country be allowed to enjoy the bargain? Competing producers in the home country are, of course, adversely affected by dumping. The answer, therefore, depends on which groups stand to gain more and at the expense of whom.

Dumping creates a problem for the exporting country too, because it favours foreign consumers over their domestic counterparts. One would then expect that the government of the exporting country would try to sue the dumpers. Yet it is typically the importing country that resorts to anti-dumping measures to protect domestic producers. And since it is practically difficult to distinguish between various forms of dumping, the anti-dumping measures are aimed at all forms of dumping.

### Other Non-Tariff Barriers

As mentioned earlier, a government intent on creating trade barriers can invest many ways to do so without resorting to tariffs which are difficult to impose owing to international treaty obligations. Among the countless other procedures (including many of insignificant potency) three broad categories are worth mentioning.

Exchange control is indirect quantitative restriction on imports.

**Exchange Control** : Buying from foreign sellers requires the use of foreign currency which may not be freely available. The importing country may sometimes impose strict control on the use of foreign exchange, particularly when it faces a persistent deficit in its international balance of payments. The exchange control laws require exporters to turn their foreign exchange earnings over to the authority at the official exchange rate. The available foreign exchange is then rationed among importers. Naturally not all claims to foreign exchange are obliged. Imports are permitted only in 'priority' areas which are determined by the authority. Consumers' preferences are replaced by preferences of the authority. If it decides that import of some goods or services is to be avoided it can do so

simply by allocating little or no foreign exchange for the purpose. In fact, exchange controls are closely analogous to quantitative restrictions on imports.

**Technical and Administrative Barriers**

Various standards imposed by the importing country on goods and services of foreign origin may inhibit their free flow across national boundaries. The cases of health and moral standards have already been mentioned. Examples of other standards are safety standards (especially for vehicles involving safety of passenger or cargo) and technical standards (with many difficult-to-attain technical specifications). Red tape in customs clearance and other cumbersome import formalities may also be used to discourage imports.

**Government Procurement**

Most governments are substantial buyers and their preference for domestic products may hinder imports in ways not available to private firms. This preference was reflected in the past in slogans like 'Buy British', 'Buy American'. Whatever the reasons behind such preference (economic nationalism, national prestige, national security) 'buy-home' rule could be very costly in terms of welfare for the country concerned as well as for the world. Fortunately the Tokyo Round trade liberalization agreement of 1979 under the GATT has called for more open international bidding for government contracts.

Sometimes government procurement shows preference for domestic products.

**The Poitiers Plan-An Example of Non-tariff Protection :**

Poitiers is a small town in France located hundreds of miles inland from France's northern ports, small as it is, the notoriety that it has earned is legendary, and illustrates the extent to which administrative harassment may go in discouraging imports.

Administrative harassment is another kind of non-tariff protection.

The story goes like this. In the early 1980s, appalled by the vast increase in imports of Japanese VCR's into France, the authority decreed that henceforth all imported VCRs have to be cleared by customs officials in Poitiers. There were only a few customs officials there. Besides, they were instructed to be very meticulous in the enforcement of myriad customs regulations. All documents were to be carefully checked for accuracy; VCRs were taken out of boxes to compare serial numbers; and to cap it all, some were even dismantled on the plea of checking the accuracy of the reported country of origin.

The result was quick and predictable. The procedures caused so much delay in customs clearance that Japan filed complaint with the GATT and then curbed or suspended VCR shipments to France.

**Reading List- Unit 5**

1. W.M. Corden, *Protection and Liberalization; A Review of Analytical Issues* (Washington D.C, IMF, 1987)
2. D. Salvatore, *International Handbook of National Trade Policies* (Westport, Conn: Greenwood Press, 1992)
3. H. Helpman and P. Krugman, *Trade Policy and Market Structure* (Cambridge. Mass. MIT Press, 1989)
4. J.N. Bhagwati, *The World Trading System at Risk* (Princeton, N.J. Princeton University Press, 1991)

5. V. Vousden, *The Economics of Trade Protection* (N.Y, Cambridge University Press, 1990).

## Questions for Review

MCQ's (tick the correct answer)

1. Dumping means selling abroad at
  - A. a lower price
  - B. a higher price
  - C. the same price as at home
  - D. any price
2. Sporadic dumping occurs when
  - A. there is overproduction at home
  - B. there is overproduction abroad
  - C. there is underproduction at home
  - D. there is inflation at home.
3. Predatory dumping is motivated by the desire to
  - A. eliminate rivals in the importing country
  - B. eliminate rivals in other export competing countries
  - C. both A & B
  - D. none of the above
4. Dumping is profitable, because
  - A. it is a form of price discrimination
  - B. it fosters completion
  - C. it tries to help foreign consumers
  - D. it helps domestic producer.
5. Dumping is welfare reducing because it-
  - A. a rotation of the parto optimality conditions
  - B. helps in the attainment of parto optimality conditions
  - C. keeps the country in the first best world
  - D. it tries to help the foreigners at the expense of the domestic consumers.

## Short Questions

1. When and why dumping is profitable?
2. What problem does dumping create for the exporting country?
3. Why is dumping resisted by the importing country?
4. What are anti-dumping duties? Why are they imposed?
5. Name a few administrative and technical barriers to trade and explain how they work.

## Essay type Questions

1. What is dumping? What are its various forms?
2. What economic arguments can you offer for or against dumping?
3. Does dumping violate international trade laws?
4. What are administrative barriers to international trade? When are they preferred to tariffs and quotas? Explain?

**Answer:** 1.A, 2.A, 3.C, 4.C, 4.A, 5.A

