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Trade policy and competition policy in Europe: Complementarities and contradictions

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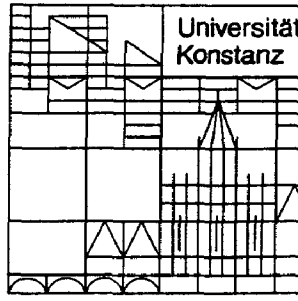

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Trade Policy and Competition Policy in Europe

Complementarities and Contradictions

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TRADE POLICY AND COMPETITION POLICY IN EUROPE

- COMPLEMENTARITIES AND CONTRADICTIONS

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0. Abstract

1. Competition policy and trade policy are usually distinct areas of economic policy, the first being inward, the second outward oriented. With increasing economic internationalization their interconnections become more important, not only on the national, but also on the European and world levels.

2. In the EC the completion of the Single Market at the beginning of 1993 permits gains from increased intra-European trade due to specialization, economies of scale and scope, reduced transaction costs. The ensuing restructuring pressures as well as growing imports from third countries lead to inter-firm cooperations, mergers and concentration. National subsidies often increase distortions.

3. EC competition policy therefore is increasingly controlling deviations from fair competition in the private and in the public sector. It is thus replacing national trade policies by member states, which are no longer available. This is a definite improvement, as imperfections within the EC can thus be addressed directly instead of by second best trade policy measures.

4. Intra-EC imperfections in factor and product markets such as wage rigidities and labour immobility, monopolistic and oligopolistic market structures, positive and negative external effects, public goods, etc. are affecting not only intra-European trade but also trade with third countries. In order to redress the distortions caused by such imperfections, trade policy measures such as import restrictions and export subsidies are used by the EC. These measures often have anti-competitive effects which could be avoided by addressing the distortions directly.

5. Non-competitive market structures, government intervention and other imperfections in third countries give rise to aggressive export and protectionist import policies, which cannot directly be addressed by EC policies. Counteractions by EC trade policy instruments are mostly GATT-legal (safeguards, antidumping and antisubsidy measures), but partly not covered by GATT rules (VERs, OMAs). Both have usually anticompetitive effects: e.g. undertakings are comparable with international cartels; anticircumvention measures against "screwdriver"-firms have a tendency to limit international capital mobility.

6. Conflicts between EC and third country trade policies - which are based on and justified by imperfections in Europe and Overseas - can be solved or at least diminished by attacking these imperfections directly where they arise. This is done within the EC by competition policy; it is planned for the union with EFTA in the EEA; and there are efforts to extend cooperation between competition policy makers to the world level, following valuable OECD recommendations. It is an open question whether GATT can be strengthened or whether an institution similar to ITO as envisaged by the Havana Charter will be established. The necessity to coordinate trade policies under worldwide competition rules is undeniable, if huge efficiency losses - possibly trade wars - are to be avoided.

TRADE POLICY AND COMPETITION POLICY IN EUROPE

- Complementarities and Contradictions *

I. Introduction and Outline

1. The abolition of market segmentations within the European Community and the ensuing completion of the Single European Market at the beginning of 1993 have already resulted in major restructuring processes which will continue and probably even increase in strength and scope. This restructuring is not confined to member countries, but will also affect third countries. Within the EC, the advantages of large-scale production consist in cost reductions but lead at the same time to increased concentration; therefore competition policy has to be on the watch. Some industries may shrink and therefore ask for protection, which member governments cannot supply as before; trade protection may be substituted by subsidies, which therefore have to be controlled by the EC. The attractiveness of the Single Market leads to import pressure, which induces demand for protection. But restrictive trade policy will diminish internal competition and thereby jeopardize the benefits of EC 92. In the worldwide competitive struggle for market shares, strategic policies may cause counteractions, a situation calling for the establishment and enforcement of common rules for all trading partners.

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Mistakes which might remain have to be debited to the account of the author. Any comments are welcome.

These are only some of the developments under way that are challenging both competition policy and trade policy in the EC. The interconnections between the more inward oriented competition policy and the more outward oriented trade policy must increasingly be recognized if costly mistakes are to be avoided. The purpose of the following remarks is to emphasize these connections and to analyze them in a systematic way.

2. In economic systems based on decentralized decision making, economic agents pursue their own individual interests. In the case of consumers this is some measure of utility, for private enterprises (producers) it is long-term profit, for public authorities (governments) it may be termed national welfare, notwithstanding particular and group interests giving rise to various distribution problems. For the coordination of individual decisions via markets competition is essential, because otherwise some agents gain at the expense of others, and overall efficiency is not attained. This is true at the national level, the European level and worldwide.

   For various reasons perfect competition does not necessarily result from market processes even within a European or American type of legal framework. Increasing returns to scale, external effects, the existence of public goods as well as natural and artificial limitations of markets often are conducive to monopolistic competition, oligopolies, cartels and monopolies. A further effect is misplaced government intervention with consequential violations of efficiency conditions, and therefore a loss of welfare.

3. In most industrialized economies therefore a body of rules and measures has been developed with the aim of eliminating or at least reducing deviations from perfect competition in order to bring prices and marginal costs into line. In the EC, competition policy has to secure free commodity trade within the Common Market. Three objectives may be distinguished. First, to keep the market open and unified. The unification of national markets must not be reversed through restrictive activities of firms redividing the market. Second, competition policy must maintain a competitive structure in Community markets. Free competition is an effective regulator of economic activity and helps to avoid economic disadvantages of concentration and monopoly. Third, antitrust policy is to maintain a degree of fairness in the market. Within the concept of "fairness", prohibition

of state aid to firms and a promotion of the position of small and medium-sized firms is included. For instance, many agreements concluded by small and medium-sized firms are not considered to violate the rules of competition because the economic effect they have is insignificant.

To achieve these goals, the European Community has a set of instruments at her disposal which serve the purpose of protecting, maintaining and improving competition between private enterprises and public authorities within the Community. They comprise antitrust law, measures to prevent the abuse of dominant positions, merger control, state aid control, and rules for public procurement.

4. Competition and competition policy in open economies are closely connected with international economic relations and especially with trade and therefore with trade policy. This is quite obvious in the cases of export cartels and of collusion between importers and import-competing producers, which - very often with some kind of government support - aim at creating and exploiting national monopolistic positions. A liberal trade policy, by permitting import competition, will usually support national competition policy, while the latter may be jeopardized by protective trade policy. The various trade policy instruments at the EC's disposal are tariffs and quantitative measures negotiated within and outside the GATT framework, including safeguards, antidumping procedures, countervailing measures, the new trade policy instrument, as well as voluntary export restraints and orderly marketing agreements on the import side and subsidies on the export side. Depending on market structure and technical characteristics such as increasing returns, external effects, and public goods in the relevant sectors, the connections between trade and competition policies may be quite intricate.

5. The two areas of trade policy and competition policy are presently rather distinct and separated, not only in research but also in economic policy and its organization. The first is the domain of trade economists, who are used to look at international aspects; the second is the area of economists and lawyers, who focus their interest more on closed economies.

In practical policy the two areas are administered by different departments or government offices. Trade policy is traditionally conducted by foreign ministries,

usually with little influence from ministries of economics; whereas competition policy is mainly the latter's domain and often that of special agencies.

In the EC Commission, trade policy is the domain of the Directorate General I for External Affairs, whereas Directorate General IV is responsible for competition policy. But there are other Directorates General which are also concerned, such as DG III for Industry and the Common Market and DG II for Economic and Financial Affairs. Measures are prepared by Directorates General, but decisions are taken by the Commission; important decisions are reserved for the Council of Ministers, whereby Member State interests are introduced. Finally, the European Court plays an important role especially in controversial cases.

6. It has been mentioned earlier and will be elaborated below that trade policy and competition policy are interacting in many ways which are gaining importance as worldwide economic integration is accelerating. In order to analyze these interactions in a systematic way, it is suggested to use a two-dimensional structure. In the first dimension different aims of the two policy areas are distinguished, whereas the second uses deviations from the characteristics of a perfectly competitive general equilibrium - subsequently called imperfections - as the basic justification for policy interventions both by competition and by trade policy instruments.

   Both dimensions require some comments.

7. In a world strictly conforming to the Walras-Arrow-Debreu general equilibrium model with perfect competition, constant returns to scale, no external effects and complete mobility of goods and factors, neither competition nor trade policy makes sense. But in reality there are numerous deviations from these ideal characteristics that give rise to various violations of the conditions for a national and/or global optimum. They are commonly formulated as distortions in the well-known marginal equivalences.

   This situation is the fundamental reason for policy interventions of different kinds, among them competition policy and trade policy. Their common aim is an improvement of social welfare, given the above-mentioned distortions. As the inherent distributional effects are often controversial, the policy aim often is reduced to that of raising efficiency.

While both policy areas have this identical basic aim, competition and trade policy are distinguished in that the former is inward oriented, i.e. directed at internal distortions and enforceable, at least in principle, by the state's authority, whereas the latter is outward oriented, exploiting home and/or foreign distortions, but because of the enforcement limitations of national authorities it is confined to actions at the national borders. These limitations imply that trade policy measures often are only second best instruments, compared with competition policy measures and other interventions attacking the distortion directly.

8. A comprehensive theory, which would develop optimal policy interventions by means of trade policy, competition policy and other policy area instruments, starting from distortions of the marginal efficiency conditions, does not exist. But the basic idea can be used as a structure to systematically organize the discussion of connections between the two policy areas. Instead of filling all the theoretically resulting compartments of this structure, we shall concentrate on those cases and problem areas which are presently especially important and controversial in the early nineties.

9. As regards the relation between the overall aims of competition and trade policies, we distinguish three constellations which may approximately be related to three periods of time. The first is approaching its conclusion at present or will do so in the near future. It is characterized by the gradual abolishment of trade barriers and consequently of trade policy between EC member states, the substitution of internal trade policy by EC competition policy and the parallel development of a common EC trade policy towards third countries. The policy aim in this constellation is EC welfare improvement, which internally is not in conflict with other aims, because national trade policies have been dismantled. EC competition policy, as their successor and substitute, can be enforced within the single market without opposition, notwithstanding the necessities of defining the competences of member state competition policies in relation to EC policies. Chapter III below is devoted to a discussion of this constellation. It will be followed in chapter IV by a brief discussion of the problems resulting from imperfections inside the EC regarding trade with, and trade policy towards, third countries.

10. The second constellation, of course only theoretically separable from the first, started years ago and will continue to dominate the field. It is characterized by the dominance of EC welfare maximization as the overriding objective. This kind of policy behaviour is characteristic of almost all major (and minor) trading nations and blocs at present, even if its effects often hurt the other trading partners. It can therefore be termed "egoistic". Severe conflicts between trade and competition policies are possible, as world welfare considerations are underdeveloped in this constellation. Existing GATT rules can be enforced only imperfectly and are therefore violated frequently, especially by the more powerful world trading partners. The situation may be described in terms of a non-cooperative game of the kind which leads to non-optimal solutions. We are in the realm of second best, where very few general results can be obtained; instead, a huge variety of cases regarding the interrelations between trade and competition policies have to be considered. Some of them will be discussed in chapter V.

11. While in chapter V attention is focused on "egoistic" trade policies of the kind dominant in the present world with little regard to strategic elements, retaliation and the typical game theoretic problems, these are in the centre of chapter VI. Solutions to these problems are still very imperfect, as the weaknesses of GATT clearly demonstrate, but they are not non-existent. There are signs indicating that the importance of transforming the non-cooperative trade game into a cooperative game is increasingly recognised.

    The third constellation may thus be described as a process of increasing international cooperation, whose progress is admittedly very slow. Its ultimate goal may be described as a world competition order similar to that envisaged by the International Trade Organization in the Havana Charter after World War II, which never came into existence. As there is no dominant economic world power, it can only be realized through cooperation. We shall report on the cautious beginnings of this development in chapter VI, starting from GATT rules, mentioning OECD recommendations, and commenting on efforts to coordinate competition policies regionally and worldwide that will hopefully eventually lead to a situation comparable to that of the first constellation, but extended beyond the EC to the whole trading world.

12. Within each of the three constellations a substructure is used that builds on a distinction of different imperfections, such as market structure (monopoly, oligopoly, monopolistic competition, pure competition), economies of scale, external effects and public goods. In addition, a distinction between the private and the public sector is often helpful. Dynamic aspects play a crucial role in all trade and competition problems, which are not always adequately captured by existing economic theories. This includes entry and exit of firms, adjustment processes, technological progress via research and development, growth and investment. We shall address some of these issues, without analyzing them systematically.

13. Some final remarks on the scope and limitations of the following analysis may be useful:

    The discussion will concentrate on trade in commodities and on competition in the relevant, mainly industrial sectors. Trade in services and the related intellectual property rights problems are neglected. Factor markets and their possible distortions as well as international factor movements are not our prime concern. Monetary aspects and macro policy considerations are pushed into the background in order to concentrate on the real structural problems of competition and trade.

    The main economic analysis is contained in chapters III, V, and VI, as sketched above. They are preceded by a condensed recollection of the historical background in chapter II, whereas the most important conclusions and some policy recommendations are offered in chapter VII.

II. Historical Background

The world economic order after the Second World War remained incomplete. From the three pillars originally envisaged only two, the International Monetary Fund and the International Bank for Reconstruction and Development (World Bank) were erected. The third, the International Trade Organisation described in the Havana Charter, which had as one important task a worldwide competition policy, was never ratified. As an imperfect substitute the General Agreement on Tariffs and Trade (GATT) was created in order to prevent tariff wars, to guarantee a minimum of acceptance for the rules of a liberal trade regime, and to bring about mutually agreed tariff reductions.

On the whole, GATT was not without success, especially in the various tariff rounds. Nevertheless, important sectors such as textiles, agriculture, steel, shipbuilding and others remained largely outside the liberal trade regime. In addition, some of the rules established by GATT, notably the antidumping and anti-subsidy rules, became increasingly problematic during the last ten or fifteen years. There are allegations of misuse (Finger and comment by Hufbauer, 1989) and recommendations to change these provisions drastically (Petersmann 1990, Messerlin 1991a, b). Tariff barriers, effectively lowered by the Kennedy and Tokyo rounds, were substituted by non-tariff barriers such as voluntary export restraints, orderly market agreements and similar instruments not in conformity with a liberal trade and competition regime.

Furthermore, the picture was changed by the emergence of regional economic blocs, the most important being the European Communities (EC), the European Free Trade Area (EFTA) and recently the North American Free Trade Area. In Latin America, Africa, and the Pacific Region similar developments are under way. In varying degrees these blocs develop their own trade policy interests, which are often difficult to reconcile with one another. As the relative economic importance of the "économie dominante" USA has declined since the 1960s, worldwide coordination mechanisms are difficult and consequently slow to develop.

While a liberal world economic order is therefore endangered, integration within some of the economic blocs, especially in Europe, is making progress. Notably in the EC this has improved the possibilities of enforcing a liberal competition policy within the EC and hopefully in the near future also in the union with EFTA, the European Economic Area. But potential conflicts with trade policy remain and may even grow as long as divergent trade policies are not coordinated in a manner satisfactory for a world competition order.

III. Competition Policy as a Substitute for Trade Policy within the EC

1. In this chapter we focus on imperfections within the EC. They comprise not only deviations from perfect competition such as monopolies, oligopolies and monopolistic competition which often are the consequence of increasing returns to scale, but also external effects, public goods and factor market imperfections. Intra-EC trade liberalization during the past years - culminating in the completion of the Single Market at the beginning of 1993 - has induced massive restructuring processes that can no longer be influenced by member state trade policy, because this has virtually ceased to exist, as the respective competences have been taken over by the EC. Insofar as the above-mentioned imperfections within the EC can no longer be corrected by national trade policy because of trade liberalization, the resulting distortions in commodity and factor markets must now and can be remedied by appropriate EC competition policy instruments. Competition policy addressing private enterprises and public authorities thus substitutes for trade policy within the EC. The relevant measures will be discussed in this chapter, while the next chapter IV is devoted to a brief analysis of those problems which follow from the existence of intra-EC imperfections for EC trade policy vis à vis third countries.

   In this discussion we shall distinguish between competition in the private sector and competition between governments including public authorities.

2. The creation of a large unified market plays a central role in the process of European integration. The purpose of the European Economic Community, established in 1957 by the Treaty of Rome, is to eliminate all physical, technical and fiscal barriers so as to ensure the free circulation of goods, services and factors of production among the member states. The rationale behind the creation of a unified market rests upon the conviction that effective competition within the EC should increase internal - allocative and productive - efficiency and thereby foster European consumers' welfare. A prior requirement for an effective competition process is open markets, which means free trade across EC borders.

Since 1957, the development of the internal market underwent three phases: the first was the abolition of customs duties and quantitative restrictions between the original six member states, the second extended the previous achievement to twelve. Early in 1993 the EC will hopefully complete the final phase which concentrates on the elimination of the remaining non-tariff barriers still affecting trade between member states. More precisely, it consists of the abolition of border controls related to national quotas, the elimination of technical barriers and the opening up of public procurement. Although quantitative restrictions on intra-EC trade are forbidden by the Treaty of Rome, some member states have continued to maintain quotas on imports from third countries which had been introduced prior to either the formation of the EC or the member's accession to the Community. These quantitative restrictions, applied to nearly a thousand industrial and agricultural items, are reported annually in the Official Journal for the European Communities. At the same time, however, the Treaty of Rome guarantees the free circulation of goods within the EC, regardless of whether they originate in member states or come from third countries. National import quotas would, therefore, be largely ineffective unless trade deflection (i.e. indirect imports of restricted third-country goods via other, unrestricted, member states) could be prevented. In order to preserve the effectiveness of their quantitative restrictions, Art. 115 enables member states to request the Commission to suspend the free circulation of goods coming from third countries. Clearly, the safeguard afforded by Art. 115 depends on the possibility of border controls between member states. Their elimination, needed to realize the Single Market, implies de facto the abrogation of Art. 115 and the necessity for member states to adopt a common policy on quantitative restriction, even if member states are reluctant to abandon their residual national competence in trade policy and to confer full competence of trade policy to the Community. Completion of the Single Market therefore goes through the gradual removal of trade barriers and consequently of trade policy between member states. Notwithstanding the incentives of national governments to free ride, member states of the EC have committed themselves to trade liberalization inside the EC and to abandon their national sovereignty with regard to trade policy, conferring full competence in this field to the Community.

3. The virtually complete abolition of trade barriers within the EC has triggered off major restructuring processes in the private as well as in the public sectors of member states. As transport and transaction costs of intra-EC trade diminish, and tariffs and non-tariff barriers to trade are being removed, increasing returns may be exploited in many sectors. The ensuing reduction of average cost improves productive efficiency. But concentration following an increase in size of economic units may at the same time decrease the intensity of competition and thereby diminish allocative efficiency by raising price-cost margins.

   In the subsequent paragraphs we will discuss the influence of trade liberalization on competitiveness in the EC. Although we focus on the effects of the Single Market, influences from trade with third countries cannot be overlooked. We start with an analysis of the private sector, distinguishing exports and imports (paragraphs 4-8), and proceed (in paragraphs 15-17) to public sector aspects of subsidies and procurement. The aim of the analysis is to learn more about the necessities and chances of EC competition policy after 1992.

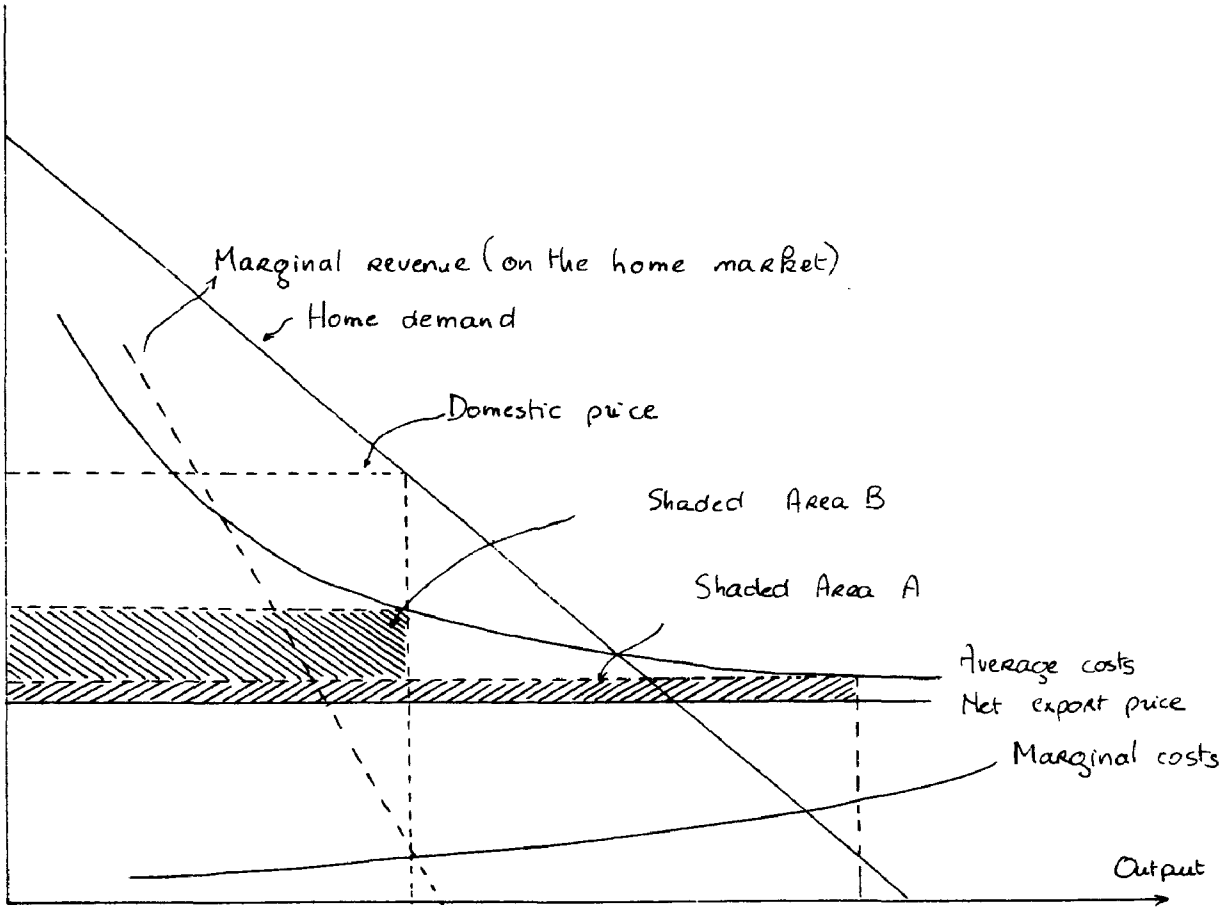
Trade liberalization as a competitive discipline

4. The impact of trade liberalization - regardless whether internal or external- on domestic competitiveness in terms of allocative and productive efficiency has been examined in Jacquemin (1982). In brief, trade liberalization may increase allocative efficiency by reducing monopolistic distortions and may increase productive efficiency by expanding the total market and making room for more efficient sellers, thus lowering average costs.

   Trade liberalization may increase productive efficiency because it can allow an expansion in the number of efficient producers in industries with continuing economies of scale. As the most efficient firms squeeze out less efficient producers, the total number of producers diminishes. By expanding the total market, trade is expected to result in lower average costs. The expansion of the output of the most efficient producers and not necessarily technological innovation is sufficient to explain the reduction in average costs. Dixit and Norman (1980, Ch. 9.1) show that in general the integration of two economies leads to an increase in the number of firms which is less than proportional to the size of the economy (measured by the number of identical producers): this implies lower fixed unit costs.

That trade lowers average costs is true even in the case of a domestic monopolist confronted with increasing returns, who is able to discriminate between the home and the foreign market: then it may be profitable to export even if the net price which exporters receive from the foreign market is below the minimum average cost. This is due to the fact that by increasing his production, the domestic monopolist could improve his profit as long as the reduction in profit via the fall in average revenue (shaded area A) is smaller than the increase in profits via the reduction in average costs (shaded area B).

Figure 1



5. On the empirical side, the available cross-section evidence suggests that international trade favours productive efficiency and that, conversely, protection reduces productive efficiency. Carlsson (1972) has shown for Sweden that tariff protection - by reducing import competition - can expand the number of inefficient producers. The effect of tariff protection in Canada (Bloch, 1974) has resulted in inefficient industrial structures: other things being equal, costs appear to be highest in high tariff industries which also have higher prices. Trade liberalization may increase the number of efficient producers, whereas protection against foreign competition reduces the productive efficiency of domestic producers. There are just more possibilities for firms producing at higher costs to remain in a sheltered than in an open market.

   Not only is international trade able to increase productive efficiency, it can also reduce the loss of allocative efficiency due to domestic monopoly power, as shown in the following paragraph.

6. The influence of export activity on domestic allocative efficiency is, however, not straightforward. Export activity may increase the price-cost ratio and thereby pure profits. Export activities constrain non-competitive sectors to behave more competitively as long as the latter are not allowed to discriminate between domestic and foreign markets and if there are non-decreasing marginal costs.[1] Theoretically, there are different alternatives (Jacquemin, 1982). In Figure 2, for a marginal cost MC_1 and a given world price exclusive of the world tariff (after trade liberalization) P_w , the competitive industry and the monopolist will produce the same quantity q_5 when $P_w = MC_1$. But the distribution of output will be different if the monopolist can discriminate. He will sell only Oq_1 at a price P_m to the domestic market and export q_1q_5 (as compared with q_3q_5 in the case of a competitive industry). Therefore, the possibility of exporting and of separating the markets increases the domestic misallocation of resources due to monopoly power. If the monopolist cannot discriminate, he will behave as a competitor. And yet, for MC_2, the monopolist has a choice: he can either

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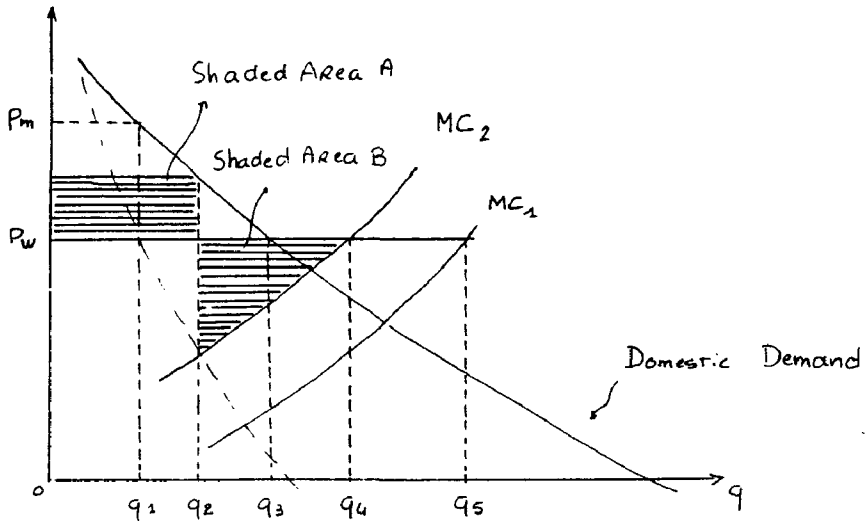
1 Even when artificial barriers (tariffs, technical norms . . .) are removed, a producer (as well as a consumer) can still discriminate between the home and the foreign market because of natural barriers (different preferences, language, culture . . .).

produce the output Oq_4 and export q_3q_4 or he might not export, producing only the monopolistic output Oq_2 for the domestic market. The choice depends on the comparison between the producer's surplus (shaded area B), which the domestic monopolist earns from his extra sales on the export market, and the excess monopoly profits originating from a sales restriction to the domestic market (shaded area A).

Figure 2 (*Source:* Jacquemin, 1982, p. 83)



Empirical research also does not lead to convergent results. Earlier studies suggested that export reduces industrial profitability (Caves, Porter and Spence, 1980). Other results show a very significant positive effect of the rate of exports on the profit margin in the UK (Geroski, 1981). In Belgium and Japan, no significant effect has been found. However, there are more possibilities of price discrimination and higher profits in the sheltered sectors where the domestic price can be well above the export price (Aukrust, 1975). International competition tends to limit profitability in open sectors (Huveneers and Van Cauwenberge, 1976).

7. With much less ambiguity than export activities, import penetration is able to reduce the monopolistic distortions of imperfect domestic markets. The precise impact of import competition depends on the market configuration. The simplest case is the Cournot oligopoly with homogeneous products, in which the domestic producer expects that no change in the competitors' supply will be induced by a variation of his own production. The supply of imports is assumed to be perfectly inelastic, i.e. a fixed quantity. Theoretical evidence (Jacquemin, 1982) shows that the domestic price-cost margin will be the higher, the higher the domestic producers' concentration; it will be the lower the higher the given rate of imports. The influence of import competition interacts with that of concentration to explain price-cost margins (Jacquemin and Gerosky, 1981): the eroding effect of imports on domestic profitability is stronger in more domestically concentrated industries.

8. In the Cournot case, each firm calculates its optimal policy treating the outputs of the rivals parametrically. If we assume the existence of asymmetrical positions of firms in most industries open to international trade, the dominant firm concept with homogeneous products could have more appeal (Jacquemin and Sapir, 1990). The dominant firms choose a selling price subject to the supply of a quantity by a fringe composed of firms each too small to exert an influence on the price. Each fringe member takes price as parametric, whilst members of the cartel group take the fringe's reaction function as parametric. If foreign producers are treated as the competitive fringe and the domestic industry forms an oligopoly, foreign supply is perfectly elastic and trade liberalization as a discipline factor results immediately. But when foreign producers form the dominant group and domestic firms make up the fringe, discipline is imposed not by imports but by the domestic firms' output. Thus, trade as a discipline factor depends on the nature (homogeneous or differentiated products) and the origin of imports (extra or intra-EC imports) and on the elasticity of foreign supply with respect to the domestic price, this elasticity being only partly reflected in the current flow of imports since the latter can be restricted by various barriers to entry.

The limits of trade liberalization as a competitive discipline and the need for a competition policy

9. Although it thus appears that trade liberalization which removes artificial barriers to market entry has pro-competitive effects, there are characteristics of trade flows that may have a restrictive impact on the strength of this pro-competitive force. Apart from the accentuation of mark-up pricing and wasteful resource allocation mentioned above, the disciplinary effect of trade liberalization depends on the market and cost structure. For instance, product differentiation implies the existence of monopolistic competition. Such a differentiation tends to reduce the intensity of import discipline and to favour intra-industry trade. When domestic firms have a multinational base that controls imports, intra-firm trade increases the prospects of effective market cartelisation. Barriers to trade, natural or artificial, tend to reduce the intensity of import discipline. Among natural barriers are the existence of important scale economies, differences in preferences, habits, language, culture and incomes, all of which can limit the entry of imports. Artificial barriers with third countries include various tariff and non-tariff obstacles such as technical norms and public procurement policies.

10. Regarding the origin of trade, the influence of extra-EC imports on European industrial profitability may be stronger than that of imports of Community origin. The greater relative importance of intra-industry trade in intra-EC imports could explain the lesser competitive effect of intra-EC imports. Jacquemin and Sapir (1990) have shown that the main pressure today comes from the discipline imposed by extra-EC imports. Neven and Röller (1991) suggest that the elimination of nontariff barriers inside the EC should increase extra-EC more than intra-EC imports. This has two implications.

11. First, external trade liberalization appears to be a *complement* to EC competition policy. As extra-EC imports exert a significant disciplinary effect on price-cost margins, it is probable that mergers in industries which are relatively open to international trade, from within or outside the Community, are less dangerous for competition than mergers in relatively closed industries. Ross (1988)

shows that the lowering of tariff barriers limits the price-increasing effects of a merger the more, the greater the number of foreign firms.

Second, external trade liberalization may appear as a *necessary* complement to EC competition. The presence of nontariff barriers, in particular national quotas inside the EC, does not only impede trade with third countries but also the completion of the European market. Furthermore, the possibility to extend national import quotas to European-wide restrictions will tend to protect inefficient producers, endangering the competitiveness of European producers on the world markets. Protectionism against additional EC competition considerably reduces competition pressure and may impede an effective and vigorous competition process inside the EC and EC competitiveness on the world market. An effective competition process inside the EC requires external liberalization.

12. However, external trade liberalization is an imperfect substitute for domestic competition because it is subject to additional uncertainties that do not affect domestic competition (Jacquemin, 1990). The pro-competitive force of external trade liberalization may be limited by residual import restrictions such as voluntary export restraints or orderly market agreements. Another factor which affects the pro-competitive force of trade liberalization is the existence of market behaviour adopted between European firms and between European firms and foreign competitors in order to reduce competition. Under international competitive pressure, domestic firms have a greater incentive to form cartels, various horizontal and vertical agreements, dominant positions leading to price leadership, intra-firm trade, and corresponding restrictive practices including transfer pricing.

    Concentrations and mergers may reap efficiency gains from market restructuring but reach harmful dominant positions. Macroeconomic policy also plays a role: if the main protection against domestic monopoly power is imports, exchange rate volatility will lessen this protection as noticed by Jacquemin (1990).

    Restrictions of the pro-competitive force of trade policy enhance the importance of EC competition policy.

If internal trade liberalization is a necessary condition for European economic integration, external trade liberalization appears to be a necessary complement for an effective competition policy. Trade liberalization may reduce monopolistic market power and expand the number of efficient producers. At the same time, trade liberalization induces anti-competitive behaviour of domestic firms and increases the need and importance of EC competition policy to prevent the competition process from being impeded or reversed by anti-competitive behaviour.

The EC competition policy

13. As member states have committed themselves to trade liberalization within the EC, the purpose for internal trade policy vanishes. From a fundamental point of view, a self-evident necessary condition for trade policy-making is to discriminate between "home" and "foreign". As European markets integrate, the abolition of border controls eliminates opportunities to discriminate between "national" and "European"; thereby, the possibilities for trade policy disappear. By contrast, competition policy gains importance because it prevents the European Single Market from being re-segmented. Competition policy substitutes for trade policy inside the EC.

    It is interesting to note that within the EC there has always been a link between the phasing-in of the rules on freedom of intra-EC trade and the phasing-out of antidumping enforcements in intra-EC trade. For example, special antidumping provisions apply to trade between the ten "old" member states and the two "new" member states (Portugal and Spain) during the transitional period. But in cases where in that period there are no tariffs or quantitative restrictions in trade between the "old" and the "new" member states, antidumping rules are not applied.

    The EC competition policy' s objective is to keep the European market process intact as an open free system. A crucial point is that the competition rules of the Treaty of Rome are applicable to both public and private restrictions of competition. In both cases, EC competition rules have recently been tightened.

Increasing returns give rise to imperfectly competitive market structures. The consequential distortions between prices and marginal costs have to be and can be remedied by appropriate competition policy measures. Trade liberalization, by removing artificial barriers to market entry, can reduce the market power of a dominant position. It can assist in preventing firms from acting anti-competitively, just as, for instance, the removal of trade barriers is effective in lowering the price increasing effects of mergers (Ross, 1988). It does not follow, however, that external trade liberalization can substitute competition in all its functions. For this purpose, the EC has at its disposal anti-trust regulations and merger control according to Articles 85 and 86 of the Rome Treaty. They are supplemented by provisions to prevent misuse of dominant positions. As has been documented in detail in the consecutive EC Competition Reports - the most recent being the twenty-first (1992) - competition policy instruments have been applied at an increasing pace and frequency in recent years, as efforts by private enterprises to evade competitive pressure in consequence of intra-EC liberalisation of trade have risen substantially (see Table 1).

Table 1: Merger Trends in the Community, 1985-1991

The following table highlights the recent growth in the number of mergers and acquisitions of majority holdings within the Community (including international operations between Community and non-Community enterprises).

	Total mergers and acquisitions of majority holdings involving at least one of the 1 000 largest firms in the Community				Mergers and acquisitions of majority holdings where the combined turnover of the firms involved exceeded ECU 1 000 million		
Year	1985/ 1986	1987/ 1988	1989/ 1990	1990/ 1991	1985/ 1986	1987/ 1988	1990/ 1991
Sector[1]							
1. Food	34	51	102	71	17	40	66
2. Chem.	57	85	148	100	33	57	88
3. Elec.	13	36	46	48	9	23	41
4. Mech.	29	38	52	25	17	26	18
5. Comp.	1	3	2	7	0	3	7
6. Meta.	17	40	64	47	4	32	41
7. Trans.	10	15	32	21	3	14	19
8. Pap.	27	34	79	49	5	18	45
9. Extra.	10	12	19	13	7	9	11
10. Text.	9	14	13	12	2	4	5
11. Cons.	14	33	39	47	8	29	43
12. Other	6	22	26	15	3	13	13
Total	227	383	622	455	108	268	397

[1] *Key*
Food: Food and drink
Chem.: Chemicals, fibres, glass, ceramic wares, rubber
Elec.: Electrical and electronic engineering, office machinery
Mech.: Mechanical and instrument engineering, machine tools
Comp.: Computers and data-processing equipment
Meta.: Production and preliminary processing of metals, metallic goods
Trans.: Vehicles and transport equipment
Pap.: Wood, furniture and paper
Extra.: Extractive industries
Text.: Textiles, clothing, leather and footwear
Cons.: Construction
Other: Other manufacturing industry

Source: EC, EEC Competition Policy in the Common Market, 1989, p. 22 and XXI. Bericht über die Wettbewerbspolitik, 1992, p. 451-458.

As a consequence of these merger and acquisition activities, concentration in the European industry has increased markedly. For Europe as a whole, the sales of the 50 largest European firms as a percentage of gross industrial output increased from 15% in 1965 to 25% in 1976.

Unfortunately there are no comprehensive statistics on concentration in Europe. The Statistical Office of the EC in Luxemburg does not collect data directly, and the amalgamation of national statistics is difficult because of national peculiarities. A SPES-project to find a solution for these difficulties is under way (Monopolkommission 1992, pp. 239 ff.).

Although mergers were not the sole cause of increased concentration, they were the most important one, as Table 2 suggests: the concentration ratio is represented by the market share of the four (or eight) top firms. The correlation coefficients between concentration change and mergers on the one hand, and internal growth on the other hand, were calculated separately. For instance, in the case of the top eight firms mergers account for 54% of the concentration changes, internal growth for 68%.

Table 2: Correlation coefficients for the components of concentration changes (1958 - 1971, West Germany)

	Correlation Ratios (Top eight firms)	Correlation Ratios (Top four firms)
Mergers	0.5444 [a]	0.563 [a]
Internal Growth	0.679 [b]	0.480 [b]

[a] significant level 5%

[b] significant level 1%

Source: Müller, J. (1976), The Impact of Mergers on Concentration: A Study of Eleven West German Industries, Journal of Industrial Economics, 25, p. 124.

It follows that mergers were the most important factor of increased concentration at the four-firm level. At the eight-firm level, internal growth was slightly more important for concentration increase than mergers .

14. Art. 85 and Art. 86 of the Treaty of Rome generally prohibit as incompatible with the Common Market all agreements and concerted behaviour between firms and abuse of dominant positions which may affect trade between member states. Many agreements concluded by small and medium-sized firms are not considered to violate the rules of competition because the economic effect they have is insignificant. Two conditions have to be fulfilled so that European authorities intervene: the market share must represent more than 5% of the total market in which the agreement has effect, and the aggregate turnover of the involved firms must exceed 200 million ECU.

    It is not illegal to have a monopoly or simply to achieve a dominant position: only the abusive exploitation of such a position is prohibited. Major abusive behaviour of a dominant position consists in limiting market entry.

    In December 1989, a central additional regulation was adopted over mergers and acquisitions. A merger is defined as a combination of two or more independent firms, e.g. one or more firms gain control over another enterprise by purchase of equities. The condition for Community intervention is exclusively the turnover, i.e. a world-wide turnover of over 5 billion ECU by the parties involved and a community-wide turnover of over 250 million ECU by at least two of the considered firms. This does not apply if the parties involved have more than two thirds of their turnover in one member state. If these conditions are not fulfilled, the merger or acquisition falls into the competence of the member states' national laws.

    This regulation sets up EC controls over Community-wide, cross-border operations, and prior notification of the planned mergers of this kind is mandatory. One characteristic is crucial for the impact of 1992: for assessing whether a merger is compatible with the Common Market or not, the only basis is its impact on effective competition, at the exclusion of cost savings or other efficiencies which could offset the harmful effects of a dominant position.

State Aid and Public Procurement

15. Apart from imperfections in competitive commodity market structures, there are important imperfections in factor markets, which show up especially as inter-sectoral factor immobilities, making reallocations both costly and time-consuming, thereby hampering restructuring induced by the Single Market. Private firms' reactions may consist in cartelisation or other agreements to ease competitive pressure, but also in demands for relief by sheltering the industry concerned, using various measures, especially subsidies, at least for a transitional period.

    Politically, the employment argument is often emphatically used, and usually national governments give in and in turn influence the Commission to grant exceptions from the rule, based on sound theory, that the best method for efficient reallocation in the face of uncertainty is via markets.

    It may be added that first best policies to attack factor market imperfections, by improving factor mobility, are of course superior to subsidization and protective trade policy measures.

16. National subsidies, as sketched in the previous paragraph, are thus often a substitute for intra-EC trade policy measures. Although it has to be admitted that subsidies may be justified when external effects and public goods are involved because in these cases they help to improve efficiency, there is always the danger of misuse, which distorts the competitive situation between member states.

    In order to approach the ideal situation of undistorted competition within the EC - also in the public sector - the instruments of state aid policy were developed and formulated in Art. 90 and Regulation 723/80. Art. 90 makes it definitely clear that competition rules also apply to public enterprises. It states that different national laws and behaviour concerning the relationship between the public and the private sector should not bring about a different application of competition rules in the Community. Public and private firms are to be treated alike in competition.

To assess the relationship between firms and state, Regulation 723/80 gives the Commission far-reaching information rights concerning financial relations. They are described and commented in detail in the EC Report on Community State Aid Policy (1991). Their essence is to confine subsidies to those fields and to such a scope which are justifiable on efficiency grounds and to prevent them from being used as substitutes for trade policy.

EC competition policy also includes rules to limit state aid. For example, Art. 92 of the EEC Treaty bans any national aid - in any form whatsoever - insofar as it *affects trade between member states*. This general prohibition is qualified by certain exemptions in Art. 92 (2), (3) of the EEC Treaty. Art. 4 (c) of the European Community for Steel and Coal (ECSC) Treaty prohibits all national subsidies for coal and steel which are declared incompatible with the Common Market.

This prohibition had been eroded under the impact of severe sectoral adjustment pressures especially in the steel industry until the mid eighties. Later, between 1986 and 1988, aid was drastically reduced in the steel industry and much less dramatically in the shipbuilding industry (Tables 3 and 4). The latter even increased in terms of ECU per employee. However, it should be noted that the Sixth Directive[2] with its stricter Community discipline was in force for only the last two years of the three-year period 1986-88. Furthermore, the Sixth Directive did not apply to Portugal until the Seventh Directive came into force on 1 January 1991; special provisions were applied to Spain until the end of 1991.

The use of subsidies has created tensions and conflicts inside the EC and with trade partners (especially the United States) as well. Nonetheless, the ultimate goal of the EC authorities is to limit the overall volume of aid granted; under Art. 93, member states are required to notify European authorities well in advance of any plan to introduce new aid schemes or before altering existing ones. Recently, the Commission has required increased transparency of state aid policy and, when necessary, the recovery of aid granted illegally.

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2 Amtsblatt der Europäischen Gemeinschaften, L 69, 1987.

Table 3: Aid to the steel industry

	Total in Mio ECU		*% change*	*ECU per employee*	
	1981-86	1986-88		1981-86	1986-88
EUR 10	4847	453	-91	9938	1167
EUR 12	-	1365	-	-	3088

Source: European Economy, "Fair Competition in the Internal Market: Community State Aid Policy", No. 48, September 1991, chapter 4, p. 8-9.

Table 4: Aid to the shipbuilding industry

	Total in Mio ECU		*% change*	*ECU per employee*	
	1981-86	1986-88		1981-86	1986-88
EUR 10	1673	1436	-14	16817	22636
EUR 12	-	1563	-	-	18451

Source: European Economy, "Fair Competition in the Internal Market: Community State Aid Policy", No. 48, September 1991, chapter 4, p. 8 - 9.

17. Public procurement is the other field in the government sector in which trade has been heavily distorted by the usual practice of excluding foreign enterprises from supplies to public authorities. Government departments, local authorities and public utilities in EC countries still tend to purchase their supplies of consumables and equipment overwhelmingly from domestic suppliers.

This unsatisfactory degree of market integration in the public procurement sector, where national firms are sheltered from the blast of competition, is a cause for substantial inefficiencies. Because government contracts form a large sector of the economy, potential cost savings are of great importance. In order to realize these efficiency gains, EC legislation based on the 1971 directive on public works and construction contracts[3] and the 1977 directive on government procurement of supplies of goods and equipment[4] has been amended, but still applies the fundamental principles: suppliers and contractors from all EC countries should have equal opportunities in bidding for public sector contracts and, to discourage discrimination against foreign firms, procedures should be open and above board.

The main provisions of the legislation are as follows:

- contracts must be put out to competitive tender.
- discrimination against foreign firms, for example in technical specifications, is prohibited.
- tenders must be advertised in the Official Journal.

In 1980, the 1977 directive was amended to adapt EC law to the GATT Agreements on Government Procurement to which the European Community was a signatory. The GATT code commits governments not to practise discrimination against foreign suppliers in the procurement decisions of central government agencies.

The rules applicable to procurement subject to the GATT Code are slightly different from the general EC rules and they apply from a lower contract value threshold.

A decision of the Council of Ministers (November 1987) extended the range of contracts covered and lowered the value threshold further. However, the EC procurement legislation has so far been inadequately applied or, worse still, ignored.[5] Protectionist instincts and "buy national" habits of governments are still strong.

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3 Directive 71/305/EEC.

4 Directive 77/62/EEC.

5 in EC Commission, "Public Procurement and Construction", p. 5.

IV. Intra-EC Imperfections and Trade with Third Countries

Imperfect Factor Markets

1. Imperfections inside the EC do not only necessitate EC competition policy as a consequence of the abolishment of intra-EC trade barriers, as has been argued in the preceding chapter - they also influence trade with, and trade policy towards, third countries. In reality both these aspects are closely linked, but conceptually they may be distinguished.

   In general it is quite obvious that a liberal import policy is an extremely efficient complement and even substitute for internal competition policy: with free access of foreign goods to the domestic market monopoly rents cannot persist. It follows that potential gains from the realization of the Single Market can best be secured by a liberal trade policy towards third countries. In this respect a "Fortress Europe" is contrary to European interests, at least if and as far as these are identified with an increase of efficiency in production and allocation.

2. But this is not the whole story. There are always distribution aspects involved when import competition leads to reallocations. Public choice arguments show convincingly how losers mobilize political pressure with the aim of lessening competition by import protection. Safeguard clauses may be interpreted to respond to this need; often factor market imperfections are used to justify at least some and at least temporary relief from import pressure. The argument is analogous to that discussed in the preceding chapter with the difference that now it refers to imports from third countries. To regulate them, so it runs, would give the import competing sectors time for the necessary restructuring and would thus ease employment problems. The advantage of this escape clause as a measure to cope with factor market imperfections is that it is GATT-legal and therefore avoids retaliation. The essential rules are as follows.

3. Under the GATT, Art. XI imposes a ban on the use of quantitative restrictions as a trade policy instrument. This obligation is subject to a few precisely defined exceptions, one of them being the "escape clause". The EC can impose safeguard

measures against imports based on GATT Art. XIX, which in turn is implemented in EC Regulations 288/82, 1765/82, 1766/82, under the condition that the EC industry of like or directly competing products is seriously injured or threatened with injury. The adoption of such a measure must be in accordance with the interests of the Community. The requirements needed to impose a safeguard measure are an increase of the import volume, the extent of the price-undercutting and the consequent impact on Community producers. The threshold of injury for these safeguard measures is clearly higher than in anti-dumping cases. There must be a causal link between the volume and conditions of imports and the serious injury. Protection must be limited to the duration and extent necessary to prevent or remedy the injury, and compensation must be offered by permitting imports of other products, but roughly equivalent to the restriction by the quota. The EC must give written notice which is followed by consultations between the EC and the affected country. If the consultations do not lead to an agreement, the affected country can retaliate.

Although there are no explicitly prescribed forms of measures at present, the EC has usually taken protective measures in the form of quantitative restrictions (quotas) or surveillance against the import of goods.

Whereas Regulation No. 288/82 does not expressly authorize the Commission to negotiate voluntary restraint agreements, the Community has frequently resorted to this sort of arrangement as an outcome of safeguard proceedings. The VERs fall under the "grey area" because they are not regulated under the GATT.

The evolution of the provisions on safeguard proceedings has taken three main directions:

- an increase in the powers of the Commission. Since 1979 the Commission has been empowered to adopt safeguard measures subject only to the right of any Member State to appeal the Commission's measure to the Council.
- a decrease in the powers of the Member States. The power of the Member States to take interim protective measures has been abolished since 1985, except in cases where the protective measure is justified by a safeguard clause contained in a bilateral agreement between the Member State concerned and a third country. Another exception was also made for the import of products, liberalized in certain Member States but still subject to quotas in others: for these products, Member States were authorized to continue to adopt interim protective measures subject to the Commission's control until 1988.

- an effort to make the procedure more transparent by defining the criteria by which serious injury to domestic producers is to be assessed.

Practice reveals that most of the cases have been brought at the request of a few Member States (in particular France). The safeguard measure was generally imposed on a so-called "regional basis", that is to say in one or two countries. Although the proceedings should respect the principle of nondiscrimination, the target countries have been essentially Far Eastern countries.

The EC has made little use of this instrument. Only 10 cases between 1980 and 1989 are known. It was most used in 1987 and provisionally applied against textile imports pending the formal conclusion of the second Multi-Fiber Agreement.

4. The preceding discussion shows that the escape clause does not seem to be a completely unreasonable means of coping with internal factor market imperfections. It must be added though that it is only a second-best policy instrument with adverse incentive effects, the first-best being measures to directly improve factor market mobility.

   Finally, it may be noted that the escape clause also serves a risk reducing purpose in the sense that uncertain effects of trade liberalization, as they often are feared in the course of multilateral GATT negotiations, are more readily acceptable if an emergency brake is available. Thus they may even be said to be a help in the process of trade liberalization.

Imperfect Competition

5. On the product market side, imperfections inside the EC may provide opportunities for active trade policy with the aim of improving the European position beyond a level compatible with the ideal state of worldwide perfect competition. The arguments rest on the possibility of exploiting the market power of a country large enough to influence world market prices. If a country has a monopoly over an export (or a monopsony over an import) which is not fully exploited by domestic suppliers (or buyers), the government has an incentive to impose a

tariff, whose optimal size depends on demand and supply elasticities, and therefore is difficult to exactly determine for every product. In addition there is, as the literature on optimal tariffs has shown, always the danger of retaliation.

6. Art. 85 and Art. 86 of the Treaty of Rome generally prohibit - as incompatible with the Common Market - all agreements and concerted behaviour between firms and the abuse of dominant positions which may affect trade between member states. This means, however, that cartels or abusive behaviour which exclusively impinge on third country markets are beyond the scope of EC law and therefore are not prohibited (GATT, 1991, p. 110). EC competition policy appears to be tolerant against a European monopolistic industry exporting a large share of its tradeable goods production. If we pursue a selfish policy of maximizing domestic social welfare and ignore the adverse effects on the rest of the world, the only losses that need be considered by a European merger policy are the reductions in European consumer surplus, and the only gains the increase in profits of European producers. All things being equal, the net European gain in welfare resulting from a merger would be the greater, the larger the degree of European involvement in the merger, and the lower, the greater the proportion of the output consumed in Europe.

7. In the case of mergers, the Community does not seem to follow a selfish policy of maximizing domestic social welfare and seems to ignore the adverse effects on the rest of the world as the De Havilland case has shown. On October 2, 1991, the first case falling under the "new" merger control was decided. The Commission regarded the merger between Aérospatiale-Alenia and De Havilland as not compatible with the Common Market. So it was prohibited according to Art. 8,3 of Regulation 4064/89.

   Aérospatiale, a state-owned French air- and spacecraft enterprise, and Alenia, an Italian state enterprise in the same field, jointly founded Groupement d'Intérét (GIE) Avions de Transport Regionale (ATR) in 1982 for the common development, production, and distribution of regional aircraft. De Havilland (DHC), a Canadian corporation in this field, was nationalized in 1982 and sold to Boeing in 1986. ATR wanted to take over DHC from Boeing.

In its decision, the Commission defined the market for turboprop aircraft as the relevant market, and the world market as the geographically relevant market. In this market ATR had a share of 29% and DHC of 21%, i.e. they constituted a joint world market share of 50% (even of 55% in the EC). In certain segments the share was even up to 72% (being about 50% in advance of competitors).

In its verdict, the Commission stressed that technological and economic progress were no appropriate reasons to grant exemption, and that no consumer advantage was definable in that case.

8. New theoretical developments in the literature address international oligopoly and strategic behaviour - chiefly situations in which a domestic producer or oligopoly group faces similar competitors in the world. A growing number of models based on various policy instruments offer some analytical basis for a strategic approach. The common idea is that, in the dynamic context of imperfect competition and international trade, policy intervention can affect performance by influencing private equilibrium outcomes. The analytical results in all cases stem from the fact that the income of the home nation includes any profits that domestic producers earn from foreign markets; thus national income can be increased by any policy that enlarges the national producers' share of world sales and profits, unless the benefits are offset by losses arising from the distortion of domestic consumption of the commodity in question.

Some specific models focus on the possibility that a government can effectuate commitments for its national duopolist (for instance, through a subsidy to the firm's research and development activities) that manoeuvre the national champion into a position of Stackelberg leadership over its foreign rival. If the two duopolists sell only in a third market, national welfare is increased by the excess of Stackelberg-leader over Cournot profits. The relevance of this case for policy making depends of course on whether governments in fact enjoy any advantages that firms do not when it comes to making commitments. The modern theory of entry deterrence points in fact to a rich assortment of investment-type outlays that can yield first-mover advantages (deterring a potential competitor, but also reducing the set of opportunities of an incumbent).

Other policy models for international oligopoly put aside the commitment problem and simply raise the question whether the government can fruitfully intervene to improve the national firm's position in a Nash equilibrium.

9. However, such strategies go beyond the consideration of the market failure. They deliberately influence the transformation and industrial organisation of sectors and nations. It is assumed that public authorities can be more successful with strategic measures and retaliation than private agents, because governments enjoy a higher degree of credibility. With output as a policy variable utilized by duopolists, a subsidy to the domestic firm's exports causes the foreign duopolist to contract output, which raises the national duopolistic profit and thus national welfare. However, in a duopoly with price as the decision variable the opposite holds, a tax on the producer's exports being required to cause the foreign producer to reduce output (Grossman and Richardson, 1985).

10. This difference between quantity and price reactions is rather damaging for the policy relevance of these models of profit-shifting, because the mode of oligopolistic reaction is not among the readily observable attributes of a market. In conclusion, although tariff and industrial policies have new theoretical justifications for manoeuvering the nation's domestic producer into a more favourable position in an international oligopoly, the stringency of the information requirements for correct policies in these cases makes one pessimistic about their direct empirical applicability.

    Utilisation of public strategies does not guarantee an efficient result. At least three situations are possible. The public strategy may reflect the interest of certain pressure groups attempting to change the distribution of income in their favour, even if the welfare of the country as a whole is reduced. The classic case is that of the imposition of trade barriers, where those that profit are relatively concentrated and gain much individually, whereas those that lose are widely dispersed and lose little individually. A second situation is that a country, through its firms, can improve its collective welfare but at the expense of the welfare of other countries. Finally, in some cases, a strategic action could simultaneously increase national and global welfare.

Research and Development. Learning by Doing

11. Very important from the point of view of EC trade policy are (real or alleged) imperfections which give rise to public interventions, especially in the form of subsidies. If these exceed the scale and scope justified by the aim of improving efficiency, they distort trade. Positive external effects, e.g. in research and development call for subsidies in order to induce the optimal level of supply by compensating the producers for that part of their production cost they cannot recuperate because of the externalities.

    In order to be subject to Art. 92 of the Treaty of Rome, national aid must affect trade between member states. This provision does not contain a "foreign commerce clause". National aid that mainly affects trade with non-Community trade partners could bypass Art. 92, but undoubtedly distort trade with EC trade partners. The Community continues to work on compiling an inventory of schemes for the member states aimed at assisting exports to non-Community countries. It has asked several member states for further information whose initial contributions were not sufficient.

12. Under the influence of European producers, the Community has been urged to take more aggressive industrial policy measures, such as direct financial support for production or R & D outlays. Along with automobiles, the electronics and information technology sectors are active in this respect. Traditional models of international trade were based on exogenous technology. The electronics and IT industries differ sharply from this pattern, in that strategic decisions by firms, groups of firms and governments can create technological advantages which may be cumulative or very long lasting. There are innovations in technology that allow firms to capture rents from other countries' consumers and producers, and these innovations are susceptible to strategic policies.

    The argument for intervention is based on the idea that interventions may be desirable in the face of significant market failures. We will limit the discussion to two types of market failures, especially externalities associated with research and proprietary knowledge, and learning by doing phenomena.

13. A main aspect of research knowledge and learning by doing is their public-good character. This means that rents from investing in research do not fully accrue to the firm investing, but also accrue to other firms or to the economy as a whole; hence, the firm will underprovide in knowledge. The problem is obviously the appropriability of knowledge. Should the producer of knowledge be able to appropriate all the rents that are generated, socially optimal investments would be made in innovative activities. However, full appropriation through exclusive rights in the form of a patent, trademark, or copyright enable the innovative firm to sell a new product or technology at a monopolistic, rather than a perfectly competitive, price. This promotes dynamic creative activity, providing monopoly profits less R&D costs for innovations. However, once a new technology is introduced, it is socially optimal to disseminate the new information and to provide it to users at the marginal cost of replicating it. It is widely accepted that a patent grant of limited duration is the best compromise, trading off the underprovision of innovative effort against the loss of welfare from monopoly pricing of proprietary innovations.

14. If each firm of a domestic industry can protect its proprietary knowledge, no problem arises for national policy. Where the research outlays of domestic firms have externalities for other domestic firms, but lesser externalities for firms located abroad, an opportunity for national policy arises. Domestic innovative effort could be promoted to the point where the gain to the nation from the external benefits of innovation offsets the difference between private benefits and costs of innovative activities. This implicitly provides the policy's scope of action: either to enhance private benefits (for instance by strengthening the proprietary knowledge system) or to reduce the private costs of innovative activities (for instance by subsidizing these activities or favouring cooperation between firms). Tariffs have repeatedly been advanced as the appropriate policy for import-competing "high technology" industries. However, they are of dubious value, apart from their inconsistency with global welfare. As Baldwin (1969) pointed out, protecting an industry that would otherwise underinvest in research raises its product price, but it also induces a larger number of firms to enter the market. Furthermore, it raises their incentives to invest in imitating or matching innovations. Both the increased number of would-be imitators and their incentives to invest in imitation reduce the expected profits of innovators. The

optimal remedies for research externalities affect the revenues from, or outlays for, research directly and not the price of research embodying goods or imports that compete with them.

While restrictions on trade have no direct effect on promoting the optimal provision of innovative effort, they are effective (if not optimal) for promoting another sort of proprietary knowledge - that associated with learning by doing, in which a producer's costs decrease with cumulative output or with the time of production. As Krugman (1984) points out, the existence of a domestic activity that generates learning-curve gains may constitute a case for tariff protection (or production subsidies) to maximise welfare. This is a new formulation of the classic infant-industry case for the restriction of imports. A market failure occurs only if learning benefits are not internalized. A firm might fail to obtain internalized learning advantages because of a lack of information on the prospective gain (in which case the appropriate policy is to disseminate the information); or it might fail owing to capital market imperfections associated with the fact that the lender covering losses during the period when learning occurs has no tangible security.

15. If learning does have spillover benefits to other firms producing the same good or using the same technology in other product markets, then both national and global market failure problems may arise. Suppose that learning flows freely among firms in the national industry, making the unit costs of all national producers depend on cumulative industry output and not on its distribution among these firms. Then individual producers set their short-run outputs without taking account of all national benefits, and policy intervention is again warranted to maximize national welfare. A tariff is not first-best, because the specific market failure is associated with insufficient domestic output rather than excessive imports. A tariff comes closer to the mark in the case of learning benefits than it does in the case of R & D externalities, because the spillovers are proportional to the quantity produced in the case of learning, whereas R & D expenditures are linked to output levels only through a complex chain of behavioural relations.

The discrepancy between national and global welfare again depends on whether external welfare benefits from learning stop at the national boundary or are diffused internationally. If learning diffuses internationally, the activity will be

underprovided globally, but the single nation does best by free riding on other producers' investments in knowledge. Our factual knowledge in this field is unfortunately quite limited. One important study (Lieberman, 1984) shows that cost reduction in US processing industries is related to cumulative industry rather than cumulative firm output. But there is little systematic evidence on the relative extents of diffusion to domestic and to foreign products. A few studies, such as Benvignati (1982), suggest that domestic diffusion of innovations is more rapid than diffusion abroad.

16. The difficulties in formulating and enforcing property rights for innovations and learning effects provide justification for subsidizing these activities. But the amount and scope of "justified" subsidies - those leading to the realization of efficiency conditions - is not easily determined and therefore may be used to distort competition for egoistic national purposes.

    The uncertain appropriabilities of both innovations and learning by doing complicate a reconciliation of national and global welfare interests. Government efforts to promote national or European-wide "high tech" or "key" industries convey a belief in vast domestic externalities flowing from both research and production, coupled with a disregard certainly of international spillovers and arguably of resource wastage through races to obtain innovations or production learning. Also evident are governmental inclinations to support "national champions" in international races. These observations suggest a strong possibility of globally excessive resources dedicated to some forms of research and innovative production - whether tariffs or direct subsidies serve as the operative policy instruments.

17. Two practical cases in the field of subsidies have aroused interest recently. One is the trade dispute which has developed between Europe and the United States on Airbus subsidies. Airbus is competing in the market for large civil aircraft, and the two other firms in this market are both in the United States. It is therefore difficult to make a case against them under Community law, which defines as illegal only subsidies that distort trade and competition within the Community. In fact it would be inconsistent of the Commission to leave Airbus subsidies off the list of subsidies that are to be reined in connection with the

Single Market. Although they do not involve a direct distortion of trade within the Community, they do distort competition indirectly because they benefit the individual companies that make up the Airbus consortium.

Another area in the field of subsidies under discussion is steel. This debate has intensified since the decision taken by the United States in 1989 to continue its voluntary export arrangements in steel until 1992. In exchange for an agreement to renew her steel quotas for only two and a half years instead of the normal five, the United States sought a series of bilateral agreements from her trading partners, requiring them to limit their own steel subsidies. It was not difficult for the EC to agree because it was already imposing a strict regime. The final result was a consensus for market-access restrictions to disappear by March 1992, coupled with the discipline on subsidies, market access and dispute settlement.

18. Finally, a remark on the peculiar position of the EC institutions themselves seems in order, because these are on the one hand actors in the fields of trade and competition policy and on the other hand potential addressees.

As discussed in detail by Bourgeois (1989), EC competition rules apply only to the conduct of undertakings and not to the Commission and the Council acting for instance in a regulatory capacity. Community institutions, when acting in a regulatory capacity such as trade or industrial policy measures, have the right to depart from the idea of undistorted competition, where this is justified by the pursuit of other EC policy objectives. EC competition authorities not involved in trade policy-making have an interest in a strict agreement emerging at a bilateral or multilateral level as mentioned above in the Airbus and steel industry cases.

V. EC Trade Policy towards Third Countries in Relation to EC Competition Policy

1. The EC and its member states are contracting parties to the General Agreement on Tariffs and Trade. This implies that the EC as well as the other contracting parties are subscribing to a liberal trade regime in the sense that they respect the GATT rules, which aim at preventing or at least reducing unfair practices in international trade. The signatories of the GATT opened several routes to dealing with excessively damaging or unfair competition from abroad. Where an increase in imports leads to serious injury, governments can invoke the 'safeguard' clause under Article XIX. The provisions of this article allow signatory countries to provide temporary protection from a sudden influx of fair but overly damaging imports. Whenever imports are unfairly priced (i.e. dumped) or subsidised, Article VI of the GATT permits the levying of anti-dumping or countervailing duties designed to restore fairness in competition. Dumping is thought to occur when the export price of a product is below its price in the home market or when the export price is less than the cost of production. In the first instance, the dumping firm discriminates among different buyers of its product, and in the second instance it sells at a loss. Both instances are regarded as practices that undermine fair competition. They are held to have a predatory effect. For them to be successful in squeezing out producers in the importing country, certain conditions normally have to be fulfilled in the exporting country. First, it has to benefit from external protection so that goods sold cheaply abroad are not simply re-exported to their place of origin. Second, in most cases the exporter has to be dominant in his market. Otherwise the removal of mainly foreign competition will avail little.

   In practice, it is internationally accepted that dumping may be countervailed whether or not the conditions for predation are fulfilled. It appears that criteria for predation have never been clearly elaborated. It is only necessary to prove that goods are being sold at dumped prices and that this causes injury.

2. One of the problems with GATT is its weakness. Its rules can only be enforced to a very limited degree. As there is no world authority, measures against unfair practices are confined to defensive actions by those countries hurt by these practices. Under these conditions, temptations for free riding, i.e. violating and/or twisting GATT rules in order to obtain national gains are often irresistible. Furthermore, as the GATT rules themselves are neither satisfactory nor complete - they are confined to trade in commodities -, world trade is distorted and does not always conform to the pattern corresponding to the distribution of comparative advantage.

3. After the considerable reduction of tariff barriers during the various GATT-rounds and the diminution of many quantity restrictions - although with notable exceptions in important sectors - import protection is now increasingly practised by using available measures that conform to GATT and by using newly developed non-tariff barriers, which often distort GATT rules. This practice may not only distort world efficiency conditions but also conflict with national and EC-internal competitive aims. This chapter is devoted to an analysis of EC trade policy with special emphasis on its relation to EC competition policy. A discussion of their interactions with third countries' policies is postponed to the sixth chapter, so that now the focus is on EC policies, disregarding for the moment strategic aspects.

   The discussion is organized around the different kinds of imperfections outside the EC (those within the EC were treated in the third and fourth chapters) and their consequences for EC import (and to some degree export) policy in both the short and the long run. A distinction will again be made between distortions originating in the private and in the public sector.

The Situation: Imperfect Competition in Third Countries

4. The underlying assertion is that many European firms, in particular in the automobile industry and in the electronics and information technology sectors, have lagged behind international rivals and suffer from growing technological dependence on non-Community countries. There is some evidence that EC trade

partners have artificially gained comparative advantage. The electronics and information technology industries differ sharply from the traditional models of international trade based on exogenous technology in that decisions by firms, groups of firms and governments can create technological advantages, which may be cumulative or very long lasting. There are innovations in technology that allow firms to capture rents from the trade partners' consumers and producers, and these innovations are susceptible to strategic policies. The EC has reacted against such "unfair" foreign competition either through protective measures, especially anti-dumping measures, or through activist industrial policy measures, which have recently found theoretical support in the literature (cf. chapter IV above).

European "backwardness" is attributed to foreign firms' unfair behaviour combined with aggressive industrial policy from foreign governments. The nature of the competitive process within foreign competitors' economies is said to be different from that within European economies, and this provides a scope for the asymmetrical realization of strategic advantages not available to their European competitors. Allegedly, foreign governments tolerate collusive behaviour on their domestic markets or grant large financial support that creates comparative advantages artificially. Private behaviour of foreign firms, in particular dumping come under fire as well as horizontal and vertical agreements and public intervention such as public procurement, industrial or technology policy including subsidies and state aid. Both public and private practices are incriminated to distort trade and to cause injury to the European producers in European as well as non-Community markets. Artificially low capital costs, biassed enforcement of anti-trust laws, aggressive industrial policy and public procurement are claimed to give scope for strategic advantages to non-Community competitors and to allow them to dump their products on European markets.

5. For instance, the Japanese cost of capital is said to be artificially low. This is linked to predatory behaviour - squeezing out European producers and then exploiting monopolistic rents - because predation rests on the ability of the predator to have easy access to capital, in order either to build excess capacity and manipulate competitors' expectations or to hold prices down. Hoshi (1991)

indicates that when firms are part of a "Keiretsu", information flows are better and so they are less liquidity constrained. By contrast, Aoki (1989) argues that the true cost of capital is not lower if we take account of capital gains to shareholders.

The biassed enforcement of anti-trust laws inside Japan is said to affect both vertical linkages and horizontal competitive behaviour. Data on the electronics market indicate high degrees of measured concentration. Other evidence suggests that Japanese firms compete vigorously. Apparently, institutional arrangements permit Japanese firms to make supra-normal profits at home and so permit predatory pricing in export markets. It is widely alleged that "collusive predatory dumping" has occurred especially in the consumer electronics industry. The US anti-trust case Zenith versus Matsushita provides interesting material. The facts of the case appear to show that there was a form of concerted action but the motive remains obscure. In a preliminary ruling, the US Supreme Court judged that the Japanese were not violating anti-trust laws and rejected the arguments of Zenith that the Japanese were actually engaging in "collusive predatory dumping". However, many commentators (e.g. Scherer and Ross (1990), Ordover and Saloner (1989)) have concluded that this case leaves many questions open since the reasoning of the 5 : 4 majority does not appear to rest on an exhaustive evaluation of the evidence.

Japanese industrial policy is well known for strategies that deliberately influence the transformation and industrial reorganisation of sectors. Although the traditional theory of international trade is based on the competitive model and assumes factor endowments to be "natural" and exogenous, it is recognized especially in the "new" trade theory that in many sectors comparative advantages are based on partially controllable elements. For instance, public policies may alter the process of accumulation of physical and human capital over time, which would in turn modify relative capital endowments. Over fifteen years ago (OECD, 1972, p. 149), Ojimi, Minister at the time, pointed out that the MITI (Ministry of International Trade and Industry) decided to establish in Japan industries which require intensive employment of capital and technology, industries which on the basis of comparative cost of production would be inappropriate for Japan, such as steel, oil-refining, automobiles, electronics.

From a short-run, static viewpoint, encouraging these industries seemed to conflict with economic rationality. But from a long-range viewpoint, these were precisely the industries where income elasticities of demand are high, technological progress rapid and labour productivity rose fast. Even though it can be argued that Japanese consumers have suffered from this development, most agree that Japan's past industrial policy, based on national consensus and a close relation between firms and the government, has made a contribution to Japanese foreign trade success.

Response by the EC. Analysis of Anti-Dumping and Anti-Subsidy Measures

6. A monopoly or cartel in the export industry of a third country may give rise to dumping behaviour towards the EC. According to the traditional dumping explanation - monopolistic price differentiation in segmented markets - the import sector concerned in the EC may suffer; and if predatory dumping is expected or feared, defensive measures are justified. This is the basis for anti-dumping rules according to Article VI of the GATT, which are translated into EC Regulation No. 2423/88, the foundation of the actual, very elaborate EC antidumping procedure. The essence of this procedure consists in establishing (1) a difference between the "normal" value in the exporting (third) country and the import price in the EC, (2) a consequential injury in the EC, in the import competing industry, whereupon (3) an antidumping measure is taken, which because of its GATT-conformity avoids the danger of retaliation.

7. Before analyzing the trade and competition related problems of this procedure, another distortion will be briefly discussed, because it is in many respects analogous to dumping. This is the phenomenon of subsidies, which - if directly or indirectly granted by third country governments to their export industry - lead to artificially low import prices, thus justifying countervailing measures under EC-Regulation No. 2423/88, which again is based on GATT Article VI.

Although anti-dumping and anti-subsidy procedures differ in important details, they have several characteristics in common. The first is imperfection in the third country:

(1) A monopolistic market structure in the private sector in the case of dumping, which permits "exploitation" of consumers in order to enable exporters to gain market shares by dumping;

(2) A contribution by taxpayers via subsidies to financing the development and production of goods which then can be exported at prices below actual private costs.

Both the private and the public distortion could be remedied by third country competition policy measures in a first best way, which is not done because of the apparent "egoistic" trade gains.

In both cases a liberal import policy in the third country could support third country competition policy by removing market segmentation via re-imports of dumped or subsidized exports. These first best measures would directly eliminate the imperfection, but this solution of the problem appears to run counter to national welfare interests.

8. The second common characteristic is the "artificially" lowered import price in the EC, implying a discrepancy between third country production cost (plus transport cost) and EC price, violating world efficiency conditions on the one hand, but improving EC terms of trade - at least in the short run.

   The apparent contradiction between this welfare gain for the EC as a whole and its resorting to anti-subsidy and anti-dumping measures leads to one of the core problems of this chapter. We shall first analyze the distribution part of it and then the longer-term aspects; strategic implications will be postponed until chapter VI.

9. Under paragraph 5 above it has already been mentioned that an important part of the anti-dumping procedure is the establishment of injury to the import competing industry. This is done by the Commission at the request of and based upon information initially provided by the industry association concerned.

The Commission then carries out extensive investigations, making use of the available data in order to determine whether a protective measure is justified. In this process the fundamental problem of how to realize the gains from trade has to be solved.

Elementary trade theory teaches that the opening up of trade in general leads to a shrinking of the import competing production and an increase in export production. The necessary factor reallocation is the prerequisite for the income enhancing production gains from trade, which eventually benefit consumers and the economy as a whole. Some qualifications have to be made in the case of intra-industry trade. Nevertheless it is astonishing that this idea is often overlooked, and that it certainly did not properly enter into the GATT antidumping regulations. It is, however, part of the EC procedure, but - alas! - only in a very weak form: after establishing injury in the import competing industry and before deciding on anti-dumping or anti-subsidy measures, the Commission has to take into account EC interests. This is certainly an improvement compared with GATT and also with US rules on antidumping, but it is far from sufficient to permit properly weighing the advantages of consumers - which often include industrial "consumers" in the case of intermediate products. It is to be admitted that it is not easy to evaluate gains and losses from protection, but it is certainly not impossible using available economic theory and applied methods. Protests against import protection by users of electronic parts, especially chips in the machinery sector, speak for themselves. Anti-dumping and anti-subsidy measures thus seem to favour import competing industries at the expense of consumers and other users of the imported goods. They are thus in conflict with the aims of competition policy in the importing country, particularly the EC.

10. Before we turn to the specific anti-dumping and anti-subsidy measures themselves, the above short-term, static analysis has to be supplemented by longer-term considerations. They have an export, third country aspect as well as an import, EC-member aspect. The first has to do with the fact that many new high-technology products, especially in the electronics sector, require high preliminary research and development costs and then are produced under increasing returns partly caused by learning effects in the early periods of production. From the point of view of the potential exporters - most of which are located in

the Far East - it therefore seems rational to combine all available resources - private and public - in order to finance the necessary investment (via high domestic prices and subsidies) and then to move down the learning curve as rapidly as possible in order to reap the benefits from large-scale production. This is done by charging export prices lower than actual domestic prices and costs, but high enough to cover eventually decreased average costs. In the early stages, this practice qualifies as dumping and/or subsidising, in the later phases this is no longer the case.

Dumping theory so far has been widely lacking this intertemporal aspect.

11. In the EC anti-dumping and anti-subsidy measures are often justified by asserting that the import competing sector comprises key industries, which by the aggressive export policies described are either ruined or prevented from developing at all. Thereby the EC would become completely dependent on third country deliveries and would forego the positive spillover effects of the said key industries. It is the old predation argument combined with an external effects argument. Both cannot easily be dismissed.

    The situation is in many respects similar to that of an infant industry, for which the pros and cons of protection have been extensively discussed in the literature.

    The essence of the infant-industry argument rests on dynamic learning effects so that the economy's transformation curve shifts outwards over time, and an industry that is not currently competitive may achieve comparative advantage after a temporary period of protection.

    The conditions necessary for infant-industry protection are: (1) irreversible technological external economies are generated that cannot be captured by the protected industry; infant industry protection is justified by the fact of external economies associated with the learning process, (2) the protection is limited in time and (3) the protection allows the industry to generate a sufficient rate of return equal to that earned on other investments. The expected benefit must be sufficiently great to offset, in present value terms, the current costs of the policy required to produce the benefit.

The normative theory of international trade policy has established that the first-best policy would be a production subsidy aimed at the source of the distortion. This is preferable to a tariff which would lead to a consumption distortion. Baldwin (1969) has indicated that a protective duty cannot guarantee that individual entrepreneurs will undertake greater investments in acquiring technological knowledge.

Under certain types of market failure the first-best policy may not be a production subsidy. The market failure may lie in the imperfection of the capital market that makes the financing of investment in infant industries difficult. In this case the first-best policy is to improve the capital market directly.

Another case might involve dynamic external economies created by the labour training of a firm, but the firm is not able to retain the workers it has trained. In a perfect market situation the workers would accept low wages during the learning stage, financing themselves by borrowing. But if the capital market is imperfect or if there are rigidities in wage determination, this may not be possible. The first-best policy is to improve the capital market, the second-best policy is to provide financing for, or subsidization to, the labour training. If policy makers subsidize labour training or financing for investment, they would have to contend with problems generally discussed under the heading of "picking the winners". How would the government know which labour force or firms are likely to be the most successful? How would inevitable mistakes be corrected in a political process? Infant industry policy clearly faces the same problem as more general industrial policies, in particular an information problem which may be combined with excessive entry, rent seeking behaviour, sharp increases in costs for scarce resources and potential foreign retaliation. State aid to infant industries creates an incentive for new firms to enter. Each additional firm lowers the expected profitability of other firms. As too many firms enter, excess resources can be committed. Profit-seeking entrepreneurs in infant industries could be willing to use resources to obtain a monopolistic position sponsored and protected by the government. The protected entrepreneurs will then secure monopoly rents at the expense of the whole society.

Empirical evidence of the infant industry argument is not extensive. Empirical justifications remain ambiguous. A major study (Bell et al., 1984) concluded that productivity growth in infant industries appears to be highly variable and that

few of the infant industries studied in less developed countries have demonstrated the high productivity needed to achieve international competitiveness. Krueger and Tuncer (1982) showed that in Turkey there was no evidence to suggest that more protected industries experienced a higher rate of declining costs than less protected industries. Even though a protected industry may grow, the question remains whether it would not have grown in the absence of intervention.

The result of this discussion is (1) that protection is only second best in comparison with direct subsidies, because the latter avoid the distortion between world market and domestic prices, (2) that the eventually expected gains from growth in the infant industry must be sufficient to compensate for the initial losses, and (3) that it is not self-evident that public authorities know better than private entrepreneurs, which production lines are promising, and have stronger incentives to transform their knowledge into successful activities.

It therefore seems safe to conclude that a case for infant industry protection can only be made under very narrow conditions.

12. It has been said that anti-dumping can convincingly only be justified if dumping is predatory. But to establish this is quite difficult for several reasons. The first of these is that predatory dumping in any market is quite difficult. To succeed, it requires not only that the predator be able to drive his competitors from the market; he must be able to keep them out as well. This can be facilitated by high entrance costs, but in the long run it has to be done by keeping prices fairly low, but then the benefit to the predator, as well as the cost to society, is small. In practice it appears that foreign firms are as aggressive in competing with one another as they are in competing with the import competing domestic firms.

Antidumping regulations always face the problem of how to establish a predatory intention. Because of the inherent difficulties they are often content with establishing ordinary dumping, which of course is much easier. EC antidumping rules make no exception. The result is often to facilitate the finding of dumping which is brought about by modern pricing practices. It has already been argued in paragraph 10 above that key features of modern, high technology production are high start-up costs in the form of research and development outlays as well as the traditional initial outlays for capital equipment and strong learning effects, i.e. unit costs fall the greater the firms' cumulative volume of production.

Furthermore, modern products are differentiated from each other in various ways and tend to have comparatively short lives because new and better products are being continuously created through research and development activities. One consequence of these characteristics is that in setting prices firms take into account their expected production volume over the product's life cycle and try to maximize their profits over the product cycle. This forward pricing may mean that firms do not cover average production costs for the item in the early stages of production. This pricing practice has important implications for the manner in which anti-dumping laws are administered. EC authorities determine dumping by considering whether a firm is selling its product in export markets below normal value which is based largely on average costs. New entrants into a market, in which established producers have been selling sufficiently long to cover their average costs, will automatically be guilty of dumping since they must meet the market price, yet their production volume is too low to cover average costs.

Another case where the application of the below-cost rule does not make good economic sense can be observed in a recession, when demand declines sharply and it is rational for firms to continue in operation as long as they cover variable costs. However, the current administration of the EC anti-dumping law does not always take this into account.

In comparison with trade policy, competition policy of the EC is much stricter in the handling of predatory pricing. This became manifest in the ECS/AKZO case, which was finally decided by the European Court of Justice (AKZO Judgement, OJ 374/85). The Commission had found that in its sale of benzol peroxide to the customers of ECS, a small supplier of that product, AKZO had engaged in predatory pricing. Both AKZO and ECS are European firms in the chemicals sector. Apart from documentary evidence showing AKZO's intent to eliminate ECS as a competitor, the Commission relied on a series of factors (selective nature of the price cuts, departure from AKZO's previous policy of full cost recovery for benzol peroxide in the flour additives sector, subsidization of the price cuts in this sector by transfers from its plastics and elastomers division) to establish AKZO's anticompetitive intent. The Commission referred to these elements to reject AKZO's argument that its prices were above its average variable cost. This ruling under Art. 86 Treaty of Rome by the Commission was then confirmed by the European Court of Justice.

The judgement thus provides a detailed definition of predatory pricing, which is certainly much more narrow than that of dumping underlying the EC's trade policy: dumping may be countervailed much easier, even when conditions for predation are not fulfilled. Antidumping measures thus can provide protection to industry, which it is hard to justify on economic grounds. It is important to note that competition rules are in the end designed to protect competition itself rather than competitors. In the ECS/AKZO case, the only case so far of "predatory pricing" under EC competition rules, the Commission emphasized that what mattered was not the survival as such of ECS, AKZO's small competitor, but continued competition in the EC market of benzol-peroxide.

13. We finally turn to the specific anti-dumping and anti-subsidy measures which are at the disposal of and have been used by the EC.

The original measure is of course an anti-dumping or an anti-subsidy, i.e. a countervailing duty, which can be levied up to the amount of the dumping margin or the subsidy respectively, but may be lower if this is sufficient to remove the injury. The Commission may impose provisional duties, but definite duties have to be agreed on by the Council. They are limited to a period of five years, which however can be extended following a formal review.

Anti-dumping measures are by far the most frequently used among the European Community's range of special trade measures, as compared to safeguard and countervailing measures and the new trade policy instrument. 900 decisions were taken[6] and 400 cases were initiated between 1980 and 1990 in the EC (see Table 5 for EC antidumping actions by product category, Table 6 for the geographic distribution of EC antidumping actions). According to Messerlin (1989), the average antidumping measure is equivalent to a tariff of 23%. The economic effects consist in substantial import reductions, price maintenance and trade diversion, which have been quantitatively estimated e.g. by Messerlin (1989). There seem to be no estimates on total welfare effects. It is not easy to assess quantitatively the magnitude of anti-dumping and countervailing duties, because they are lumped together with other tariff receipts by the member state border authorities.

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6 The number of decisions is greater than the number of cases because a given case may concern several countries or exporters for each of which a decision must be taken.

Table 5: EC antidumping actions by product category, 1979-1988
(% in each category)

	Pro-ceedings	Provisional duties	Definitive duties	Under-taking	No Dumping
Chemicals	35	48	45	41	7
Elect., Mech.	20	15	23	11	24
Metal, Steel	20	21	17	17	28
Misc.	25	16	14	31	41
Total	100	100	100	100	100

Source: Nicolaides (1990), p. 277.

Table 6: Geographical distribution of EC antidumping actions 1979-1988
(in percent)

	US & Canada	Far East	Eastern Europe	EFTA	Turkey	Other[b]	TOTAL
Chemicals	26	15	42	3	-	14	100
Electronics	12	88	-	-	-	-	100
Mechanical	-	45	45	-	-	10	100
Metal, Steel	4	11	30	9	-	46	100
Textiles	26	13	13	-	26	22	100
Wood & Paper	18	5	32	18	-	27	100
Misc.	13	16	35	-	-	36	100
Total	9	16	34	4	10[a]	27	100

[a] Figure refers to "other Western Europe" which excludes EFTA.
[b] OPEC- and Latin American countries.

Source: Nicolaides (1990), p. 277.

14. Problems, especially from a competition point of view become even greater, when instead of imposing a duty an undertaking is negotiated. A so-called undertaking consists in the offer by the exporter to charge prices in the EC which are not lower than an agreed minimum. In contrast to anti-dumping and countervailing duties, where exporters are free to lower prices further, provided the import duties are paid, this is a binding commitment, whose protective effect is more certain. The tariff proceeds foregone by the EC are now appropriated as rents by the exporters, which explains the latters' preference for undertakings.

A prerequisite for the stability of agreements of this kind is the reliability of the commitments, which is guaranteed by the threat to impose an antidumping duty. Although undertakings are negotiated with exporters individually, the economic effect is similar to that of an international cartel between third country exporters and EC producers of the industry concerned at the expense of consumers or users of the product, and of taxpayers respectively in the case of subsidies. From an economic perspective, such a measure is the most paralysing for the functioning of the price system: it blocks and distorts prices, which no longer signal relative scarcities, and obviously leads to resource misallocation. From the perspective of competition policy, if a domestic producer or a group of producers were to conspire with exporters to set exporters' prices, or if exporters were to agree amongst themselves to set minimum prices for export to the market concerned, such actions would call for sanctions under EC competition laws. Under the cover of trade policy legislation, the same actions are immune to the competition laws. Of course, these agreements might not necessarily attract sanctions by the exporting country concerned. The price shelter is useful to any European firm's intent to create a cartel. Messerlin (1989, 1991) has provided evidence of a connection between anti-dumping actions and cartel behaviour by European companies. About a quarter of all cartel cases initiated by the Commission since 1980 concern firms and products that have also been involved in anti-dumping cases. A further point noted by Messerlin is that anti-dumping actions are lucrative for the firms sheltered. The polyethylene and polyvinyl chloride duties allowed prices in Europe to rise by 11 and 14 per cent respectively, generating additional annual revenue of ECU 352 million and ECU 312 million respectively for EC firms. This was roughly ten times the cartel fines eventually levied by the Commission.

As pointed out by Stegemann (1990, p. 295), price undertakings clearly are a legal substitute for illegal price fixing at the same level. There is no doubt that what is achieved legally by price undertakings in most cases would be illegal under Art. 85 (1) if equivalent restrictions were organized by private firms without the Commission and without the limited immunity granted by anti-dumping proceedings.

15. The new industrial organization approach to analyzing trade policies also provides evidence that domestic firms are likely to try to use the anti-dumping duty to further their own profit interests. A case can be made that the anti-dumping laws will be used by domestic firms to improve their competitive positions vis à vis foreign firms. Suppose, as is often alleged, it is quite easy for domestic firms to obtain a finding of dumping by foreign firms. Furthermore, suppose domestic firms are being materially injured by foreign competition. Under these conditions, domestic firms will file dumping charges against foreign firms so that antidumping duties will be imposed against the foreign firms and thereby shift foreign profits to the domestic firms. Staiger and Wolak (1990) demonstrate in a theoretical model how antidumping duties can be used by domestic firms to their advantage. The idea is to enforce price collusion during periods when collusion is otherwise difficult to sustain. In particular, if firms face an uncertain market demand and have to invest in capacity before the resolution of this uncertainty, price collusion will be difficult in periods of low demand. In such periods antidumping suits will tend to arise: by reducing the incentives for the foreign firm to defect from any collusive price, the filing of an antidumping suit by the domestic firm induces a greater degree of collusion (a higher price), but only by shifting market share toward the domestic firm.

National governments and EC authorities are often involved in establishing and maintaining this situation, which is not easy to justify on efficiency and distribution grounds. From the EC's point of view there is only the argument, already discussed in paragraph 9 above, that the industry in question can only be developed with some kind of public support and redistribution measures, because decentralised markets have intertemporal deficiencies. Again it is difficult to argue this case convincingly.

The instrument of undertakings is used less by US than by EC anti-dumping authorities. In the case of developing countries the implied rent-shifting to the exporter may be considered to be even helpful for the country concerned. Special considerations apply in the case of state trading countries whose foreign trade is governed by completely different rules - they are not discussed here - quite apart from the fact that the importance of this kind of trade is diminishing.

16. Whereas an undertaking usually involves an agreement about minimum export prices, a voluntary export restraint (VER) is a commitment by exporters to quantitatively limit exports. VERs have gained importance during the last decade; according to Kostecki (1987), 10% of world import volume in 1986/87 were subject to these restraints. They may be the outcome of a safeguard procedure, but otherwise they have no legal basis, unless they are covered by Article 115 of the Rome Treaty. The latter, however, should be phased out, as it was intended to cope with difficulties during the period of transition to the common EC trade policy.

    Often VERs are the indirect result of anti-dumping and/or anti-subsidy procedures. Economically quantity restrictions and minimum price guarantees have much in common; both restrict competition in the importing country. In 1988 the EC was partner to 138 VERs, while the IMF counted 261 VERs in the world.

    One of the recent examples is the VER concerning automobile exports into the EC. It has been negotiated in order to replace some national quotas no longer enforceable when the Single Market is realized at the beginning of 1993. It sets an absolute limit on Japanese car exports and thereby aims at giving European firms breathing space until 1997. The objective of the VER was to freeze Japanese exports at the level of one million cars until 1992. Whether this "chance" will be used, remains to be seen. Past experience with similar protection inspires doubts. At any rate it is to be expected that Japanese exporters will have incentives to shift to technologically more advanced and therefore higher priced automobiles ("upgrading effect of VERs") and thereby increase competition especially in this market segment. It is astonishing that countries and firms strong in this segment did not object more effectively to this VER.

17. The development of trade policy in recent years not only in the EC but also in other major trading countries seems to be characterized by a movement towards more negotiated agreements at the expense of rule-based trade policy measures such as old-fashioned tariffs and duties. Although the public choice approach can provide some explanations by pointing to the interests of the parties concerned, it is far from clear where this movement will lead and how it is to be judged in comparison with a liberal multilateral trade system as envisaged by the Havana Charter and its ITO. We shall revert to this theme later.

18. In concluding this chapter one further important consequence of EC import protection has to be mentioned. It is the incentive for third country firms to "jump the tariff wall" by investing directly in the EC. Although there are probably always reasons for foreign direct investment other than circumventing anti-dumping and countervailing duties, the cases of "screwdriver plants", which assemble imported parts not subject to import restrictions and then sell their products within the EC, have attracted considerable attention.

    The Treaty of Rome discriminates between the treatment of extra-EC imports and EC output, but it does not differentiate EC goods by ownership of the capital. Problems in the anti-dumping procedure, such as the distinction between domestic and foreign, either with regard to the origin of products or with regard to the ownership of capital, are therefore directly relevant for the principles laid down in the Treaty of Rome.

    In 1987, the Community introduced a new element into its anti-dumping law by providing for the imposition of a special charge on articles assembled within the Community from imported components where the same article was already subject to an anti-dumping duty. The object was said to prevent an exporter from avoiding an existing anti-dumping duty by dumping components rather than the whole article. The charge is levied, when the value of parts produced inside the EC is less than 40%. Although the regulation applies only to those enterprises and related firms against which definitive antidumping duties have been decided, it practically amounts to a discrimination against foreign *owned* firms, which now supplements the GATT-legal discrimination between home and foreign *produced* commodities.

A GATT panel has recently held that the Community's components rules are incompatible with the General Agreement. The Community's anti-circumvention rules have been found by the GATT panel to be in breach of Article III of the General Agreement and not justified by Article XX (d). However, the panel issued no general condemnation of anti-circumvention measures.[7] Nonetheless, a host of problems result from this procedure, which is also a serious divergence from the principle of free capital mobility. It is to be hoped that a satisfactory multilateral solution for the anti-circumvention problem will be reached in the Uruguay round.

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7 Cf. Commission of the EC (1990), pp. 23-24, Ninth Annual Report of the Commission on the Community's Anti-Dumping and Anti-Subsidy Activities.

VI. The Trade Policy Dilemma. Towards a World Competition Order

1. Problems of interaction between firms and/or governments of different countries, retaliation, strategic behaviour, which may be described in game theoretic terms, came up on several occasions during the preceding chapters. But they have been postponed so far in order to isolate those questions which could be discussed under the assumption that third countries' reactions to EC trade and competition policies can be neglected. Compared with the real world this distinction is of course an abstraction, but for a systematic analysis it seems helpful. We are now concentrating on the game theoretic aspects of strategic trade policy, retaliation, trade policy interactions and their possible solutions. They are all characterised by the fact that it is no longer one player who is maximizing one objective function subject to given restrictions, but that there are several actors who have to take into account that they are pursuing possibly conflicting aims, and therefore are confronted with reactions and counter-actions of their partners or adversaries respectively.

   As long as policy makers responsible for trade and competition policies only pursue their own (egoistic) national welfare maximizing objectives and do not pay attention to possibly harmful effects on their trading partners, the latter may react and retaliate. Such uncoordinated behaviour led to the breakdown of world trade in the interwar period, a situation far worse than would have been certain restrictions in aggressive export and protectionist import policies and the readiness to refrain from monopolistic exploitation on the world markets. A prerequisite for a solution of this trade policy dilemma - which is analogous to the well-known prisoner's dilemma - is some kind of coordination between the important actors. The non-cooperative world trade game is thereby transformed into a cooperative game, whose overall solution is superior in world efficiency terms, even if some players have to forego egoistic gains, because the corresponding losses of others are avoided.

   Whether this general and simplified idea of a cooperative solution for the "trade policy dilemma" can be applied in reality, has to be investigated carefully.

2. The above diagnosis has been well known for a long time. It is at the heart of such solution efforts as the Havana Charter with the International Trade Organisation - which was never established - and finally GATT after the Second World War. GATT in this interpretation is a means of converting the trade policy game into a cooperative game. As we know, it has been not without success. But since a decade or so it has increasingly been eroded, because the incentives to free ride became more and more irresistible for many governments, not only in the Far East. These incentives result from the fact that immediate and considerable gains can be reaped by aggressive export and protective import policies, which exploit imperfections at home and abroad. Losses from this behaviour come with considerable lags, because reactions of those who are hurt take time, and meanwhile the gains have been secured.

3. The erosion of the multilateral world trading system has many aspects and reasons. It was certainly never complete, and enforcement was always limited. But certainly during the 1950s and 1960s the economic dominance of the United States and her interest in and engagement for the liberal trade system contributed strongly to its success. With the steady integration of Europe and the vigorous emergence of the Japanese and some other Asian economies in the late 1970s and the 1980s the picture changed drastically. The present "triad" is much more difficult to manage than the previous hegemonial system, because diverging interests have to be reconciled in a tedious process; this is only successful if the players can be convinced that it is in their own long-term interest to forego the possible gains of ruthless trade policy on the export and import side, to accept the rules of fair competition and to adhere to them even if this sometimes seems to be costly in the short run.

4. There are developments under way in many fields of today's world which force the community of nations to cooperate, e.g. in the areas of monetary policy, of the use and protection of the environment, of population and migration problems, of development, and of security. In all these areas international institutions have been established, are being adapted to new tasks or have to be devised and developed in order to organize cooperative games. This is also true for trade and competition policy, where the existing imperfections permit behaviour by private

agents and give rise to interventions by governments, which have to be co-ordinated among the trading partners of the world.

This process has already reached a certain maturity within the EC, where internal trade policies have largely been replaced by EC competition policy. With the accelerating internationalization of the world economy, present trade policies by nations and blocs must be coordinated more and more and eventually be replaced by a world competition policy, as originally envisaged by ITO.

5. The GATT-rules can be interpreted as an approximation to a world competition order, an imperfect one - it is true -, but nevertheless a first step in this direction. It is an agreement defining certain distortions and discriminations, banning some of them, and - as there is no worldwide competition policy which could directly intervene with the aim of eliminating the discrimination - it defines counter-actions permitted to be undertaken by those which are hurt.

   The development - although very cautious, slow and weak - which can be interpreted as approaching the goal of a world competition order from the competition policy angle instead of the trade policy side, can be described by several steps, the first being an effort to extend national competition policy. The second is an attempt to negotiate agreements between two national competition policies, and the third consists in the idea of establishing a multilateral competition order. These developments will be reviewed in this order in the remainder of this chapter.

Extension of National Competition Policy

6. Given the limited success and sometimes even counterproductive effects of applying trade laws in order to fight anticompetitive behaviour abroad, it seems tempting to look for alternatives. One such alternative is antitrust policy, which by its very nature aims at improving competition. The problem is how to extend jurisdiction beyond national borders.

   This route has been followed to some extent during the last years by the USA in an effort to break up some of the Japanese web of agreements, ownership interdependences and consequential anticompetitive behaviour, known as Keiretsu.

In a hearing of the US Congress on October 16, 1991, Douglas E. Rosenthal (1991) reported on several recent cases in this field which have been tried and successfully been brought to an end:

7. In the early eighties two complaints by the USA against Japanese buyer cartels (C. Itoh and Daishowa), who foreclosed competition among themselves and boycotted US suppliers refusing to trade on their terms, were successful. Later in 1988, the Union Carbide Corporation won a case against several Japanese firms, who had conspired to hold down the price of polysilicon (a raw material for semi-conductor production) which Union Carbide wanted to export. Other cases concerned prices of auto parts, which were collusively driven down by Japanese firms.

   For an assessment of the usefulness of antitrust legislation, questions of juridical procedure and costs have to be considered. Apparently some importance needs to be attached to the lack of coordination between trade policy and competition policy authorities in the USA - a deficiency which does not seem to be completely absent in the European Community.

   But the main problem is not even mentioned in Rosenthal's hearing: it is the question of how and on which legal basis US antitrust law can be enforced outside US jurisdiction. Whatever the answer to this question is, it seems highly improbable that the problem of extraterritorial law enforcement can be easily solved in the European case. International agreements therefore seem to be called for.

Bilateral Agreements

8. In 1991 an agreement between the Government of the USA and the Commission of the EC was concluded. It provides detailed rules for notification, confidential information, consultation and cooperation between the two parties in all matters of anti-competitive activities in the territory of one party which may affect the interests of the other party. This relates to investigations, procedures and enforcement of decisions by the parties' authorities. While one party may take the lead in a particular case, both parties are bound by existing competition laws.

Articles V and VI of the agreement contain important provisions aiming at avoiding conflicts which may arise when anticompetitive activities adversely affect the interests of the other party. Although the formulations are rather cautious, they provide some possibilities that a party may be induced (not forced!) to initiate measures against anticompetitive behaviour in its territory at the request of the other party.

The first session under the agreement was held at the beginning of November 1991 in Brussels. European and American representatives discussed numerous points (exchange of information as well as specific economic sectors - transport by air and sea, telecommunication).

9. American anti-trust legislation and European competition laws, the latter being influenced by German "Wettbewerbsrecht", are based on a common philosophy. This has doubtlessly facilitated the agreement. On the other hand, it follows from this consideration that similar agreements, e.g. with Japan, will be extremely more difficult to conclude. Nevertheless it seems worth every effort, if one considers how much more efficient a situation would be, where Japanese authorities can be brought to enforce competitive behaviour among their enterprises and to abandon some of MITI's activities. US and EC anti-dumping and anti-subsidy procedures would become meaningless, competitive processes would be intensified, and the resulting efficiency gains would set free resources far in excess of the costs for the few additional competition policy investigation and enforcement agents.

Multilateral Coordination

10. The scenario depicted in paragraph 9 above unfortunately belongs to the realm of utopia. Nevertheless it can be reported that there are steps to approach this state of affairs. They are all based on OECD-Recommendations by the Committee of Experts on Restrictive Business Practices, which seems to be the international body most engaged in drawing attention to the interactions between competition and trade policies. The Council Recommendation

concerning "Cooperation Between Member Countries on Restrictive Business Practices Affecting International Trade" [C (79) 154 (Final)] was issued in 1979 and has since been reviewed, revised and enlarged on several occasions.

In 1984, the OECD produced a report on the interactions of trade and competition policy. This recommended that governments should subject their trade-policy decisions to a check-list of questions regarding their likely impact in areas such as prices, the availability of choice to consumers, structural adjustment prospects and investment flows. Subsequently, the OECD added to this report a study on the effects of trade barriers on the automotive industry in four selected countries: the United States, Canada, France and the United Kingdom. The study found that the effect had been costly in competition terms: "Concentration has generally increased, competition has been reduced, and the danger of widespread collusion has been enhanced" (OECD, 1987).

Laws against unfair trade practices, such as dumping, were specifically excluded from the trade measures that the OECD thought should be subject to its check-list. There is no reason, however, why questions should not be asked openly concerning the impact of all trade-policy decisions, including anti-dumping actions, both on consumers and on domestic competition. The more openly such questions are discussed, the less likely it becomes that trade policy will come into conflict with the needs of domestic competition policy.

The main emphasis of the recommendations is on improving mutual information between trade and competition policy authorities as well as between national authorities. In this latter respect progress can be reported: the number of notifications, exchanges of information and consultations between OECD Member Countries increased from an average of 37 per year in the period 1976 - 1979 to 106 per year between 1980 and 1985.

Concerning "coordination of action", the more concrete and relevant form of cooperation suggested by the recommendation, success is meagre. No such co-ordination was reported, only a few notifications gave rise to some parallel investigations on mergers, acquisitions and joint ventures. One must conclude therefore that the OECD Recommendations' significance is confined to drawing attention to this pressing problem. At most the OECD can act as a catalyst - which is important enough. Agreements must be concluded by governments. Hopefully the next GATT round (after Uruguay) will take up the subject.

11. In the Uruguay Round the Subsidies Group made an effort to improve GATT rules in this field. The starting point is recognition of the fact that in the field of subsidies the distinction between trade policy and competition policy has become very blurred. In Chapter IV above the discussion in the US regarding steel has already been mentioned under paragraph 17. This discussion has intensified since the decision taken by the United States in 1989 to continue its voluntary export arrangements in steel until 1992. In exchange for an agreement to renew its steel quotas for only two and a half years instead of the normal five, the United States sought a series of bilateral agreements from its trading partners requiring them to limit their own steel subsidies. It was not difficult for the EC to agree because it was already imposing a strict regime. The final result was a consensus for market-access restrictions to disappear by March 1992, coupled with the discipline on subsidies, market access and dispute settlement.

    It has been suggested that the aim should be to multilateralize this agreement in the Uruguay Round, possibly extending it to products other than steel. The chances of converting such an arrangement into more general rules for subsidies are slim: the problem with such agreements in the GATT is that they tend to be weaker than the strictest internal disciplines. In the case of steel, the chances of achieving a strict multilateral discipline are higher because of the bilateral arrangements that the United States has agreed with other producers. The existence of such a multilateral agreement could reinforce competition policy in the steel sector. It would make it harder for member states to seek, and be granted, a derogation from internal disciplines.

12. As pointed out by Baldwin (1991), the Subsidies Text of the draft final act embodying the results of the Uruguay Round[8] is a first attempt to classify subsidy expenditures at a multilateral level. Participants have tentatively agreed on a threefold classification of subsidies: prohibited subsidies, actionable subsidies and non-actionable subsidies. This classification corresponds broadly to the proposal of the United States which distinguishes between prohibited "red light" subsidies, actionable "yellow light" subsidies and permitted "green light"

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8 Draft final act, GATT Secretariat, 20 Dec. 1991, p. I, 1-12.

subsidies. Prohibited subsidies cover mainly export subsidies and subsidies contingent upon the use of domestic over imported materials. Against such subsidies the importing country should be able to impose countervailing duties. Actionable subsidies are those that cause injury to a domestic industry, nullify or impair the benefits accruing to another country under the GATT, or result in serious prejudice to its interests. When a signatory believes any of these possible effects of subsidization have occurred, its government can initiate a consultation process that eventually leads to a decision by a panel of experts on the consistency of the subsidy with GATT rules. In the text proposed by the chairperson of the Subsidies group, non-actionable subsidies include assistance for research and development, structural adjustment assistance, assistance for adapting existing facilities to new environmental requirements and assistance to disadvantaged regions. However, if a country believes that such subsidies cause injury to a domestic industry or serious prejudice to its interests and that these effects are serious and long-lasting, it can initiate a dispute resolution process which eventually leads to a decision by a panel of experts on the consistency of the measure with GATT rules.

As Baldwin (1991, p. 8) notes, although this new approach to the subsidies issue represents an improvement over the Tokyo Round, the key determinant of whether a subsidy can be countervailed is, as in the past, whether it causes material injury to domestic industry or seriously prejudices a signatory's economic interests. However, suppose an R & D subsidy to a particular industry in a country results in increased technological knowledge that increases real income levels in all countries but also causes injury to an import-competing industry in some of these countries. Under the proposed rule, there are no acceptable subsidies by foreign countries, no matter what their total economic effects, if they cause material injury to some industry in these countries.

Extensions of EC-Competition Policy

13. At a time of globalization of business strategies, trade policy instruments such as antidumping become inadequate for the mere reason that the distinction between "internal" and "external" competition is more and more blurred. With the growth of international direct investment, the importance of intra-firm trade,

the increasing mixture of the local and international contents of final products, the continuous process of delocation of activities all over the world, antidumping is an inadequate solution to control effectively the multiplication of restrictive and monopolistic practices in world markets. As pointed out by Luc Soete (1991), these transnational issues will require world-wide agreements.

It appears therefore that the limitation and inadequacy of the use of trade policy instruments should lead to a coordination of competition policies and cooperation between competition policy authorities. We will here examine the case of the EC and the EFTA building the EEA (European Economic Area). It is clear that, in the EC, member states have fully given up their right to use trade policy instruments but at the same time created a strong Community competition authority. Antidumping duties are not applied to trade within the Community. The problems of predatory pricing are dealt with by the Directorate General IV responsible for competition policy.

Competition matters had a high profile in the Community's discussion with EFTA on the creation of the EEA as well as with East European countries (Poland, Hungary, Czechoslovakia) on European agreements. As Sir Leon Brittan, EC Competition Policy Commissioner, had argued in a speech to Norwegian industrialists early in 1990, the EC would maintain the right to employ antidumping measures until "truly equal or analogous rules of competition had been established between the two blocs". There were two main problems in these discussions as they affect competition policy. The first was the extent to which EFTA countries could adopt rules created by the European Community, the second problem related to the way in which these rules could be enforced. The EFTA countries have accepted EC competition rules both on private and public restrictive behaviours. In return the Community is largely abandoning its trade policy instruments. Art. 53 of the EEA Treaty prohibits as incompatible with the functioning of the EEA all agreements that may affect trade between contracting parties and that have as their object or effect the prevention, restriction or distortion of competition within the EEA territory. Art. 57 extends the EC merger regulation (No. 4064/89) to the EFTA countries. An "EFTA surveillance authority" was created as a counterpart of DG IV.

14. In the European agreements with Poland, Hungary and Czechoslovakia, these countries committed themselves to the application of EC competition rules, but no supervising authority was created. Within a three-year-transition phase (Art. 63 para. 3 and Art. 62 para. 3 for Poland and Hungary respectively), Poland and Hungary shall adopt the necessary rules for the implementation of Art. 63 para. 1 and 2 and Art. 62 para. 1 and 2. These paragraphs focus on the fundamentals of EC competition rules on cartels, abuse of dominant positions and state aid. The Community as well as Poland and Hungary maintain the right to use trade policy instruments - at least until the necessary rules for implementation of Art. 63 and Art. 62 have been adopted.

Worldwide Competition Rules?

15. Recently, efforts to prepare an agreement on worldwide competition rules are being intensified. Wolfgang Kartte (1992), former president of the German Federal Cartel Office (Bundeskartellamt) pleaded vigorously for an initiative by the G7 (the Group of the Seven Great Economic Powers USA, Canada, Japan, Germany, United Kingdom, France and Italy) to take up the ideas of the Havana Charter and to revitalize ITO or to enlarge and strengthen GATT with the aim of codifying enforceable rules for free world trade. At the same time, at the 1992 World Economic Forum in Davos, Sir Leon Brittan, Vice President of the EC-Commission and responsible for Competition Policy and Financial Institutions, submitted rather detailed proposals for a "coherent and clear set of rules agreed internationally with a proper enforcement system, to be accompanied by national laws following the same general objectives." (Brittan, 1992, p.8).

    For the various areas of competition policy, suggestions have been submitted as to how present national and EC and GATT regulations could be extended, improved and made enforceable on a world level. The aim is to eventually include control of state aid, prohibition of cartels and mergers as well as control of national monopolies, thereby replacing actual trade policy instruments and rendering them obsolete.

    "There is a long way to go before any of this can be realized. That is not a reason for doing nothing. It is rather a reason to begin work right away. If the promises of the liberalisation of world trade are to be kept, we need effective competition policies at all levels of economic life." (Brittan 1992, p.13).

VII. Conclusions and Policy Recommendations

1. The argument in the preceding chapters was based on the conviction that efficiency in the world economy, i.e. a situation where misallocations and therefore waste are avoided, is a widely accepted aim. In the face of imperfections in factor and product markets including imperfect property rights, government intervention is called for in order to improve efficiency. Within the jurisdiction of a state this can be accomplished by competition policy.

   But in open economies the situation is different: domestic distortions may induce trade policy interventions in order to improve the own welfare position, and foreign distortions leading to foreign trade policy interventions induce domestic trade policy reactions.

   Within the EC these problems have widely been solved during the last years, as EC-internal member-state trade policies have been replaced by EC-wide competition policy (chapter III). But with respect to third country relations the problems remain. They have been discussed first with respect to their unilateral aspects, distinguishing the consequences of EC imperfections for trade and competition policy (chapter IV) from third country imperfections and their consequences for trade and competition policy (chapter V); and second with respect to their bi- and multilateral strategic aspects, taking into account game theoretic interactions (chapter VI).

2. As a result of our analysis we reached the conclusion that in many cases trade policy measures are only second best, when direct interventions by competition policy at the source of imperfections are not available. Especially anti-dumping and countervailing measures have often negative effects, because competitive distortions are not properly taken into account.

   It has to be acknowledged though, that aggressive export promotion in many cases has improved welfare in the active country; this policy found apparent theoretical justification in the literature on strategic trade policy, based on the new trade theory which explicitly takes account of imperfect competition,

economies of scale, product differentiation, information and transaction costs and the lack of enforceable property rights. But in the bewildering variety of cases in this predominantly partial analytic literature, results depend often crucially on particular specifications, assumptions and empirical observations. Consequently, the information necessary to decide upon the appropriate policy is not easily available, least of all to government officials. Leading economists in the field, such as Helpman and Krugman (1989), therefore have concluded that "free trade remains a useful rule of thumb" in spite of the qualifications which have to be introduced into the traditional theory of trade policy.

3. This conclusion is reinforced when we recognise that the new rationalisations for trade interventions are often used to camouflage massive particular interests: in many cases the result of aggressive export policy, combined with import protection, is an international cartel of the leading producers. If such implicit collusion under benevolent authorities is not emerging, trade wars may be the result of the non-cooperative interaction of conflicting trade policies. In both cases the only remedy seems to be a search for first best measures correcting the underlying imperfections directly. And this is competition policy which has to be organized on a world scale as has been argued in chapter VI. Or in other words: the development in the EC, which led to a replacement of different trade policies by a unified competition policy, must be repeated on the world stage, if the present dangers for the liberal world trading system are to be removed.

4. There are a number of policy recommendations which follow from these conclusions. They will be listed in an order of increasing generality, starting with small and concrete steps that appear to be feasible immediately, then proceeding to more ambitious and general ones which require more time and effort.

5. In the area of antidumping it seems advisable to strengthen the provision that EC interests have to be considered to the point that not only injury in the import competing industry but also advantages in the sectors of consumption and use of dumped products have to be taken into account. In general, in the process of policy making more effort should be made to increase the weight of those sectors

and groups which in general gain from trade liberalisation but are often not as efficiently organized as sectors which may profit from protection.

6. In order to avoid or at least diminish anti-competitive effects of some trade policy measures, such as for instance undertakings and VERs in the anti-dumping procedure, it might be helpful to institutionalize the participation of officials responsible for competition policy in the preparation of, and decisions on, such trade policy measures.

   This might be complemented by efforts directed at more transparency in the procedure of fixing undertakings and VERs.

7. Aggressive export policy by third countries being one of the major causes of unfair competition (which cannot directly be influenced by the EC), it seems wise to evaluate similar EC policies with a goal of keeping public intervention within levels justifiable by efficiency conditions. The aim would be to extend intra-EC state aid control to EC subsidies for trade and investment with third countries.

   The introduction of such an offer into worldwide negotiations in the field (the next GATT round?) has of course to be combined with a demand for reciprocity. Unilateral concessions seem to be unrealistic, even if one might argue that they are in the long-run interest of the EC herself. Underlying such a recommendation is the theoretically and empirically well founded belief that competitive processes are superior to plans directed by centralized authorities.

8. The way towards greater agreement between major trading partners in the world on which practices are to be considered fair is admittedly tedious and long. The OECD indicative checklist for the assessment of trade policy measures (reproduced in the appendix) might be a helpful guide. The problem should certainly be included in the agenda of the next GATT round. Still more promising seem to be the chances for some progress towards a world competition order if the G 7 take up the topic. In the meantime EC efforts, as they have been successful in the European Economic Area Agreement to extend EC competition policy, should be continued.

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IX. APPENDIX(*)

INDICATIVE CHECKLIST FOR THE ASSESSMENT OF TRADE POLICY MEASURES(**)

a) Is the measure in conformity with the country's international obligations and commitments?

b) What is the expected effect of the measure on the domestic prices of the goods or services concerned and on the general price level?

c) What are the expected direct economic gains to the domestic sector, industry or firms in question (technically, the increase in producers' surplus)?

d) What types of jobs are expected to be affected by the measure? What are the net employment effects of the measure in the short and long term?

e) What are the expected (direct) gains to government revenues (e.g. from tariffs, import licences, tax receipts) and/or increased government costs (e.g. export promotion, government subsidies, lost tax revenues)?

f) What are the direct costs of the measure to consumers due to the resulting higher prices they must pay for the product in question and the reduction in the level of consumption of the product (technically, the reduction in consumers' surplus)? Are there specific groups of consumers which are particularly affected by the measure?

g) What is the likely impact of the measure on the availability, choice, quality and safety of goods and services?

h) What is the likely impact of the measure on the structure of the relevant markets and the competitive process within those markets?

i) In the medium and longer term perspective, will the measure, on balance, encourage or permit structural adaptation of domestic industry leading over time to increased productivity and international competitiveness or will it further weaken and delay pressures for such adaptation? Is the measure of a temporary nature? Is it contingent on, or linked to, other policy measures designed to bring about the desired structural adjustment?

(*) *Competition Policy and International Trade - OECD Instruments of Cooperation*, OECD, Paris (1987), pp. 28-29.

(**) This checklist applies to all trade policy measures other than laws relating to unfair trade practices.

j) What will be the expected effect on investment by domestic firms in the affected sector, by potential new entrants and by foreign investors?

k) What could be the expected economic effects of the measure on other sectors of the economy, in particular, on firms purchasing products from, and selling products to, the industry in question?

l) What are the likely effects of the measure on other countries? How can prejudice to trading partners be minimised?

m) How are other governments and foreign firms likely to react to the measure and what would be the expected effect on the economy of such actions? Is the measure a response to unfair practices in other countries?