6

United Kingdom

DONALD HAY

There is a growing recognition by international institutions of the importance of the interface between trade policy and competition policies, broadly defined (OECD 1984 and 1995; IMF 1992; Lloyd and Sampson 1995; Hoekman and Mavroidis 1994; Commission of the European Communities 1995). The context is one in which a growing proportion of international trade occurs in markets that, because of economies of scale and scope in production or because of product differentiation, are imperfectly competitive, with firms exercising some degree of market power. Many of the industries involved in international trade are R&D-intensive, so that process and product innovation play a major role in firms' competitive strategies. These firms are often multinational, and their production and distribution decisions have a marked effect on trade flows. Imperfectly competitive markets, and the behavior of firms within them, have long attracted the attention of competition policy authorities. The actions (or inaction) of those authorities will clearly have implications not only for domestic markets but also for international trade. This chapter focuses on these issues as they affect the UK economy, including the additional dimensions that arise from UK membership in the European Union. The interface between trade policy and competition policy is of

Donald Hay is research associate at the Institute of Economics and Statistics at Oxford University. *This chapter has benefited greatly from the helpful comments of John Vickers, Derek Morris, Hans Liesner, Edward M. Graham, J. David Richardson, Mark Williams, and participants at a meeting in Paris in January 1993. The valuable research assistance of Michael Buchanan and Robin Nuttall is gratefully acknowledged.*

considerable interest.[1] Various aspects can be explored. The first is the general point that removing protectionist impediments to trade (such as tariffs, quotas, and subsidies) does not necessarily ensure access to domestic markets. There are several ways in which firms may be able to keep imports out of the domestic market, even in the absence of protection. One is predatory behavior, practiced either by a dominant firm in a market or by a colluding group (Tirole 1988, chapter 8.4). The entrant faces price cutting or aggressive marketing responses in the markets it is seeking to enter. The incumbents may, for example, sink costs in capacity to create a credible threat of severe competition. A second barrier to access is a vertical constraint to entry, such as that an importer faces when it cannot gain access to existing distribution networks and must incur expenditure in setting up its own network of dealers and outlets. These examples immediately raise questions about the effectiveness of domestic competition policy. Is the legal framework of policy framed in such a way as to inhibit predatory or exclusionary behavior and are competition policy authorities willing and able to act, not least when it is a domestic firm that is seeking to keep out a foreign supplier? In addition, it is possible that trade policy (as opposed to competition policy) may connive in anticompetitive responses to foreign suppliers by requiring those suppliers to accept voluntary export restraints (VERs) or by identifying competitive entry as dumping and invoking antidumping measures (Scherer 1994, 78-87; Hoekman 1994).

If the overseas entrant wishes to set up manufacturing facilities in the domestic market rather than just supply the market via exporting, then there are additional hurdles that may be put in its way. The constraints on access to the distribution network described above may be matched by refusal to supply productive inputs, where all the existing suppliers are exclusively linked to existing manufacturers.

But the most crucial issue of all is whether the entrant can expect parity of treatment with national firms in all respects. Does it, for example, have the same rights to establish a business, to take over a domestic firm as a base for entry to the market, to bid for government contracts, and to obtain patent and copyright protection for its products and processes?

Even if the overseas entrant can expect equal treatment, there is still the issue of how effective domestic competition policy is. Indeed, it is evident that a weak competition policy may be a substitute for protection, enabling established domestic firms to resist the entry of more efficient overseas suppliers, whether they are trying to export to the domestic market or set up production facilities. There will, of course, be social costs incurred by a weak policy. Unless the domestic firms are

1. Dixit (1984) made this point in his seminal article on international trade policy for oligopolistic industries. Cowan (1989) has explored the interaction of trade policy and competition policy in a theoretical treatment.

consistently singled out for different treatment (which could be difficult to implement), the lack of an effective policy will hinder competition among them. Furthermore, the empirical studies surveyed by Richardson (1989) suggest that protection of any kind, in the presence of imperfect competition, is likely to generate welfare losses (or, to make the same point, there are gains from liberalization of trade).

One possible exception to this conclusion is the Krugman (1984) model of import protection as export promotion, where the aim of protection is to enable domestic producers to realize scale economies, to progress along the learning curve, and to recoup R&D costs before being exposed to international competition. The idea of creating "national champions" has also arisen in discussions of competition policy. One strand of these discussions is that competition policy should not be overly concerned with the emergence of dominant firms or with mergers that will create firms with large shares of the domestic market if large scale is essential to success in world markets. The issue might be seen as one of appropriate market definition: if the market is truly global, then a high share of domestic *production* is of no concern to the competition policy authorities. (This begs the important question of how national competition policy authorities should deal with firms, especially multinational ones, that are dominant in world markets.) However, as our previous discussion has shown, firms that are dominant in domestic markets may be able to reserve those markets for themselves despite having many effective competitors in international markets. This would then be the equivalent of the "protected" domestic market of the Krugman model—that is, as a base for success in export markets.

The same desire to give domestic firms an edge in export markets may be reflected in less-stringent policies on agreements that affect their performance in export markets. Examples are export cartels and joint ventures in the supply of overseas markets. The problem here for the competition authorities is to know how to prevent cooperation in overseas markets from being translated into collusion in supplying the domestic market. The gain from cooperation in overseas markets is that the firms do not compete against each other and dissipate the monopoly rents available. Joint ventures—for example, in marketing overseas—may enable medium-size domestic firms to penetrate markets that they might not have been able to tackle on their own, given the high costs of establishing a distribution network. Joint ventures and other forms of cooperation involving domestic firms may also be permitted by the competition authorities in R&D-intensive sectors. The arguments for such agreements are that they prevent wasteful duplication of research efforts by domestic firms, that a larger R&D unit may be able to defeat foreign rivals in the race to innovate, and that they can solve some of the incentive problems arising from inappropriability and spillover (Geroski 1993).

These general aspects of the interface between trade policy and competition policy form the framework for the discussion that follows. The next section reviews the overall structure and objectives of competition policy in the United Kingdom, including the role of EU policy, which is likely to become even more significant with the completion of the single European market. Subsequent sections consider the role of competition policy in the protection or liberalization of the domestic economy and in the promotion of internationally competitive sectors, especially with respect to exports.

The discussion touches on a number of issues outside the scope of competition policy, which here is narrowly defined as policy toward abuse of market power, collusive behavior, and mergers. One such issue is the question of national treatment for foreign firms in such areas as rights of establishment, public procurement, and protection of intellectual property rights. A second issue is the existence of public monopolies or regulated industries, where competition is excluded as a matter of policy. A third issue is industrial policies to assist the restructuring of industries in decline or to promote the development of industries or products: state aids, subsidies, and the organization of R&D joint ventures are among the policy instruments that have been employed to these ends.

Competition Policy in the United Kingdom and the European Union

The competition policy of the European Union (EU) is now an integral part of the UK competition policy regime, so that in practice the two are no longer separable. After describing legislation and institutions relating to competition policy in both the United Kingdom and the European Union, this section goes on to look at the issue of conflicts between and priority in the application of the two regimes. The section concludes by discussing the issue of extraterritoriality, that is, the degree to which authorities charged with enforcing competition policy seek to apply remedies to firm behavior outside their jurisdiction. In practice, conflicts of policy and the issue of extraterritoriality often arise because the relevant market is international and because the enterprises that serve it are multinational.

Competition Policy in the United Kingdom

There are four main elements of competition law in the United Kingdom: the Fair Trading Act (FTA) of 1973, the Competition Act of 1980, the Restrictive Trade Practices Act (RTPA) of 1976, and the Resale Prices Act (RPA) of 1976. The FTA consolidated previous legislation and established the Office of Fair Trading (OFT). It gives the Secretary of State and the Director General of Fair Trading (DGFT) powers to refer to the Monopolies and Mergers Commission (MMC) cases in which it appears that a "monopoly situation" exists with respect to the supply or acquisition of goods or services in the United Kingdom. Commissioners are appointed to the MMC by the Secretary of State for fixed terms of four years. They include lawyers, economists, and businesspeople, as well as people distinguished in public service. Appointments can therefore reflect the stance of the Secretary of State toward competition policy, although once appointed the commissioners are completely independent. The act's definition of "monopoly" is legal rather than economic. Monopoly is deemed to exist where a single company accounts for at least 25 percent of a relevant market. In addition, a "complex monopoly" exists where two or more companies that together account for at least 25 percent of the relevant market act so as to restrict competition (however, if such action resulted from, or implied, agreements as defined in the RTPA, the matter would be considered under that legislation and not under the FTA). The secretary of state or the DGFT, in making the referral, determines which products constitute the relevant market. The MMC then investigates and reports on whether a monopoly situation exists and on whether it operates against the public interest. When the MMC reports that a monopoly situation does have effects contrary to the public interest, the secretary of state can either seek undertakings by the companies to refrain from the practices found to be detrimental or can remedy or prevent them by issuing an order (i.e., a decree that can be enforced in the courts), or, exceptionally, can ignore the findings of the MMC and clear the companies involved.

Section 84 of the FTA gives the MMC very wide discretion as to what it may take into account in determining the public interest, but it lists the following five criteria to be taken particularly into account:

- maintaining and promoting effective competition between persons supplying goods and services in the United Kingdom
- promoting the interests of consumers, purchasers, and other users of goods and services in the United Kingdom in respect of the quality and variety of goods and services supplied
- promoting, through competition, the reduction of costs and the development and use of new techniques and new products, and facilitating the entry of new competitors into existing markets
- maintaining and promoting the balanced distribution of industry and employment in the United Kingdom
- maintaining and promoting competitive activity in markets outside the United Kingdom on the part of producers of goods, and on the part of suppliers of goods and services in the United Kingdom

This broad notion of the public interest, which extends considerably beyond the promotion of effective competition, is also used in merger references and in references under the Competition Act.

The FTA also empowers the Secretary of State, on advice from the DGFT, to refer to the MMC mergers that create or enhance market shares of at least 25 percent, or that involve assets of more than £30 million. The MMC has a limited time (normally no more than three months) in which to report on whether the merger may be expected to operate against the public interest. The presumption is therefore that the merger will be permitted unless the MMC reports adversely.

Merger policy was the subject of a review by the UK Department of Trade and Industry in 1988. Despite considerable criticism of the policy—that it was too soft on mergers, that case-by-case application of the public-interest criterion gave rise to uncertainties for business, and that the policy failed to account adequately for the international dimension of many mergers—the review concluded that the basis of the policy was broadly correct. In particular, there was an unwillingness to interfere in the market for corporate control, despite evidence (summarized in an annex to the report) suggesting that the gains from mergers were quite modest, and despite the kinds of theoretical difficulties with the takeover process identified by Grossman and Hart (1980). The outcome of the review was a number of procedural changes, notably an arrangement for optional prenotification of mergers to the OFT, which then has four weeks to clear the merger or to raise objections. There was also a sensible provision to permit the OFT to seek solutions where mergers raise competition issues, and for the parties involved to enter into enforceable undertakings (e.g., to sell off part of the merged firm, or, in the case of a vertical merger, not to cut off supplies to a competitor). There was also a new requirement on the MMC to report on cases referred to it within three months of referral.

Section 2(i) of the Competition Act introduced the concept of "anticompetitive practice," defined as those business practices where "in the course of trade or business a person pursues a course of conduct which of itself, or when taken together with a course of conduct pursued by persons associated with him, has or is intended to have or is likely to have the effect of restricting, distorting or preventing competition in connection with the production, supply or acquisition of goods . . . or the supply of services in the United Kingdom or any part of it." The purpose of the legislation was to enable practices such as tie-ins, full-line forcing, and other actions to prevent or deter entry to be dealt with without a full-scale MMC inquiry and report. (A tie-in is a requirement that buyers wishing to purchase one of a firm's products also buy a related good or service from the same firm; full-line forcing is the requirement that distributors carrying any of a firm's products must carry the firm's entire product line.) Under the act, the DGFT has the right to investigate an allegedly anticompetitive practice and to seek undertakings from the company that it will refrain. Only if the company refuses to give an undertaking is the matter referred to the MMC.

The RTPA requires agreements between two or more companies that involve certain types of restrictions to be registered with the DGFT. Registrable restrictions include those that affect supply, pricing, and distribution. The act provides for certain exceptions as well. Once an agreement is registered, the DGFT must refer it to the Restrictive Practices Court (unless relieved of this duty by the secretary of state, in the case of innocuous restrictions). The presumption is that such agreements are contrary to the public interest, and the burden of proof is on the parties to demonstrate the contrary. The act lays down certain criteria, known as "gateways," by which agreements may be justified. But even if an agreement succeeds in passing through one or more of these gateways, it may still be struck down if the court decides that the detriments to the public interest are greater than the benefits demonstrated in terms of the gateways.

The effect of the RPA has been to make resale price maintenance more or less illegal per se. Although suppliers can seek exemption from the ban on public-interest grounds, only suppliers in the book publishing and pharmaceutical industries have succeeded so far, and it is doubtful whether any other product would be similarly successful. (Moreover, the agreement between publishers, the NET Book Agreement, was abandoned by them in 1995.)

This mixture of legislation and institutions has attracted a good deal of criticism. One criticism is that the definition of the public interest in much of the legislation is so wide that policy lacks focus and certainty, which is thus making it difficult. Much, of course, depends on how the competition authorities decide to interpret their brief. For example, the "gateways" incorporated in the RTPA might in principle be interpreted in a way that would allow many restrictive agreements to pass. In practice, since the *Yarn Spinners* case in 1959, most parties to such agreements concluded that they had little hope of getting them past the court, and they simply abandoned their agreements. The fate of referrals to the MMC has been much more varied, with public-interest arguments being accepted in a number of cases. However, since the advent of the "Tebbit doctrine" (discussed below) in 1984, there is little doubt that competition issues have been more prominent in referrals to the MMC, and this has had an effect on the weight given to competition issues relative to other public-interest concerns in the commission's reports. It is perhaps unsatisfactory that competition policy should be so susceptible to shifts in emphasis, depending on who holds the office of Secretary of State at the time a given case arises.

UK competition policy has also been criticized for its emphasis on legal definitions rather than economic effects. For example, the RTPA concentrates on the form of agreements between firms, with the result that careful drafting can take an agreement outside the provisions of the act even though its economic effects may be identical to another agreement that the act would prohibit. The definition of "monopoly" in the FTA is also formal rather than based on the existence of real market power with economic effects. "Anticompetitive practices" may be identified, under the terms of the legislation, in situations where the firms involved have no discernible market power.

The legislation is not consistent on the issue of burden of proof. Whereas under the RPA and the RTPA the onus is on the firms to demonstrate that their behavior is in the public interest, under the FTA and the Competition Act the onus falls on the DGFT or the MMC to identify where the public interest is harmed. Critics have repeatedly suggested that it would be helpful to make the procedures consistent, preferably by adopting the RTPA procedure in merger cases.

The Competition Law of the European Union

The purpose of European competition policy is to ensure that firms do not frustrate the overall objective of a unified common market by means of anticompetitive practices that hinder trade in goods and services between member states. Article 3(f) of the Treaty of Rome calls for the "institution of a system ensuring that competition is not distorted." In contrast with the wide formal definition of the public interest in UK competition policy, EU policy is specifically intended to promote and maintain effective competition.

The main provisions of EU competition law are Articles 85 and 86 of the Treaty of Rome. Article 85 prohibits and declares void agreements between firms and concerted practices that have the object or the effect of "preventing, restricting, or distorting trade" within the European Union and that affect trade between member states. Price and nonprice, horizontal and vertical restrictions all fall within the compass of Article 85. All restrictive agreements must be notified to the European Commission, but exemption may be sought under Article 85(3) on the grounds that the agreement contributes "to improving the production or distribution of goods or to promoting technical or economic progress." Exemption may not be granted if the restrictions are not necessary to obtain the benefits claimed, or if there is a risk that competition will be eliminated.

Article 86, which is concerned with abuse of market dominance, condemns

> . . . any abuse by one or more undertakings of a dominant position within the Common Market or a substantial part of it . . . in so far as it may affect trade between Member States. Such abuse may, in particular, consist in:

(a) directly or indirectly imposing unfair purchasing or selling prices or other unfair trading conditions;

(b) limiting production, markets or technical development to the prejudice of consumers;

(c) applying dissimilar conditions to equivalent transactions with other trading parties, thereby placing them at a competitive disadvantage;

(d) making the conclusion of contracts subject to acceptance by the other parties of supplementary obligations which, by their nature or according to commercial usage, have no connection with the subject of such contracts.

Within the European Commission, competition policy is the responsibility of Directorate-General IV (DGIV). That office is empowered to investigate breaches of Articles 85 and 86, to require firms to desist from practices or agreements that constitute breaches, and to impose fines of up to 10 percent of annual worldwide turnover. DGIV may act on its own initiative or in response to complaints received from affected parties. Firms may appeal to the Court of First Instance and then to the European Court for review of Commission decisions. Over the years, there have been a large number of such appeals, so that in its judgments the Court has had a significant role in shaping EU competition policy. For example, in a 1978 case involving the pharmaceutical company Hoffmann-La Roche, the Court addressed the issue of market dominance in Article 86, defining it as ". . . a position of economic strength enjoyed by an undertaking which enables it to prevent effective competition being maintained on the relevant market by affording it the power to behave to an appreciable extent independently of its competitors, its customers and ultimately of the consumers." This definition requires a prior inquiry to determine the relevant market and the presence or absence of dominance within that market before the question of the abuse can be tackled. The Commission and the Court have not always followed this logic in practice: there has been a tendency to identify an abuse first, and then to infer that the firm must be dominant (Fairburn et al. 1984). The judgment in the *Michelin* case (1981) in particular has been criticized on this basis (Hay 1985).

Two other features of the European Commission's application of competition policy are worthy of note. The first, which is particularly relevant in the context of this paper, is that the policy is applied very much with the goal of a single market in mind: hence any agreements or behavior that might have the effect of dividing or segmenting the markets of member states are attacked with particular vigor. As will be seen below, the practice of charging different prices in different member states, where such pricing is unrelated to the costs of supplying the different markets, is particularly condemned. So are any practices that might have the effect of closing the market of a member state to interstate trade. The second feature is that the European Commission is keen to assist small and medium-size enterprises (SMEs, which has become a term of art in EU competition law), which can benefit from block exemptions from Article 85 for R&D or specialization agreements, and for joint ventures. The particularly tough line taken by DGIV on price discrimination is at least partly due to a desire to protect SMEs.

A long-term weakness of EU policy was the lack of any reference to mergers in Article 86. Article 86 attacks only the abuse of a dominant position: it is apparently silent on the process by which a dominant position may be achieved. This lacuna, with respect to mergers at least, was in part patched up by the judgment in the Continental Can case (1972), which argued that the act of taking over a competitor to reduce competition in a market would itself constitute an abuse. In principle, however, that could only apply where a merger is instigated by a firm that is already dominant. A merger that built a dominant position where none existed before would escape, as would a merger in which a non-dominant firm takes over a dominant firm. A further difficulty with Article 86 was that it has no equivalent of Article 85(3), allowing for offsetting public benefits to be considered. In principle, these problems with merger policy were finally overcome by the adoption of Regulation 4064/89 (the Merger Regulation), which came into force in 1990 and was drafted specifically to control mergers. This regulation took merger policy outside Articles 85 and 86 and established both criteria and procedures for dealing with them. The operation of the policy in its first few years has been comprehensively reviewed by Neven et al. (1993).

A key passage of the regulation (in Article 2) defines its objective: "A concentration which creates or strengthens a dominant position as a result of which effective competition would be significantly impeded in the common market or a substantial part of it shall be declared incompatible with the common market." This appears to secure competition as the criterion by which mergers are to be judged; however, as Holzler (1990) observes, the fine print of the regulation is less explicit and leaves open the possibility of admitting some public-interest criteria. But DGIV has made it clear that it intends to focus on competition issues. A further concern is whether DGIV is adequately staffed to take on the task of reviewing major European mergers: even without responsibility for merger control, DGIV had a large backlog of cases. Even the most complex merger cases are supposed to be resolved within five months: other cases must be dealt with, in the first instance, within one month. The danger is that DGIV will not be able to complete an adequate analysis of a complex merger within that time, let alone the procedures for review within the Commission before a decision must be arrived at.

To conclude, EU competition policy has a number of positive features that UK policy lacks. The focus on competition rather than on a broad concept of the public interest makes the objectives and rationale of the policy clear, not least to firms and their advisers. The attention to economic effects rather than concern with the legal forms of agreements or market practices ensures that policy is not diverted from appropriate economic analysis. The procedures for dealing with cases, which include a wide-ranging investigation and decision by experts within DGIV but with appeal to the European Court on both substance and legal matters, could in principle combine the best aspects of administrative and legal approaches to competition policy. In practice, the procedures have been widely criticized. The main criticisms are of the backlog of cases under Articles 85 and 86, the insufficient expertise of the Commission staff, and the long delays in getting appeals to the Court heard. There is also a concern that deals are often struck between DGIV and the parties under investigation, to which third parties are not privy and are therefore unable to raise objections.

Conflicts Between UK and EU Competition Law

Conflict between UK and EU competition law could arise either from questions of jurisdiction or from fundamental differences in the content of policy. Before considering how these work out in current practice, it is worth noting some theoretical points, which have been explored by Gatsios and Seabright (1989), on the appropriate division of labor in regulatory matters between the European Commission and governments in member states.

The key problem is that the regulatory actions (or lack of action) of a member state will often have impacts in other member states. Examples are state aids or lax application of competition rules, which may be used strategically by a member state to protect domestic markets or to promote domestic producers in export markets. Similarly, a member state may be less than rigorous about enforcing environmental standards if pollution has its major effects elsewhere. The question is whether this international prisoners' dilemma is best solved by centralizing policy—for example, by making it the responsibility of the European Commission—or whether agreements between member states on the rules to be enforced will be sufficient.

There are major difficulties in relying on agreements between states. The first is asymmetric information: each state is better informed about its own industries and firms than about others. A second is that there is likely to be a range of possible solutions, with different distributions of benefits between states. Third, even if agreements can be reached, there is the further problem of credibility, given that there will always be incentives for member states to cheat, and such lapses may be quite difficult for others to detect given asymmetric information. In these circumstances, there may be considerable advantages in ceding both formulation and implementation of policy to a supranational authority such as the European Commission. At the level of policy formulation this does not necessarily solve the problems already noted of asymmetric information and the distribution of benefits between member states, but the Commission is perhaps in a better position to broker an agreement. At the level of implementation, ceding authority to the Commission almost certainly helps with the problem of credibility, and it may be that the Commission is less prone to regulatory capture than are regulatory authorities within member states. An intermediate situation arises where the Commission issues policy directives to member states, which the member states are required to implement, with sanctions for noncompliance. The difficulties here are detection (for example, many state aids to public corporations are concealed within public-sector accounts) and possibly the willingness of member state governments to accept the risk of being sanctioned for noncompliance (which might even be politically popular at home).

The varied application of this theoretical analysis to competition and industrial policies within the European Union is instructive. For example, on product standards the Commission has adopted the policy of mutual recognition of the standards of each member state. This probably gives recognition to too many products, which confuses consumers and forfeits potential economies of standardization. It also creates undesirable incentives for standards authorities in each member state to give their producers an advantage by lowering standards (not least because of the greater possibilities of capture).

In the area of competition policy, EU policy has developed as an upper tier of policy, superimposed on member state policies and concerning itself with abuse of market power, anticompetitive agreements, and mergers with a "European dimension," that is, those that affect competition, and hence trade, in more than one member state. In principle, this policy should be able to deal with the danger that member state policies are less than fully rigorous in seeking to promote competition at least in traded goods and services. In practice it has not been so easy. Disagreements about appropriate scope and content held up the formulation of European merger policy for many years before 1989. Furthermore, if some member state policies are "weak," then the EU authorities cannot depend on national policy institutions to be effective, and therefore a greater burden falls on DGIV. The ideal would be convergence between member state policies and EU policies so that the load can be shared. This would also make jurisdiction less of an issue. By the criterion of subsidiarity, it would be appropriate to devolve competition policy responsibilities to member states, which have better information about their own industries and firms and are therefore more able to identify anticompetitive market structure and behavior. But that solution will not work if EU and member state policies are divergent. Even if they are not ostensibly divergent, the EU authorities will probably have to continue to monitor member state policies to ensure that they are not being used to protect or promote the interests of their industries.

The basic position is that Community law takes precedence over domestic UK competition law, so that in an apparent conflict between the two, the former must be applied. Thus, for example, if an agreement between firms is granted an exemption under Article 85(3) or falls within a block exemption (under Regulation 418/85), the view of the Commission is that exemption is a positive action (and not just a permissive one) and therefore has to be respected nationally. This doctrine has not, however, been tested in the European Court. A different example is one where Articles 85 and 86 do not apply because, for instance, interstate trade is not affected in any way. Then domestic UK competition policy applies, and a UK firm cannot appeal to the Commission authorities against any decision of the UK authorities.

Prior to 1989, merger control was the area in which there was the most uncertainty about jurisdiction. A number of UK mergers, including those between British Airways and British Caledonian (1987) and between GEC and Siemens/Plessey (1989), were considered by both the MMC and the European Commission. In the former case, the Commission significantly strengthened the conditions for allowing the merger after what many judged had been a weak response by the UK authorities. In principle, of course, the Commission should only be involved where a merger is likely to affect competition in the European Union as a whole, including competition in interstate trade. That requires some assessment of what is the relevant market effected by the merger: is it domestic, or does it extend into other member states? The regulation adopted by the European Union in 1989 applies to any merger where the aggregate world turnover of the firms involved is at least 5 billion ECUs and Community-wide turnover at least 250 million ECUs, unless each of the firms achieves more than two-thirds of its EU turnover within the same member state. This last proviso is intended to exclude mergers that only affect a single member state's domestic market, which would remain the province of the domestic competition authorities. There are also provisions for member states to claw back powers from the Commission on such grounds as ensuring plurality of ownership in the media, fulfillment of prudential regulations in the financial sector, and national security. It remains to be seen how effective this regulation will be in distinguishing EU and UK jurisdictions (it is to be reviewed in 1994). However, the basic reasoning seems to be sound.

More fundamentally, it is apparent that there are real differences in the content of UK and EU competition law. It is therefore significant that reviews of policy in the United Kingdom in the last five years have given serious consideration to moving UK policy in the direction of EU law (for a fuller account than can be attempted here, see Williams 1993).

The first review, of policy on restrictive trade practices or "anticompetitive agreements," resulted in a White Paper (Department of Trade and Industry 1989) that promised legislation. The key proposal was that the United Kingdom should adopt legislation similar to Article 85, prohibiting all agreements and concerted practices that have as their object or effect the distortion of competition. The key features of the policy are that it is to be based on effects and not on legal form, that the OFT is to be given much more extensive powers to investigate suspected breaches, and that a newly instituted Restrictive Trade Practices Tribunal (consisting of members of the MMC specially selected for the task) should have power to impose fines of up to 10 percent of UK turnover on firms found in violation and to fine company directors and managers. To assist firms in compliance with the law, the EU precedent of an illustrative list of banned practices is envisaged, including resale price maintenance, price-fixing, collusive tendering, market sharing, and collective boycotts. The legislation will also provide for both block and individual exemptions along the lines of Article 85(3), with the block exemptions following the EU list (but with scope for more to be added later). Interestingly, the proposed test for individual exemptions will not include a public-interest criterion, despite pressure on this point from the professions: an exemption will be permitted only if it "improves the supply of goods or services, or produces economic or technological improvements."

These proposals, if implemented, would represent a desirable toughening of UK policy on collusive behavior. Although a promise to implement these proposals was included in the Conservative party manifesto for the 1992 election, there is no immediate prospect of legislation. However, it is clear that the intention is that UK policy should be brought into line with that of the European Union.

A second review, this time of policy toward the abuse of market power, was initiated by a consultative document in the autumn of 1992 (Department of Trade and Industry 1992). It outlined three options for change. The first option was merely to strengthen, in helpful ways, existing legislation and policy institutions. The advantages of the present policy were identified as its flexibility and the range of remedies available (which include termination of an anticompetitive practice, required divestment, and price controls). The main disadvantage was seen to be weak deterrence. The second option was to introduce Article 86-type legislation parallel to EU policy. The legislation would include a general prohibition of abuse of monopoly power plus an illustrative list of banned practices, provide additional powers of investigation for the OFT, give the MMC the power to impose fines, and permit third-party actions. Apart from the obvious advantages (for firms as well as policy) of alignment with EU policy, the main advantage of this option would be the increased deterrence. The shortcomings would be the difficulty of defining and identifying abuses satisfactorily and the loss of some of the flexibility of existing policy (e.g., the possibility of investigating complex monopolies and the availability of structural and regulatory remedies). The third option would meet some of those objections: Article 86-type legislation would be introduced for anticompetitive practices, but the antimonopoly provisions of the previous legislation would be retained to permit wide-ranging investigations and a range of remedies in monopoly situations.

The consultative process arising from this document was completed early in 1993, and the government announced that it had ruled out major reform and would content itself with the first option described above. The reasons given were that representatives of business had indicated that an Article 86-type policy would introduce too many uncertainties as to what was and was not permissible market behavior, and that compliance costs were likely to be high. The concern is that this decision reflects a turning back from the procompetition stance on industrial policy that has been an important feature of the UK government since 1979.

Extraterritoriality

The growth of international trade in the postwar era has created new problems for competition law. One is that the relevant market for a good may be international, but the suppliers may be multinational enterprises with production facilities in several countries. Any one country's competition policy may therefore be totally inadequate to deal with any competition issues that may arise. A related problem is that the behavior and actions that are perceived to be affecting domestic competition adversely may originate in another country, which raises both theoretical and practical problems of jurisdiction for the competition authorities.

UK competition law ducks these issues by restricting its focus to goods supplied within the United Kingdom. Thus the RTPA does not apply to agreements between firms that concern goods exported from the United Kingdom or services supplied outside the United Kingdom. Furthermore, it applies only to firms that are carrying on business in the United Kingdom: a cartel in another country that is exporting to the United Kingdom would not be subject to the provisions of the legislation, unless both the action and the effects were within the UK market. The UK approach in these matters is also manifest in a strong resistance to any attempt by foreign authorities to enforce their foreign competition law within the United Kingdom. Thus the Protection of Trading Interests Act of 1980 enables the Secretary of State to issue an order expressly forbidding a UK firm from complying with a ruling of an overseas competition authority if the trading interests of the United Kingdom might be harmed thereby. Other sections of the act inhibit the supply of information to an overseas competition authority and provide that multiple damages assessed in foreign antitrust actions should not be enforceable in the United Kingdom.

EU competition law is apparently less formalistic on the issue of extraterritoriality. Articles 85 and 86 apply where there is judged to be an effect on interstate trade within the European Union. It is perfectly possible that conduct by a set of Japanese firms—for example, an agreement to share markets within Europe—might pass this test, but this "effects doctrine" has never been tested in the European Court. In all cases to date involving non-EU firms, there has been evidence that the firms have entered into an agreement with an EU firm or have taken some action within the European Union.

The 1985 *Wood Pulp* case is a good example. The Commission found that there was a concerted practice by a group of non-EU firms, and it sought to condemn the practice on the basis of the effects within the European Union. The European Court avoided confirmation of the effects doctrine by arguing that the concerted practice had been implemented within the European Union, and therefore Article 85 could be directly applied. This argument relied on the "economic entity" doctrine of the Court, which identifies the behavior of a subsidiary or agent within the Union with that of its controlling non-EU firm on the grounds that they are a single economic entity. Thus any EU order can be served on the EU subsidiary rather than the non-EU parent. The Court has also held that it is perfectly valid for an order to be served directly on the non-EU parent (and for requests for information to be directed to it). But it is recognized that it would be difficult to enforce orders outside EU boundaries, and for this reason they are usually served on the EU subsidiary or agent.

Foreign Access to the Domestic Market

This section reviews a number of aspects of UK and EU policy that might affect a foreign supplier seeking to enter the UK domestic market either through exports or through direct investment. The review goes somewhat beyond competition policy proper to include the issue of national treatment for foreign firms and the use of trade policy instruments such as voluntary export restraints (VERs) and antidumping regulations.

National Treatment for Foreign Firms

In its treatment of foreign firms, UK legislation is remarkably lacking in xenophobia. In principle, any foreign firm wishing to set up operations in the United Kingdom through direct investment is subject to exactly the same procedures as any UK firm. The same applies to the registration of patents and copyrights. Competition policy is applied to the actions of suppliers within the United Kingdom, regardless of their nationality. Thus a foreign supplier's behavior will not be judged on any basis different from that on which a domestic firm is judged, and anticompetitive behavior by a domestic firm will not be condoned on the grounds that it is designed to exclude a foreign supplier from the market. Nor is there any evidence of substantial barriers to entry by foreign suppliers arising from a preference of UK consumers for British goods (the situation is indeed, if anything, the contrary) or of UK manufacturers for British sources of materials, semimanufactures, or machine tools. In other words, there is no equivalent of the vertical *keiretsu,* which some believe creates an informal barrier to access to the Japanese market for foreign suppliers (Lawrence 1991; Weinstein and Yafeh 1995).

Public procurement was, for a long time, an area where preference was accorded to UK suppliers. The European Commission has been active in breaking down barriers in this area, although undoubtedly some remain, for example, in the awarding of defense contracts (European Commission 1988, section 3.4). At the EU level, access by non-EU firms to EU contracts has been made contingent on reciprocal access to non-EU markets, especially the United States and Japan. Rules for procurement by public utilities and transport permit European preference, where bid prices differ by 3 percent or less, and permit exclusion of bids where the European content is less than 50 percent. These provisions raise issues of compliance, given that origin and content rules are difficult to apply objectively.

Requirements of reciprocity have also been applied in the services sector, especially financial services, where a regulatory regime seeking to promote prudential or safety objectives may also restrict access to markets and reduce competition (European Commission 1988, section 5). Initial deregulatory moves were taken by the United Kingdom in the 1986 Financial Services Act. Reciprocity of treatment for UK financial services firms in overseas markets was made a condition of licensing for foreign operators in the UK market. Within the European Union, DGIV has been much more active since 1985 in the pursuit of anticompetitive practices, including the use of Article 90 of the Treaty of Rome to open up services markets assigned to public enterprises or state monopolies by member states (Sapir et al. 1993).

Standards are another area where access of foreign firms to domestic markets can be impeded (European Commission 1988, section 3.3). As noted above, current EU policy (see Pelkmans 1987) is to allow national authorities to continue to set their own technical regulations, subject to scrutiny by the Commission for their trade-impeding effects, which may lead the Commission to insist on changes. In principle, goods made according to national regulations in any one member state must be permitted entry into any other member state, even if they do not meet the standards applied locally. Meanwhile, the Commission is pressing ahead with the promotion of European standards. The United Kingdom historically has had a well-developed set of national standards, which may have had the effect of excluding goods of lower quality. European policy has therefore almost certainly precipitated liberalization of the UK market, although the United Kingdom has also argued for more stringent EU standards.

The UK program of privatization has been linked to some liberalization of markets (Armstrong, Cowan, and Vickers 1994). Thus the statutory telecommunications monopoly of British Telecom (BT) was broken by the licensing of Mercury Communications to operate an alternative long-distance network, with access to BT's local networks assured by regulatory action. Further liberalization is planned in the latter half of the 1990s, including the granting of licenses to non-UK telecommunications companies to operate in the United Kingdom. Similarly, the privatization of the electricity industry, by splitting the industry into generators, the national grid, and local distribution companies, in principle facilitated new entry into generation. The least satisfactory privatization was that of the natural gas industry, where British Gas was allowed to retain its vertically integrated structure, which made it difficult for effective competition to develop. Despite some weaknesses in implementation, there can be no doubt that the UK privatization program of the 1980s opened up the prospect of more competition in public services, although it will be important that the regulatory authorities maintain a procompetition stance in encouraging entry. There is no reason why at least some of that entry should not come from efficient non-UK suppliers.

One area where the issue of access to the UK market is perhaps slightly less clear-cut is that of a takeover of a domestic firm by a foreign firm, where the size of the takeover brings it within the criterion for review by the OFT. In a number of cases the MMC has made reference to the effect of the proposed merger on UK imports and exports in a particular sector. Thus its 1981 report on the proposed takeover of Davy International, a UK company, by Enserch, a US company, expressed the fear that the result might be a restriction on UK exports, and the MMC recommended that the merger be blocked, even though it would have enhanced competition. In its 1984 report on the proposed merger of Hepworth Ceramic Holdings and Streetley, the MMC made reference to a likely decline in UK exports.

Two other cases appeared to establish a bias against foreign control per se in some circumstances. In a 1982 report on the proposed merger of Shanghai Banking Corporation with Royal Bank of Scotland, the case against the merger was based on the argument that part of the UK bank clearing system should not be allowed to pass out of national control, given the significance of clearing banks for monetary policy. It is noteworthy that similar fears were not expressed in regard to the 1992 takeover of the Midland Bank by the Hongkong & Shanghai Banking Corp. Similarly, in the 1988 case involving the Government of Kuwait and British Petroleum, it was argued to be against the public interest for a major UK oil firm to be controlled by an overseas producer. But in not referring Nestlé's 1988 bid for Rowntree Mackintosh, the secretary of state advanced the general proposition that there was no inherent objection to inward investment in the United Kingdom, so the nationality of the bidder (in this case Swiss) was of no significance.[2] Only competition mattered. A similar line was taken in the 1989 case involving Minorco and Consolidated Gold, where the MMC declared that the (South African) nationality of the bidder was of no significance to its deliberations.

The report on the proposed merger between Elders IXL and Allied Lyons (1986, paras. 8.15 to 8.18) raised the issue of lack of reciprocity in different competition policy jurisdictions. The bidder, Elders IXL, was an Australian concern; the issue was that a foreign bidder for an Australian firm would not enjoy the same freedom to make a bid as Elders IXL did in bidding for Allied Lyons. The report also noted that, under sections 11 to 13 of the Industry Act of 1975, the Secretary of State does have general powers to prohibit the acquisition of a UK manufacturing company by a foreign firm—powers that could, for example, be used where there is a lack of reciprocity of this kind. In practice, the Secretary of State has never exercised this power under the Industry Act. The (informal) view of civil servants within the Department of Industry is that there would be great difficulties should the Secretary ever do so: in particular, it might raise questions about the need to compensate shareholders, who would be effectively deprived of the right to dispose of their holdings to a particular bidder.

Finally, note should be taken of what has come to be known as the "Lilley doctrine." A previous secretary of state, in referring a number of proposed mergers to the MMC, noted that the prospective purchaser of a UK company was an overseas company that was publicly owned. The expressed fear was that this could result in back-door nationalization, especially of utilities. The more substantive point was that foreign state ownership often gave the purchaser privileged access to funds to make bids while remaining immune from bids itself. Insofar as this is a serious problem, it would be more appropriate to deal with it through EU state aids policy than by extending the scope of public-interest considerations in UK policy. In practice, the Lilley doctrine was never a substantive issue for the MMC, which continued to base its judgments on the effects on competition.

---

2. The main argument for a referral was lack of reciprocity, in that the distinction between registered and bearer shares allowed in Swiss company law effectively inhibited any bid for a Swiss company by a UK company.

Predation and Other Horizontal Exclusionary Behavior

The concept of predation is not difficult to grasp, but predatory behavior may be hard to identify in practice. Single dominant firms, or groups of firms acting in concert, may take actions designed to inhibit the entry of competition in their markets or to drive out an existing rival. This is, of course, an issue that has exercised competition policy for a long time, and the debate is helpfully summarized by Ordover and Saloner (1989). The definition of predation focuses on the strategic implications for future profits of the predator's current actions. One implication is that a current action (e.g., cost-reducing investment or R&D, or product innovation) may credibly commit the predator to a more aggressive strategy in future periods. A second is that the action may affect the behavior of rivals (or potential rivals) in a way that benefits the predator.

There are three possible circumstances in which a predatory course of action may be profitable. The first is the "deep pockets" story. Here the predator has sufficient reserves that it can sustain a price war longer than its rivals. In principle, a price war need not even occur: knowing that it will not be able to compete, the rival will retire gracefully (or may never enter). In practice, however, the rival may not be well informed about the depth of its rival's pockets, and some limited predatory offensive may be needed for the dominant firm to make the point. The puzzle in such cases is why the rival firm is under greater financial constraint than the predator—if its prospects of survival beyond the price war are good, it should be able to gain access to financial resources equal to those of the predator. Fudenberg and Tirole (1986) and Bolton and Scharfstein (1990) have endeavored to address this question in terms of asymmetric information in financial markets.

The second type of predatory behavior occurs when a firm behaves aggressively in order to establish a reputation for being tough. In ordinary circumstances an entrant might expect accommodating behavior from an independent monopolist, if there is no means to create a credible barrier to entry by sinking costs. If, however, the entrant has some uncertainty about the motives of the dominant firm, then by acting tough when its position is challenged, the dominant firm can establish a reputation that will permit it to retain its monopoly (Milgrom and Roberts 1982).

A third type of predatory behavior has characteristics similar to those of the second type. Here the question is whether the incumbent firm is a low-cost or a high-cost producer. The entrant's problem is that entry will only be profitable if the incumbent is a high-cost producer, but the entrant does not know if this is the case: the only evidence available is the price the incumbent charges. In some circumstances, the entrant will pay a high-cost incumbent to masquerade as a low-cost producer in order to keep out competitors.

The difficulty in all this for competition policy is to distinguish behavior that is predatory from normal commercial practice. Thus a price cut (or an increase in marketing expenditures) in response to another firm's entry may reflect no more than a normal competitive response to the new market situation. Even more difficult to evaluate are loyalty bonuses, rebates, and discounts available to repeat purchasers, which clearly may deter them from considering the product of a new entrant, and other forms of price discrimination.

Given the difficulty in distinguishing predatory practices from acceptable commercial practices, the UK competition authorities take a pragmatic approach. The MMC Report on Discounts to Retailers (1980-81) argued against a general prohibition of price discrimination, holding that each case needed to be weighed individually for its pro- and anticompetitive effects. Loyalty rebate schemes have been generally condemned where the producer has a large share of the market. Predatory price cutting was identified and condemned in a number of sectoral reports, including Industrial and Medical Gases (involving British Oxygen, 1956-57) and Concrete Roofing Tiles (1981-82). Pricing practices may also be challenged by the OFT under the Competition Act of 1980, and in a number of cases firms have given undertakings to refrain from practices that might be exclusionary.

The European Commission's rules on price discrimination have to be more precisely defined, given that a dominant firm that is condemned under Article 86 can be fined and required to pay damages to injured parties. A number of rulings have affected UK firms. For example, in a 1989 case, BPB Industries was fined for offering discounts to retailers that stocked its plasterboard only, thus excluding competition from other EU producers. This judgment followed precedents set by a number of previous cases, where loyalty rebates and similar discounting practices by dominant firms were ruled against because the rebates or discounts could not be clearly linked to objective cost advantages and were therefore interpreted as exclusionary. EU competition authorities are, in general, very suspicious of price discrimination of any kind practiced by a dominant firm, particularly where it leads to price differentials between markets in different member states. A firm serving markets in different states is likely to attract attention if it cuts price in one market where it is facing new entry competition. The line between "meeting competition" and predation is not well defined, and a firm that wishes to steer clear of the competition authorities is likely to avoid any behavior that might be identified as predatory.

Exclusionary agreements among a group of firms may take a number of forms. A group of suppliers and a group of distributors may agree only to deal with each other. There may be arrangements for aggregated rebates: a purchaser's rebate will be calculated on the basis of purchases from all members of the supplying group. The group may impose a collective boycott on any distributor who deals with an "outsider." Members may also agree to practice predatory pricing. All such anticompetitive horizontal restraints are unreservedly condemned under both UK and EU competition law. The relevant UK law is the RTPA: even in those exceptional cases where the Restrictive Practices Court has upheld price-fixing arrangements, it has normally taken steps to remove any horizontal exclusionary restraints from those arrangements. The European Commission has consistently condemned exclusionary behavior by groups of firms, particularly where it is designed to keep inputs out of the domestic market, as an infringement of Article 85(1).

The conclusion is that this area of competition policy in the United Kingdom (including EU policy, where it applies) is procompetitive. An overseas supplier seeking to enter the UK market is unlikely to face predatory or exclusionary tactics by established firms, given that the competition authorities (UK, and especially EU) are alert to the possibility of such tactics and have acted vigorously against them in the past.

Vertical Relationships Between Firms and Barriers to Entry

Full vertical integration (e.g., where a producer also sets up its own distribution system) is to be distinguished from vertical agreements. The former has not attracted as much attention from competition authorities as the latter. However, both UK and EU authorities have become more concerned in recent years about vertical integration involving dominant firms because of the danger that markets will be foreclosed. Some recent theoretical analyses of vertical integration and market foreclosure give these concerns added weight. Earlier work by Salop and Scheffman (1983, 1987) explored the possibility that dominant firms might be able to put their rivals at a disadvantage by raising their costs. Hart and Tirole (1990) have identified situations in which vertical integration has the effect of foreclosing the market and is the optimal strategy for the firms involved.

In a controversial 1989 report on the UK beer industry, the MMC recommended that leading brewers be required to divest themselves of a large number of their outlets, on the argument that control of outlets represented a barrier to entry to brewing and to the retail market for other suppliers. Other reports have looked critically at mergers involving a dominant firm taking over a supplier or a customer. Thus in a 1986 report on the proposed merger of BT and Mitel, the MMC identified a danger that BT was taking over a competitor in the market for automated branch telephone exchanges just as that competitor was beginning to make inroads in the BT-supplied market. The recommendation was not that the merger be disallowed, but that Mitel be required to operate at arm's length from BT at least for a number of years and to limit its share of the UK market. The EU competition authorities have no basis for intervention where vertical integration results from internal growth of the firm, unless the firm involved is a dominant firm (Article 86): where vertical integration arises by merger, the recent EU guidelines might apply, depending on the size of the firms involved.

Vertical restraints have attracted greater attention from the competition authorities (Waterson 1993). One concern is with those restraints that might constitute a barrier to the entry of new suppliers (including overseas suppliers) and that may operate either in intermediate goods markets or in the distribution system. The main concerns are with exclusive dealing and purchasing agreements and with refusal to supply. Exclusive dealing and purchasing often, though not invariably, go together: the downstream firm or distributor agrees to accept supplies from only one source in return for an agreement that the supplier will not supply potential competitors (e.g., in a particular regional market). The downstream firm will sometimes be given inducements, such as loyalty rebates or discounts, to practice exclusive dealing in the absence of a formal agreement. The concern about these agreements is that they cut out new suppliers from the market unless those suppliers are able to enter both upstream and downstream (e.g., by setting up their own distribution network). Franchising arrangements, which involve licensing a package of rights, including intellectual property rights and brand names, are one form of exclusive dealing agreement.

UK and EU competition policy lacks consistency in dealing with vertical restraints. There is an influential view in the United States that restraints should not, of themselves, be of interest to the authorities. It is up to each firm to decide on its marketing strategy, and if that involves vertical restraints, then let the market decide between suppliers. In other words, the issue is not whether vertical restraints are good or bad, but whether there is adequate competition in the market. The existence of restraints, in this view, should never be used to infer market power.

In the United Kingdom, an investigation of exclusive agreements can be undertaken in the context of a monopoly referral to the MMC under the FTA, where there is a case for investigating whether a firm has a dominant position, or under the Competition Act, where the firm in question does not fulfill the monopoly criterion. One example of the former was the MMC's 1981-82 *Car Parts* report, where the requirement by certain automobile manufacturers that distributors only stock replacement parts supplied by them, thus excluding other suppliers, was condemned, and the manufacturers were ordered to remove the requirement for their contracts with distributors. A subsequent MMC inquiry, *Motor Car Parts* (1992) investigated other aspects of manufacturer-distributor relationships, such as manufacturers' payment of bonuses to franchised dealers, giving the dealers an incentive to supply only that manufacturer's parts, and the refusal to supply name-brand parts except to franchised dealers. The report concluded that these practices did not contravene the public interest. Cases investigated under the Competition Act have mainly concerned minor markets in services. The EU competition authorities are concerned mainly with the economic effects of exclusive agreements: where the firm or firms involved are dominant, and the effect of the agreement is judged to be anticompetitive, the agreement will be regarded as an abuse of a dominant position under Article 86.

Refusal to supply raises issues that go beyond competition issues alone. The legal systems of most market economies, including those of Europe, adopt the view that firms and individuals may choose to contract with whomever they wish, without giving justification. For example, a firm may believe that a customer is unlikely to pay, or it may genuinely be unable to supply the customer because of limited output capacity. However, it is also evident that a firm might refuse to supply a rival so as to deter its entry in a downstream market. The rival would then have to set up (or find) alternative upstream sources, thus increasing the risk of entry and the capital required. The issue was examined in the MMC's *Refusal to Supply* report (1970), which concluded that there was cause for concern where refusal to supply was practiced by firms in a dominant position. In fact, the MMC has considered very few such cases, and none in a significant market. Under EU law, refusal to supply can be condemned under Article 86 as an abuse of a dominant position. The judgment in *Commercial Solvents v. Commission* (1973–74) established the presumption that withdrawing supplies from an established customer is an abuse when the supplier is in a dominant position. In this case, it was evident that the firm in question was seeking to ease the entry of its own subsidiary into a downstream market by cutting off supplies of an important input to the established firm in that market. Perhaps more significant for the current discussion, in a 1989 case involving London European and the Belgian airline Sabena, the Commission held that Sabena had to give London European access to its computer reservation system for flights between the United Kingdom and Belgium. Sabena had withheld access to bring pressure on London European to raise fares. By contrast, the EU authorities have adopted a permissive stance toward vertical restraints (exclusive dealing, refusal to supply nonfranchised dealers) in the distribution of new motor vehicles, with a block exemption under Article 85(3) granted in 1985 and renewed in 1995 for a further seven years.

The conclusion is, however, that UK-EU competition policy is generally procompetitive in respect to vertical restraints in those circumstances where dominant firms might seek to use exclusive agreements and/or refusal to supply to prevent the entry of a competitor.

Recession Cartels, VERs, and Antidumping

This subsection looks mainly at a set of instruments that are usually classified as trade policy but that equally affect competition from overseas firms in domestic markets. All of these are instruments that can be brought to bear in situations where domestic producers are facing import competition, and where the rapid consequent adjustment of domestic industry could generate economic distress. As with all forms of protection, where the aim is to ease adjustment in the domestic economy, there is a danger that uncompetitive sectors and firms will be encouraged to remain, given that any protection generates a lobby to preserve it (Neven and Vickers 1992).

One possibility is that the firms in an industry under pressure will enter into a restructuring agreement to ensure that the adjustment process is orderly and that those firms and production facilities that are viable in the long run are preserved. In principle, such agreements must be registered under the RTPA and hence would need to be defended before the court on one of the grounds identified in the gateways. In the 1959 *Yarn Spinners* case, the court accepted an argument that the agreement was designed to alleviate the prospect of localized unemployment, but it concluded that the agreement overall failed to meet the criterion that its benefits should outweigh its costs. The European Commission has been willing to accept restructuring agreements for social reasons—although these are not strictly relevant to the provisions of Article 85(3) under which exemption may be given—and to ensure that as many competitors as possible survive in the market in the long run. Thus in the 1984-85 *Synthetic Fibers* case, the Commission approved an agreement involving an 18 percent reduction of capacity over three years, with the expectation that a more efficient industry would emerge with no diminution of competition. A number of similar arrangements have been permitted subsequently, notably in petrochemicals. From this description of the responses of the competition authorities, it is clear that these exemptions from the provisions of RTPA and Article 85 are unlikely to present a barrier to entry to international competition in the UK market, since no predatory response to new entry would be permitted.

Voluntary export restraints (VERs) are a tool of trade policy rather than competition policy. Their impact on competition has been reviewed by the Organization for Economic Cooperation and Development (OECD; 1984, paras. 96-125). There are three kinds of VERs. The first consists of those arranged by the government of the importing country, which sets up agreements either with the government of the exporting country or directly with the exporters—these "orderly marketing arrangements" are designed particularly to deal with adjustment, where a domestic sector is under threat of rapid decline due to imports. VERs of the second type are organized by the government of the exporting country, perhaps under pressure from the importing country's government. Those of the third type are organized by groups of exporting firms themselves who fear protectionist measures being imposed by the importing country if their exports grow too quickly. In the European context, the main VERs have been those instituted by Japan in 1985 on a range of exports, including videocassette recorders, color television tubes, light commercial vehicles, small motorcycles, quartz watches, stereo equipment, and machine tools.

The legality of VERs under the General Agreement on Tariffs and Trade (GATT) is not an issue as long as the exporting country agrees to accept the restraint voluntarily, since it is only the exporting country that would have the standing to register a complaint. Because VERs are undertaken by third-country exporters, they do not fall within the scope of Article 85 relating to competition and trade within the European Union. Private VERs might, however, be caught. Thus the decision in the 1985 *Wood Pulp* case went against a group of US exporters who had formed an export cartel to fix prices in the European market, having been exempted from US antitrust legislation under the Webb-Pomerene Act. The reason given was that although the agreement was between firms outside the European Union, it was implemented within the European Union and could therefore be challenged. (The agreement would not have been challenged under the RTPA because of the doctrine of extraterritoriality applied by the UK competition authorities.) Obviously, VERs are implicitly collusive because of the market-sharing element. It has been noted that the response of Japanese exporters has generally been either to raise the quality of their exports (and hence achieve higher margins) or to locate at least some final product assembly in the European Union so as to bypass the restraints.

Antidumping measures are a second type of trade policy instrument with effects on competition. These measures are permitted under Article VI of the GATT, and a code of practice was agreed to in the Kennedy Round of GATT negotiations in the 1960s. The code provides that, to establish dumping, the price in the importing country's market must be shown to be lower than that in the producer's domestic market, the impact on the importer's market must be material, and causality must be established (i.e., it must be shown that the low-priced imports are causing the difficulties of domestic producers in the market). These rules have been adopted by the European Union: private parties have the right to file complaints with the European Commission, which was quite active on this front in the 1980s. Most cases have been resolved by voluntary price undertakings by the exporting firms. The issue does not arise for the United Kingdom alone, as all antidumping cases are now referred to the European Commission.

There is always a danger that firms in the domestic market will abuse antidumping legislation by lobbying for actions designed to keep out foreign competitors. There is an obvious parallel with the treatment of predatory pricing by competition policy. Antidumping measures are (possibly) called for if and only if the imports are priced predatorily, and not if the price simply reflects the producer's low costs (Hindley

1991). The difficulty is to establish the reasons for the low price. For example, a firm may have a monopoly in its domestic market and therefore be willing to set a higher price there than in the export market. A low price in the export market may be a procompetitive weapon for a firm seeking to enter new markets. The information required to establish predatory behavior (or dumping) may simply not be available to the authorities, given that the pricing decisions have probably been made in the exporting country, at the headquarters of the firm or firms involved (Messerlin 1991). In practice, under EU (and US) policy, predation does not have to be established before antidumping measures are implemented. There is also some evidence that antidumping measures are linked to collusive behavior on the part of the domestic producers. In a review of Article 85 cases (suspected cartels) in the chemical industry over the period 1980-89, Messerlin (1990) found that in half the cases there were parallel antidumping cases, the implication being that antidumping measures provided the context for collusion (and vice versa).

Promotion of Domestic Producers

This section explores the possibility that competition policy (or the lack of it) may be used to promote the interests of domestic firms, both in the domestic market and in exports. Policies toward dominant firms, export cartels, and joint ventures (especially, but not exclusively, in R&D) are discussed.

Dominant Firms, Mergers, and National Champions

In certain circumstances it may be in the interest of national authorities to support domestic producers, enabling them to realize scale or learning economies that will allow them to compete more effectively in international markets in the long run (Brander and Spencer 1983; Krugman 1984; Grossman 1986; Itoh et al. 1991). This raises the possibility that a relaxed attitude toward the emergence of dominant firms, whether dominance is achieved through internal growth or through merger, could achieve the same objective. The popular concept is that of creating "national champions," particularly in high-growth or high-technology sectors.

This is an area of policy where, in principle, the UK approach looks rather different from that of the EU authorities. The relevant legislation in the United Kingdom is the FTA. This act enables the Secretary of State or the DGFT to refer monopoly situations to the MMC for investigation (in practice it is virtually always the DGFT who makes the referral). The definition of "monopoly" is structural: any situation where at least 25 percent of supply of a good in the United Kingdom is supplied by (or to) one firm (or a group of connected firms). The emphasis is on supply rather than production: thus an overseas firm with no production facilities in the United Kingdom could still be referred under the legislation if it supplied at least a quarter of the market. The 25 percent threshold is merely a trigger that may precipitate a referral—whether the situation in the market is contrary to the public interest is for the MMC to deliberate upon. Thus in its 1967-68 report on *Flat Glass*, the MMC noted that Pilkington had 89 percent of the relevant market, but the commission could find nothing untoward in the firm's behavior.

It was noted above that the FTA's definition of the public interest is widely framed: although three of the criteria laid down in the act relate to competition in supplying the domestic market, another refers explicitly to employment, and a third to competitive activity in markets outside the United Kingdom (presumably in export markets). In principle, therefore, given the wide definition of the public interest and the generally discretionary nature of the whole procedure, the competition authorities could use their powers to promote the interests of a domestic firm against foreign competition by taking a relatively relaxed view of market dominance. But it is difficult to identify any report on a "monopoly" where such considerations have affected the thinking of the commissioners.

The situation with regard to mergers under the FTA is basically similar. The MMC is asked to consider the public interest, using the same criteria as for monopoly cases. Since 1979 the UK government has stressed that the primary consideration in deciding whether to refer a merger will be that of competition. In July 1984, then Secretary of State Norman Tebbit made a policy statement to this effect (since then known as the "Tebbit doctrine"), and there is no evidence that the government has weakened in its resolve on this matter since. It is, however, possible to identify two cases where enabling domestic firms to compete internationally may have had some effect on the commission's thinking.

The first is the 1987 report on the merger between British Airways and British Caledonian. The MMC recognized that the merger would create a national champion better able to compete internationally, but it also noted the adverse effects on competition with smaller UK airlines. The merger was allowed after British Airways entered into undertakings (subsequently strengthened after intervention by the European Commission) to cede some of its landing slots at London's Gatwick Airport to competitors (see Hay and Vickers 1988 for a further account).

The second example is that of the 1989 consortium bid of GEC and Siemens for Plessey. The MMC's 1986 report on the proposed merger between GEC alone and Plessey had identified an adverse effect on competition in the domestic defense and telecommunications markets, and that merger was blocked. The 1989 report, however, placed conditions on a merger involving the same two companies but did not seek to block it. The MMC noted that the market in question had become more international, and that GEC and Plessey were already involved in a joint venture in the telecommunications sector. The view was taken (and not subsequently contradicted by the European Commission) that competitive pressures from Japanese and US companies in the telecommunications market required larger UK (and European) units to compete. The conditions required by the MMC related mainly to defense contracts, seeking to alleviate the fears of the Ministry of Defence that a merger with a large foreign company might jeopardize national security.

Formally, the approach of the European Commission to dominant firms under Article 86 is quite different from that of the United Kingdom. Article 86 attacks the abuse of a dominant position within the European Union or part of it. An economic concept of dominance is introduced, making it essential to define the relevant product market(s) within which the firm is potentially dominant. If products can be regarded as interchangeable, they are deemed to fall within a given market. The relevant market having been defined, it remains to identify the level at which a firm becomes dominant. A large market share is not enough; there also has to be evidence that conditions of entry are such that the firm could effectively exercise market power. In practice, a market share of 40 to 45 percent has been taken to indicate dominance (in a 1978 case involving United Brands and in a 1976 case involving Hoffmann-La Roche). Once a firm has been judged to have a dominant position, it remains to be considered whether it has abused that position. Article 86 gives examples of such abuses—unfair prices, limiting production, price discrimination—but the scope of the article is not limited to these examples, and in principle the European Commission may consider a wide range of behavior.

One difficulty with (or, some would argue, a strength of) Article 86 is that it gives no room for a firm to argue for countervailing benefits from its dominant position. It is unlikely therefore that a lax application of Article 86 could be used "strategically" to permit EU champions to emerge. Perhaps this is right—the scale of the EU internal market is such that it should be possible both to preserve competition between producers and to realize the scale economies needed for international competitiveness. Similar issues are raised by the EU Merger Regulation, in force since 1990. As previously noted, the imprecise drafting of some points of the regulation leave the door open to a defense of a merger as creating a European champion. It is therefore reassuring that in the one case where the commission has ruled against a merger (the proposed merger of Aérospatiale-Alenia and de Havilland, decided in 1991), the decision emphasized the need to maintain competition in EC and world markets.

Export Cartels

Agreements between exporters are sometimes defended on the grounds that they enable a group of firms to share expertise and services in supplying foreign markets. In practice, for such agreements to be effective, they need to cover relatively homogeneous products and involve few participants. In the United Kingdom in the late 1970s, export cartels covered less than 5 percent of exports and were most common in the engineering industry (OECD 1984, paragraphs 14-23). Competition authorities do not generally concern themselves with export cartels, and the authorities in the importing country have not been able, as a rule, to act against them. The main fear of domestic competition authorities is that agreements over exports may be conducive to collusive behavior in the domestic market. In the United Kingdom, an export cartel is required under the RTPA to register but is treated as exempt from that law's provisions. The EU position is that an export cartel in one member state that affected trade with another member state would be dealt with under Article 85(1); however, an export cartel that affected only trade with a non-EU country would not be challenged.

R&D Agreements, Specialization Agreements, and Joint Ventures

Domestic firms may enter into R&D agreements in order to reduce the costs of undertaking the R&D they need to compete successfully internationally. For the competition authorities the familiar trade-off reappears: the gains in terms of international competitiveness may be offset by extension of the cooperation to supplying the domestic market. Under UK legislation (the RTPA), any agreement in which the parties accept restrictions on production and commercial exploitation of an innovation must be registered. Agreements that solely involve sharing of R&D and exchange of technical information need not be registered. If the agreement is registrable, the firms may seek to persuade the DGFT to get a direction from the Secretary of State not to take action against the agreement, or they may go to the court and seek to have the agreement upheld under one of the gateways, or they may appeal to the European Commission for exemption under Article 85(3).

In fact, the EU competition laws are generally sympathetic to R&D agreements and joint ventures in the high-technology and energy sectors and between small and medium-size firms, and to any cross-frontier cooperation. Regulation 418/85 gives block exemptions to pure R&D agreements, R&D agreements extending to joint exploitation, and joint exploitation flowing from an earlier R&D agreement. Joint exploitation can include joint manufacturing and licensing but does not extend to joint marketing and selling. Agreements that do not gain exemption under this regulation can then seek individual exemptions under Article 85(3)—in practice these are often granted, although the procedure involves detailed investigation by DGIV, and there may be protracted negotiations over the precise form of the agreement. R&D agreements and joint ventures in high technology have been particularly favored, perhaps reflecting concerns about Europe's ability to compete with Japan and the United States. Indeed, in some high-technology sectors the European Commission has taken active steps to promote European cooperation in R&D (Geroski 1989).

Specialization agreements—whereby one firm agrees to specialize in one product and another to specialize in a second, and both agree to supply each other (and each other's customers)—can generate obvious economies of scale and enable the firms to compete more effectively internationally. Treatment of such agreements under UK and EU competition law parallels that of R&D agreements, with one exception: the regulation granting block exemption is restricted to smaller undertakings (with specified threshold firm sizes). In general, the European Union prefers specialization agreements to agreements that involve joint production.

Joint ventures in production and/or marketing that affect the supply of goods in the United Kingdom may be investigated under either the RTPA or the FTA. In the case of production joint ventures, the RTPA rules apply if the venture takes the form of a collusive agreement between the firms. The FTA applies in cases where the joint venture will have more than 25 percent of the relevant market. The key distinction between the two pieces of legislation is that the RTPA has a presumption against agreements, whereas under the FTA each joint venture agreement is to be considered on its merits. Under EU competition law, joint ventures are mainly considered under Article 85. Exemptions can be obtained under Article 85(3), but the tests are quite stringent. The advantages from the joint venture must be objective and significant, and close cooperation must be indispensable. The joint venture must not be used to eliminate competition within the European Union or any geographical market within it. Exemptions are limited in time, and arguments for continuing the exemption must be presented for renewal.

In February 1993 the commission issued a "Notice on Cooperative Joint Ventures." This notice distinguished cooperative joint ventures, which continue to be dealt with under Article 85, from concentrative joint ventures. The latter perform "on a lasting basis all the functions of an autonomous economic entity" and do not "give rise to coordination of the competitive behavior of the parties." These ventures are dealt with under the Merger Regulation. (For further discussion of joint ventures, see OECD 1986, Geroski 1993, Jacquemin 1988, and Jorde and Teece 1990.)

State Aids

The European Union has recognized, from its inception, that the strategic use of subsidies by member state governments could undermine the gains from reductions in tariffs and other barriers to trade within the Union (European Commission 1991). Policy has developed within the framework of Articles 92 and 93 of the Treaty of Rome. Article 92 contains a general prohibition of state aids, unless the commission specifically grants a derogation. Since the mid-1980s the commission has taken a tougher line on state aids (Gilchrist and Deacon 1990), and there has been an overall decline in support for manufacturing, especially sector-specific aid schemes (e.g., in steel and shipbuilding). This decline has been particularly marked in the United Kingdom, which now has the lowest level of subsidies among the major EU economies. But the UK record is far from blameless: in 1992 the UK government was required to claw back from British Aerospace some of the substantial "sweeteners" that had been granted to induce the company to take over the unprofitable (nationalized) car manufacturer Rover in 1988. In contrast, the European Commission has been willing to countenance the development of European consortia backed by member states. The most notable example is Airbus Industrie (Baldwin and Krugman 1988; Neven and Seabright 1995), set up in 1970 by the governments of France, Germany, the United Kingdom, and Spain. The "aid" to Airbus is in the form of nominal debt, which has to be repaid only if Airbus is profitable (i.e., the arrangement is closer to a venture capital arrangement). The objective was to create a European competitor to the developing monopoly of Boeing in world markets for wide-bodied commercial jet aircraft. There is some debate as to whether this objective has been achieved and, if so, whether there has been a net gain in European welfare.

Conclusions

This paper has explored the interface between trade policy and competition policy in the United Kingdom, exploiting the natural links between the theory of trade in imperfectly competitive markets and the concern of competition policy for such markets. Two broad themes have been identified: access to the domestic market for foreign suppliers, and actions to promote the interests of domestic producers, especially in export markets. In exploring these themes, the contributions of the UK and the EU authorities in shaping policy in the United Kingdom have been noted.

Regarding access to the domestic market for foreign suppliers, four areas were considered. The first is whether a foreign supplier will be accorded national treatment, either to supply or to produce in the United Kingdom. Our conclusion is that the policies put in place in the 1980s—especially the deregulatory and privatization policies of the UK government, but also those of the European Union—have made the United Kingdom relatively open to foreign suppliers and producers. There has in the past been a slight question mark over the acquisition of UK firms by foreign bidders, but currently that is not an issue. The second and third areas are those of predatory response by UK firms to entry by a foreign supplier, and vertical restraints practiced by UK firms that might make entry difficult. Our conclusion is that in both these areas UK and EU policy is procompetitive in its stance. The fourth area is that of policy responses where domestic producers are under pressure from imports. On the competition policy side, recession cartels established to allow orderly adjustment in the industry have been permitted (and even promoted) by the European Commission in some instances. Regarding trade policy, which is the responsibility of the Commission alone, there has been a willingness to protect domestic suppliers through voluntary export restraints negotiated with foreign suppliers and through antidumping measures. There is some evidence that these measures have had adverse effects on competition between European suppliers.

Regarding promotion of domestic producers, especially in export markets, there are three areas of interest. The first is policy toward dominant firms and toward mergers that seek to create dominant firms. The popular conception is that such firms are national champions, which can realize scale or learning economies to enable them to compete more effectively in world markets. In principle, UK competition policy is more open to such arguments than EU policy, and there is evidence in a few UK cases that they have been significant in reaching decisions. The second area is agreements between firms: export cartels, R&D agreements, and joint ventures. Both UK and EU policies have been generally permissive of such agreements, especially where the main objective is competition in export markets. The third area is that of state aids, which have been a particular concern of the European Union in the 1980s. Britain now has the lowest level of subsidies among the major EU economies. However, the Commission has been willing to permit aid to European consortia in high-technology sectors to preserve a European competitor in world markets. Our conclusion is that UK and EU policy is not unsympathetic to the notion that national champions are needed to compete effectively in world markets. Policy is in part simply permissive (e.g., UK merger policy), and in part openly promotional (e.g., toward R&D joint ventures): the main concern of EU policy is that no member state policy should benefit producers in that state against producers in other member states.

A final question is whether there are significant conflicts in the competition policies being pursued by the United Kingdom and the European Union. The impression given by a review of the legislative and institutional frameworks is that there are significant divergences of thought; in particular, the UK public-interest criterion differs from the EU emphasis on promoting and maintaining effective competition. In practice, this difference of view has not been a serious issue in recent years, with the emphasis of the UK government on deregulation and competition generally. However, it is unfortunate that the UK government has not up to now been willing to take steps to bring the UK policy framework more into line with that of the European Union. If nothing else, problems will arise for major UK producers from their being subject to different competition policy regimes in the United Kingdom and the European Union. The differences may also exacerbate any conflicts over jurisdiction in particular cases, which may not be entirely avoided by rules for assigning jurisdiction (as in the EU Merger Regulation).

References

Armstrong, M., Cowan S., and J. Vickers. 1994. *Regulatory Reform: Economic Analysis and British Experience*. Cambridge, MA: MIT Press.

Baldwin, R., and P. Krugman. 1988a. "Industrial Policy and International Competition in Wide-Bodied Jet Aircraft." In R. E. Baldwin, *Trade Policy Issues and Empirical Analysis*. Chicago: University of Chicago Press for the National Bureau of Economic Research.

Baldwin, R. E., and P. R. Krugman. 1988b. "Market Access in International Competition: A Simulation Study of 16K Random Access Memories." In R. Feenstra, *Empirical Studies of International Trade*. Cambridge, MA: MIT Press.

Bolton, P., and D. Scharfstein. 1990. "A Theory of Predation Based on Agency Problems in Financial Contracting." *American Economic Review* 80: 93-106.

Brander, J. A., and B. J. Spencer. 1983. "International R and D Strategy and Industrial Rivalry." *Review of Economic Studies* 50: 707-22.

Brander, J. A., and B. J. Spencer. 1985. "Export Subsidies and International Market Share Rivalry." *Journal of International Economics* 18: 83-100.

Commission of the European Communities. 1995. *Competition Policy in the New Trade Order: Strengthening International Cooperation and Rules*. Luxembourg: Office for Official Publication of the European Communities.

Cowan, S. G. B. 1989. "Trade and Competition Policies for Oligopolistic Industries." *Weltwirtschaftliches Archiv* 125: 464-83.

Department of Trade and Industry. 1988. *Mergers Policy*. London: Her Majesty's Stationer's Office.

Department of Trade and Industry. 1989. *Opening Markets: New Policy on Restrictive Trade Practices* (cm 727). London: Her Majesty's Stationer's Office.

Department of Trade and Industry. 1992. *Abuse of Market Power: A Consultative Document on Possible Legislative Options* (cm 2100). London: Her Majesty's Stationer's Office.

Dixit, A. K. 1984. "International Trade Policy for Oligopolistic Industries." *Economic Journal Conference Papers* 94: 1-16.

Dixit, A. K., and G. M. Grossman. 1986. "Targeted Export Promotion with Several Oligopolistic Industries." *Journal of International Economics* 21: 233-49.

European Commission. 1988. "The Economics of 1992." *European Economy* 35 (March).

European Commission. 1991. "Fair Competition in the Internal Market: Community State Aid Policy." *European Economy* 4 (September).

Fairburn, J., J. Kay, and T. Sharpe. 1984. "The Economics of Article 86." IFS Working Paper. London: Institute for Fiscal Studies.

Fudenberg, T., and J. Tirole. 1986. "A 'Signal Jamming' Theory of Predation." *Rand Journal of Economics* 17: 366-76.

Gatsios, K., and P. Seabright. 1989. "Regulation in the European Community." *Oxford Review of Economic Policy* 5, no. 2: 37-60.

Geroski, P. 1989. "European Industrial Policy and Industrial Policy in Europe." *Oxford Review of Economic Policy* 5: 20-36.

Geroski, P. 1993. "Antitrust Policy Towards Cooperative R and D Ventures." *Oxford Review of Economic Policy* 9, no. 2: 58-71.

Gilchrist, J., and D. Deacon. 1990. "Curbing Subsidies." In P. Montagnon, *European Competition Policy*. London: Pinter for Royal Institute for International Affairs.

Grossman, G. M. 1986. "Strategic Export Promotion: A Critique." In P. R. Krugman, *Strategic Trade Policy and the New International Economics*. Cambridge, MA: MIT Press.

Grossman, S., and O. D. Hart. 1980. "Takeover Bids, the Free-Rider Problem, and the Theory of the Corporation." *Bell Journal of Economics* 11: 42-64.

Hart, O., and J. Tirole. 1990. "Vertical Integration and Market Foreclosure." *Brookings Papers on Economic Activity: Microeconomics* 205-76.

Hay, D. A., and J. S. Vickers. 1987. *The Economics of Market Dominance*. Oxford, UK: Blackwell.

Hay, D. A., and J. S. Vickers. 1988. "The Reform of UK Competition Policy." *National Institute Economic Review* 125: 56-68.

Hay, G. A. 1985. "Competition Policy." *Oxford Review of Economic Policy* 1: 63-79.

Hindley, B. 1991. "The Economics of Dumping and Anti-dumping Action." In P. K. M. Tharakan, *Policy Implications of Antidumping Measures*. Amsterdam: Elsevier/North Holland.

Hoekman, B. M. 1994. *Antitrust-Based Remedies and Dumping in International Trade*. CEPR Discussion Paper No. 1010. London: Centre for Economic Policy Research.

Hoekman, B. M., and P. C. Marvroidis. 1994. "Competition, Competition Policy and the GATT." *World Economy* 17: 121-50.

Holzler, H. H. 1990. "Merger Control." In P. Montagnon, *European Competition Policy*. London: Pinter for Royal Institute of International Affairs.

International Monetary Fund (IMF). 1992. "The Interface Between Trade and Competition Policies," appendix II. In *Issues of Developments and International Trade Policy*. Washington.

Itoh, M., K. Kiyono, M. Okuno-Fugiwara, and K. Suzumura. 1991. *Economic Analysis of Industrial Policy*. San Diego: Academic Press.

Jacquemin, A. 1988. "Cooperative Agreements in R and D and European Antitrust Policy." *European Economic Review* 32: 557-60.

Jorde, T., and D. Teece. 1990. "Innovation and Cooperation: Implications for Competition and Antitrust." *Journal of Economic Perspectives* 4: 75-96.

Krishna, K. 1989. "Trade Restrictions as Facilitating Practices." *Journal of International Economics* 26: 251-70.

Krugman, P. R. 1984. "Import Protection as Export Promotion: International Competition in the Presence of Oligopoly and Scale Economies." In H. Kierzkowski, *Monopolistic Competition and International Trade*. Oxford, UK: Blackwell.

Lawrence, R. Z. 1991. "Efficient or Exclusivist? The Import Behavior of Japanese Corporate Groups." *Brookings Papers on Economic Activity* 1: 311-41.

Lloyd, P., and G. Sampson. 1995. "Competition and Trade Policy: Identifying the Issues after the Uruguay Round." *World Economy* 18: 681-705.

Messerlin, P. A. 1990. "Anti-Dumping Cases or Pro-Cartel Law? The EC Chemical Industry Cases." *World Economy* 13: 465-92.

Messerlin, P. A. 1991. "The Uruguay Negotiations on Antidumping Enforcement: Some Basic Issues." In P. K. M. Tharakan, *Policy Implications of Antidumping Measures*. Amsterdam: Elsevier/North Holland.

Milgrom, P., and J. Roberts. 1982. "Limit Pricing and Entry Under Incomplete Information: An Equilibrium Analysis." *Econometrica* 50: 443-59.
Neven, D., R. Nuttall, and P. Seabright. 1993. *Merger in Daylight*. London: Centre for Economic Policy Research.
Neven, D., and P. Seabright. 1995. "European Industrial Policy: The Airbus Case." *Economic Policy* 21: 313-58.
Neven, D. J., and J. S. Vickers. 1992. "Public Policy Towards Restructuring: Some Issues Raised by the Internal Market Programme." In K. Cool, D. Neven, and I. Walter, *European Industrial Restructuring in the 1990s*. London and Basingstoke, UK: Macmillan.
Ordover, J., and G. Saloner. 1989. "Predation, Monopolization and Antitrust." In R. Schmalensee and R. Willig, *Handbook of Industrial Organization*. Amsterdam: North Holland.
Organization for Economic Cooperation and Development (OECD). 1984. *Competition and Trade Policies: Their Interaction*. Paris.
Organization for Economic Cooperation and Development (OECD). 1986. *Competition Policy and Joint Ventures*. Paris.
Organization for Economic Cooperation and Development (OECD). 1988. *International Mergers and Competition Policy*. Paris.
Organization for Economic Cooperation and Development (OECD). 1989. *Competition Policy and Intellectual Property Rights*. Paris.
Organization for Economic Cooperation and Development (OECD). 1991. "Industrial Policy." In *OECD Countries: Annual Review 1991,* 145–54. Paris.
Organization for Economic Cooperation and Development (OECD). 1995. *Guidance for Cooperation between Authorities in Controlling Competition as it Affects International Trade*. Council text C(95)130, 29 September.
Pelkmans, J. 1987. "The New Approach to Technical Harmonization and Standardization." *Journal of Common Market Studies* 25: 249-69.
Richardson, J. David. 1989. *Empirical Research on Trade Liberalisation with Imperfect Competition: A Survey*. OECD Economic Studies 12. Paris: OECD.
Salop, S., and D. T. Scheffman. 1983. "Raising Rivals' Costs." *American Economic Review* 73: 267-71.
Salop, S., and D. T. Scheffman. 1987. "Cost Raising Strategies." *Journal of Industrial Economics* 36: 19-34.
Sapir, A., P. Buigues, and A. Jacquemin. 1993. "European Competition-Policy in Manufacturing and Services: A Two Speed Approach?" *Oxford Review of Economic Policy* 9, no. 2: 113-32.
Scherer, F. M. 1994. *Competition Policies for an Integrated World Economy*. Washington: Brookings Institution.
Smith, A., and A. J. Venables. 1988. "Completing the Internal Market in the European Community: Some Industry Simulations." *European Economic Review* 32: 1501-25.
Tirole, J. 1988. *The Theory of Industrial Organization*. Cambridge, MA: MIT Press.
Waterson, M. 1993. "Vertical Integration and Vertical Restraints." *Oxford Review of Economic Policy* 9, no. 2: 41-57.
Weinstein, D. E., and Y. Yafeh. 1995. "Japan's Corporate Groups: Collusive or Competitive? An Empirical Investigation of *Keiretsu* Behavior." *Journal of Industrial Economics* 43: 359-76.
Whish, R. 1989. *Competition Law*. London: Butterworth.
Williams, M. E. 1993. "The Effectiveness of Competition Policy in the United Kingdom." *Oxford Review of Economic Policy* 9, no. 2: 94-112.