
Appendix A

Case Studies

Case 1: Cement

At first glance, cement does not seem a highly tradable product, because of its low value added and high transport costs. However, international trade in cement can be very profitable: a few concentrated European producers have segmented markets, by appropriately locating their plants, and generated high profits, which have been increased by the large cycles in the building industry.

In fact, during the 1990s, trade in cement was riddled with intra-EC and extra-EC barriers. A first group of barriers consists of technical regulations harming intra- and extra-EC trade. The harmonization or mutual recognition of these regulations has proved to be very difficult, at the level of both design and implementation (*Single Market Review* 1998, vol. 1, 135–53), and the failure index of this operation of harmonization/recognition (see chapter 4) is 4 (6 being the maximum index) (*Single Market Review* 1998, vol. 1, 299).

Trade barriers against exports from non-EC countries have essentially consisted of antidumping actions, particularly against Central European and Mediterranean countries with large production and export capacities. There were 11 cases between 1985 and 1994 against EC neighboring producers (Czechoslovakia, Poland, Romania, Slovenia, Tunisia, Turkey, and Yugoslavia). As underlined by Dumez and Jeunemaitre (2000, 157): “Only the antidumping device seems able to put a halt to the [globalization] process, and bring a return to previous local market equilibriums, where

imports are under the control of the local producers.” This remark about the US market is applicable to the EC market.

Finally, technical regulations and antidumping measures have allowed frequent anticompetitive practices. In 1994, the Commission imposed fines totaling €248 million on 33 producers found to have participated in secret arrangements (“*Cembureau*”) to rig markets since 1983—including by pressuring importers to align with local producers (these practices are consistent with the lodging of antidumping cases followed by withdrawal from the complaining firms) (European Commission 1994). There have been many similar cases at the national and local levels (Dumez and Jeunemaître 2000). Recently, EC cement firms began to buy CEC cement producers, opening the possibility of consolidating anticompetitive practices in the whole of Europe.

Notes

The level of protection taken into account in estimating the costs of protection is the sum of the GATT-bound tariff (3.2 percent) and the antidumping measures estimated at 19 percent, i.e., half the average antidumping margin mentioned by the investigations. There is relatively scarce information on antidumping measures: 7 out of the 11 antidumping cases have been terminated by a “no injury” conclusion, 3 by the “withdrawal” of the complainants from the complaint, and 1 by the Spanish accession to the EC—all outcomes consistent with the use of antidumping as a collusive device.

To our knowledge, there is no estimate of the total-price demand elasticity and of the supply price elasticity for cement. Estimates of the elasticity of substitution between domestic and foreign products range from 2.1 (ISIC 361) to 1.1 (cement hydraulic) (Shiells et al. 1986; Reinert and Roland-Holst 1992). As a result, elasticities of 1, 1 (both set arbitrarily), and 1.5—for demand, supply, and substitution, respectively—have been used to estimate the costs of protection.

Case 2: Fertilizers

During the late 1980s, EC imports of most types of fertilizers (UAN, NPK, urea, potassium chloride, ammonium nitrate, etc.) coming from a wide range of countries (the United States, Central European countries, the Soviet Union, and Mediterranean or Middle Eastern oil producers) were subjected to antidumping investigations. These inquiries led to some of the highest antidumping margins found during this period (up to 150 percent). Most of these cases were terminated by price undertakings, and a few others by the highest antidumping duties imposed during this period (up to 40 percent). Moreover, some EC member-states imposed their own

nontariff barriers: global quotas in Greece, nonautomatic licensing in Spain, automatic licensing in the Benelux countries (GATT, *Trade Policy Review: The European Community*, 1991, 209). During the 1990s, new antidumping cases on similar products were lodged more or less every year until 1995, and 1999 witnessed a reactivation of the antidumping cycle with a huge urea case (see appendix B).

Price collusion schemes in certain fertilizers are well-known practices. They have been reported by EC member-state competition authorities since the early 1960s (CTE 1964). Since the early 1970s, there have been reports of anticompetitive practices by fertilizer producers at the world level (UNCTAD 1971). During the 1990s, following a severe downturn in the early 1990s, EC industry witnessed a series of mergers, leading to a handful of major firms. Of course, this activity is a major beneficiary of the subsidies granted to EC farmers by the Common Agricultural Policy (see chapter 4).

Notes

The rate of overall protection in 1990 is the compounded sum of the average GATT-bound tariff (5.2 percent) and of the average antidumping measure taken in the 1986–87 urea cases (26.1 percent), which is likely to be an underestimate.

The literature suggests a total-price demand elasticity ranging from 0.3 to 3.8 (Stern et al. 1976) and an elasticity of substitution between domestic and foreign products ranging from 9.9 (ISIC 351) to 0.4 (agricultural chemicals) (Shiells et al. 1986; Reinert and Roland-Holst 1992). To our knowledge, there is no available estimate of the supply price elasticity. As a result, elasticities of 1, 2, and 1.5 (for demand, supply, and substitution, respectively) have been used to estimate the costs of protection.

Cases 3 and 4: Polyethylene and Polyvinyl Chloride

These two basic chemical products offer one of the best illustrations of the close relations between trade and competition policies (Messerlin 1990). In November 1981, an antidumping action was initiated against polyvinyl chloride (PVC) exports from four Central European countries, representing 44 percent of EC imports from non-EC countries. In September 1982, another antidumping action was initiated against low-density polyethylene (LdPE) exports from three Central European countries and from the Soviet Union, amounting to 33 percent of EC imports from non-EC countries. In both cases, the bulk of the remaining imports was coming from EFTA subsidiaries of firms that also operated in the EC. By early and mid-1983, the two cases were terminated by “undertakings,”

the nature and the magnitude of which were not specified in the EC antidumping proceedings.

In late 1983, investigations of collusion and market sharing in the LdPE market were launched under Article 85 of the Treaty of Rome. An official proceeding was opened in March 1988. In December 1988, both EC and non-EC firms were heavily fined for involvement in an LdPE cartel. A similar procedure was followed for the PVC market, with the same outcome in December 1988. The EC anticartel proceedings strongly suggest the role of the antidumping actions (if only in terms of timing) as a key device for sustaining anticompetitive practices in EC markets. Individual cases were taken on appeal to the Court of Justice. In the PVC case, the Commission's decision and hence the fines were annulled on a procedural ground (the authentication procedure defining the language in which decisions are binding was not complete). Meanwhile, from early 1983 to 1987–88, antidumping measures remained in force. The 1990s witnessed a long list of cases (19) on products derived from polyethylene and polypropylene, such as binders, twine, sacks, bags, and terephthalates. Greenaway et al. (1995) have shown that there are strong similarities between these cases and the polypropylene cases.

Notes

The estimated rate of overall protection for 1990 is the GATT-bound tariff (12.5 percent), which was the only official trade barrier existing in 1990. It has been assumed that the undertakings imposed by the antidumping actions have been effectively eliminated, as officially stated (in September 1987 for PVC, in March 1988 for LdPE). However, the “chilling” effect of the cases was clear enough to maintain some kind of cooperative behavior between firms—hence the treatment of this case under the imperfect-competition model.

The literature suggests a supply price elasticity of 2 (Hufbauer and Elliott 1994) and an elasticity of substitution between domestic and foreign products ranging from 8.6 (ISIC 351) to 1.7 (plastics) (Shiells et al. 1986; Reinert and Roland-Holst 1992). To our knowledge, there is no estimate of the total-price demand elasticity. As a result, elasticities of 1, 2, and 4 (for demand, supply, and substitution, respectively) have been used to estimate the costs of protection.

Case 5: Hardboard

In the early 1990s, the wood industry was protected by a wide range of measures restricting *both* intra- and extra-EC trade. In particular, hardboard was subjected to technical regulations (different standards and major differences in conformity assessment procedures) that constituted

severe barriers. The index of failure of harmonization and mutual recognition of technical regulations for semifinished wood products and carpentry components (see chapter 4) is 4 (6 being the highest index of failure) (Single Market Review 1998, vol. 1, 304). Moreover, hardboard activity benefited from large production subsidies in certain member-states (such as France) during the 1980s and early 1990s.

On the extra-EC side, antidumping cases recur: 1981 (2 cases), 1982 (1), 1985 (4), and 1997 (6) for hardboard; to which one should add 7 cases on standard particle board (in 1984) and one case on flat pallets (1995). These cases have two characteristics: They generate many more antidumping reviews than in any other industry; and they are terminated by particularly opaque decisions (no official measure, despite the existence of dumping).

Notes

The estimated rate of overall protection in 1990 is the sum of the average GATT-bound tariff (10 percent) and the antidumping measures taken under the 1985 case (13.6 percent). Because antidumping measures consist of undertakings, they are treated as a source of rents, not of tariff revenues. There is no available estimate of the amount of subsidies granted by certain member-states, and thus of their ad valorem tariff equivalents.

The literature suggests a total-price demand elasticity ranging from 0.3 to 1 (Stern et al. 1976), a supply price elasticity ranging from 0.4 to 0.7 (Stern et al. 1976), and an elasticity of substitution between domestic and foreign products ranging from 0.3 (ISIC 331) to 1.73 (hardwood) (Shiells et al. 1986; Reinert and Roland-Holst 1992). As a result, elasticities of 1, 0.5, and 1.7 (for demand, supply, and substitution, respectively) have been used to estimate the costs of protection.

Case 6: Newsprint

In the early 1990s, newsprint production was protected by often opaque EC member-state measures. First, the paper industry was plagued with technical regulations (it is an environmentally sensitive industry), which may have had a substantial protectionist impact, as illustrated by Baldwin (2000).¹ Indeed, technical regulations have been (and still are) a major source of conflict between the EC and certain Central European countries (e.g., Poland) for the adoption of the *acquis communautaire* in technical regulations.

1. In the early 1990s, the EC attempted to impose the inclusion of a certain fraction of recycled paper in new paper, a proposal without advantages from the environmental perspective, but which could reduce severely the resource-based comparative advantages of Finnish and Swedish producers relative to French and German producers (the latter produce paper on the basis of recycled paper, whereas the former produce paper on the basis of new trees). The proposal has not been adopted.

Second, the sector has benefited from massive production subsidies in certain member-states, as is best illustrated by France, which put €0.5 billion between 1984 and 1987 into one producer (La Chapelle-Darblay, leading to a national record in subsidy per head for its 1,000 workers) (*Financial Times*, 30 March 1990). These subsidies have taken very opaque forms. For instance, Electricité de France has agreed to charge preferential prices for electricity to five paper producers. These preferential prices have been equal to or lower than those charged the largest electricity users, though for quantities one thousand times smaller, with electricity representing 20 to 30 percent of the total costs of producing paper (Rouam 1998, 14).

Third, an examination of the EC public procurement function has shown that paper suppliers operating in one EC member-state have had very little (in fact, no) success at all in getting business in other member-states (see table 5.6).

There have been persistent reports of anticompetitive practices in this sector. In particular, the Commission has monitored closely the ways Finnish and Swedish newsprint producers operate. In 1998, while recognizing the strongly oligopolistic nature of this market (there are six firms in the EEA) the Commission approved important mergers. One merger was between Repola and Kymmene (both from Finland). The other, more important, merger was between Enso (from Finland) and Stora (from Sweden), which together represent 75 percent of the European production capacity for newsprint; this merger was accepted on the grounds that purchasers of newsprint, such as press groups, have enough purchasing power (European Commission 1999d, 59). These two firms also produce cardboard, and Stora has been deeply involved in an important competition case concerning the European cardboard cartel, which was terminated in 1994 by the imposition of €132 million in fines (European Commission 1994, 405).

Notes

The estimated rate of overall of protection in 1990 has been assumed to be the average GATT-bound tariff, that is, 7 percent, because there is no known estimate of ad valorem tariff equivalents of technical barriers to trade, or of the associated possible quantitative restrictions and cooperative behavior. It is thus likely to be a substantial underestimate.

The literature suggests a total-price demand elasticity ranging from 0.7 to 0.8 (Coursey and Taylor 1982) and an elasticity of substitution between domestic and foreign products ranging from 1.8 (ISIC 341) to 1 (paper mills) (Shiells et al. 1986; Reinert and Roland-Holst 1992). To our knowledge, there is no estimate of the supply price elasticity. As a result, elasticities of 0.8, 1, and 1.5 (for demand, supply, and substitution, respectively) have been used to estimate the costs of protection.

Case 7: Artificial and Synthetic Fibers

Trade barriers on imports of artificial and synthetic fibers (ASF) have consisted of many instruments. In addition to MFN duties, 49 antidumping cases were initiated between 1980 and 1999, covering all the major ASF types—with antidumping duties doubling in the early 1990s, and then tripling the level of protection granted by MFN duties. Moreover, ASF are indirectly influenced by the Multi-Fiber Agreement (see cases 13 and 14 below).

However, the two most interesting aspects of ASF protection are its “crisis cartel” status and the massive member-state subsidies that have to a considerable extent shaped the EC ASF industry (for details, see de Ghellinck and Huvencuers 1995).

The ASF industry tried to benefit from the EC “crisis cartel” status between 1972 and 1986. The legal basis for this status is Article 81:3 (ex 85:3) of the Treaty of Rome, which states that agreements between firms can be acceptable if they “contribute to improving the production or distribution of goods or to promoting technical and economic progress, while allowing consumers a fair share of the resulting benefit.” However, the ASF firms withdrew their notification in 1972 because the Competition Directorate was opposed to such an agreement, and because they had received enough support from their respective member-states.

A second attempt to introduce a crisis cartel agreement was made in 1978 for a five-year period. Again, the tabled agreement was challenged by the Competition Directorate, because the cartel scheme included production and delivery quotas. But the agreement was not formally rejected: it has been implemented, with several amendments, and has led to a 20 percent cut from the 1977-level production capacities. However, it has virtually frozen the market shares of all the firms involved, with few eliminations of inefficient plants.

In 1982, a third crisis cartel agreement was tabled by the industry, and accepted in 1994 by the Competition Directorate. The *XIIIth Report on Competition Policy* (European Commission 1982) laid down the requirements for the constitution of a crisis cartel: structural overcapacity for a prolonged period, output decline, substantial operating losses, and the absence of an expectation of lasting improvement in the medium run. Moreover, the crisis cartel should provide a permanent and irreversible reduction in overcapacity, in combination with moves to specialization by individual firms, timing capacity reduction so as to minimize social dislocation. In 1985, the EC ASF producers benefiting from a crisis cartel represented 85 percent of the installed EC production capacity and had market shares ranging from 55 to 78 percent for the various products involved.

Excess capacity has been largely due to massive subsidies, particularly in Italy. A first EC subsidy “code” aimed at making member-state and Community subsidies conditional on capacity reductions was imple-

mented in 1977. Since then, it has been followed by a series of other codes, the last one having been enforced in 1996 for a period of initially three years, extended to five years, with the possibility of being extended under regional aid schemes. All these codes have been increasingly detailed by product and production process, hence de facto almost by firm or plant. For instance, the 1996 code tightens the notification procedure for aid (for fibers based on polyester, acrylic, or polypropylene) and modifies the rules for authorization of investment aid—making them dependent not only on significant capacity reductions (as usually), but also on product innovation and on the size of enterprises (for small enterprises, aid will be authorized at a higher percentage of the authorized ceilings) (Rouam 1998, 100).

This increasingly detailed approach has required ever closer contacts between the industry and the Commission, a situation that has generated confusion and a strong feeling of subjectivity in the code implementation by the Commission—all the more because there have been no ex post controls of announced capacity reductions, and no tight recovery procedures for illegal aid. There is little doubt that the codes have favored subsidized multiproduct and multiplant incumbents over more efficient entrants with a narrower range of activities.

Notes

The estimated rate of overall protection for 1990 is the sum of the average GATT-bound tariff (8.9 percent) and of the average ad valorem anti-dumping duty taken under the 1985, 1986, and 1987 cases (12.9 percent). Since then, the industry has been increasingly protected: the average anti-dumping duty in cases in the 1990s is roughly 15 percent. There has been no attempt to estimate the ad valorem equivalents of the subsidies and crisis cartel status.

To our knowledge, there are no available estimates of the total-price demand and supply price elasticities. Estimates of the elasticity of substitution between domestic and foreign products range from 9.8 (ISIC 351) to 0.7 (Shiells et al. 1986; Reinert and Roland-Holst 1992). As a result, elasticities of 1, 1, and 2 (for demand, supply, and substitution, respectively) have been used to estimate the costs of protection.

Case 8: Videocassette Recorders

Videocassette recorders are one of the best illustrations of the difficult communitarization of trade policy. In autumn 1982, the French government “unilaterally” imposed a luxury tax on all videocassette recorders (VCRs), to be collected in Poitiers (a small customs office in the middle of France) or in the French VCR factories. This move hurt almost everybody

in Europe. First, it was counterproductive for the French “national champion” (Thomson) producing VCRs, the alleged originator of the measure. Because Japanese VCRs got unexpected publicity from this measure (French VCR sales started slowly) French consumers rushed to buy Japanese VCRs—hence giving no time to Thomson to react.

Second, major member-states (Britain, Germany, the Netherlands) made clear their opposition to any action against Japanese VCRs at several Council of Ministers meetings in early 1982. They were even more opposed because the French luxury tax was imposed on their *own* production (Thorn-EMI, Telefunken, Philips), whether located in the EC or in France.

Third, the Commission analyzed the procedure for implementing the French luxury tax as an intra-EC trade barrier, favoring Thomson over EC competitors. The jurisprudence, based on Article 28 (ex 30) of the Treaty of Rome, considers a mandatory point of entry as having the equivalent effect to a quantitative restriction (indeed, it would have been difficult to find an entry point more costly for German or British producers than Poitiers). The Commission had two other reasons not to be amused. It had just passed Regulation 288/82 (see chapter 2) aimed at limiting member-state actions setting up new trade barriers (in this context, the VCR case appeared a bad omen for the survival of the regulation); and the Commission had to defend the French action at the GATT dispute settlement panel that Japan requested.

Internal Market Commissioner Etienne Davignon tried to escape all these difficulties by convincing the Association of Firms with a Common Interest in the Video 2000 System to lodge an antidumping complaint. That was done within a few days (van Marion 1993). The notice of initiation of the case was published in December 1982. In February 1983, the Commission came to a VER with the Japanese Ministry of International Trade and Industry (MITI). In March 1983, the association “withdrew” its complaint “following the implementation of the unilateral decision taken by the Japanese authorities to moderate in 1983 and 1984 the exports of VCRs from Japan and to set up an export floor-price system” (EC, *Official Journal*, 1983, L86/23).

In fact, the 1983 VER contained quantity and price elements (Hindley 1985, 1986; van Marion 1993). Quantitative targets were based on sales forecast in the EC for 1983 and 1984. European producers (including EC production located in Austria) got a stable share of 21 percent of the sales and Japanese producers the rest (split into two subsets: one for direct imports from Japan, and one for Japanese plants in the EC, in the proportion of 69 to 10 percent for 1983, and 62 to 17 percent for 1984). Moreover, minima prices for three categories of Japanese VCRs (low, medium, and high-end) were imposed. These were reduced a year later—leaving quantitative targets as the key instrument. This evolution is likely to have accelerated the rise of the VHS standard (JVC-Matsushita) and the fall of the V2000 (Philips) and Betamax (Sony) standards.

In 1987, a new antidumping case was initiated against Japanese and South Korean exports, followed in 1989 by an anticircumvention case against Japanese plants located in the EC, and in 1995 by an antidumping case against VCRs and parts from Korea and Singapore. All these cases were accompanied by a host of antidumping cases on related products: videocassettes from Hong Kong and Korea (1987) and from China (1990); audiocassette tapes from Japan, Korea, and China (1989); and compact-disk players, first from Japan and Korea (1987 and 1991), then from Malaysia, Singapore, and Taiwan. In almost all these cases, Philips was the key complainant, often accompanied by two or three small EC producers—sometimes its own subsidiaries.

Notes

The estimated rate of overall protection is the compounded sum of the GATT-bound tariff (12.5 percent) and of the average antidumping duty taken under the 1987 and 1989 cases, that is, 15.7 percent. This figure is likely to be conservative; Hindley (1985) has estimated that under the VER, prices could have gone up to 24 percent.

The literature suggests a total-price demand elasticity ranging from 1.1 to 1.8 for household appliances (Coursey and Taylor 1982), and an elasticity of substitution between domestic and foreign products ranging from 7.5 to 1.4 (Shiells et al. 1986; Reinert and Roland-Holst 1992). As a result, elasticities of 1.2, 1, and 3 (for demand, supply, and substitution, respectively) have been used to estimate the costs of protection.

Case 9: Integrated Circuits

This case focuses on two major types of integrated circuits of the late 1980s and early 1990s: DRAMs and EPROMs, two key inputs in computers and electronic products. The antidumping complaint against Japanese exporters of DRAMs was lodged in February 1987 by Siemens from Germany, Thomson from France, SGSM from Italy, and Motorola (the EC subsidiary of the US firm) from Britain. As underlined by Greenaway et al. (1995), it was extended to non-Japanese (South Korean) producers of DRAMs (in 1990, with smaller antidumping duties than the estimated measures taken against the Japanese producers) and to Japanese producers of complementary goods, in particular EPROMs (in 1987).

The presence of Motorola is interesting for several reasons. Motorola was considered an EC firm in the EC antidumping case (see the opposite fate of Canon in case 10 below on photocopiers). In the United States, however, it was among the US producers considering, but ultimately *not* lodging, an antidumping complaint and a 301 petition (the antidumping com-

plaints were lodged by a small firm, Micron, for the 64K DRAMs in 1985, and initiated by an unprecedented de officio action of the US Department of Commerce for the 256K DRAMs in 1986). These two US cases were lodged against the same exporters targeted by the EC case—illustrating the “echoing” among antidumping cases (several cases are launched in several countries against the same exporters by the same importers; see appendix B). These transatlantic antidumping echoes have been followed by the US antidumping EPROM case lodged in 1985 and the US antidumping case against South Korean producers of DRAMs (1992).

Notes

The estimated rate of overall protection for 1990 is the compounded sum of the GATT-bound tariff (13.5 percent) and of the ad valorem tariff equivalent of the antidumping measures taken under the 1987 DRAM case (estimated at 30 percent). This figure of 30 percent appears quite conservative for the following reasons: In the DRAM case, the average margin of dumping amounted to almost 89 percent, and the provisional and final ad valorem antidumping duties to 60 percent (possibly “watered” duties); moreover, the ad valorem antidumping duty in the 1987 EPROM case amounted to 94 percent.

The literature suggests a total-price demand elasticity from 1.5 (Flamm 1996; Baldwin 1990) and a supply price elasticity range of 2 (Hufbauer and Elliott 1994). To our knowledge, there is no available estimate of the elasticity of substitution between domestic and foreign products. As a result, elasticities of 1.5, 2, and 2 (for demand, supply, and substitution, respectively) have been used to estimate the costs of protection.

Case 10: Photocopiers

In August 1985, an antidumping photocopier case was initiated by four firms: Xerox from the Netherlands and Britain, Océ from the Netherlands, Olivetti from Italy, and Tetras from France. (A fifth firm, Develop from Germany, joined the complaint initially, but when it was bought by Minolta in 1986, it was eliminated by the Commission from the right to complain.) In August 1986, provisional antidumping duties ranging from 7.2 to 15.8 percent were imposed. In February 1987, definitive antidumping duties were on average 3 points higher than provisional duties, despite the fact that the final margins of dumping were on average 2 points lower than the provisional margins. No undertaking (i.e., a commitment by an exporting firm to charge export-minimum prices or to export maximum quantities) was accepted (with one minor exception), a relatively unusual decision at this time.

On 17 November 1988, an anticircumvention investigation pursuant to Article 13(10)(c) of the EC Regulation was initiated against Canon, Konica, Matsushita, Minolta, Ricoh, Sharp, and Toshiba. The complaint was lodged by the same EC firms that had alleged that “the value of the parts used [by the Japanese firms] for the assembly operations and originating in Japan exceeds the value of all the other parts used by more than 50 percent” (EC, *Official Journal*, 1988, C 44/3). In December 1988 and May 1989, similar cases were initiated against the EC plants of Sharp (Britain) and Ricoh (France) (the plant built in December 1989 by Sharp in France has not been subject to such a procedure). Estimating the ad valorem rates of protection equivalent to the anticircumvention measures taken is made difficult by the fact that all the cases have been terminated by undertakings or by specific duties followed by undertakings.² When computed on the basis of the method described by Vermulst and Waer (1990), ad valorem equivalent duties in the anticircumvention case range from 7 to 20 percent, with an unweighted average of 15 percent.³ These ad valorem rates of protection should be interpreted with care because no firm has paid such duties (by design, anticircumvention measures are cost-raising instruments, because they are local-content requirements imposed on Japanese Euro-plants).

Notes

The estimated rate of overall protection in 1990 is the sum of the average GATT-bound tariff (7.2 percent) and of the antidumping measures taken (in February 1987) under the 1985 case (24.7 percent).

To our knowledge, there is no estimate of the total-price demand elasticity and the supply price elasticity for photocopiers. Estimates of the elasticity of substitution between domestic and foreign products range from 2 (photographic goods) to 1.4 (communication equipment) (Shiells

2. According to the computations of the EC antidumping office, the average proportion of parts of Japanese origin in the Japanese European plants is 66.4 percent—a figure very close to the 60 percent threshold imposed by EC regulations. That is a weighted average, the weights being the relative capacities of production of the Japanese European plants. It should be noticed that EC practices in determining the origin of parts were considerably changed during the photocopier cases by the antidumping office, as is shown in detail by Vermulst and Waer (1990). Moreover, the models of copiers inherited from Develop and Olivetti by Minolta and Canon (respectively) and still produced and sold by the two Japanese companies have been excluded from the scope of the investigation.

3. In application of Article 13(10)(c) of the Regulations, the anticircumvention duty is the product of the antidumping duty times the proportion of parts of origin from the exporting country. In the case of the three specific duties imposed, dividing the specific duty by the average unit value of the import (a proxy for the average price) gives the following ad valorem equivalent duties (depending on the bases used): from 16.7 to 21.1 percent for Konica, from 14.3 to 18.0 percent for Matsushita, and from 2.1 to 2.6 percent for Toshiba.

et al. 1986; Reinert and Roland-Holst 1992). As a result, elasticities of 1, 1, and 2 (for demand, supply, and substitution, respectively) have been used to estimate the costs of protection.

Case 11: Steel

Under the Treaty of Paris, which covers most but not all of the EC steel products,⁴ EC member-states have been de jure in charge of trade policy, except in two situations: (1) The Commission is in charge of antidumping and antisubsidy procedures against foreign dumping and subsidies; (2) in case of “manifest crisis” as defined by Article 58 of the treaty, the Commission can impose minimum prices or mandatory production quotas on each EC steel firm, and it can impose fines on violators. These two situations combining trade and domestic measures emerged when the world and EC steel markets collapsed in the late 1970s. This collapse occurred in three successive steps.

From 1974 to 1977, the Commission analyzed the steel crisis as a cyclical fluctuation. Its intervention was limited to encouraging “cooperative” behavior among large European steel firms that were relying on oxygen-furnace technology (following the experience of the “rationalizing groups” in the German steel industry of the late 1960s; Stegemann 1977)—to the detriment of the emerging and more efficient “mini mills,” such as the Bresciani for long steel products (particularly rebars).

In 1977, the continuous fall of steel demand in the OECD zone and the relatively higher prices in Europe (partly caused by the “cooperative” behavior among EC steelmakers generated by the Commission) created a situation perceived by many observers as requiring the Commission’s intervention under the “manifest crisis” provisions. EC capacity utilization in crude steel production declined from 87 percent in 1974 to 65 percent in the late 1970s, and the share of extra-EC imports in European Coal and Steel Community (ECSC) steel production increased from 2.7 percent in 1974 to 6.7 percent in 1979, with a peak of 7.9 percent in 1977.

In May 1977, the Commission refused to invoke Article 58. Rather, it introduced the first Davignon Plan (after Etienne Davignon, then the commissioner for industrial policy), consisting of *voluntary* minimum prices (“guidance” prices) on most steel products covered by the Treaty of Paris. However, the Commission imposed *mandatory* minimum prices on rebars, a key product for the Bresciani, confirming its bias in favor of large steelmakers and against small steel producers.

Third, in 1980, EC prices collapsed after the closure of the US market (new US antidumping complaints were lodged during the second half of

4. Steel products covered by the Treaty of Paris are often called European Coal and Steel Community steel products.

1979) and an additional decline of demand. As a result, the first Davignon Plan fell apart. In October 1980, the Commission adopted a “second” Davignon Plan based on Article 58, imposing *mandatory* production quotas (based on the site-level monthly production performance between July 1977 and June 1980) and minima prices for most of the ECSC steel products. In addition to these major domestic measures, this second Davignon Plan included export and import measures.

EC export measures flowed from VERs imposed by the United States, and scheduled to be enforced until March 1992. Although allowing the transferability of export licenses between EC steel producers and merchants, these export quotas favored collusive behavior between EC steel firms in their main export market (the United States)—hence, they reinforced the incentives to collude in the EC steel markets themselves. In fact, the Commission was much in favor of a worldwide cartel. In 1977, it requested the creation of a Steel Committee at the OECD, hoping to generate “cooperative” behavior at the world level, comparable to that being generated in the EC.

On the *import side*, the Davignon Plan had two components, depending on whether the foreign country was a small or a major steel exporter to the EC. Small exporters were subject to “basic” (minimum) import prices, roughly similar to the US “trigger” price mechanism. Major exporters were subject to “autolimitation agreements” (VERs), which contained detailed provisions on export quantities and prices to be renewed every year.

These quantity provisions allowed for the maintenance of “traditional patterns of trade” under the so-called “triple clause”, i.e., imposition of a spreading of foreign deliveries over the year, throughout the whole EC, and across the product range. Price provisions banned the possibility of undercutting EC prices by more than 6 percent (4 percent for specialty steels). In cases of conflicts between foreign exporters and the EC, consultations were to be held. In case of price infringements, the EC could impose sanctions, in addition to antidumping actions. From 1979 to 1984 (the crisis climax), autolimitation agreements covered a dozen countries—and roughly 70 percent of extra-EC steel imports.

From 1985 to 1988, the world and EC steel markets began to recover slowly, and the Commission progressively relaxed barriers on EC imports. In particular, the autolimitation agreements evolved in three directions: (1) EFTA candidates to EC accession were increasingly treated according to the provisions of the Treaty of Paris and the EC steel policy, and they began to behave accordingly. (2) Central European countries became increasingly subject to autonomous quotas imposed by certain member-states (Belgium, Germany, Italy, Luxembourg, the Netherlands). (3) The other major steel exporters were progressively put under the exclusive threat of antidumping measures. As a result, the autolimitation agreements covered less than 15 percent of extra-EC steel imports in 1989.

This slow “re-liberalization” came close to an end in 1992–93, when the world and EC steel markets were again depressed. The VERs on EC ex-

ports to the United States, which were scheduled to expire in March 1992, were quickly followed (in June 1992) by a new salvo of US antidumping actions against EC and Asian exporters. In mid-1992, four EC member-states (Belgium, France, Germany, and Italy) had imposed bilateral quotas on Central European exports, despite the recently signed Europe Agreements. In November 1992, the Commission announced the possibility of a \$1.1 billion package in “restructuring subsidies,” conditional on planned cuts by the industry.⁵ Finally, the Multilateral Steel Agreement—which could have been part of the Uruguay Round and which aimed to eliminate domestic subsidies and trade barriers erected in the 1970s—was definitively abandoned in 1994.

However, the 1992–93 crisis did not resuscitate the EC policy based on a manifest crisis under Article 58. The EC imposed new trade barriers (see below), but not as many as in the late 1970s and early 1980s, and the coverage of the EC autolimitation agreements continued to be reduced. In 1996, it represented less than 10 percent of extra-EC steel imports, mostly steel exports from Russia and a couple of other countries of the former Soviet Union.

This apparent liberalization of the early 1990s raises a question, because it left EC imports from the United States and Japan marginal (almost 6 percent of total ECSC imports in 1996) and even smaller than in 1979, whereas it did not boost EC imports from Central European countries, which showed strong ups and downs. The contradiction between an apparently more open regime and small changes in trade flows (in 1996, steel imports still represented less than 9 percent of ECSC production, a very similar ratio to that of the late 1970s for a similar tonnage of ECSC production) can be explained by four mutually reinforcing elements.

First, EC antidumping actions against steel imports have played an increasingly key role since 1976. During the late 1970s, they were used to gain compliance with the autolimitation system from the major foreign exporters—hence the salvo of 77 EC antidumping cases against large as well as small exporters from 1976 to 1980. Since the early 1980s, antidumping measures have been used as the ultimate threat and barrier against foreign exporters. Between 1980 and 1999, there were 111 antidumping cases lodged in steel, that is, almost 15 percent of all the EC antidumping cases, for an industry that represents 4 percent of EC manufacturing production or employment.

Antidumping measures have been taken in 88 percent of all these cases (relative to 71 percent for all manufacturing), and their ad valorem tariff equivalent is roughly 29 percent (relative to the 5 percent average tariff on

5. The Braun Report (after Fernand Braun, a well-known EC steel industrialist) detailed capacity cuts totaling 19 to 26 million metric tons of hot-rolled products (15 to 20 percent of 1992 EC crude steel production), 50,000 job losses (14 percent of total employees), and a total cost of \$7.1 billion over three years.

steel products). In 1998 (the Asian crisis), 15 cases out of 24, and in 1999, 10 cases out of 67 were initiated in the steel sector. Because antidumping measures in steel are routinely undertakings (minima prices and VERs), they have strongly contributed to limiting competition and reinforcing price collusion in EC steel and world markets.

Second, the Europe Agreements entailed the immediate elimination of EC tariffs on steel exports from Central European countries. However, as soon as the agreements began to be implemented, steel imports from the Czech Republic and Slovakia were put under unilateral quotas by France, Germany, and Italy, from March to December 1992. Then, from 1992 to 1995, these imports were under tariff quotas for the whole EC. Since 1996, these tariff quotas have been eliminated and replaced by a surveillance system of *ex ante* “double checking,” allowing a tight monitoring of trade flows enforced on all steel imports from Bulgaria, the Czech Republic, Poland, Romania, and Slovakia.

Concerning Eastern Europe, with huge production capacities, but often outdated products, the quotas imposed in 1995 on steel exports from Kazakhstan, Russia, and Ukraine (based on preexisting EC autonomous quotas) were increased in volume between 1995 and 1999 in the context of Partnership and Cooperation Agreements. The EC has declared its readiness to fully open its market to the three countries by 2001, but conditional on the emergence of “normal competitive conditions,” particularly regarding competition policy, subsidies, and environmental protection—all conditions too stringent to make the EC pledge for openness credible. For all these countries, antidumping measures remain a severe and permanent threat.

Third, the past policies of the United States, EC, and other large steel producers may have generated strong incentives to collude at the *world* level. Alan Wolff (1995) provides information supporting the existence of a cartel (the “East of Burma” cartel), which would severely limit trade flows between Europe and Asia—and hence complement US and EC antidumping measures. Within the EC, strong forces toward collusion have been revealed by the relatively large number of competition investigations terminated by large fines, as was recently illustrated by the price-fixing arrangement of December 1993 for flat stainless steel products involving six large steelmakers (the case investigation, terminated in February 1998, imposed €27 million in fines).

The fourth and last aspect to be taken into account when assessing the level of competition and openness of EC steel markets is the role and magnitude of subsidies. If the provisions of the Treaty of Paris tend to inhibit *price* competition, they also tend to exacerbate competition through *investment*. The mid-1960s witnessed all the EC major steelmakers building new plants with large public subsidies from their member-states (except Germany). In the mid-1970s, when the steel market began to plunge, EC steelmakers requested and got even more subsidies to solve their “exces-

sive capacity” problems (capacity was excessive mostly because of the excessive—subsidized—investments granted in the past and the sticky prices imposed by the Davignon Plan).

Of course, the by far major effect of all these additional subsidies has been to exacerbate the adjustment problems they were supposed to solve. Steelmakers have used these subsidies to compensate for their losses without adjusting their capacities, making their competitors’ adjustment even more difficult. In 1980, a first Code on State Aid, making new subsidies conditional on plant closures, was adopted. This code, in its successive versions, has had limited effects because delays, exceptions, and infringements have been massive and recurrent. The 1993 “restructuring” plan was never implemented because the reduction commitments effectively offered by EC steel firms amounted to only 11 million tons, far from the minimum of 19 million tons suggested by the Braun Report. As a result, in October 1994, the Commission decided to cancel all aid to the steel industry, except that for social purposes. In 1996, the Sixth Code (to be valid until 2002, after which the subsidy rules of the Treaty of Rome are expected to be applied) gives the Commission the power to request suspension of the disbursement of any financial support *before* its approval.

In sum, the EC steel industry may be one of the best illustrations of the magnified costs of trade barriers in a noncompetitive environment. As stressed by Winters (1995), the key question is to get the most accurate description of the EC steel sector. Is it an oligopoly coordinated by member-states and the Commission, in drastic need of rationalization and elimination of large excess capacities? Or is it a noncooperative oligopoly, but in a position to get rents because of the limited number of existing firms? The importance of the question is underlined by the recent and huge consolidations in the EC and Japanese markets: the concentration among Usinor, Arbed, and Aceralia (leading to the world’s largest steelmaker, with 40 percent of the EC steel market) coupled with the agreement between Usinor and Nippon Steel;⁶ the merger in Japan between NKK and Kawasaki (leading to the world’s second largest steelmaker); and the talks between NKK and ThyssenKrupp. Whether the EC steel sector is a quasi-cooperative oligopoly coordinated by the member-states and the Commission or a noncooperative oligopoly is an important question because the costs of opening trade for the EC are much smaller in the former situation than in the latter (which attributes shocks to changes in trade policy rather than to rationalization). And it underlines the fact that a pan-European steel rationalization would be beneficial only if—a big if—it is not “managed” by

6. The Usinor-Nippon Steel agreement includes exclusivity provisions in terms of investment: Usinor will not invest in Southeast Asia without discussing such operations with Nippon Steel, and Nippon Steel will do the same in Central and Eastern Europe. Moreover, Usinor and Nippon Steel will act jointly in China and Russia. The Usinor-centered “consolidation” and the Usinor-Nippon Steel agreement will be key tests for EC competition authorities.

the Commission, the EC member-states, or Western European steelmakers, probably to the detriment of the Central European steel industries. For instance, this “nonmanaged” condition is crucial for getting an economically sound implementation of the condition for steel restructuring imposed by the Accession Partnership on Poland (see box 6.5).

As underlined by Moore (1998), the major problem of the EC steel industry has been the reciprocal reinforcement of restrictive external *and* domestic measures (in contrast with the US focus on trade measures)—a theme underlined in chapters 2 and 3. The Treaty of Rome is certainly better equipped for promoting competition (hence making unsustainable the cooperative equilibrium in the steel industry) than the Treaty of Paris. This observation underlines the importance of the *effective* shift of the steel industry to the TEC by 2002. In this context, one may wonder (taking into account the importance of available information in collusive games) exactly what is the meaning of the provision included in the Nice TEC version, according to which the existing statistical framework for the steel industry should be maintained until December 2002 (pending proposals by the Commission).

Notes

In 1990, the bulk of EC protection in steel was provided by VERs, subsidies, and antidumping measures. There is little information on the ad valorem equivalents of the VERs, and even their exact scope and magnitude is not well known. Table A.1 provides the available information on the subsidies granted between 1980 and 1985 (the crisis peak). It suggests an average subsidy of \$26–\$30 per net ton, if one relates the subsidies to the steel tonnage produced in the EC during the *whole* of the 1980s (a conservative assumption, if only because more subsidies were granted after 1985, in particular in France, Germany, Italy, and Spain). Crandall (1994) estimated the average difference between the EC and Japanese export prices (the latter being the best proxy for the world price) as \$60 per net ton in the 1980s. Adding the \$30 average subsidy per net ton to Crandall’s estimate leads to a price differential of \$90 with the Japanese export price, or 30 percent.

If one assumes that Japanese steelmakers were not subsidized in the 1980s and early 1990s, a substantial portion of this differential percentage represents the rate of protection of the EC steel industry, excluding antidumping measures. Considering that half of the differential (15 percent) can be attributed to protection granted through VERs and subsidies seems a conservative guess, which is used in table 2.1 to fill the NTB column. Concerning antidumping measures that have been substituted for NTBs, they are known only for a small amount of cases, for which the average antidumping duty is 16.3 percent. The fact that this figure is close to

Table A.1 Case 11: Total subsidies to the steel sector approved by the European Commission, 1980–85

Country	Subsidies for closures		Subsidies for continuing operations		Aid to investment and research and development		Total Millions of US dollars
	Millions of US dollars	Percent	Millions of US dollars	Percent	Millions of US dollars	Percent	
Belgium	117	2.8	3,381	80.3	711	16.9	4,209
Britain	1,024	18.4	2,735	49.1	1,815	32.6	5,574
Denmark			67	83.8	13	16.3	80
Germany	612	16.1	1,920	50.5	1,268	33.4	3,800
France	299	3.3	5,733	63.4	3,004	33.2	9,036
Ireland			261	100.0			261
Italy	1,041	8.7	9,066	76.0	1,823	15.3	11,930
Luxembourg	15	2.4	174	27.9	435	69.7	624
Netherlands			219	48.7	231	51.3	450
EC-10	3,108	8.6	23,556	65.5	9,300	25.9	35,964

EC = European Community.

Source: Howeel (1988), 64.

the estimated protection granted through NTBs fits well the likely possibility that antidumping cases are a substitute for NTBs, and hence provide roughly the same level of protection.

In sum, combining the GATT-bound tariff (4.8 percent) and the 16.3 percent of antidumping protection leads to an overall rate of protection of 21.9 percent. The literature suggests a total-price demand elasticity ranging from 0.5 to 2.0, depending on the steel products considered (Crandall 1981), a supply price elasticity ranging from 1.4 to 3.5 (Crandall 1981, 132), and an elasticity of substitution between domestic and foreign steel of about 3 (Shiells et al. 1986; Reinert and Roland-Holst 1992). As a result (and taking into account the fact that EC protection focuses on cold-rolled steel and long products), elasticities of 1.4, 2, and 3 (for demand, supply, and substitution, respectively) have been used to estimate the costs of protection.

Case 12: Passenger Cars

Until 1991, quantitative restrictions on imports of Japanese passenger cars were imposed by several EC member-states on a national basis (for a detailed legal history until the mid-1990s, see Eeckhout 1994).⁷ In 1952, Italy and Japan signed a bilateral agreement limiting direct imports from both sides to 2,200 cars per year, reportedly at the request of the Japanese industry, which was afraid of competition from the Italian car industry. In 1977, the Japanese car producer association signed an agreement with the British carmakers' association limiting Japanese exports to Britain to 11 percent of British annual car sales.

Also in 1977, the French president declared that Japanese carmakers would not be allowed to have a share of the French market larger than 3 percent of French sales, a restriction that became binding only in 1980–82, when Japanese car sales reached the 3 percent threshold. Last, Spain limited its direct imports of Japanese passenger cars to 1,000 units, and Portugal imposed a ceiling of 20,000 units on imports of non-EC cars. As a result of all these restrictions, the only large EC market that remained apparently unrestricted in the late 1980s was the German market, although a tacit agreement might also have limited Japanese market share there (*Handelsblatt*, 5 May 1986, 3; *Financial Times*, 9 October 1986, 16; *Deutsch* 1999).

All these bilateral agreements implied that there was not a single European car market, and that severe intra-EC nontariff barriers were in place (Buigues, Ilzkovitz, and Lebrun 1990). The segmentation of EC car markets was made possible by a combination of several instruments. Article 115 could be used, except by France and Britain, because these two member-

7. There also have been quantitative restrictions on certain other types of vehicles (in particular, light commercial and 4-wheel drive vehicles), which are ignored in this case.

states imposed their own restrictions on an “informal” (nongovernmental) basis. Technical standards (notably in Britain) and national certification procedures (notably in France) have made almost impossible any trade between EC member-states without a domestic producers’ agreement. Last but not least, legal limits on competition between car distributors based on EC Regulation 123/85 granted a “block exemption” from EC competition law, on the basis of alleged benefits for the consumers in car maintenance and the availability of spare parts.

All these intra-EC barriers have been very effective: All the efforts to generate “parallel” imports of Japanese cars have failed, and indirect imports of Japanese cars have been kept to very small numbers.⁸ Discriminatory pricing has been maximized, as best illustrated by the January 1998 Commission decision to impose a fine of €102 million on Volkswagen for instructing its Italian dealers not to supply “foreign” (i.e., EC non-Italian) customers.

The last source of distortions in EC car markets has been the large subsidies granted by member-state governments and subnational entities to national firms, in particular to those that are state-owned or that invest in greenfield plants in areas benefiting from EC structural funds (Single Market Review 1997d, 104; European Commission 1998c, 16, and 1999g, 14). It is estimated that, between 1977 and 1987, EC carmakers received total aid of more than €25 billion (Rouam 1998), that is, 12 percent of the 1990 turnover of the industry. In 1989, the Commission tried to rein in this state aid, but it did not go very far. National and European subsidies remained acceptable for (1) offsetting the “cost disadvantages” of producing in certain regions (e.g., the Fiat and Opel-Volkswagen plants in the Mezzogiorno and in Eastern Germany), (2) introducing innovative products or processes (the *Valeo* case), or (3) addressing the “danger of re-emergence of overcapacity” (the *Rover* case).

All these conditions have led to the same arcane debates as in the synthetic fiber or steel industries (see cases 7 and 11 above), with the same impression of arbitrariness (e.g., the ban on state aid to Daewoo, and the authorization of state aid to Mercedes, both in Spain). Moreover, during the mid-1990s, the French, Italian, and Spanish governments further circumvented the limited EC disciplines on subsidies to carmakers by granting state aid to car *buyers* (in these two member-states, national carmakers still had a dominant market share). These subsidies were large—roughly €1.4 billion in the French case. Ironically, consumers used them mostly to buy *non*-national cars (from other member-states or non-EC countries).

8. “Parallel” importers of Japanese cars have sued the Commission before the European Court of Justice on the basis of Article 30 (prohibition of quantitative restrictions) and Article 85 of the Treaty of Rome (prohibition of collusion), but they have been unable to get the Court’s support. The estimated 100,000 car dealers in the EC sell, on average, 266 new cars per year and per dealer outlet, compared with 674 in the United States (WTO, *Trade Policy Review: The European Community*, 1997, 103).

For instance, it is reported that the biggest beneficiaries of the French subsidies were Fiat and Volkswagen.

To cope with this high and discriminatory level of protection, Japanese carmakers developed two strategies during the 1980s and 1990s. First, they competed with EC firms in *non*-EC markets, to contain EC firms as much as possible in EC markets. Until the mid-1990s, the proportion of EC sales to total sales of the EC carmakers increased for almost all of them, despite its already high level (in 1990, it ranged from 92 percent for Fiat to 53 percent, the lowest, for Volkswagen).⁹ EC carmakers could hardly react because of their less efficient plants. In 1989, 36.2 person-hours were required to assemble a vehicle in Europe, against 16.8 in Japan and 21.2 in the United States (Womack, Jones, and Roos 1990, 92).

Second, Japanese carmakers built plants in the EC, with European subsidies in certain cases, whereas no EC firm (except Mercedes and Volkswagen) was able to develop and keep large plants outside Europe during the 1990s. Japanese plants have been located in Britain (Nissan, Honda, Isuzu, and Toyota), in Spain (Nissan), in Germany (Toyota with Volkswagen, Mazda with Ford), and most recently in France (Toyota).

As a result, the late 1980s witnessed one major goal for the EC policy: to communitarize member-state quotas on Japanese cars.¹⁰ This goal was achieved in July 1991, with the signing of an agreement between the EC Commission and the Japanese MITI—the Car Consensus (hereafter, the Consensus).¹¹ According to the Consensus, six export “levels” were set for 1999, as shown in table A.2: an export level for the whole EC, and five export levels for the five more “restricted” markets (France, Italy, Portugal, Spain, and Britain). These export levels were based on market forecasts of domestic demand; consequently, they have been subject to changes in order to cope with changes in market forecasts, particularly during the severe downturn of EC car markets between 1992 and 1998.¹²

9. Large EC carmakers were very dependent on their member-state market; this share amounts to 45 percent, on average, the highest (in 1990) being Fiat (62 percent) and the lowest, Volkswagen (26 percent).

10. Limiting the future output of the Japanese-owned EC plants has never been a widely accepted goal in the EC. Britain has always been strongly opposed to it, often supported by other member-states interested in getting Japanese plants, and many Commission officials have felt such a goal to be a breach of the Common Market.

11. The Commission appears to have negotiated directly with the industry, and sometimes presented the Council with a *fait accompli* (Holmes and Smith 1995, 132). The Consensus covers passenger cars, off-road vehicles, light commercial vehicles, light trucks (up to five tons), and the same vehicles in wholly knocked down form (CKD sets).

12. In fact, exact Japanese shipments to the EC are determined by bilateral consultations on market trends and annual “supply forecasts” for the EC as a whole and for the five restrictive member-states. The Consensus also contains asymmetric obligations in case of upward or downward market trends: EC carmakers are granted one-third of any EC market increase, whereas Japanese carmakers have to absorb two-thirds of any EC market downfall.

Table A.2 Case 12: The 1991 Car Consensus between the European Community and Japan

Group or country	Situation in 1999, as anticipated in 1991				Effective situation in 1999			
	Japanese cars				Japanese cars			
	Forecasted total car demand	Imports from Japan	Japanese cars from EC plants ^a	Total	Total car registrations	Imports from Japan	Japanese cars from EC plants ^b	Total
In thousands								
European Community "Restricted" markets	15,100	1,223	1,193	2,416	14,633	1,035	612	1,640
Britain	2,700	190	456	646	2,198	158	175	333
France	2,850	150	105	255	2,148	76	36	112
Italy	2,600	138	96	234	2,326	109	71	180
Portugal	275	23	29	52	275	32	1	33
Spain	1,475	79	130	209	1,404	61	24	85
The German case	—	—	—	—	3,804	264	146	410
In market shares (percent)								
European Community "Restricted" markets	100.0	8.1	7.9	16.0	100.0	7.1	4.9	11.2
Britain	100.0	7.0	16.9	23.9	100.0	7.2	8.0	15.1
France	100.0	5.3	3.7	9.0	100.0	3.5	1.7	5.2
Italy	100.0	5.3	3.7	9.0	100.0	4.7	3.1	7.7
Portugal	100.0	8.4	10.6	19.0	100.0	11.5	0.5	12.0
Spain	100.0	5.4	8.8	14.2	100.0	4.3	1.7	6.0
The German case	—	—	—	—	100.0	6.9	3.9	10.8

a. As the Japanese side has not released figures about transplant market shares, these figures are based on internal Commission documents quoted by Mason (1994).

b. Differences between EC registrations of Japanese cars and car exports from Japan.

Sources: Mason (1994); WTO, *Trade Policy Review: The European Community, 1997, 1030*; *Ward Automotive Journal* (2001); author's computations.

In addition to these restrictions on direct imports of Japanese cars, the Consensus contained forecasts of intra-EC trade flows from Japanese transplants, the exact status of which has been the subject of hot debate. Initially, the Commission pledged to impose no restrictions on Japanese investments in the EC and no controls on the free circulation of Japanese cars produced in the EC, while the Japanese government (MITI) agreed to convey to Japanese carmakers the message that the sales of Japanese cars made in the EC should not be “concentrated” in national (member-state) markets in order to avoid “serious disruption.” However, in the oral declaration presenting the Consensus to the international press, the Commission mentioned a “working assumption” of transplant production of roughly 1.2 million cars, suggesting by the same token possible restrictions on Japanese output *in* the EC. The Japanese did not challenge this figure, although they felt that the Commission did not act fairly and was using this working assumption as a last-minute twist on the Japanese delegation.

The Car Consensus has been the only agreement notified by the Community under the Uruguay Round Safeguard Agreement.¹³ It was scheduled to be eliminated on 31 December 1999—and indeed, it was. Table A.2 presents the 1999 situation, first as forecasted in the 1991 Consensus, and then as actually prevailing in 1999. It shows that, in 1999, the Japanese carmakers did not reach the maximum forecasted import shares (and they were even further away in terms of transplant shares) in the three restrictive markets (France, Italy, and Spain) with “genuine” domestic production (Rover was largely associated with Honda, then with BMW).¹⁴ The reasons for this situation are numerous (structural and macroeconomic difficulties in Japan, a depressed EC market during most of the 1990s, etc.), and their examination goes beyond this case.

Since the elimination of the Consensus on 1 January 2000, protection of the EC car industry has relied mostly on tariffs, technical norms, and the large entry costs due to the distribution regime. The EC tariff on passenger cars is still high (10 percent)—higher than in Japan, South Korea, or the United States—tariffs are even higher for buses (16 percent) and trucks (22 percent). The tariff on cars was not reduced during the Uruguay Round. Conversely, the few efforts by the EC industry to lodge antidumping complaints against imports of Japanese and Korean passenger cars have all failed so far (somewhat surprisingly, considering the many biases in antidumping procedures).

13. Strangely enough, the Consensus has been notified to GATT, although it does not legally exist because it has never been formally endorsed by the Council.

14. For information, the “monitoring” level of demand of Japanese cars forecasted for September 1999 was 1,245 thousand units for total EC demand, 190 thousand units in Britain, 114.7 thousand units in France, 129.5 thousand units in Italy, 92.7 thousand units in Spain, and 50 thousand units in Portugal.

Can the elimination of the Consensus be considered as the end of EC protection against Japanese carmakers? (This case does not deal with possible protection against Korean carmakers.) The answer depends on four key parameters. First, what will be the impact of the most recent Japanese transplants (e.g., the French Toyota plant, starting in 2001 with a full capacity of 200,000 cars per year) on European markets? These markets were under structural overcapacity during most of the 1990s, and may soon go back to such a situation if EC growth again becomes sluggish.

Second, what will be the ultimate fate of the recent subsidy packages promised to the car sector? For instance, in January 1999, the French government promised to Peugeot and Renault a €400 million package to finance the early retirement of 43,000 workers (one-fourth of the labor force in the French car industry) and the hiring of 12,000 younger workers. Such a subsidy scheme is unlikely to ultimately pass Community rules on state aid (as shown by a previous scheme launched unsuccessfully in the French textile industry). But because it can begin to be implemented before being condemned, it can distort competition.

Third, to what extent will the protectionist elements of the technical regulations and certification procedures be effectively removed?¹⁵ In 1997, the EC acceded to an additional number of 78 technical regulations of the UN Economic Commission for Europe (UN-ECE); in 1998, an EC-wide type of approval was introduced; and in 1999, the EC adopted the “parallel agreement” under the UN-ECE setting global technical regulations for cars and parts. However, it remains to be seen whether these improvements will be implemented uniformly and nondiscriminatorily by the EC member-states.

Fourth, to what extent will the block exemption of car distribution from EC competition law (to be reviewed in 2002) stay unchanged or be removed—thus introducing more competition at this level, with the emergence of strong multibrand retailers, as in the United States?

All these questions are raised in a dramatically new environment dominated by new intercontinental alliances between carmakers, such as DaimlerChrysler and Renault-Nissan. Of course, these alliances may favor the further dismantlement of the trade barriers protecting the EC industry. They may turn the EC industry toward market access to third countries, as illustrated by the progressive opening of the Mexican market until 2007 under the PTA (see chapter 6) or by the fact that the EC has been a complainant in three WTO dispute settlement cases (on Canadian local-content rules, the Indonesian “national car” program, and the South Korean certi-

15. Harmonization of norms and standards in the car industry represents 201 directives (out of a total of 503 directives in January 1998 on technical barriers to trade; see chapter 4) and it has required (and still does) huge efforts: e.g., the directive on brakes for motor vehicles and trailers has been revised seven times in less than 20 years, and its latest version is 150 pages long.

fication system). But these huge alliances may also generate substitutes for trade barriers, under the form of tacit market sharing and collusion—all the more because they are fragile (one of these alliances is led by a carmaker, Renault, with a long history of subsidies and state support). And if they collapse, they may trigger strong negative reactions in Europe—if only because they have been, so far, very costly for the EC firms involved.

EC trade policy on cars deserves a last comment. The fragmentation of the EC car market of the early 1990s has been mirrored in several Central European countries, following the Europe Agreements (see chapter 6). In 1992, Poland raised its tariff on car imports from 15 to 35 percent and adopted an investment policy mostly favoring Fiat, to the detriment of the other EC carmakers, by introducing a tariff quota for EC cars. The Czech Republic and Hungary followed the same policy less visibly with Volkswagen (Skoda, Audi), curbing Japanese and South Korean carmakers.

Notes

Initially (in the late 1970s and early 1980s), restrictions against Japanese exports might have introduced a high level of discriminatory protection. However, because the car industry is a highly differentiated industry, and because a portion of the EC car industry remained relatively exposed to competition (possibly in Germany, more surely in all the small EC markets and in the rest of the world), intra-EC competition has permitted the substitution of competitive European cars for Japanese cars (Messerlin and Bécuwe 1987). As a result, in the late 1980s and early 1990s, the level of EC protection was more limited and less discriminatory than it had been initially.

To take into account this aspect, and to be as conservative as possible in our results, calculated costs of protection are based on the lowest available estimate (6.3 percent) for the ad valorem tariff equivalent of the existing VERs (Digby, Smith, and Venables 1988).¹⁶ As a result, the 1990 MFN average tariff being 10.2 percent, the estimated rate of overall protection is 17.1 percent. Such a low estimate tends to erode the complications caused by the fact that in 1990, the EC major markets were still not subject to the same level of protection—hence implying that the shift from national quotas to an EC-wide quota should reduce prices in initially relatively protected regional markets, and increase prices in initially relatively nonprotected regional markets (Winters 1989).

The literature suggests a total-price demand elasticity ranging from 0.8 to 3 (with most of the studies using an elasticity of 1.6 following Hess

16. For comparison's sake, Smith and Venables (1991) show that in 1988, the "tariff equivalent" to the VER for the French market (defined as the one that keeps the production level of French producers constant) would be 34.9 percent, instead of the existing 1988 tariff of 10.3 percent.

1977), a unitary supply price elasticity, and an elasticity of substitution between domestic and foreign cars ranging from 1.2 to 2 (Shiells et al. 1986; Reinert and Roland-Holst 1992). As a result, elasticities of 1.4, 1, and 1.6 (for demand, supply, and substitution, respectively) have been used to estimate the costs of protection.

Cases 13 and 14: Textiles and Clothing

The EC textile and clothing industries have enjoyed high protection from imports until nowadays (for a detailed legal history until the mid-1990s, see Eeckhout 1994). Since 1974, the Multi-Fiber Agreement—a framework agreement negotiated in GATT, completed by specific bilateral agreements, and renewed every four to five years—has been the backbone of this protection. The third MFA, enforced between 1981 and 1986, was the peak of EC protection in these sectors. EC trade policy under MFA IV was more ambiguous. On the one hand, the EC reduced from 23 to 19 the number of exporting countries under MFA bilateral agreements, it eliminated some products from MFA coverage, it agreed on higher growth rates of imports and less severe flexibility conditions for developing countries that were small or new suppliers, and it renounced combining the use of the MFA and the general GATT safeguard clauses. On the other hand, “price clauses” (minimum prices) were imposed on imports from Central European countries; during the MFA implementation period, the EC extended MFA coverage to new textile products (linen and silk) on the basis of the “basket exit mechanism;”¹⁷ and last but not least, EC antidumping and antisubsidy procedures to be used increasingly on MFA products, despite the fact that they were already under quantitative restraints.

Table A.3 describes the EC textile and clothing regime in December 2000, which is based on three different types of trade agreements on textiles and clothing. The first group consists of the 14 countries remaining subject to the MFA successor, the Uruguay Agreement on Textiles and Clothing (ATC). As shown by table A.3, the EC imposes restrictions on a total of 52 product “categories” (which are standardized aggregates of tariff lines in textiles and clothing).¹⁸ The number of product categories covered by EC restrictions ranges from a handful for some countries (four for Argentina) to a large number for others (44 for South Korea).

17. Under this mechanism, imports can be subject to new quantitative restrictions when they reach predetermined thresholds (which vary according to the type of product in question and the trading partner).

18. There is a total of 145 categories under the ATC. The 52 product categories subjected to EC restrictions are aggregated into four groups according to the degree of “sensitivity” of the EC industry to foreign competition.

Table A.3 Cases 13 and 14: EC trade barriers in textiles and clothing, 1990–2000

Group or economy	Share of EC imports 1990 (percent) (1)	Number of ATC product categories concerned				Share of EC imports to be liberalized in 2002 and 2005 (percent)			
		1990 ^a (2)	1995 ^b (3)	1998 ^c liberalized ^d (4)	Imports to be liberalized ^d (5)	Yarns (6)	Fabrics (7)	Made-up textiles (8)	Clothing (9)
World									
Not subject to limits		93	9	11					
Subject to limits		52	0	12					
Total		145	9	23					
Countries under the ATC (52 product categories are subject to EC limits)									
India	3.1	19			71	22	35	17	26
Pakistan	2.7	14			89	15	47	16	21
Hong Kong	1.9	30		3	91	1	15	1	83
Indonesia	1.5	14			90	14	49	2	36
South Korea	1.4	44		7	59	17	29	3	50
Brazil	1.3	11		1	86	70	20	4	7
Thailand	1.3	19			59	24	28	10	39
Malaysia	0.5	10			92	7	29	1	63
Macau	0.3	20		1	93	0	10	0	90
Argentina	<0.3	4		1					
Peru	<0.3	2							
Philippines	<0.3	12							
Singapore	<0.3	8							
Sri Lanka	<0.3	4							
Total	15.0	211	0	13					

Economies subject to other ATC-like agreements

China ^e	3.3	55	5	21	19	56
Taiwan ^e	1.3	48	20	49	5	26
Belarus, Uzbekistan, Vietnam ^e						

Memorandum items:

Turkey ^f	3.6	76	32	16	8	44
Central Europe ^g						
Morocco ^h	0.8	85	7	5	3	84
Tunisia ^h	0.5	81	1	13	2	84

— = Import share smaller than 0.3 percent.
 ATC = Agreement on Textiles and Clothing.
 QRs = qualitative restrictions

- a. Base year.
- b. Phase I.
- c. Phase II.
- d. In percent of total imports in volume terms, based on 1990 amounts.
- e. QRs under bilateral agreements.
- f. All QRs eliminated in 1996, with Turkey introducing measures parallel to the European Community.
- g. All QRs eliminated in 1998 (for the list of countries, see text).
- h. Surveillance eliminated in 1998 (as for Malta).

Sources: Galloway (1994); Baughman et al. (1997); WTO, *Trade Policy Review: The European Union*, 2000.

The second group includes eight countries subject to bilateral agreements similar to the ATC regime: Belarus, China, North Korea, Taiwan, Ukraine, Uzbekistan, Federal Republic of Yugoslavia, and Vietnam. These countries cannot be subjected to the ATC because they are not WTO members.

The third group (not shown in table A.3) consists of countries subject to “surveillance” or other types of “administrative cooperation” (e.g., a “double custom checking” at the export and import points): Albania, Bangladesh, Cambodia, China, Egypt, Estonia, Kazakhstan, Kyrgyzstan, Laos, Latvia, Lithuania, Moldova, Mongolia, Nepal, Russia, Tajikistan, Turkmenistan, Ukraine, United Arab Emirates, Uzbekistan, Vietnam, and the successor states of Yugoslavia. In early 2001, certain barriers had been relaxed on imports from Sri Lanka, Ukraine, the Baltic states, and the successor states of Yugoslavia.

Lastly, table A.3 (part D) shows that the EC has liberalized imports of textiles and clothing within the framework of the Europe Agreements (in 1998), the Customs Union with Turkey (in 1996), and the Euro-Med agreements. However, at least Turkey has been obliged to adopt certain quantitative measures mirroring those maintained by the EC.

The Uruguay ATC provides for the progressive elimination of all the quantitative restrictions on textiles and clothing by 2005, in four successive phases freeing 16, 17, 18, and 49 percent of total imports (expressed in volumes based on 1990 amounts) in 1995, 1998, 2002, and 2005, respectively. As is well known, the ATC liberalization raises a key issue. It is initialized on the basis of *all* textile and clothing products, including those that were *already* free of nontariff restrictions at the time of its signing (1994). As shown in table A.3, in 1995 (phase 1), the EC only “liberalized” product categories (9 in total) that were *not* subjected to EC restrictions before 1994. In 1998 (phase 2), again 11 categories not subjected to restrictions before 1994 were “liberalized.” Only 12 categories subjected to EC restrictions were liberalized; almost all of them involved only one EC trading partner, and they dealt with product categories considered as nonsensitive by the EC.

As a result, almost all the *effective* liberalization remains to be done—in 2002 or 2005. Column 5 of table A.3 presents the shares of EC imports that remain to be liberalized; columns 6 to 9 present the product category structure of the EC imports to be liberalized. The high import shares that can be observed for clothing (the subsector where the EC is most unlikely to have comparative advantage) are in all cases higher than their share in total imports before liberalization began. Even more important, Baughman et al. (1997) show the wide discrepancy between the situations of the member-states during phases 3 and 4. The remaining product categories to be liberalized cover only 39 percent of German production, whereas they cover 53, 77, and 88 percent, respectively, of Italian, Portuguese, and Greek production—meaning that the industries of these EC member-states will really be subject to foreign competition only in 2005. This situ-

ation suggests a serious potential source of difficulty for the EC in fulfilling its commitments in textiles and clothing.

EC trade policy for textiles and clothing deserves three last remarks. First, until 1994 all restrictions on imports of textiles and clothing were specified on a member-state basis (although after 1987 there was a limited scheme of quota transfers between member-states), and this required heavy use of Article 115. The Single Market Program and the Uruguay Round ATC have generated strong forces to communitarize the EC quantitative restrictions. The new licensing system based on EC-wide quantitative restrictions entered into force in 1995. However, communitarizing an import quota regime raises three difficult issues: (1) the choice between eliminating or communitarizing “regional” quantitative restrictions (in this context, “regional” refers to member-states); (2) the possible introduction of an “anticoncentration” clause authorizing a member-state in which all EC imports concentrate to take measures; and (3) the possible introduction of a “regional” (by member-state) safeguard clause for EC-wide quantitative restrictions.

In the EC textiles and clothing case, more than 80 out of the 110 “regional” quantitative restrictions existing in 1994 have been eliminated, and the rest have been consolidated into 12 EC-wide quantitative restrictions. The liberalization element was necessary to make acceptable to EC trading partners the introduction of an anticoncentration clause and of a regional safeguard provision. But this liberalization component seems to have been somewhat eroded by the complexity of the EC import regime, which, despite a high level of communitarization, leaves nevertheless a nonnegligible degree of freedom to member-states (Galloway 1994).

Second, an important aspect of the EC protection of textiles and clothing with respect to the Central European countries—and of the 1998 liberalization—has been the so-called outward processing traffic (OPT) quotas (Corado 1995). OPT quotas allow imports under preferential conditions (larger quantities, with tariffs imposed only on the value added), if these imports are made of inputs coming from the EC (mostly from EC producers, to the detriment of EC retailers). As a result, they have offered a negotiating leverage to EC textile firms with respect to foreign clothing firms operating under OPT provisions (EC firms have been able to establish quasi-vertical integration links with CEC firms)—a potentially negative side of the 1998 liberalization.

Third and last, but not least, an increasing number of antidumping actions were lodged in textiles and clothing starting in 1993–94, during the last months of the Uruguay Round negotiations. There were 15 antidumping cases between 1980 and 1989, 12 between 1990 and 1993, and 39 between 1993 and 1999 (not counting artificial and synthetic fibers). Resulting antidumping measures have been high—on average 23 percent. EC antidumping actions in textiles and clothing show some particularly worrisome specific features: no sufficient effort by the Commission to en-

sure that the companies involved actually exist; and little, if any, consideration of the logical possibility of dumping and injury when minima prices and maxima quantities are already determined by MFA agreements. These features may explain the relatively low level of success of antidumping cases in textiles and clothing relative to other sectors. Only half of the cases are terminated by official measures (though it is always possible that the absence of official measures hides secret price or quantity undertakings.) They may also explain the quite remarkable and persistent reluctance of some member-states to agree on antidumping measures proposed by the Commission in the bleached cotton case (Hindley 1997).

Notes

These cases cover a very large number of products (roughly 1,000 tariff lines for textiles and 220 lines for clothing) aggregated in two broad sectors (textiles and clothing). For each aggregated sector, the tariff is the unweighted average of all the tariff lines involved in the sector; and the ad valorem equivalent of nontariff barriers is the unweighted average of the estimated ad valorem tariff equivalents of the VERs, which can be found in the existing literature, despite the fact that these VERs vary by source of imports, by type of quota ("regular" vs. OPT) and by product. Concerning clothing (by far the most protected sector), Spinanger (1994) has estimated quota prices charged by Hong Kong exporters for five major categories during the period 1987–90. His estimates vary from 8.2 percent of unit values (exports to Germany) to 14.1 percent (exports to Britain), that is, for two of the most open EC member-states. Harrison et al. (1996) provide even bigger estimates: on average, 13.4 percent for textiles and 23.6 percent for clothing (for 1992). To be conservative, the ad valorem tariff equivalents of VERs adopted are 11 percent (textiles, to which one should add 0.4 percent for antidumping measures) and 19 percent (clothing) for 1990 (and, respectively, 9 and 19 percent for 1995, as is illustrated in table 2.1). A recent study contains information roughly confirming the cost estimates (François, Glismann, and Spinanger 2000).

For textiles, the literature suggests a total-price demand elasticity ranging from 0.3 to 0.5 (Tarr and Morkre 1984; Stern et al. 1976), a unitary supply price elasticity (Cline 1987; Trela and Whalley 1990), and an elasticity of substitution between domestic and foreign products ranging from 0.7 to 2.58 (Shiells et al. 1986; Reinert and Roland-Holst 1992). As a result, elasticities of 0.5, 1, and 2 (for demand, supply, and substitution, respectively) have been used to estimate the costs of protection.

For clothing, the literature suggests a total-price demand elasticity ranging from 0.3 to 0.9 (Coursey and Taylor 1982; Cline 1987), a unitary supply price elasticity (Cline 1987; Trela and Whalley 1990), and an elasticity of substitution between domestic and foreign products ranging from 0.5 to 2.5 (Shiells et al. 1986; Reinert and Roland-Holst 1992). As a result, elastic-

ities of 0.8, 1, and 1.5 (for demand, supply, and substitution, respectively) have been used to estimate the costs of protection.

Estimated costs of protection deserve a last comment specific to the textiles and clothing cases. There has been discriminatory liberalization in favor of Central European countries and Turkey, which raises the following question: Do the results obtained overestimate the costs of protection in the EC existing in the late 1990s?

The real impact of this partial liberalization depends mostly on three factors: the importance of trade between the EC and “liberalized” (CECs and Turkey) trading partners, the concentration of this trade in the most protected textile and clothing categories, and the pricing behavior of the “liberalized” exporters. In 1990–93 (the last year for which all these countries were still constrained), exports from these countries respectively represented 12 and 11 percent of the total textile and clothing imports of four key EC member-states (Germany, Italy, Sweden, and Britain). The respective figures were 14.2 and 15.4 percent for 1994–96, and Spinanger (1998) underlined the clear increase in market shares in these 12 countries after 1993 (once OPT quotas had been increased).

However, the extent to which these trade shifts lead to welfare gains depends on the cost structure and pricing behavior of firms located in these “liberalized” countries. Locating textile and clothing production closer to the EC (in the CECs and Euro-Mediterranean countries) may provide efficiency gains in a fashion industry obsessed by quick fashion response, rapid reordering, and so forth. However, even in this case, “liberalized” exporters may reduce their prices only by the smallest amount, allowing them to undercut imports from constrained MFA exporters—an evolution consistent with shifts in the EC trade pattern in the late 1990s away from MFA-constrained Asian countries and in favor of the “liberalized” countries. Such an evolution raises doubts about a substantial decline in the costs of protection in EC textiles and clothing, all the more because MFA agreements may have reduced the efficiency of foreign exporters. In sum, full liberalization may be necessary for full competition, as is suggested in chapter 3.

Cases 15–18: Introduction to Farm Product Cases

This brief introduction aims at shedding some light on key forces in EC agriculture. Table A.4 uses a broad political perspective, which helps in understanding the relative situations in EC member-states, and thus completes the more economic information on the EC farm sector, based on labor, farm size, and financial transfers between EC member-states, which is provided in table 4.7 (see chapter 4).

Table A.4 Cases 15–18: An overview of the EC agricultural sector, by major product, 1998

Commodity	Share (percent) in total EC farm		Output concentration in the EC		Shares (percent) of major member-states ^c	Key products for EC member-stated ^d	EC share (percent) in world trade		EC export share in EC output
	Output	Budget	Concentration index ^b	Ratio ^a			Imports	Exports	
Milk	18.0	6.7	0.1286	0.37	Germany 22.0 France 19.8 Italy 10.9 Britain 10.6 Netherlands 9.4 Spain 5.4	Luxembourg 45.4 Finland 38.1 Sweden 34.9 Ireland 34.7 Germany 26.3 Denmark 24.2 Britain 22.8 Netherlands 22.3 Austria 22.0	3.0	28.0 ^e	n.a.
							12.4	21.9 ^f	9.0
							10.7	37.8 ^g	6.6
							3.1	31.9 ^h	36.5
Beef	10.0	13.3	0.1437	1.33	France 26.7 Germany 15.9 Italy 15.0 Spain 8.6 Britain 6.9 Ireland 6.9 Netherlands 6.8	Ireland 33.4 Luxembourg 24.5 Austria 15.3 Belgium 13.6 France 12.4 Germany 10.6 Sweden 10.0 Finland 10.0	4.6	13.4	6.8
Pork	10.0	0.6	0.1167	0.06	Germany 20.0 Spain 15.2 France 13.4 Italy 10.2 Denmark 9.2 Netherlands 8.2 Belgium 6.2 Britain 6.0	Denmark 31.6 Belgium 21.1 Austria 17.3 Portugal 16.2 Germany 13.2 Sweden 12.5 Spain 12.1 Finland 11.0 Netherlands 10.7	2.4	41.1	3.6

Fresh vegetables	9.4	2.2 ⁱ	<0.24	0.1563	Italy 26.7 Spain 19.2 France 15.2 Netherlands 9.5 Britain 8.0 Germany 6.6 Greece 5.6	Italy 15.1 Spain 14.5 Greece 12.8 Belgium 12.5 Netherlands 11.8 Portugal 10.2	n.a.	n.a.	n.a.
Wine	6.6	1.8	0.27	0.3353	France 49.8 Italy 26.3 Spain 9.3 Germany 9.2	France 15.1 Italy 10.3 Luxembourg 10.3 Portugal 8.3 Austria 7.5	20.9	45.4	9.1
Fresh fruits	6.4	2.2 ⁱ	<0.34	0.1920	Italy 29.2 Spain 25.7 Germany 13.3 France 11.8 Greece 7.6	Spain 13.3 Greece 11.8 Italy 11.2 Portugal 9.7 Austria 6.3	n.a.	n.a.	n.a.
Poultry	5.4	0.2	0.04	0.1754	France 31.5 Britain 17.0 Italy 16.2 Spain 10.1 Germany 7.6 Netherlands 5.7	Britain 11.1 France 7.9 Belgium 5.4	3.5	19.0	11.5

(Table continues next page)

Table A.4 Cases 15–18: An overview of the EC agricultural sector, by major product, 1998 (continued)

Commodity	Share (percent) in total EC farm		Output concentration in the EC		Key products for EC member-states ^d	EC share (percent) in world trade		EC export share in EC output
	Output	Budget	Concentration index ^b	Shares (percent) of major member-states ^c		Imports	Exports	
Cereals ^j	9.0	46.3	5.14	0.1896	France 14.4 Britain 12.5 Denmark 11.5 Sweden 10.0 Germany 9.5 Spain 9.0	3.2	10.3	9.2
Sugar	2.5	4.6	1.84	0.1479	Germany 4.4 Sweden 4.1 Germany 4.0 Austria 3.8 France 2.6 Netherlands 6.0 Belgium 5.2	5.1	17.7	36.2

n.a. = available

EC = European Community.

a. Budget/output ratio.

b. Herfindahl-Hirschmann index (see text).

c. EC member-states producing more than 5 percent of total EC farm output.

d. Product shares (in EC member-state total farm output) larger than the product share in EC output.

e. All milk products.

f. Butter.

g. Cheese.

h. Milk powder.

i. Fresh fruits and vegetables.

j. Except rice.

Source: European Commission, *The Agricultural Situation in the European Union* (2000).

Columns 1–3 compare the shares of major farm products in EC production and their budgets; they show agricultural products that have captured the EC’s attention (those with a budget/production ratio higher than 1) and those that have not. Columns 4–6 examine the concentration of EC output by member-states in major farm products: they give a sense of whether product deals may involve few or many member-states (a low concentration index suggests that many member-states may want to be part of the deals on the farm product in question and a high index reveals the dominance of a few member-states). Columns 7 and 8 show the domestic share of an agricultural product in the total farm output of a member-state when this share is larger than the overall EC share given in column 1, whether the member-state is a large EC producer or not. This reflects the potential weight of vested interests in a product in a member-state, hence the incentive for this member-state to be involved in deals on the product in question. Columns 9–11 show EC import and export shares in world trade flows and the product share of EC exports in EC output in order to capture the sensitivity of world trade to EC trade changes and of EC production to EC trade (exports).

Following are a few specific points on four farm products examined in more detail in cases 15–18.

Cereals (case 15). In 1998, EC accounted for 17 percent of the world production of cereals, excluding rice. Other large producers were the United States (12 percent), Australia, and Canada (4 percent each). Cereals are the best example of how a group of products captured the EC CAP with a budget/production ratio larger than 5, despite the fact that cereals are not the largest EC farm product: they represent only 9 percent of total EC output, having declined steadily since the early 1990s (the share of cereals in total EC farm output was 12 percent in 1990). This remarkable capture may be related to the concentration of EC cereal production in five countries, with no EC member-state that does not pertain to the large producer group having a significant cereal sector (i.e., domestic share larger than the overall EC share of 9 percent).

Meat (case 16). Table A.4 includes only beef, pork, and poultry because lamb represents less than 2 percent of total EC farm production.

In 1998, the EC accounted for 14 percent of the world’s production of beef. Other large producers were the United States (22 percent), Brazil (11 percent), China (10 percent), and India, Argentina, Russia, and Australia (between 5 percent and 4 percent each). Beef is the second largest product of total EC farm output, with almost all the member-states having a high stake in it: seven EC member-states produce more than 5 percent of EC beef output and in five others beef represents more than 10 percent (overall EC share) of their domestic farm output. In such a favorable configuration of political interests, the budget/production ratio larger than 1 appears a rather “modest” outcome, particularly when compared to the cereal ratio. The EC’s influence on world exports is noticeable, as is the impact of EC exports on EC output.

In 1998, the EC was the second largest producer of pork in the world (20 percent), between China (44 percent) and the United States (10 percent). The pork sector is similar to beef but for three important differences: the budget/production ratio is among the lowest (suggesting that the EC's rank in world production tends to reflect mostly market forces, unlike the two previous groups of products), and EC influence on world trade is huge, whereas the impact of world trade on EC production is barely noticeable. The major difference in the budget/production ratio between beef and pork shows that, despite their importance, political forces are insufficient to fully explain the level of capture of the CAP by this group.

Poultry production is relatively concentrated in the EC, with six major producing member-states and a share larger than the overall EC share for Belgium only. The trade aspects are substantial, with a large proportion of EC poultry being exported, thus representing a large share in world exports.

Milk (case 17). Milk products cover a wide range of goods and account for the largest share in EC farm production. They show the same features as beef or pork: a low concentration index based on a large number of large producers and a substantial number of EC member-states where the milk share in domestic output is larger than the overall EC share. It is difficult to compare the budget/production ratio in milk with the corresponding ratios for other farm products because by definition the budget does not include the rents (transfers) associated with the milk production quota system. As liquid milk is not easily stored or traded long distance given existing technologies, case 17 focuses on tradable "manufactured" milk products: cheese (14 percent of EC milk production), concentrated and skimmed milk (8 percent), and butter (4 percent). In 1997, the EC was a major producer of butter, accounting for 28 percent of world production, followed by India (22 percent), the United States (8 percent), Pakistan (6 percent), and New Zealand (5 percent). It is the largest world producer of cheese (44 percent), followed by the United States (24 percent). Similarly, the EC is the largest world producer of milk powder (35 percent), followed by the United States and New Zealand (10 percent each), Australia (6 percent), and Russia (5 percent).

Sugar (case 18). EC accounts for 14 percent of the world production of raw and white sugar, the largest world producer being Brazil (15 percent). Following the EC are India (11 percent), China (7 percent), and the United States (6 percent). Sugar, the smallest of the products examined in table A.4, shows the second highest budget/production ratio. It is also a relatively widely produced farm product: seven member-states are major producers and in two other member-states sugar producers may represent a noticeable political force. The interactions between EC and world exports, and between EC exports and production, are significant.

Three additional products are included in table A.4, though they are not examined in the following cases. Despite their wide-ranging definitions,

fresh vegetables and fruit exhibit noticeable concentration indexes and budget/production ratios. By contrast, wine is the most concentrated product, with a relatively low budget/production ratio.

Case 15: Cereals

The Common Market Organization (CMO) for cereals offers a good illustration of the CAP protectionist drift and its strong bias in favor of a few “basic” farm products. It was established in 1965. Until the 1992 CAP Reform, it relied almost exclusively on price supports: six intervention prices (common wheat, durum wheat, rye, barley, maize, and sorghum), three indicative prices (common wheat, durum wheat, and other cereals) and eight threshold prices (the six cereals mentioned, plus flours and semolina).

During its first 20 years of implementation (except in 1973–75), EC threshold prices fluctuated around 150 to 200 percent of the third-country offer prices. In 1973, the EC shifted from a net importer of cereals to a net exporter. In the mid-1980s, increasingly huge supply and stocks forced the Community to take measures to restrain quantities: “co-responsibility” levies, quality constraints, “extensification” aids aiming to reduce productivity, conversion aids aiming to shift production capacities to non-surplus farm goods, and set-aside programs and early retirement schemes aiming to reduce land and labor. All these “soft” measures proved to be insufficient; in the late 1990s, the EC was still a large net cereal exporter (with a “self-sufficiency” ratio of roughly 120 percent), and the cereal CMO absorbed more than 40 percent of the entire EC budget for CMOs—more than four times the cereal share of EC total farm production.

The cereal situation was made more difficult when, during the Kennedy Round, the EC agreed to impose low *bound* tariffs (from 0 to 6 percent) on products such as oilseeds and manioc. These concessions were made to keep the level of protection of EC cereals high. As a result, cheap imports of these products were rapidly substituted for expensive EC cereals to feed livestock (the largest market for cereals). The EC then decided to support the domestic production of these cereal-substitutes. As EC bound tariffs made impossible the creation of CMOs based on price support (similar to the cereal CMO), the EC adopted two CMOs based on production subsidies (a mechanism almost absent from the initial cereal CMO) for rapeseed (in 1983) and soya (in 1985). Any difference between the world price and the Council-fixed indicative price of these products could be compensated for by subsidies to be paid to the manufacturers buying EC oilseeds and transforming them into food for livestock. These two CMOs added to the cereal glut and generated bitter GATT-WTO disputes (see below).

July 1993 witnessed the first noticeable reform of the cereal CMO. Intervention prices were reduced, on average, by 35 percent; and compen-

satory subsidies for production and set-asides were increased by more than 80 percent and almost 30 percent, respectively (see table 4.3). In the 1999 Berlin Council, an additional 15 percent reduction of the support price of wheat was made—with less generous compensation for both production and set-asides. Market prices decreased slowly; their decline between 1993 and 1998 (25 percent in effective buying-in prices) was almost perfectly matched by the increase in subsidies between 1993 and 1995.

As a result of all these policy changes, subsidies reached new heights and revealed the two major perverse effects of a policy mix based on direct area payments and set-asides: it favors large farmers, to the detriment of small farmers because these instruments are based on land, even if set-asides are limited to large farms; and it favors incumbent (large and small) farmers, to the detriment of new entrants.

Until 1995, the cereal CMO relied on variable levies on imports and on export refunds, with all imports and exports subjected to licenses. Variable levies were defined (on a weekly basis) as the difference between the EC threshold price and a “world” price *calculated* by the Commission on the basis of the price c.i.f. Rotterdam and on the “best” buying opportunities available in the world. By contrast, export refunds were largely arbitrary: the Commission could impose a zero export refund if it considered the export in question inappropriate, and it could impose discriminatory rates of refunds, depending on the country of destination.

In 1994, the *tariffication* exercise required by the Uruguay Agreement on Agriculture involved 106 tariff lines (including rice) in the EC case, and it manifested a protectionist drift.¹⁹ For instance, the specific duty on wheat was estimated to be equivalent to an ad valorem tariff of 155.6, whereas the ad valorem equivalent tariff for the years 1986–88 was estimated to be 103 percent, that is, it was a “dirty” tariffication amounting to more than 52 percent; it implied that in 2000–01, the EC could still be more protected than in 1988, all other things being constant (Ingco 1996). EC commitments on reductions for these inflated initial tariffs were, on average, 37 percent in cereals between 1995 and 2001 (OECD 1997b).

EC *minima market access* commitments in cereals under the Uruguay Round mirrored bilateral agreements, such as the duty-free quota of 300,000 tons of wheat (almost entirely limited to Central European countries) or already existing market access (such as 2, out of 2.5, million tons of maize). Moreover, for the EC as for other WTO members, tariff-rate quotas (TRQs) granting lower tariff rates for small imported quantities provide limited, if any, opportunities for competition for two reasons: in-quota tariffs are still high (45.7 percent for maize); and imported quantities

19. In fact, the tariffication exercise has not completely eliminated the variable levy mechanism because of the ambiguous notion of “maximum duty-paid price” (when prices are firm, the duty-paid price has a similar impact on the market to the threshold price).

are so small that there is almost no incentive for foreign exporters to charge low prices. Rather, they are induced to capture the tariff differentials as rents. Evidence gathered by the OECD (2000d) confirms these predictions.

On the *export-subsidy* side, the EC has been committed to reducing subsidized exported quantities for wheat and wheat flour (from 19.1 million tons in 1995 to 13.4 million tons in 2000) and for coarse grains (from 12.2 million tons in 1995 to 10 million tons in 2000). (All figures are for EC-12.) Since the end of the Uruguay Round, high world prices have prevailed, reducing to a considerable extent the need for EC export subsidies—and even requiring the EC to replace export subsidies by export taxes between mid-1995 and mid-1996. In the future, however, fulfilling the commitments on export subsidies is likely to require further substantial reductions in support prices.

Notes

Table A.5 provides the CSEs, the PSEs, and the CSE ad valorem tariff equivalents for wheat for the EC and three other OECD countries. In addition, a composed index for cereals has been computed for the EC based on weights given by the share of three types of cereals in the total EC cereal output. It suggests a CSE-based tariff of 63 percent as the rate of overall protection for 1990 (based on the average for 1988–90, and used in chapter 3). This indicator dramatically declined until 1997, but has increased again since then. The PSE figures show the same evolution—with the striking difference that the protection granted in 1999 to the EC producers is close to the level in the late 1980s and early 1990s. This divergence between the CSE and PSE evolutions since 1996 reflects the change of instruments favored by the Uruguay Round.

According to the literature, the total price demand elasticity ranges from 0.1 to 0.7 (Stern et al. 1976) and the price domestic supply elasticity from 0.2 to 0.4 (Stern et al. 1976; Schmitz 1979); the elasticity of substitution between foreign and domestic cereals would be large (OECD 1990). As a result, elasticities of 0.4, 0.5, and 4 (for demand, supply, and substitution, respectively) have been used to estimate costs of protection.

Case 16: Meat

There are four CMOs covering meat: beef (1968), pork (1975), poultry (1975), and lamb (1980). All of them rely essentially on price supports, but their many differences reflect the strong CAP bias in favor of beef—one of the “basic” farm products. These four CMOs present decreasing levels of protection. (In fact, the poultry CMO can be seen as trying to minimize the

Table A.5 Case 15: Producer and consumer subsidy equivalents in wheat and cereals, 1978–99 (percent)

Commodity and country	1978–86	1986–88	1988–90	1990–92	1993–95	1995–97	1997	1998	1999
Wheat									
				Producer subsidy equivalents (PSEs)					
European Community	33	63	49	62	66	53	54	67	70
Japan	96	101	97	97	102	101	99	100	101
United States	28	54	37	46	37	45	56	80	95
Australia	9	11	6	9	7	10	16	11	12
				Consumer subsidy equivalents (CSEs)					
European Community	25	53	36	46	27	2	-1	19	21
Japan	38	64	55	53	51	44	48	52	52
United States	1	14	9	19	12	2	1	1	1
Australia	5	4	1	0	0	0	0	0	0
				CSE-based ad valorem tariff equivalents ^a					
European Community	39	112	60	87	39	3	-1	24	27
Japan	71	180	122	112	104	81	93	106	108
United States	1	18	10	24	15	0	-1	-1	-1
Australia	6	5	1	0	5	0	0	0	0
All cereals in the EC^b									
PSEs	34	60	47	61	66	52	52	66	66
CSEs	27	53	37	47	31	7	3	23	19
CSE-based tariffs	44	119	63	90	48	9	3	31	24

a. Consumer nominal assistance coefficients minus 100.

b. PSEs and CSEs for wheat, maize, and other cereals weighted by shares in EC total cereal output.

Sources: OECD, *Agricultural Policies Monitoring and Outlook*, various years; author's computations.

damage done by the high level of protection imposed by the cereal CMO on poultry production.)

The Beef CMO

The initial beef CMO was based on two cornerstone prices—the “guide” and intervention prices, where the guide price is the price considered as desirable for producers under “normal” market conditions. In contrast with the cereal CMO, intervention was not automatic, and it was done not at the intervention-price level but at the level of specific regional “buying-in” prices, a combination of the intervention price, set coefficients, and conversion factors. Moreover, intervention involved only limited quantities (defined ex ante as “normal” intervention purchases). Also in contrast with the cereal CMO, the beef CMO relied since its origin on production subsidies to be granted to suckler cows (as opposed to milk cows) and to bulls. The EC has been a relatively (by world standards) large net beef exporter since the 1980s. In 1996, the beef CMO represented 13 percent of the EC farm budget (3 percentage points more than the share of beef in EC total farm output).

The 1992 CAP Reform entailed a 15 percent reduction in the beef intervention price and a 55 percent reduction (from 750,000 to 350,000 tons) in “normal” intervention purchases, with an increase in the compensatory subsidies by more than 120 percent (see table 4.3). They consist of a complex set of direct headage payments (with unintended effects, because the possibility of claiming a subsidy twice in an animal’s life tended to increase the beef supply by increasing the animal’s weight at slaughter time) subject to restrictions on stocking density, limits per holding, regional reference herd sizes, and so forth. The 1999 Berlin Council decided on an additional decrease of the intervention price by 20 percent, with additional increases in subsidies (from 38 to 93 percent), including in those from the member-states.

Until 1995, EC protection in the beef sector consisted of tariffs and variable levies. Levies depended on the difference between the world and guide prices (modified by several conversion factors to account for the type of meat) *and* on the difference between the market price observed in the EC and the guide price (as a result, one could get different variable levies for one import price). Variable levies were reduced or even eliminated for exports from countries that had signed a VER with the EC (Argentina, Australia, Canada, Hungary, Poland, United States, Uruguay, Yugoslavia, and a few ACP countries). Special levies could be imposed on foreign beef sold at “abnormally low” prices. Export refunds were similar to those granted in the cereal CMO.

The Uruguay *tariffication* exercise (involving 239 tariff lines) also witnessed a protectionist drift in the beef sector (as it did for cereals; see case

15 above). For instance, the ad valorem tariff equivalent for beef is estimated to be 125.4 percent, showing a “dirty” tariffication of 42 percent (Ingco 1996). Committed tariff reductions of these initial inflated tariffs are 36 percent for all kinds of beef meat for the period 1995–2000.

Minima market access commitments involved 175,000 tons (40 percent of the total imports for the reference years 1986–88). More than 85 percent of these commitments correspond to the pre-1995 VERs. As with cereals, in-quota tariffs (in the TRQs system) are under high tariffs (20 percent), and again, the tariff differentials are likely to be captured as rents by market participants (Tangermann 1998).

On the *export-subsidy* side, EC commitments under the Uruguay Agreement include a reduction of export subsidies for bovine meat from 1,118 thousand tons in 1995 to 817 thousand tons in 2000 (both figures are for EC-12). These commitments include processed meat as well as fresh meat, a flexibility that is likely to favor producers of fresh meat.

The Sheepmeat CMO

The sheepmeat CMO was introduced relatively late (only after the British accession) after long and acrimonious intra-EC discussions (the “lamb war”). It combines a French-inspired price-support regime (relying essentially on the “basic” price) and a British-inspired deficiency-payment regime (based on the difference between the basic price and the observed regional market price, coupled with a slaughter subsidy that is fully enforced only in Britain). This remarkable duality in the CMO design, and the differences in CMO enforcement among member-states, has imposed the upholding of certain restrictions on intra-EC trade flows (most notably, between Britain and the rest of the EC). It also explains the relatively high share of lamb in the EC farm budget (3.3 percent in 1996), along with a greater desire to take into account market forces. The EC lamb subsector has always been a net importer, with an average self-sufficiency ratio of roughly 80 percent in recent years.

Until 1995, EC protection of the sheepmeat sector consisted of a variable levy coupled with VERs with Argentina, Australia, New Zealand, Uruguay, and five Central European countries (Bulgaria, Hungary, Poland, Romania, and the former Yugoslavia). Imports under VERs represented almost 100 percent of all EC lamb imports.

Under the Uruguay Agreement on Agriculture, the EC has *tariffed* its NTBs on top of its 20 percent duty. To our knowledge, no estimate of the ad valorem equivalent of the resulting protection is available). For the period 1995–2000, tariff reductions are committed to be 36 percent. In terms of *minimum market access*, the EC has transformed its country-specific VERs on sheepmeat imports into zero-tariff quotas, again suggesting a

likely capture of tariff differentials as rents by market participants. There are no EC commitments about *export subsidies*.

The Pork CMO

Despite widespread pork production in the EC, the intervention measures allowed by the pork CMO (related to the “basic” price) have been rarely used, and the main instrument has been to subsidize private stocks in case of excess supply. The average self-sufficiency ratio is 103 to 106 percent for recent years, and it has been relatively stable since the origin of the Community. Until 1995, protection against pork imports consisted of a variable levy derived from the difference between the basic price and an estimate of production costs in the rest of the world (“*prix d’écuse*”).

Under the Uruguay Round *tariffication*, the estimated ad valorem equivalents of specific tariffs ranged from 47 to 53 percent, with a modest tariff escalation (OECD 1997b). The dirty tariffication problem has remained modest enough (11 percent for a *pre*-Uruguay-based initial tariff of 51 percent) to be eliminated by the committed tariff reductions of 36 percent for all kinds of pork (Ingco 1996). In 2000, *minima market access* commitments involved almost 180,000 tons (relative to 1986–88 total imports of 96,000 tons) under moderate tariffs (13.3 percent) (Tangermann 1998), but the bulk of this tonnage (100,000 tons) corresponds to quotas open to Central European countries. Last, *export subsidy* commitments led to a decline from 490,800 subsidized tons of pork (1995) to 401,800 subsidized tons (2000) (both figures are for EC-12).

The Poultry CMO

The poultry CMO is quite different from the three other CMOs. Its main goal is to eliminate the negative “effective” rate of protection on poultry, that is, the fact that the high level of protection on cereal inputs imposes a tax on EC poultry production. This feature explains the relatively low share of poultry in the EC farm budget (0.4 percent in 1996, i.e., one-tenth of its value share) coupled with the high average rate of EC self-sufficiency, ranging from 105 to 109 percent in recent years.

Variable levies and export refunds compensate for the difference between cereal costs in the EC and in the rest of the world, to induce poultry-producers to buy EC cereals and food. However, “supplementary” variable levies can be imposed, with the aim of protecting the EC poultry sector from foreign competition. Bulgaria, Poland, and Romania have signed price undertakings exempting them from these supplementary variable levies.

Since the Uruguay Round *tariffication*, the average ad valorem equivalent of specific tariffs on poultry is 44.5 percent, with two interesting features: the existence of tariff deescalation (OECD 1997b), and the absence of dirty tariffication (the starting Uruguay Round tariff may have been even lower than the 1986–88 estimate, by a small margin of –6.5 percent) (Ingco 1996). Committed tariff reductions are 36 percent for all kinds of poultry. In 2000, *minima market access* commitments dealt with almost 130,000 tons (relative to 1986–88 total imports of 86,000 tons), but the bulk of this tonnage (93,000 tons) corresponds to quotas open to Central European countries. In-quota tariffs are close to industrial tariffs (8.1 percent) (Tangermann 1998). On the *export-subsidy* side, EC commitments under the Uruguay Agreement included a reduction of export subsidies for poultry from 440.1 thousand tons in 1995 to 290.6 thousand tons in 2000.

Notes

Table A.6 provides the CSEs, the PSEs, and the CSE ad valorem tariff equivalents for beef for the EC and three non-EC OECD countries. In addition, a composed index of the indicators for beef and lamb has been computed for the EC (based on weights given by the relative shares of these two types of meat). It seems reasonable to distinguish between beef and lamb, on the one hand, and pork and poultry, on the other hand, because the PSEs of the first group have been more than three times those of the second group (the CSEs of lamb have substantially declined since 1996). The CSE-based tariff (95 percent in 1990, based on the average for 1988–90) has been used to estimate the rate of overall protection.

According to the literature, the price demand elasticity for the various kinds of meat ranges from 0.4 to 1.2 (Stern et al. 1976; European Commission 1980); the price supply elasticity ranges from 0.3 to 0.8 (Stern et al. 1976; Schmitz 1979); and the substitution elasticity between foreign and domestic meat is estimated at 1.7 (Reinert and Roland-Horst 1992).²⁰ As a result, elasticities of 0.6, 0.5, and 2 (for demand, supply, and substitution, respectively) have been used to estimate the costs of protection.

Case 17: Manufactured Milk

The CMO for milk was introduced in 1968. It reflects the constraints imposed on the wide variety of milk products. If it relies on one indicative price for liquid milk, three intervention prices are defined for the three main families of manufactured milk products (butter, skimmed milk, and

20. Australian Bureau of Agricultural Economics (1985) underlines the many problems between meat and milk on the supply side, which was torn apart by several conflicting CMOs.

Table A.6 Case 16: Producer and consumer subsidy equivalents in beef and sheepmeat, 1978–99 (percent)

Commodity and country	1978–86	1986–88	1988–90	1990–92	1993–95	1995–97	1997	1998	1999
Beef									
	Producer subsidy equivalents (PSEs)								
European Community	49	49	46	58	43	50	59	62	62
Japan	38	47	38	33	45	40	38	38	38
United States	7	7	6	6	5	5	5	5	6
Australia	10	10	8	6	7	7	7	5	5
	Consumer subsidy equivalents (CSEs)								
European Community	43	48	44	55	33	34	43	47	49
Japan	30	45	38	30	33	32	31	30	29
United States	1	1	0	0	0	0	0	0	0
Australia	0	0	0	0	0	0	0	0	0
	CSE-based ad valorem tariff equivalents ^a								
European Community	79	95	79	126	50	52	75	89	95
Japan	45	83	63	44	50	46	44	42	40
United States	1	1	0	0	0	0	0	0	0
Australia	0	0	0	0	0	0	0	0	0
Beef and sheepmeat in the EC^b									
PSEs	51	53	51	61	46	53	59	62	58
CSEs	44	51	47	55	32	32	38	42	43
CSE-based tariffs	83	110	95	127	49	49	66	79	83

EC = European Community.

a. Consumer nominal assistance coefficients minus 100.

b. PSEs and CSEs of the two kinds of meat weighted by their relative shares.

Sources: OECD, *Agricultural Policies Monitoring and Outlook*, various years; author's computations.

two types of cheese). Its 12 threshold prices are all defined for products derived from liquid milk (lactoserum, lactose, several kinds of skimmed and concentrated milk, and several types of butter). The very high support prices prevailing until the late 1980s generated massive and persistent overproduction (the “butter mountains”), resulting in the EC’s shift from net importer to net exporter to an extent unknown for other farm products.

In the early 1980s, the EC share of world exports ranged from 36 percent (casein) to 48 percent (cheese); in the late 1980s, it ranged from 42 percent (skimmed milk) to 80 percent (concentrated milk). Production quotas (introduced in 1984; tightened in 1987 and 1989) and lower support prices (lower by 15 percent in real terms) have reduced these distortions to some extent. The share of EC expenditure on dairy products in the entire EC farm budget has decreased from 40 percent (1985) to 10 percent (late 1990s). But the level of protection remains very high (see below), and it continues to generate artificially high average self-sufficiency ratios: 100 to 105 percent (butter), 105 to 110 percent (cheese), 115 to 120 percent (skimmed milk), 130 to 140 percent (concentrated milk), and more than 200 percent (whole milk powder).

Market imbalances of such a magnitude and for such a long period of time have had severe consequences, and will continue to do so. In the milk case, the most important consequence is that new, more productive techniques of production are more difficult to adopt in the EC than in more market-based economies. For instance, the hormone-based BST technique is reported to increase cow milk production by up to 25 percent; all other things being constant, countries with persistent excess supply (such as those in the EC) are likely to delay the adoption of such a technique, whereas countries with more sound markets are likely to adopt it.

Until 1995, the milk CMO imposed variable levies based on the difference between an average border price calculated by the Commission (twice a month) and the threshold price of the product in question. The *tariffication* exercise under the Uruguay Agreement on Agriculture has dealt with 108 tariff lines in the EC, which has adopted very high specific tariffs. The average ad valorem equivalents for dairy products are estimated at 288.5 percent, revealing a huge “dirty” tariffication of 111.5 percent (the ad valorem rate for 1986–88 was estimated at 177 percent; Ingco 1996). The rates of reduction of these tariffs between 1995 and 2000 are very similar (36 percent) for all milk products, with one of the very few exceptions in the EC schedule of commitments (the tariff on powdered milk is subject to a reduction rate of only 20 percent) (OECD 1997b).

There are *minima market access* commitments for butter (and butter oil), skimmed milk powder, cheese, and other milk products, with high in-quota tariffs ranging from 33.2 to 47.8 percent (Tangermann 1998). All of them tend to essentially benefit Central European countries. The EC has undertaken commitments to reduce *export subsidies* for butter and butter

oil (from 447.2 thousand tons in 1995 to 366.1 thousand tons in 2000), skimmed milk powder (from 297.2 thousand tons in 1995 to 243.3 thousand tons in 2000), cheese (from 406.7 thousand tons in 1995 to 305.1 thousand tons in 2000), and “other milk products” (from 1,161.4 thousand tons in 1995 to 938.4 thousand tons in 2000) (all figures are for EC-12).

Notes

Table A.7 provides the CSEs, the PSEs, and the CSE ad valorem tariff equivalents for milk for the EC countries and three non-EC OECD countries. It shows very high, relatively stable protection in all the countries (even Australia exhibits a noticeable rate of protection). The 1990 CSE-based tariff (104 percent, based on the average for 1988–90) has been used to estimate the rate of overall protection.

Because this case deals with manufactured milk products, some precalculations have been necessary to estimate the sector’s basic data. Exports and imports are based on data available for three categories of the tariff classification: 0402 (milk powder and similar products), 0405 (butter and similar products), and 0406 (cheese). Production tonnage and employment data are based on the ratio of manufactured milk products (defined by these three groups of products) to total milk output (European Commission 1995, 13–30, table 2). The production value is obtained by multiplying the production volume by the average intra-EC trade unit value (which is very similar for imports and exports).

According to the literature, the price demand elasticity for the various manufactured products, such as butter and cheese, ranges from 0.2 to 0.7 (Stern et al. 1976; Australian Bureau of Agricultural Economics 1985), the price supply elasticity ranges from 0.3 to 1.3 (Australian Bureau of Agricultural Economics 1985); and the substitution elasticity between foreign and domestic manufactured milk products is between 1 and 2, depending on the products considered (Reinert and Roland-Holst 1992). As a result, elasticities of 0.6, 0.5, and 2 (for demand, supply, and substitution, respectively) have been used to estimate the costs of protection.

Case 18: Sugar

The CMO for sugar was adopted in 1967. As with the cereal CMO, it relies on price support. But these prices are not defined on “primary” sugar products (cane or beet), because sugar beet (the main source of sugar in the EC) is not a tradable product. As a result, the sugar CMO relies on price support for “intermediate” sugar products: two intervention prices (on white and raw sugar), one indicative price (for white sugar), and three threshold prices (for raw sugar, white sugar, and molasses).

Table A.7 Case 17: Producer and consumer subsidy equivalents in milk, 1978–99 (percent)

Country	1978–86	1986–88	1988–90	1990–92	1993–95	1995–97	1997	1998	1999
	Producer subsidy equivalents (PSEs)								
European Community	52	56	51	57	55	51	50	56	58
Japan	82	89	85	88	87	82	81	84	87
United States	61	65	55	58	48	44	48	64	60
Australia	27	30	26	36	25	21	23	20	17
	Consumer subsidy equivalents (CSEs)								
European Community	40	52	47	53	49	45	44	52	54
Japan	62	77	71	74	74	66	63	67	70
United States	51	52	46	51	42	39	42	58	55
Australia	21	30	27	36	25	20	22	19	17
	CSE-based ad valorem tariff equivalents ^a								
European Community	87	139	104	132	108	89	84	118	127
Japan	203	373	255	285	289	204	176	210	239
United States	129	146	93	110	79	65	74	140	125
Australia	29	45	38	55	33	25	28	24	20

a. Consumer nominal assistance coefficients minus 100.

Source: OECD, *Agricultural Policies Monitoring and Outlook*, various years.

The sugar CMO differs from the other CMOs presented in this book in another essential aspect: it imposes production quotas aimed at “self-financing” the CMO. Quotas A (derived from the historical production of the early 1960s in the founding member-states, and adjusted for the successive accessions of the new member-states) benefit from the full intervention price mechanism. Quotas B (originally up to 35 percent of quotas A) are subject to production levies aimed at financing losses for exporting surplus EC production.

Any sugar production above quotas A and B constitutes “quotas C”—a misleading term to the extent that there is no quantitative limit on the production of sugar quotas C. Sugar under quota C is subject to two constraints: it cannot be sold on EC markets except by paying a tax equivalent to the variable levy imposed on foreign sugar, and it has to be exported without any EC support (i.e., at the world price).²¹ This complicated quota system was felt necessary because it had been clear from the origin of the CMO that the high support prices granted to inefficient producers (Germany and Italy) would trigger huge excess supply from efficient suppliers (Belgium and France). Initially, the quota system was to be eliminated in 1975.

In 1977, the EC (until then a net importer) became a net exporter, and very high EC prices (two to three times the world prices) boosted the EC as one of the world largest net exporters. In 1987, special levies were introduced, with the aim of reinforcing the self-financing feature. A 2 percent levy on the base price on quota A sugar and a 37.5-percent levy on quota B sugar finance a Sugar Fund mainly used for the disposal of excess production on world markets.

Despite these measures, there has been (and still is) an ongoing debate on whether this self-financing principle has been realized. Between 1990 and mid-1994, there remained an average annual difference of €1 billion between levy revenues and expenditures on export subsidies and intervention. In 1998, sugar support represented 4.6 percent of total EC farm support expenses, almost twice the sugar share of EC farm output. But the CMO self-financing motto and the CMO capacity to generate rents (reinforced by the fact that quotas are not tradable because they are allocated by member-states) seem to shield the CMO from any reform: there was no change in the 1992 CAP Reform or in the 1999 Berlin Council.

Until 1995, EC imports of sugar were subject to variable levies (there was no tariff), and exports were subject to export refunds with certain additional levies on import of “primary” sugar products and on sugar confectioneries (WTO, *Trade Policy Review: The European Community*, 1997, 181). The Accession Treaty of Britain granted preferential conditions of imports to Commonwealth members, which were extended to ACP coun-

21. Producing “sugar C” flows largely from the nontransferability of quotas A and B, which are “unevenly” distributed among EC member-states and regions (generating rents and status quo).

tries and EC overseas territories. These preferential imports consist of quotas benefiting from guaranteed prices and exempt from variable levies. Because the EC produces too much sugar, a portion of these preferential imports (or an equivalent quantity of EC sugar) is reexported (but these exports are excluded from the self-financing scheme). The benefits of these preferences for the ACP countries are often questioned; they are likely to be offset, at least partly, by the depressing impact of the CMO on the world sugar price, and by the incentives generated by the CMO to create sugar substitutes (e.g., aspartame, isoglucose).²² It is notable that the sugar CMO was extended to isoglucose in 1981.

The Uruguay Round *tariffication* exercise has involved 36 tariff lines in the EC, and it has led to cases of “dirty” tariffication. Ingco (1996) has estimated the average ad valorem tariff equivalent on the main sugar products at up to 297 percent—with a dirty tariffication of 63 percent. Between 1995 and 2000, tariffs were to be reduced by 20 percent on raw sugar, an exception to the frequent average 36 percent reduction in EC agricultural farm commitments.

The EC *minimum market access* obligations do not exceed existing bilateral commitments toward the ACP countries and India (again, most of these imports are reexported), with the result that tariff differentials are likely to be captured by market participants.

In terms of *export subsidy* commitments, the EC has agreed to a reduction of its sugar exports (excluding ACP and Indian sugar) from a subsidized volume of 1,560.4 thousand tons to 1,277.4 thousand tons (quota B sugar). (All figures are for EC-12.) Of course, this reduction could be counterbalanced by a rise in EC exports of quota C sugar. Last, it is important to note that the EC has initiated several antidumping actions against sugar substitutes (aspartame from the United States and Japan in 1990).

Notes

Table A.8 provides the CSEs, the PSEs, and the CSE ad valorem tariff equivalents for sugar for the EC member-states and three non-EC OECD countries. It shows very high, stable CSEs and PSEs. The rate of overall protection is estimated on the basis of the CSE-based tariff, that is, 117 percent in 1990 (which in turn is based on the average for 1988–90).

The literature suggests a total price demand elasticity ranging from 0.1 to 0.5 (Gemmill 1976; Tarr and Morkre 1984), a price supply elasticity ranging from 0.3 to 1.1 (Schmitz 1979), and a high substitution elasticity between foreign and domestic sugar (OECD 1990, 93). As a result, elastic-

22. Isoglucose is an artificial sugar that was developed—and has been very successful—largely because it allowed large sugar consumers (e.g., the producers of sweet drinks) to buy a much less expensive sugar substitute.

Table A.8 Case 18: Producer and consumer subsidy equivalents in sugar, 1978–99 (percent)

Country	1978–86	1986–88	1988–90	1990–92	1993–95	1995–97	1997	1998	1999
	Producer subsidy equivalents (PSEs)								
European Community	52	64	46	55	45	41	47	49	58
Japan	68	74	67	70	72	70	67	72	75
United States	47	63	48	52	50	46	48	61	73
Australia	10	15	12	11	11	8	5	7	7
	Consumer subsidy equivalents (CSEs)								
European Community	50	69	51	58	49	46	49	53	59
Japan	60	74	62	65	60	57	53	65	67
United States	41	56	39	43	41	38	40	52	66
Australia	3	43	35	31	19	12	0	0	0
	CSE-based ad valorem tariff equivalents ^a								
European Community	132	229	117	148	106	88	101	117	156
Japan	135	196	149	186	153	133	121	185	202
United States	106	131	66	78	72	60	65	106	196
Australia	39	77	55	46	23	15	0	0	0

a. Consumer nominal assistance coefficients minus 100.

Source: OECD, *Agricultural Policies Monitoring and Outlook*, various years.

ities of 0.4, 0.5, and 4 (for demand, supply, and substitution, respectively) have been used to estimate the costs of protection.

Case 19: Bananas

In 1957, the signing of the Treaty of Rome was delayed by several days because France and Germany were unable to agree on a compromise for the trade regime to be applied to bananas. Germany enforced a complete free-trade policy, and as a result imported bananas from Latin American countries, whereas France and Italy followed an almost autarkic policy favoring their domestic producers. At the last minute, German Chancellor Konrad Adenauer obtained for bananas one of only two additional protocols to the treaty, grandfathering the import policy of member-states (the other protocol was for green coffee).

This legal situation lasted unchanged until 1993 (for a detailed legal history until the mid-1990s, see Eeckhout, 1994). During all these years, there were as many import regimes for bananas as member-states. For simplicity's sake, all the trade regimes existing in 1993 can be classified in three main groups. Group I consisted of six member-states that imposed quotas on bananas coming from Latin America—often nicknamed “dollar bananas” because they are mainly processed and distributed by three US firms, Chiquita, Del Monte, and Dole Foods. For four out of the six member-states, these restrictions aimed to protect domestic banana growers on Caribbean islands (France), Crete (Greece), Madeira (Portugal), and the Canary Islands (Spain), whereas the two others (Italy and Britain) maintained quantitative restrictions favoring former colonies (Belize, Jamaica, Suriname, the British Windward Islands, and Somalia) and their own fruit companies (Fyffes and Geest).

Group II, which consisted of five member-states (Belgium, Denmark, Ireland, Luxembourg, and the Netherlands), merely enforced the Community's common external tariff (20 percent in 1993) and imported almost exclusively dollar bananas. Group III consisted only of Germany, which was exempted from the EC tariff under a zero-tariff quota for almost all its consumption (Austria, Finland, and Sweden were in the same situation before their 1995 accession to the Community).

The total incompatibility among all these trade regimes implied a systematic use of Article 115 by Group I member-states. As a result, intra-EC trade in bananas between the three groups of states was very small. Moreover, the price of bananas varied widely among states: In 1991, for instance, the c.i.f. import price in France, Italy, Spain, and Britain was, respectively, 14, 30, 34, and 63 percent higher than in Germany or Group II member-states. These differences mirrored the severity of protection imposed by Group I member-states: “traditional” suppliers from domestic and other preferential sources benefited from quotas equivalent to 100

percent of domestic consumption (Spain), 90 percent (France), 75 percent (Britain), and less than 20 percent (Italy).²³

The early 1990s saw the implementation of the Single Market, and the banana situation became a complete oddity. In February 1993, the Community reached an agreement on a CMO for bananas (Regulation 404/93), which began to be implemented in July 1993. Table A.9 summarizes the four major features of the CMO.

The first feature is that there are three major quotas: Quota I guarantees a certain tonnage of imports to EC-grown bananas; Quota II does the same thing to “traditional” ACP bananas, and Quota III to dollar bananas and bananas grown in those ACP countries that are not classified as “traditional.” Quotas I and II are not constraining, in the sense that they grant to the beneficiaries quantities much above their export capacities: over the past 10 years, EC production has never been larger than 650 thousand tons, and traditional ACP production has reached a peak of 580 thousand tons. All these quotas are split into several subquotas: 4 for Quota I, 12 for Quota II, and 6 for Quota III. As is well known, such a feature tends to reinforce the distortionary impact of trade barriers. The second feature is that imports above these three quotas were subject to a *de facto* prohibitive duty of almost 100 percent. The third feature is that EC-grown bananas (from overseas territories) are eligible for production subsidies (so-called compensatory aid) ranging from €200 to €300 per ton between 1994 and 1996 (roughly 40 to 60 percent of the import values) and granted to a limited, but large, tonnage of EC bananas. Last but not least, the fourth feature is that there is a licensing scheme (described in detail below) associated with Quota III that magnifies the quota’s protectionist impact by transferring market shares from US and Latin American companies to EC or ACP firms.

This incredibly complex CMO represented a shift from completely or largely open markets (Groups II and III, *i.e.*, six to nine member-states) to a single closed market. As a result, it immediately triggered two reactions from the trading partners of the EC.

First, Latin American producers focused on the *border* protection element of the CMO, that is, the discriminatory split in two quotas (II and III) of non-EC bananas that are subject to very different conditions in terms of tariffs and quantities. At the end of the Uruguay Round negotiations, the EC signed the so-called Banana Framework Agreement with four Latin American countries (Colombia, Costa Rica, Nicaragua, and Venezuela), by which the EC granted specific subquotas of Quota III to these countries

23. A high, specific consumption tax was imposed on bananas in Italy. Moreover, special agreements have been concluded with certain ACP countries (including in Latin America, *e.g.*, Dominican Republic or Haiti), implying that all these regimes had no common definition of “traditional” suppliers (this term could cover different ACP countries and overseas territories for each Group I member-state).

Table A.9 Case 19: EC banana import and distribution schemes, 1993–2001

The Common Market Organization (Regulation 404/93) from 1993 to June 2001				The EC-US Agreement of April 2001: Phase I ^d (only changes with respect to Regulation 404/93 are mentioned)	
Border restrictions		Nontariff restrictions (licensing scheme and subsidy)		Not mentioned	
Annual quotas		EC tariff		TRQ: Same amount as Quota I	
Tons (000)	Origin	(Euro/ton)	percent ^a	For bananas of all origin. Tariff of 300 euros/ton. Tariff preference of 300 euros/ton for ACP bananas. Licensing regime still unknown in April 2001.	
Quota I. Imports of EC bananas: Total amount 854 thousand tons					
369.0	France	0.0	0.0	Quota allocated among 4 member-states of Group I.	
15.0	Greece	0.0	0.0	Quota allocated to EC companies.	
50.0	Portugal	0.0	0.0	Producer price support subsidy ("compensatory aid") of 622.5 euros per ton.	
420.0	Spain	0.0	0.0		
Quota II. Imports of ACP "traditional" bananas:					
Total amount 857.7 thousand tons					
155.0	Ivory Coast	0.0	0.0	Quota allocated by EC member-state and by preferred exporting (ACP) country.	
155.0	Cameroon	0.0	0.0	Quota mostly allocated to EC-ACP companies.	
127.0	Sainte-Lucie	0.0	0.0	Various subsidy schemes.	
105.0	Jamaica	0.0	0.0		
315.7	8 other ACPs ^b	0.0	0.0		
Quota III. Import of "other" bananas:					
Total amount 2,553 thousand tons^c					
90.0	Nontraditional ACPs	0.0	0.0	Quota mostly allocated to EC-ACP companies.	
597.4	Costa Rica (23.4 percent)	75.0	8.7	The licensing scheme imposes de facto that 30 percent of the quota goes to EC-ACP companies.	
536.1	Colombia (21.0 percent)	75.0	8.7	(Ecuador is among the most efficient producers.)	
76.6	Nicaragua (3.0 percent)	75.0	8.7		
51.1	Venezuela (2.0 percent)	75.0	8.7		
1201.8	Other "dollar bananas"	75.0	8.7		
Imports above Quota III					
Nontraditional ACPs					
750.0					
Other "dollar bananas"					
850.0					
Tariffs to be reduced by 20 percent over the period 1995–2000.					
Not mentioned					
For bananas of all origin. Tariff of 75 euros/ton. Licenses granted to companies, not to countries. Licenses based on firms' 1994–96 performances. 83 percent of licenses granted to "traditional" operators.					
"Nontraditional" operators cannot become "traditional" operators in subsequent years.					

ACP = African, Caribbean, and Pacific countries.
TRQ = Tariff Rate Quota.

- a. Estimates based on a price of 857 euros per ton.
- b. Belize, Cape Verde, Dominica, Granada, Madagascar, Saint Vincent, Somalia, and Suriname.
- c. Initially 2,000 million tons in 1993, increased to 2,100 million in 1994 and 2,200 million in 1995, and to 2,553 million following the 1995 EC enlargement.
- d. Phase I begins in July 2001. For Phase II, see text.

Sources: Various EC Regulations; *Inside US Trade*, 2001.

on the condition that they not lodge a complaint at the WTO against the banana CMO before 2002 (the year for the CMO review).²⁴

Second, the United States focused on the *nonborder* protection granted by the licensing scheme under Quota III. This scheme added discrimination in terms of firms (“operators”) and activities to the first layer of discrimination based on import origin. Without the licensing scheme, a large portion of the 1,202.8 million tons of dollar bananas subject to non-country-specific Quota III would have normally been handled by the US fruit companies. But the licensing scheme is estimated to have “granted” 30 percent of the corresponding licenses to EC (and ACP) firms that could use them for their own operations or sell them to other firms (including to US firms). In other words, the licensing scheme introduced a pure transfer of the quota rents from US firms to EC firms.²⁵

In 1996, the four major Latin American producers left out of the Banana Framework Agreement that were WTO members (Ecuador, Honduras, Guatemala, and Mexico) and the United States requested a dispute settlement panel at the WTO (for a detailed legal analysis of the successive GATT/WTO banana panels, see Komuro 2000).²⁶ The panel report was issued in May 1997, and it was confirmed by the Appellate Body ruling of September 1997; both decisions stated that many of the provisions of the banana CMO violated EC obligations under GATT Articles I and XIII and under GATS Articles II and XVII, and were inconsistent with the GATT-WTO waiver attached to the Lomé Convention. In particular, the fact that Quotas II and III (and all the corresponding subquotas) bear no resemblance to the import shares that would prevail in the absence of restrictions was condemned.²⁷

Following the WTO rulings, the EC Commission presented a new Regulation, which was adopted by the EC Council in June 1998 (Regulation 1637/98) but made little progress on the key points of contention. In November 1998, the United States announced its intention to impose retaliatory measures if no further changes were introduced in the CMO. In April 1999, the WTO Dispute Settlement Body authorized the United States to

24. These four subquotas were regulated by “special export certificates” managed by the exporting country involved and monitored by the EC—constituting a classic example of voluntary export restraints with double checking (see also cases 13 and 14 above on textiles and clothing).

25. There were restrictions on the resale of licenses, but these restrictions were irrelevant for the large EC and ACP firms such as Fyffes or Pomona.

26. Latin American producers had already launched two panels of dispute settlements under GATT rules that both condemned the EC. But under the then weaker GATT disciplines on dispute settlement, it was easy for the Community to ignore these rulings.

27. Quota I per se was not a topic of debate, because it corresponds to a nondiscriminatory (pure) element of protection to the extent that it reserves a market to EC producers. By contrast, the import-licensing scheme—which grants to EC producers certain rights to import dollar bananas—was a subject of conflict.

suspend concessions to the EC equivalent to the level of nullification and impairment—meaning 100 percent customs duties on imports from the EC worth US\$191.4 million (except on imports from Denmark and the Netherlands, which have always voted against the 1993 banana regime). In May 2000, Ecuador got a similar authorization by the WTO Dispute Settlement Body for the amount of US\$201.6 million.

In December 2000, the EC agriculture ministers approved a new, transitory tariff-quota regime to be implemented from April 2001 to December 2005. The main novelty was the explicit adoption of a tariff-only system to be enforced starting January 2006. However, the new EC regulation left two key variables undefined: the type of licensing regime to be implemented for managing the quotas until 2006 and the level of the tariff to be imposed in 2006.

In April 2001, the EC and the United States quite unexpectedly reached an agreement based on two phases. During Phase I (starting in July 2001), Quota III is divided into two tariff-rate quotas, A and B (replicating the two sources of Quota III—that is, the EC-12 quota and the autonomous quota following the 1995 EC enlargement). Tariff-rate quotas (TRQs) A and B will be subject to the same licensing regime, which will no longer be defined on a country basis (meaning that ACP and Latin American bananas could be sold under these two TRQs) but on an “operator” (company) basis. For 83 percent of TRQs A+B, import licenses will be distributed to each “traditional” banana operator (defined as a company that either grows or buys green bananas to sell them to the first point of sale in Europe) on the basis of its average reference volume during the period 1994–96. The remaining 17 percent of TRQs A+B will be distributed to “nontraditional” operators. The tariff applied to TRQs A+B will not exceed €76/ton (the current tariff).

The new licensing regime for TRQs A+B is accompanied by a major rebalancing of market shares among major companies. In particular, Chiquita is expected to get back some of its past business in Europe—that is, to get licenses for 35–40 million boxes of bananas annually, compared to its current share of 28–31 million boxes and in the pre-1993 period of 50 million boxes (*Inside U.S. Trade*, 2001, *Banana Deal Locks Out Competition*, vol. 19, no.15, 13 April, 24). Consequently, it raises severe adjustment problems for Ecuador (the largest and one of the most efficient banana producers) because many of its banana companies will not fulfill the conditions to be considered as a “traditional operator” (except Noboa). The same could be observed for exporters from Costa Rica, Colombia, and other signatories of the Banana Framework Agreement.

In addition to TRQs A+B, the EC creates a TRQ C, equivalent in size to the current Quota II (see table A.9) and subject to a tariff of 300 euros/ton. TRQ C is also open to bananas from any origin, but ACP bananas will have a tariff preference of 300 euros/ton within (and outside) TRQ C, making this TRQ the de facto heir of Quota II. At the beginning of Phase II, a quan-

tity of 100,000 tons will be shifted from TRQ C to TRQs A+B. TRQ C will then be reserved exclusively for bananas of ACP origin, benefiting from the (GATT Article XIII) last waiver that the EC is looking for in the context of the Cotonou Convention with the ACP states until 2008 (see chapter 6).

Phase II can begin only when the EC Council and Parliament have adopted the amendments necessary for implementing this agreement, in particular the shift of 100,000 tons between TRQ C and TRQs A+B. Phase II, which will last until December 2005, may also witness changes in computing the historical reference volume in the licensing regime of TRQs A+B, although the proximity of the final shift to a tariff-only import regime (January 1996) makes such changes unlikely.

Two weeks after the EC-US Agreement, the EC reached an agreement with Ecuador on detailed management of the provisions governing the “nontraditional” operators. At the time of this writing, there was no precise information on this management: the official communiqué simply states that “a very significant share of the trade will be reserved for non-traditional operators working within an open and competitive environment, thus facilitating access for small- and medium-sized businesses.”

The April 2001 EC-US agreement is a step toward an EC tariff-only regime for bananas. It allows the EC to obtain the elimination of US sanctions, and, even more important, to get US support for the waiver that the EC wants for the transitory phase (2000–08) of the Cotonou Convention. But, serious obstacles remain before a complete settlement of this issue: (1) the EC member-states have to agree on what is so far only a Commission proposal; (2) the EC has to agree with the rest of the Latin American countries to ease their transitory adjustment problems and to get their support for the Cotonou waiver; (3) last but not the least, the EC has to define the tariff rate to be enforced on 1 January 2006.

It is important to note that, from an economic perspective, the April agreements will not significantly reduce the costs of protection for EC consumers. The sizes of the TRQs remain relatively unchanged (under Phase II, Latin American growers will get at the most 190,000 additional tons, that is, almost 8 percent more than in 2000) and the tariff levels are unchanged. As a result, the EC-US agreement will mostly consist of a big shift of rents—away from the beneficiaries of the 1993 regime and back to traditional operators.

In the short run, the EC-US agreement may even increase the costs of EC protection to the extent that it reinforces the anticompetitive nature of EC banana markets, and generates anticompetitive forces in the traditionally open EC markets, such as Germany or Sweden. In particular, it regrettably excludes the possibility for nontraditional operators to become traditional operators, hence prohibiting entry into 83 percent of TRQs A+B and granting this large market share to a few large firms: Chiquita and Dole, Fyffes (Britain-Ireland), Noboa (Ecuador), and possibly Del Monte. Moreover, what is known (at the time of this writing) about the competitive aspect of

the EC-Ecuador agreement is not very reassuring: it suggests a government-led market organization. These conclusions reveal how crucial a rapid definition of the level—hopefully low—of the EC tariff will be. In the absence of a quick decision, the persistence of large rents allowed by the EC-US and EC-Ecuador agreements may simply imply that the EC bananarama may be far from over.

Notes

The level of protection for bananas is more delicate to estimate than in the other cases examined in this study because in 1990, protection was member-state based *and* led to large price differences among the various EC markets (the EC banana CMO was created only in 1993). Moreover, protection was (and still is) generated at two different stages: EC production and imports (border protection), and distribution in the EC (nonborder protection through import licensing). The second stage is important because both the wholesale and retail banana trade are costly in Europe relative to the United States. For instance, in 1989–91, retail prices were more than twice those prevailing in the United States (FAO 1997), and Borell (1996) reports that distribution margins in protected European markets were twice those in the United States, and up to 50 percent higher than in the open German market. Such differences in distribution costs may be due to factors unrelated to the EC banana trade regime, such as population density and wholesale or retail general structures. In this case, border protection would be the only aspect to look at in estimating the level of protection. But the differences in distribution costs can also be caused by the limited competition that the various licensing schemes imposed (and still impose), all the more because licenses were granted by member-states—generally in favor of their own fruit companies.

As a result, there are three possible estimates of the level of protection for the portion of EC markets protected in 1990, that is, roughly 60 percent of the total EC market (Germany, and to a lesser extent, the Benelux countries, can be considered open). First, the lowest estimate of the ad valorem tariff equivalent of the EC member-state quotas is based only on border barriers as measured by the import price differential between bananas imported from the EC overseas territories and bananas imported from other sources (ACP countries, as well as Latin American countries). In 1990, this differential was 61.2 percent.²⁸

28. The difference was only 6.9 percent for the years 1994–96. This decline results from a large decline in import unit values from EC overseas territories and a modest increase in unit values of imports coming from constrained exporting countries. The price decline of EC-grown bananas was accompanied by a huge increase in quantities. These two shifts seem the logical consequence of the large subsidy scheme in the EC 1994 Regulation (see text above). Calculations, including EC state aid, lead to a minimum price differential of 57.5 percent with dollar bananas (the upper estimate of the ad valorem tariff equivalent of the subsidy scheme is 65.6 percent), i.e., they suggest a very stable level of protection of EC bananas.

Second, the medium-range estimate is based on retail price differentials, as defined by the difference between the average retail price (weighted by national market sizes) observed in protected member-states and the unweighted average of the US and German retail prices. Such prices are available, on a monthly basis, for the four largest EC markets (FAO 1997). Using the German-US prices aims to capture the fact that distribution costs could be higher in the EC than in the United States for reasons exogenous to the banana sector. In 1990, this price differential amounted to almost 82 percent.

Third, the highest estimate is based on the reasonable hypothesis that retail prices include excess costs in distribution caused by anticompetitive practices that existed before 1993, preceding the licensing scheme of the 1993 Regulation, which has de facto reinforced and amplified such practices. Such collusive practices have been observed. For instance, in 1990, the French Council of Competition provided evidence of collusion (organized by the Comité Professionnel Bananier and the Groupement d'Intérêt Economique Bananier) on the French banana market between French firms and imposed substantial fines (Conseil de la Concurrence 1990). For the years 1989–91, this last price differential can be estimated to be 123.2 percent. As a result, the costs of protection estimated in this last approach reflect to some extent imperfect competition (although the Hufbauer-Atje model is not used in this case).²⁹

The literature estimates price demand elasticity within the range of 0.5–0.8 (Borell 1994; Laroche-Dupraz 1998), and a 0.7 demand elasticity was used. The EC domestic supply elasticity has been assumed to be relatively low (0.5), but the results are not sensitive to substantial changes in this choice. Substitution elasticity has been assumed to be relatively large (3)—if only to account for the fact that dollar bananas are often considered of better quality than EC bananas.

On the basis of the three price differential estimates and these parameters, the estimated costs to consumers of EC protection for 1990 range from €600 to €825 and to €1,327 million, respectively. Quota rents represent more than half these costs: they range from €338 to €473 and to €743 million.

Has the 1993 banana CMO improved the situation or made it worse? As underlined by Borell (1996), it has caused severe deterioration of the EC-wide situation. Again, there is the problem of measuring price differentials. Only estimates based on mere ad valorem tariff equivalents and

29. This imperfect competition aspect is important because many opponents of the liberalization of the EC banana markets argue that there is a strong risk of anticompetitive behavior if US firms are free to operate in the EC market. It should be noted that the world market for bananas shows a global market share of 70 to 75 percent for the 3–6 largest firms, i.e. (as underlined by Borell 1994), a share lower than in many other food or raw material markets (World Bank 1992).

on retail prices as mirroring anticompetitive practices (as described above) have been done for 1995 because the German market reflects less and less efficiency, and because it is protected as much as the other EC markets.

In 1995, the lowest costs of protection amounted to €1.2 billion (twice the corresponding figure for 1990) and the highest estimates amounted to €1.9 billion (almost 50 percent higher than the corresponding figure for 1990). Quota rents also increased to €660 million in the first subcase (almost the equivalent of the lowest *total* costs of protection estimated for 1990), and to €1.2 billion in the second subcase (almost the equivalent of the *highest total* costs of protection estimated for 1990).

Case 20: French Films

This case is limited to the French *film* industry (television productions are excluded from the estimated costs of protection) for two reasons: (1) there are no available consistent data for the whole EC, and (2) France is a good illustration, with a rich dataset, of protection of audiovisuals in the EC (for a detailed legal analysis of the EC situation until the mid-1990s, see Eeckhout 1994).

The extreme French position in the debate on liberalization of audiovisual services and the profusion of instruments of protection observed in France may lead to the belief that the level of French protection is much higher than the level in other large EC member-states. This conclusion is not correct, for two reasons. First, the lush profusion of French instruments of protection is accompanied by a substantial amount of redundancy. As is shown below, the rate of aggregate protection is not the sum of the protection rates of each separate instrument. Indeed, several instruments are imposing constraints on French filmmakers (Cocq 2000)—to the point of improving, in relative terms, the situation of foreign film producers (a kind of “negative” protection).

Second, as is well known, the *effective* level of protection is more difficult to estimate for services than for goods. For instance, the shares of American “fiction works” broadcast in France and in Britain were not so different in the mid-1990s (see table A.10, 4th column). However, one could argue that the corresponding effective level of protection granted was quite different. In Britain, BBC channels broadcast relatively few American movies, while BSkyB broadcasts such films almost exclusively, whereas *every* French TV channel broadcasts at most 40 percent American movies, as described in more detail below. In other words, a British viewer equipped with satellite TV has a less restricted choice at any time of the day than a French viewer: he or she can always see an American movie, although the French viewer can compensate for his or her disadvantage by using a VCR (see below).

Table A.10 Case 20: EC audiovisual markets: Cinema theaters, television channels, videos, 1996–97 and subsidies, 1995

Country	Theaters ^a			TV channels ^b		Videos		All subsidies (to production and distribution)			Subsidies to production of films and TV works		Subsidization rates (percent), 1995
	US films, 1994–97	EC films, 1997	US films, 1996	US fiction works, 1996	VCR penetration rate, ^c 1997	Blank cassettes, ^d 1997	Total (millions of euros), 1995	Non production ^e (percent), 1995	Total (millions of euros), 1995	Automatic (percent), 1995	Total (millions of euros), 1995		
												US films, 1996	
Austria	n.a.	0.0	64.6	26.6	75.3	4.7	21.9	n.a.	n.a.	n.a.	n.a.	n.a.	
Belgium	71.9	0.1	34.1	31.1	68.4	4.1	23.8	44.0	13.3	28.4	1,078.3	1,078.3	
Britain ^f	80.5	4.8	75.3	19.8	83.0	3.1	31.0	9.3	28.1	0.0	8.8	8.8	
Denmark	70.2	0.2	65.6	27.4	79.0	5.0	26.1	32.5	17.6	16.6	147.7	147.7	
Finland	72.7	0.1	67.0	14.8	72.2	4.4	11.5	34.4	7.5	0.0	299.9	299.9	
France	55.7	10.2	36.2	18.9	77.5	6.3	371.6	49.9	186.3	70.5	47.5	47.5	
Germany	78.6	3.7	65.2	35.5	77.3	3.4	147.2	50.1	73.5	9.9	42.6	42.6	
Greece	n.a.	0.0	n.a.	20.2	55.7	1.5	5.2	8.9	4.7	0.0	239.3	239.3	
Ireland	n.a.	0.0	n.a.	27.1	72.7	2.1	3.8	0.0	3.8	0.0	390.0	390.0	
Italy	59.9	2.2	61.6	23.6	59.2	2.3	95.5	4.3	91.3	8.0	71.3	71.3	
Netherlands	86.6	0.2	72.4	22.7	67.3	4.0	34.6	16.3	29.0	0.0	174.6	174.6	
Portugal	80.8	0.1	n.a.	19.0	52.0	1.3	11.6	50.5	5.7	31.6	695.3	695.3	
Spain	72.7	1.9	69.0	28.1	72.1	1.9	27.3	21.2	21.5	48.2	42.3	42.3	
Sweden	67.2	0.4	n.a.	29.7	79.2	4.9	25.7	40.8	15.2	25.0	81.6	81.6	
EC-15	72.4	1.7	61.1	24.6	73.6	3.5	838.1	37.9	498.6	33.8	52.2	52.2	
United States	95.4	n.a.	n.a.	n.a.	92.8	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	
Japan	41.3	n.a.	n.a.	n.a.	90.8	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	

n.a. = not available

VCR = videocassette recorder

a. In percent of total seats sold.

b. In percent of hours broadcast (weighted by audience).

c. In percent of households.

d. Expenditures in current euros per person.

e. Percentage of subsidies not directly allocated to production of films or TV works.

f. Share of EC films goes up to 8.7 percent if UK-US films are included.

Sources: European Audiovisual Observatory, *Statistical Yearbook*, 1998 and 1999; Messerlin (2000); Messerlin and Coq (2001).

But another consideration also should be taken into account in assessing the restrictive effects of these two shares. In each country, the above share of American “fiction works” is roughly half the share of the audience watching American movies in cinemas (80 percent in Britain, and 60 percent in France). This suggests a not too different effective level of protection (in fact, all the indicators for which there are more recent data, e.g., the share of American films in cinema theaters, are rapidly converging in Europe).

As a result, what follows considers the level of protection granted to films in France as not so different from the level of protection in the other large member-states.³⁰ The situation may be different for small member-states; some of them are relatively open, but others can be even more protectionist than the large member-states, as is best illustrated by Belgium, which imposes strict *internal* barriers protecting Belgian French- and Dutch-speaking movies (without much opening to French or Dutch productions).

Before describing French protection, “cultural” goods and services raise an important preliminary question: how should “national” cultural goods and services be defined (Messerlin 2000)? Quite ironically, in France, a film is considered French once it has been “agreed on” (*agr  *) by the Centre National de la Cin  matographie (CNC)—hence, when it has received French subsidies, because most subsidies are automatically attached to the agreement procedure. Of course, this agreement requires certain conditions, in particular French nationality for actors and technicians and the use of the French language for the script and shooting. But a recent official report of the Cour des Comptes has underlined the wide circumvention of these conditions.³¹ The crucial point is that the quite bizarre “rule of origin” is discriminatory. The CNC agreement cannot be granted to films made by firms that are “controlled by firms established outside European countries,” a provision that specifically excludes firms from the United States and a few other economies (Hong Kong, Japan, South Korea, and Taiwan) with which France has not signed bilateral agreements.

The protection of the so-called “French” film industry relies on three main groups of instruments: indirect taxes, quotas, and subsidies (for details, see Messerlin and Coq 2001). First, an indirect tax of roughly 11 percent is levied on every seat sold in French cinemas, independent of the nationality of the film presented. The seat tax is thus a nondiscriminatory

30. This conclusion is consistent with the similar content and number of pages (seven pages for France and four pages for Britain) devoted by the association of the US major film producers to the description of protectionist measures in these two countries (Motion Picture Association of America 1995).

31. The Cour des Comptes reported a case where a movie was considered French, although it was done in English, as a British coproduction, with seven American and two British actors. The film was *agr  * because it was based on a French novel, used some French elements of scenery, and had one French actress involved (Cour des Comptes, *Report to the President of the Republic*, 1993, 106).

excise tax imposed on both foreign and French films. But the seat tax is also one of the sources of the subsidies granted to the film sector. It finances *two* different subsidies: those granted to French producers for making French movies, and those granted to French cinema owners for improving their theaters—with *American* movies as the main beneficiaries of this second subsidy type, because they constitute the largest share of movies shown.³² As a result, the impact of the seat tax (in its *use*) is discriminatory, although in a complex way.

The second instrument of protection consists of public subsidies granted to French filmmakers. There are roughly 80 major types of *direct* subsidies available for film production, covering all possible aspects of the business.³³ First, there are subsidies related to production: “*soutien automatique*” (automatic support granted as soon as the film has been agreed on by the CNC), *avances sur recettes* (advances on revenues, which are equivalent to subsidies because they are generally never reimbursed), subsidies for scripts, subsidies for film music, subsidies for coproductions, subsidies for “regional” films, subsidies “expressly granted by the minister for ambitious projects,” and so on. Second, there are subsidies attached to film distribution, such as for film development or for making film copies. Last, there is an astounding diversity of subsidies granted to cinemas (many cinemas are run by film producers, such as Gaumont): to new cinemas, to cinemas located in areas with insufficient public transport, to cinemas for films “*d’art et d’essai*,” for better sound equipment, for independent cinemas, for “proximity cinemas,” and so on.

In addition to all these direct subsidies, there are *indirect* subsidies: special unemployment benefits for the workers and actors in the “*industrie du spectacle*”; subsidy schemes based on fiscal deductions (SOFECA); subsidies related to the launching of (already outdated when launched!) satellites; and last but not least, EC subsidies (the Media programs). Table A.10 provides a summary of a recent study on subsidies to film and TV productions in Europe (European Audiovisual Observatory 1998), and it estimates the subsidization rates (defined as subsidies divided by the turnover of the film and TV industries) for EC member-states.³⁴ As one would expect, subsidies tend to increase for the EC member-states with

32. The supporters of the tax believe that it hurts American producers (although, as a tariff in a relatively competitive environment, it does not have this capacity) and that it has a positive impact on the French film industry (although, in fact, it is a tax on successful French movies and a subsidy to unsuccessful French films—hence, a cost for the whole French film industry).

33. The movie industry is the only French industry to have its own book devoted to explaining all the subsidies available.

34. Being based on public accounting, the data on subsidies in table A.10 ignore the implicit subsidies flowing from investment quotas, particularly in the case of Canal Plus (see below, on investment quotas).

small audiences (Belgium being divided in two, the French- and Dutch-speaking regions).

The French subsidy scheme is so complex that it is almost impossible to monitor it; indeed, that was the main conclusion of the report of the Cour des Comptes. It is also crucial to note that subsidies related to “culture” constitute only a *minority* proportion of the whole system—at most, one-third during the past 20 years (even less in the most recent years). This point will be essential in the coming debate on the liberalization of audiovisual services in the WTO context (Messerlin 2000).

Quotas are the last instrument of protection. There are three major types of quotas. First, there are quotas based on the country of origin of the films: TV channels have to broadcast at least 40 percent “French” (or rather, more accurately, CNC-agreed-on) films and 20 percent “European” films, leaving a maximum share of 40 percent for movies from the United States and other countries without bilateral agreements. Second, there are quotas that limit the freedom of TV channels to broadcast films: a global ceiling for the year (different for each TV channel), a ban on broadcasting during certain days or hours (Wednesday afternoons, because children are then supposed to go to the cinemas; Saturday afternoons and Sundays until 8 pm; during certain peak hours), and specific quotas on movies older than a year, on recent movies, on the frequency of broadcasting the same movie, and so on. Last but not least, there are quotas on investment: TV broadcasters (in particular, Canal Plus) are required by law to invest a given amount of their annual resources in filmmaking (according to very complex rules)—a source of indirect subsidies roughly as important as public subsidies.

It is important to note that all these quotas have different, and sometimes conflicting, effects. Quotas by origin are pure import quotas. Quotas on time constraints for broadcasting films are protecting cinemas against competition from TV channels; they are nondiscriminatory with respect to American movies, although restricting the global amount of time available for broadcasting films does indirectly favor foreign films. Last, quotas on investment are equivalent to a system of indirect subsidies to French films. But they generate a lot of inefficiency from the subsidizers’ point of view (because of the complex rules to follow, which leave very little room for picking up only the best films).³⁵

It is useful to end this survey with a glance toward the legal situation at the Community level. Out of the six EC directives dealing with audio-

35. These quotas also regulate competition between TV film producers, TV broadcasters, and other domestic film producers. In particular, they have favored strong vertical integration links between all the segments of the audiovisual sector (including the film industry). For instance, in 1995, Canal Plus alone represented 25 percent of the total French investment in film production and had stakes in 72 percent of all the French films produced that year. Such vertical integration creates serious problems of competition—a deadly characteristic from a cultural point of view.

visuals, only the Television Without Frontiers (TWF) Directive has been enforced by all the member-states. It is best known for the provision extending the regime of broadcasting quotas (described above) by origin to all member-states—with the famous caveat of “when available” allowing states to be lax if they wish so.

More important, the TWF has so far missed its core objective: to allow freedom of *cross-border* audiovisual services within the EC.³⁶ Today “pan-European” TV broadcasters are mostly of non-EC origin; they are still very marginal (12 percent of the total number of channels, less than 2 percent of TV advertising revenues, and only 0.7 percent of total TV revenues). When providing services, a typical European TV broadcaster still establishes subsidiaries in each member-state and slips into the host country rules—instead of beaming programs across European borders. As a result, cross-border programs are very limited, despite significant differences in their prices.

This still strong segmentation of EC markets makes emerging alliances between European TV broadcasters unstable and defensive; they tend to gang together, essentially to consolidate their own position at home. These coalitions minimize competition and in the long run they may generate risks of “excessive” entry.

It would be wrong to provide estimates of costs of protection in audiovisuals without a brief remark on the “culture” aspect. In fact, these estimates do not take into account the *perverse* impact of the many existing protection schemes on French culture in a dynamic setting. By nature, protection induces domestic producers to take the place of foreign producers, and it protects some domestic producers to the detriment of others. Films do not escape these two laws. French filmmakers, protected from American movies, have tried to produce films that are “clones” of American movies—in particular, after the 1989 Plan Lang (named after the then minister of culture, Jack Lang) focusing on films with “large” budgets (large in the French definition meaning budgets roughly equivalent to the average size of the advertising budget *alone* of American movies with “large” budgets). In sum, public incentives “Americanized” new French talents and eroded the “French difference” at a stronger and faster pace.

Notes

The first point is to estimate the ad valorem rate of protection imposed by all the existing restrictions. The seat tax could be seen as equivalent to a tariff only to the extent that it exceeds the level of investment that American moviemakers would have been ready to consider for purely com-

36. According to TWF, Article 3, “member-states shall remain free to require television broadcasters under their jurisdiction to lay down more detailed or stricter rules in the areas covered by this Directive.”

mercial purposes. For instance, in 1994, American moviemakers paid FFR280 million because of the seat tax, a sum that represented 60 percent of the FFR467 million in subsidies granted to improve French cinemas. However, it is not certain that the American moviemakers would have needed to invest all this money in theaters to attract the same number of viewers (subsidies to French cinemas are likely to inflate investments in theaters). As a result, the seat tax of 11 percent is treated in what follows as a pure tariff on foreign films.

The tariff equivalent of quotas by origin can be estimated by assuming that, in their absence, French viewers would have the same behavior in front of their TV screen as when they go to cinemas. On the basis of this assumption, the degree of bindingness of the quotas by origin was almost nil in 1986 (when they were officially created); at the time, 43 percent of the French going to the cinema watched American films. The year 1990 was the second since then to witness a jump in this proportion, to 55 percent; as a result, the 40 percent broadcast quota was equivalent to a cut of 25 percent (15/55) of the French audience for American films on TV, although this quota-bindingness was partly relaxed by the use of videos, France being among the EC member-states best equipped with VCRs.³⁷ However, as the costs of protection are estimated for 1990, taking into account this source of protection would have overestimated these costs for the following reason. Successful films tend to be shown on TV screens one or two years after their presentation in cinemas. In other words, the real impact of the surge of interest in American movies among French viewers was translated into the TV market only in 1991 or 1992.

Turning to subsidies, direct public subsidies to the film industry alone (*excluding* TV work) amounted to more than FFR800 million per year in 1989–90 (and to more than FFR1 billion per year after the mid-1990s). The corresponding ad valorem “subsidy rate” (the ratio of the subsidies received by the film industry with respect to the film revenues raised by cinemas) was 65.8 percent for the same three years.³⁸ The difference with the subsidy rate of 47.5 percent shown in table A.10 is due to the focus on film production alone (TV productions are less subsidized). There has been no attempt to include indirect subsidies in this estimate; a back-of-envelope

37. It is interesting to note that American films represent roughly 55 percent of movies made available by private TV channels in Germany and Italy. In the late 1990s, the quota-bindingness increased to roughly 35 percent because American movies had a market share of 60 percent of the films shown in French cinemas.

38. As shown in appendix C, the 65.8 percent subsidy rate corresponds to an ad valorem tariff equivalent of 90.4 percent. Computing the subsidy rate on cinema revenues alone is appropriate because, for the years in question, cinema revenues still represented a major portion of total film revenues. For more recent years, it would be better to estimate the subsidy rate on total revenues, which should increasingly include important TV and video fees (for which there is only crude information).

computation would suggest that taking them into account would multiply the estimated subsidy rate by a factor of 2.

In sum, the rate of overall protection in 1990 is the sum of the tax seat (11 percent) and the tariff equivalent of subsidies (65.8 percent). The price elasticity of demand for motion pictures has been estimated in the United States to be 0.7 for 1950–80 (Coursey and Taylor 1982). The domestic price elasticity of supply has been set at 1, and the substitution elasticity at 5 (to reflect the plausibly high degree of substitution between French and American films). As a result, elasticities of 0.7, 1, and 5 (for demand, supply, and substitution, respectively) have been used to estimate the costs of protection.

Case 21: Passenger Air Transport

This case deals only with passenger air transport.³⁹ The European air transport market is generally divided into “scheduled” and “charter” (non-scheduled) flights or routes (for a detailed legal analysis of the EC situation until the mid-1990s, see Eeckhout 1994). The division dates back to the 1950s, when a few EC member-states (mostly Austria, Germany, Sweden, and Britain) allowed market forces to play a dominant role on a very limited number of “charter” routes almost exclusively devoted to tourists, such as Mediterranean islands (McGowan and Trengove 1986).⁴⁰ By contrast, “scheduled” passenger air transport was completely protected through route duopolies granted to “flag” (national) carriers, which were often publicly owned. Each route monopoly was based on a bilateral agreement sharing the scheduled route between the flag carriers based at the two ends of the route, generally on a 50–50 basis, in accordance with the complex set of rules drawn up by the 1944 Chicago Conference.

In the mid-1980s, the charter market represented 50 percent of the total EC air passenger market (in number of passengers). Despite its size, it exerted almost no competitive pressure on scheduled markets because routes and operating airlines were completely different: prices in EC charter markets were estimated to be close to US prices for similar routes and conditions, whereas prices on EC scheduled routes were estimated to be 45 to 75 percent higher than US prices for similar routes (McGowan and Trengove 1986). These percentages can be interpreted as estimates of the

39. EC freight air transport has been liberalized since 1991. Air cargo is liberalized to the extent that there is no direct governmental intervention in pricing and services, but there is no “international” liberalization in the sense that only EC carriers can compete (although foreign carriers operate through EC-controlled associate companies). Of course, a host of indirect barriers can be imposed (through airport availability under rules about noise, timing, etc.).

40. Charter carriers have a lot of flexibility in terms of ownership. Several British charter carriers were owned by foreign capital (Swiss and Canadian).

Table A.11a Case 21: Legal framework of EC liberalization in airlines

Year/ reference	Nature	Content
1981		British White Paper on Airline Competition Policy
1984		Britain-Netherlands bilateral agreement
87.3975	MRA/harmonization	First package: Application of competition rules to air transport ^a
87.3976	Liberalization	First package: Application of the treaty to certain categories of agreements and practices ^a
87.601	Liberalization	First package: Directive on air fares
87.602	Liberalization	First package: Capacity sharing and market access ^b
89.2299		Computer reservations systems (CRSs) ^c
90.2342	MRA/harmonization	Second package: Air fares ^c
90.2343	MRA/harmonization	Second package: Market access ^c
90.2344	MRA/harmonization	Second package: Application of the Treaty to certain categories of agreements and practices ^a
91.294	MRA/harmonization	Air cargo (freight and mail) liberalization ^c
92.2407	Liberalization	Third package: Licensing of air carriers ^c
92.2408	MRA/harmonization	Third package: Market access ^c
92.2409	Liberalization	Third package: Air fares and rates ^c
93.95		Slot allocation and airport scheduling arrangements ^c
93.3089		Computer reservation systems (CRSs) ^c

EC = European Community.
MRA = mutual recognition agreement

- a. Council recommendation.
- b. Council decision.
- c. Council regulation.

range of the ad valorem tariff equivalents of the protection granted to EC flag carriers on scheduled routes in the mid-1980s.

Since the mid-1980s, EC passenger air transport has been subject to a lengthy process of liberalization, which table A.11a summarizes. The process started in Britain, marked by the Civil Aviation Authority Review and the White Paper on Airline Competition Policy (1984) and by the privatization of British Airways (1987). In 1984–85, bilateral air services agreements, mostly between Britain and other EC member-states, expanded the liberalization process to a limited number of intra-EC scheduled routes (e.g., London-Dublin or London-Amsterdam). These routes were opened to non-flag carriers (governments agreed to restrain their intervention in terms of “designation,” i.e., in terms of designat-

ing an airline to operate a route) and fares became less firmly fixed by governments.

The success of these bilateral liberalizations helped to launch the progressive liberalization of the whole Community (plus Iceland, Norway and Switzerland). In what follows, there are three types of markets to consider: extra-EC markets (between an EC member-state and a non-EC country), intra-EC markets (between two member-states), and intra-EC member-state (hereafter, intra-MS) markets (i.e., the domestic market of a member-state). The intra-EC liberalization takes the form of three successive “packages” of measures. But it is only the third package that introduced (1) an effective plurilateral (EC-wide) regime of air transport regulation (instead of a network of bilateral agreements) including intra-MS traffic, and (2) the definition of a “Community air carrier.”⁴¹ This progressivity implied that EC flag carriers were diversely affected by the EC packages because of their different initial mix of the three markets; for instance, in the early 1990s, the share of *intra*-MS and intra-EC ranged from 80 percent of airline revenue (for the Scandinavian airline SAS) to less than 30 percent (for the Dutch airline KLM), and the share of the intra-MS market alone ranged from 40 percent of airline revenues (Iberia, the Spanish flag carrier) to zero (KLM).

Table A.11b presents the existing legal situation in more detail. It shows that, for EC carriers, few regulatory constraints remain on intra-EC routes and (only since April 1997, except for member-states having used the freedom to open routes in advance) on intra-MS routes. In both cases, carriers decide the routes to operate on a commercial basis (free entry); their decisions about seat capacity and pricing are free from government intervention (except, in the case of pricing, if “unfair” practices are observed; in such cases, member-states or the Commission can take appropriate action; but so far there have been very few such actions).

Table A.11a shows that new Community rules and EC-based competition cases have faced increasing difficulties in two key markets closely related to passenger air transport. First, travel agents are using computer reservation systems (CRSs) to pick up, book, and sell tickets to travelers (tourists and businesspeople alike). In the 1987 *Ahmed Saeed* case, the Court of Justice found legal the practice of cross-border ticketing (the fact that a travel agent purchases tickets for a specific cross-border route in the cheaper directional market). However, since then, EC air carriers have successfully inhibited wide use of arbitrage in ticketing (generally with member-state support). Second, EC airports constitute particularly severe entry barriers: The few large EC airports are congested, relatively close to each other, and connected to each other in a very inefficient way. For all

41. According to OECD (1988), these bilateral liberalizations led to a 3–5 percent increase in passengers, higher regular fares, and much lower charter fares.

Table A.11b Case 21: Overview of “building blocks” of competition in air transport

Building block	EC: International scheduled passenger transport		EC: Intra-EC air transport
	Fare type	Percent of reference fare	Approval conditions
Fares	Fully flexible Normal economy Discount Deep discount All others	>106 95–105 80–94 30–79	All fares Free pricing, except member-state or Commission's actions against: (1) “excessive basic” fares (2) “sustained downward development”
Designation		Multiple designation allowed by a member-state if 100,000 passengers or 600 round-trip flights	No longer applicable
Capacity		Capacity shares of a member-state of up to 60 percent Capacity can be increased by 7.5 percent a year	Unrestricted
Route access		3rd/4th freedom between all airports 5th freedom allowed up to 50 percent of capacity Public service obligations Protection for new regional routes Scope for traffic distribution rules Restrictions related to congestion and environmental protection A 3rd/4th freedom can be matched by an airline from the other member-state	Full access to intra-EC routes Cabotage unrestricted (April 1997) Public service obligations Protection for new regional routes Scope for traffic distribution rules Restrictions related to congestion and environmental protection

Competition rules	<p>Group exemptions regarding:</p> <ol style="list-style-type: none"> 1. Some capacity coordinations 2. Tariff consultations 3. Slot allocations at airports 4. Common "computer reservation systems" 5. Ground handling of aircraft, freight, and passengers; inflight catering 	<p>Group exemptions regarding:</p> <ol style="list-style-type: none"> 1. Some capacity coordinations 2. Tariff consultations 3. Slot allocations at airports 4. Common "computer reservation systems" 5. Joint operations of new thin routes
Licensing of air carriers	<p>Full freedom to start an airline: uniform conditions across EC Concept of Community ownership and control Specified requirements for financial fitness Small carriers subject to looser regulatory requirements</p>	
Air cargo	<p>Free access (except cabotage) and free pricing</p>	

EC = European Community.

Source: Adapted from *Single Market Review 1997a*, 20.

these reasons, the relatively inert allocation of airport slots tends to perpetuate the situation that existed during the regulatory period.

EC competition policy on air transport deserves a few specific remarks. Sixteen years of legal battles and a ruling of the Court of Justice (in 1974) were necessary to put air transport within the reach of Articles 85 and 86 of the Treaty of Rome. However, this effort has been severely hampered by three factors: (1) "Block exemptions" from competition rules were granted to CRSs, to tariff consultations for the scheduled carriage of passengers and frequent flyer programs, and to slot allocation and airport scheduling. (2) All the mergers in the airline sector so far have been accepted by the Commission (in sharp contrast with audiovisuals; see case 20)—even when the merger in question resulted in high market shares on certain routes or airports. (3) Last but not least, EC competition policy includes disciplines on subsidies (state aid).

This last aspect deserves some comment because the mid-1990s witnessed a surge in state aid (only Lufthansa—to a certain extent—and Luxair did not benefit from state aid). The amount of aid was often huge—on average, 15 percent of operating revenues (the estimate is based on data provided by Single Market Review 1997a, 26–28). When trying to limit this state aid, the Commission imposed many conditions, which turn out to have been quasi-anticompetitive devices. For instance, out of the 16 conditions under which the Commission authorized the €3 billion French aid to Air France (in 1994), several were ultimately blatantly anticompetitive: the prohibition to increase the number of planes above a threshold of 146 units until 1996, the imposition of various sets of quotas on Air France's traffic on European routes (a kind of "[in]voluntary export restraints," including annual growth rates), the prohibition on Air France charging tariffs lower than its competitors' tariffs, and similar provisions for Air Charter (the Air France charter subsidiary). No official detailed information on the monitoring of these drastic conditions is available.

In sum, passenger air transport liberalization in the EC has been a mix of pro- and anticompetitive provisions and measures. It is not astonishing that the result is quite mixed: if in 1997 the routes with more than two carriers represented 10 percent of all the cross-border EC routes, compared to 2 percent in 1992, they have brought an additional decrease of only 5–10 percentage points of the airfares observed for the routes under the traditional duopoly situation (WTO, *Trade Policy Review: The European Union*, 2000, 133–34). This positive outcome may be threatened by the beginning of consolidation through alliances that can already be observed in the EC passenger air transport sector. Meanwhile, technical regulations have been made stricter (e.g., the use of hush kits in old aircrafts), and airports have been shown to develop highly discriminatory pricing policies (equivalent to ad valorem tariffs of 40–50 percent) in favor of the flag carrier.

Notes

In 1990, there was almost no liberalization. As tested by Marin (1994), the first package did not make any noticeable impact during the period 1982–89 (the only source of liberalization being bilateral treaties on some European routes). As a result, it seems reasonable to aggregate both intra-EC and extra-EC markets as “foreign” markets for member-state flag carriers.

Balance of payments data have been used for estimating the size of the “foreign” air market. The European Commission (1995) provides intra-EC and extra-EC exports and imports data for the whole EC (hence, limiting the problem of double counting as much as possible). Of course, such data do not make any distinction between scheduled and charter flights; but the assumption that German air travelers do not use British charters seems an acceptable approximation for the early 1990s (as seen above, in the *Ahmed Saeed* case).

Estimating a “domestic” air market has two aspects. First, there are the flights to and from foreign destinations for travelers of the same nationality as the flag carrier in question. This component can be estimated on the basis that flag carriers tended to have slightly more than 50 percent of the international air flights connected to their countries; what follows assumes that this first component of EC flag carriers represents 1.05 times the size of the intra-EC and extra-EC markets, as defined above. Second, there are the flights corresponding to the *intra-MS* market, *stricto sensu*, which are estimated on the basis of the proportion of revenues accruing to the involved member-state flag carrier; this would amount to 10 percent of all EC flag carrier revenues.

The last step is to provide a reasonable “guesstimate” of the rate of protection. Taking into account the almost endless capacity for price discrimination in the airline business, such a rate could give only an order of magnitude. In what follows, it is defined as the differentials between the intra-MS fully flexible fare on the one hand, and the intra- or extra-EC corresponding fares on the other hand. The absence of a single EC market would require measuring such differentials for each member-state. What follows has used a simpler method consisting of measuring these differentials only for Britain (the least distorted market). This method suggests an estimate of 71 percent, on the basis of data provided by the Single Market Review (1997a, 184–87).

The literature suggests a total-price demand elasticity ranging from 0.2 (for business travelers) to 0.4 (pleasure travelers) (Morrison and Winston 1986). There is no estimate of the supply price elasticity and of the elasticity of substitution between domestic and foreign air carriers. Because business travel is dominant in the EC scheduled market, elasticities of 0.3, 0.5, and 0.4 (for demand, supply, and substitution, respectively) have been used to estimate the costs of protection.

Case 22: Telecommunications

Assessing the costs of protection in EC telecommunications (hereafter, telecoms) is as difficult as in air transport, for three reasons. Telecom regulations have an impact on the level of efficiency of the markets unsurpassed in other service sectors, except perhaps financial services. Telecom services can be subject to almost endless differentiation, if regulations permit. And there is no such a thing as a country that has fully liberalized its telecoms and that consequently could be used as an unequivocal benchmark for assessing the costs of protection in the EC. For instance, as stressed by Crandall (1997), US liberalization, although it started in the 1950s, is far from complete. Competition has developed in the long-distance markets through a combination of rules and a series of accidents, and the 1996 US Telecommunications Act—aiming to create a framework for global competition—has been caught in long legal battles.

As a result, the approach adopted in this case study is modest. It aims to assess the costs of having *delayed* the introduction in the EC of the dose of competition that Finland, Sweden, and Britain have imposed in their telecom sectors.⁴² In other words, the costs of protection are estimated on the basis of the wedge between average British-Finnish-Swedish (BFS) *prices* and EC *prices* in telecoms. Such an approach goes far to estimate the costs of protection on the same basis as cases about goods—where benchmarks consist of fully liberalized and efficient foreign industries. As explained below, the British liberalization in telecoms has been subject to a trial-and-error learning process in key aspects—meaning that, by the early 1990s, British prices were still far out of touch with costs, and that cross-subsidies (in particular, transfers from nonlocal calls to local calls) were still large. Finnish and Swedish liberalizations have also been specific enough to leave doubts about their price-cost alignment.

Despite its imperfections, the British liberalization opened the path to EC regulatory reforms in telecoms (for a detailed legal history until the mid-1990s, see Eeckhout 1994). Table A.12a presents the 36 most important EC Directives and legal documents that are the sources of these reforms (out of a total of 117 texts, as of January 1999). One can distinguish three successive steps in EC liberalization. The first step was opening markets for telecom equipment and decoupling the strong links between European Public Telecom Operators (PTOs) and domestic equipment

42. Excluding the Finnish and Swedish experiences would have decreased the estimated price wedge by roughly 10 percent. On the one hand, it is correct that these two experiences involve countries that were not member-states in 1990 and, more important, that have very particular geographical size, population concentrations, etc. On the other hand, the current liberalization in the EC shows the key role of Finnish and Swedish firms as entrants promoting competition (e.g., Tele2 has entered the French market on an offer of half the existing price, i.e., a price decline equal to all the price decreases of the previous three to four years).

Table A.12a Case 22: Legal framework of EC liberalization in telecommunications: Selected directives and documents

Year and reference	Scope (regulation)	Nature	Content
1981			<i>British Telecommunications Act</i>
1987			<i>Commission Green Paper on European Telecommunications services and equipment</i>
87.372	Services	MRA	Harmonized frequencies for global system for mobile communications (GSM)
88.301	Goods	Liberalization	Competition for terminal equipment ^a
90.387	ONP	Liberalization	Harmonized conditions for open access to public telecom networks and services ("Open Network" or "Framework" Directive)
90.388	Services	Liberalization	Competition for telecom value added and data services on wired infrastructures ("Services" Directive) ^a
90.544	Services	MRA	Harmonized frequencies for the European Digital Radio-Messaging System (ERMES)
1990			<i>Commission Green Paper on Satellite Communications</i>
1991			<i>Judgment of the Court of Justice (French Government vs. Commission), 19 March 1991</i>
91.263	Goods	MRA	Mutual recognition of tests and approvals for terminal equipment (modifies Directive 86.361)
91.287	Services	MRA	Harmonized frequency for Digital European Cordless Telephone (DECT)
1991			<i>General Guidelines on the application of the treaty's Competition Rules in the Telecommunications Sector</i>
91.396	Services	MRA	Adoption of a unique European emergency phone number ("112")
92.264	Services	MRA	Adoption of the standard international prefix ("00")
92.044	ONP	Liberalization	Application of open network provision to leased lines
1992			<i>Judgment of the Court of Justice (Spanish Government and others vs. Commission), 17 November 1992</i>
1993			<i>Council resolution to extend competition to all telecommunications services from 1 January 1998</i>
93.097	Goods	MRA	Mutual recognition for ground station equipment for satellite communications (supplements Directive 91.263)
94.046	Services	Liberalization	Competition for satellite services (modifies Directives 88.301 and 90.388)

(table continues next page)

Table A.12a Case 22 (continued)

Year and reference	Scope (regulation)	Nature	Content
<i>1994</i>			<i>Commission Green Paper on Mobile and Personal Communications</i>
<i>1994–95</i>			<i>Commission Green Papers on Infrastructure and Cable TV Network Liberalization</i>
95.046	Services	Protective regulation	Protection of processing personal data and the free movement of such data
95.051	Services	Liberalization	Authorization to use cable TV networks for carrying services liberalized under Directive 90.388 (“Cable” Directive)
95.062	ONP	Liberalization	Application of open network provision to voice telephony
96.002	Services	Liberalization	Competition for personal mobile telephones (modifies Directive 90.388)
96.019	Services	Liberalization	Competition for all telecom services (including voice telephony) and infrastructure (“Full Competition” Directive) ^b
97.013	Services	Liberalization	Harmonized framework for general authorizations and individual licenses in telecom services (“License” Directive)
97.033	ONP	Liberalization	Harmonized framework for interconnection and universal service (“Interconnection” Directive)
97.051	ONP	Liberalization	Competition for leased lines (modifies Directives 90.387 and 92.044) ^c
97.066	Services	Protective regulation	Protection of personal data and privacy in the telecom sector
<i>1997</i>			<i>Adoption of WTO Agreement on Basic Telecommunications Services^a</i>
98.010	Services	Liberalization	Application of open network provision to voice telephony and universal service
98.013	Goods	MRA	Mutual recognition of conformity for terminal equipment and satellites
<i>1998</i>			<i>Guidelines on Application of Competition Rules to “Access Agreements” in telecommunications sector</i>
98.061	ONP	Liberalization	Harmonized number portability and carrier preselection (amends Directive 97.033)

MRAs = mutual recognition agreements

ONP = Open Network Provision.

Note: Legal sources other than Council or Commission Directives are in italics.

a. Commission Directive under Article 90.

b. Derogation for 2003 for Greece, Ireland, Luxembourg, Portugal, and Spain.

c. Parts of the Directive can be transposed until October 2000.

Source: European Commission, *Status Report on EU Telecommunications Policy*, 1998

manufacturers: that has required a series of “mutual recognition agreements” (MRAs). The second step of EC liberalization was introducing competition in “new” telecom services rather than in infrastructure. This move also requires MRAs, but in services, such as the adoption of a unique emergency phone number or prefixes to Europeanwide definitions of frequency bands. The last step was opening all markets (including voice telephony) through a series of “open network provision” directives aimed at making transparent and nondiscriminatory the access of entrants (eager to compete for services) to incumbents’ telecom structures (the “interconnection” issue, which is still far from being satisfactorily solved, see below).

Table A.12a provides two useful lessons. First, almost a decade separates the EC ONP Framework Directive (1990), the first major EC step toward services liberalization, from the Telecommunications Act (1981) launching the British liberalization. This long delay was imposed by powerful Continental PTOs reluctant to abandon their monopoly position. But it was, to a certain extent, useful because it allowed the EC to benefit from the British efforts. The “duopoly” policy in long-distance services (based on privatized British Telecom, or BT, and private Mercury) followed by Britain between 1983 and 1991 proved to provide a too limited impetus to competitive forces, despite the fact that Mercury was a subsidiary of Cable and Wireless (an heir of the British imperial telecom network, with anchors all around the world).⁴³ In many respects, these remarks imply that assessing the costs of protection in EC telecoms by using the British-Finnish-Swedish (BFS) benchmark tends to *underestimate* the gains from full liberalization (as shown below).

Second, as underlined by Waverman and Sirel (1997), the initial British focus was on liberalization and competition for telecom *infrastructure* rather than for telecom *services*. This focus was fueled by the dominant perception in Britain of the technical backwardness of the British telecom system in the early 1980s. It has drawn British liberalization somewhat away from what later became the EC focus (which was possible because Continental networks in the early 1990s were better developed than the British network in the early 1980s): providing interconnection at cost and reselling existing capacities. It has also given a special shape to the British telecom sector—in particular, with strong competition between BT and cable TV operators for local calls. In many respects, these remarks imply that assessing the costs of protection in EC telecoms by using the BFS benchmark tends to *underestimate* the gains from full liberalization.

43. In 1983, a “price-cap” regime was introduced in order to improve the functioning of the duopoly, but at the cost of increased regulations. Ex ante mandatory decreases of the real prices of telecom services have been imposed and monitored by a powerful regulatory body (OFTTEL).

Table A.12b Case 22: A brief survey of the status of competition in EC telecoms, 1997–2001

	Competition with respect to PTOs				Digital mobile telecoms		
	Market shares of new operators ^a				Number of licensed operators (2001)	Market share of two largest operators (2000)	Restriction on foreign ownership (2001)
	Number of PSTNs (2001)	Local (1999)	National (1999)	International (1999)			
1	2	3	4	5	6	7	
Austria	65	1.8	15.0	n.a.	4	89	no
Belgium	19	0.0	n.a.	n.a.	3	98	no
Britain	487	15.4	n.a.	54.6	5	59	no
Denmark	n.a.	0.4	n.a.	43.7	4	82	no
Finland	126	0.4	62.1	48.5	4	99	no
France	49	0.0	20.0	27.1	3	84	20 percent ^d
Germany	173	1.0	40.0	40.0	4	85	no
Greece ^e	1	0.0	0.0	0.0	3	73	no
Ireland	46	2.4	n.a.	n.a.	3	100	no
Italy	n.a.	0.0	15.0	32.0	n.a.	95	no
Luxembourg	9	0.0	n.a.	n.a.	2	100	no
Netherlands	n.a.	0.1	16.0	15.0	5	85	no
Portugal	19	0.0	0.0	0.0	3	81	no
Spain	75	1.7	14.3	12.9	3	94	10 percent ^e
Sweden	30	1.0	14.0	38.0	4	83	no

n.a. = not available

AIC = average incremental cost

EDC = embedded direct costs

FDC = fully distributed costs

LRAIC = long-run average incremental cost

LRIC = long-run incremental costs

nyop = not yet operational

PSTNs = public switched telephone networks

PTOs = public telecom operators

The second lesson to be drawn from table A.12a is that the EC liberalization process has just started. The bulk of the EC liberalization effort was designed in the mid-1990s, but its implementation by member-states started only in the late 1990s, as is best illustrated by the Full Competition Directive, adopted in 1996 and enforced only since January 1998. If a noticeable portion of EC mobile telephones and data communications was opened by 1995, competition based on leased lines and PTO infrastructure started only in 1998, which happens to be the pivotal year for most of the OECD countries and the EC. The index (100 for 900) of total (fixed plus usage) telephone charges in the OECD countries was still at 94 (individuals) and 91 (business) in 1998 before declining to 83 and 68 respectively in 2000 (OECD 2001, 199). Price decreases show the same acceleration in the EC (European Commission 2000d).

De jure liberalization does not mean *effective* liberalization, as illustrated by table A.12b. Columns 1 to 7 show the main achievements of past liberalization. A large number of licensed telephone networks (PSTNs) are now operating in most of the EC member-states and substantial market shares have been taken by entrants in a handful of EC member-states (Denmark, Finland, Germany, Sweden, and Britain). However, local telephone mar-

			Price for a 10-minute call (in August)					
Local access: Local loop unbundling		Planned cost method for inter- connection charges	Local call		Intra-EC calls		EC to US calls	
Status (September 2000)	Year of full access ^b		Euros (2000)	Change (percent) (2000/ 1997)	Euros (2000)	Change (percent) (2000/ 1997)	Euros (2000)	Change (percent) (2000/ 1997)
8	9	10	11	12	13	14	15	16
yes	1999	FDC	64	31	310	-47	430	-53
no	(2001)	FDC	52	-10	470	-1	630	-21
nyop	(2000)	LRIC/FDC	56	0	400	0	330	0
yes	1998	FDC	33	9	170	-28	380	-30
yes	1996	Company specific	19	5	160	-28	500	-32
no	(2001)		FDC	42	-7	250	-44	250
yes	1998	LRAIC	43	1	250	-50	250	-67
no		FDC	41	96	430	-39	430	-53
no		FDC	55	-13	170	-50	320	-37
nyop	(2000)	FDC	29	7	320	-45	320	-62
no		FDC	39	0	210	-54	210	-72
yes	2000	EDC	32	-13	80	-85	80	-91
no		FDC	33	-13	450	-44	520	-55
no	(2001)	Multistandard	35	42	460	-24	540	-31
no	(2000)		AIC	28	17	100	-51	100

a. Share of switched minutes (percent).

b. Years for scheduled access are in parentheses.

c. Monopoly until 2001.

d. Restrictions on companies outside the European Economic Area for mobile phones.

e. Administrative authorization for acquiring more than 10 percent of Telefonica equity.

Sources: European Commission (2000d); OECD (2001).

kets remain almost completely protected in all the member-states (except Britain, to some extent). Similarly, all the EC member-states have at least three digital mobile phone operators, which have been a powerful source of competition for incumbent PTOs during the last three years. However, most EC mobile markets are still based on duopoly (as shown by the cumulated market share of the two largest mobile operators), except in Britain. Lastly, there is a remarkable absence of restrictions on foreign direct investment, except in France and, to a lesser extent, in Spain.

By contrast, columns 8 to 10 of table A.12b illustrate the pending issues that are crucial for the future success of the Internet in the EC. In early 2001, local access (local loop unbundling) was still not available, de jure or de facto, in most EC member-states, a situation that has induced the Commission to propose replacing 28 existing legal measures with 5 new directives (a new Framework directive and directives on authorization, access and interconnection, universal service, and data protection) coupled with a regulation on the unbundling of the local loop. Even more worrisome is the fact that the most common method for calculating the interconnection charges is FDC (fully distributed costs). The FDC method is often known to lead to prices that are at least 10 percent higher than those

based on the more economically sound pricing method of long-run incremental costs (LRIC). This choice may be a substantial source of potential competitive distortions in EC telecom markets in the future.

Lastly, columns 11 to 16 of table A.12b provide information on the average prices for a 10-minute call (local, intra-EC, and EC to the United States) in August 2000 in the EC member-states and on their rate of decline between August 1997 and 2000 (it should be noted that the average EC price of a call from the EC to the United States is still higher than the price of the corresponding call from the United States to EC). These price evolutions reflect the mix of ongoing liberalizations and remaining obstacles. It is interesting to note that the price wedge between the BFS group and the rest of the EC may have slightly declined to 17–35 percent, compared to the wedge of the early and mid-1990s. But that is due to Britain: the price wedge between Finland and Sweden on the one hand and the rest of the EC on the other hand remains within the range of 20 to 135 percent, showing little sign that the rest of the EC is catching up with these two leading member-states.

The last two years show that governments and national regulatory agencies (NRAs) still have a heavy hand in markets. First, governments (not NRAs) are still involved in granting licenses (France and Germany) or in pricing controls (France and Spain). Second, NRAs dominate spectrum allocation and interconnection, as well as pricing controls (and their role will be enhanced by the 5 new directives mentioned above). If free individual negotiations on interconnection agreements are almost the rule, NRAs have considerable freedom to intervene (either directly or through review) in these contracts, which, in accordance to EC directives, should be based on costs plus benchmarks, although so far the EC has said little concrete on benchmarks. In sum, there are still noticeable risks of public intervention, all the more because the privatization process is far from completed in many member-states (Austria, Belgium, Finland, France, Germany, Greece, Luxembourg, the Netherlands, and Sweden) and because in almost all member-states, bodies of appeal are administrative courts that are particularly badly equipped to address the issues raised by the transition to a market-based environment.

The fact that telecoms are regulation-intensive multiplies the sources of potential conflict. For instance, equal access (consumers can select the carrier that will deliver calls to their final destination by dialing the same number of digits irrespective of the carrier's identity) can allow discriminatory treatment (for instance, in favor of network-based operators in Britain). Or there is the problem of being entrenched in legal battles (e.g., in France, the one-digit approach adopted for "national" operators implicitly meant that the authorities did not expect more than seven competitors, strongly underestimating the number of potential competitors). Another important pending issue is the coverage of the universal service concept in the EC. Its definition is potentially wider than in the United States, and

member-states have a large degree of freedom for implementing it; for instance, the costs of the universal service fund were nil in Britain but have reached a peak of roughly €665 million in France since 1998.

All these observations lead to two concluding remarks. First, the future evolution of the EC liberalization in telecom services relies on the answer to a basic question: what is the Community's desired trade-off between market integration and intensity of competition? As stressed by Grout (1996), telecom services are the realm of differentiation at a time of huge technological progress; these forces push for price discrimination—therefore they should induce regulators to allow for maximum flexibility, hence for price discrimination between member-states. But to many European people, price discrimination is antagonistic to European integration. This key issue has been already raised in relation to goods within the context of the use of Article 30 and of the communitarization of EC trade policy.

The second remark concerns EC commitments in the WTO Telecommunications Agreement. At first glance, the EC final offer is very liberal: all services are open on a facilities and resale basis, with a few short delays (most of them only until 2000, except for Greece, until 2001).⁴⁴ However, table A.12b suggests viewing the liberality of these commitments with some caution. EC member-states still have enough regulatory discretion to restrain competition from non-EC firms. They are unlikely to use this power to block foreign entry completely. But they can use it to negotiate “reciprocal” entries from trading partners, or to force foreign firms to make joint ventures with domestic entrants, instead of entering the member-state market alone.

Notes

The following estimates of the costs of protection in the EC rely on two working hypotheses. First, as mentioned at the beginning of this case, costs of protection are assessed with respect to a “competitive” benchmark “country” (an aggregate of Finland, Sweden, and Britain), despite the fact that trials and errors in regulatory reform in these three countries may have limited the gains to be expected from full liberalization. This implies that the estimated costs of protection are likely to be underestimated—or, alternatively, our approach recognizes the fact that optimal regulations are not provided free of charge, without a costly trial and error process.

The second working hypothesis is that *all* (local, long distance, domestic, and international) telecom services are taken into account. Under pre-

44. Except the severe restraints related to broadcasting or the stringent restrictions on foreign-equity limits, with two member-states (France and Portugal) imposing ceilings of 20 and 25 percent, respectively.

vious noncompetitive regimes, local calls (and fixed user charges) were systematically underpriced in relative terms, whereas nonlocal calls were always overpriced. As already mentioned, liberalizing telecom services imposes a rebalancing of prices between the former and latter calls. However, recent developments in telecom technology and competition suggest that even local calls will benefit from regulatory reform (this point was questioned a few years ago). On the basis of these hypotheses, the non-British EC telecom market in 1990 amounted to €62.7 billion. Using the import-export proportion of Eurostat estimates (unfortunately, based on balance of payments), extra-EC (non-British) imports and exports can be estimated at €3.2 billion and €3 billion, leaving an intra-EC (non-British) market of €56.5 billion.

The ad valorem equivalent of the protection granted to EC PTOs is mirrored by the price difference between call prices in member-states sticking to old regulatory regimes and call prices in the more competitively based regulatory framework introduced in Finland, Sweden, and Britain. The OECD regularly publishes access charges and expenses for a representative basket of phone calls. Data for 1990 suggest a price wedge on calls between the "BFS" reference and the other EC member-states of 45.2 percent. This figure has been taken as the ad valorem equivalent of the delayed liberalization of EC telecom.

Demand price elasticities of long-distance services vary from 0.25 to 1.2, depending on the type of services to be provided (Hausman, Tardiff, and Belinfante 1993), with 0.7 as the most frequent estimate (Crandall and Waverman 1996, 162). For nonlocal calls, authors tend to choose price elasticities in the upper range: from 0.49 (suggested as a short-run estimate; Kahai, Kaserman, and Mayo 1996), to 0.4 (national long-distance calls) or 0.6 (international calls) (OFTTEL 1995), to near unity (Waverman and Sirel 1998). Domestic supply price elasticity has been estimated only once; the available estimate of 4.48 (Kahai, Kaserman, and Mayo 1996) for fringe suppliers seems reasonable when one considers that a majority of EC member-states enjoy large available infrastructures (if one includes those owned by railways, electricity companies, etc.) and that new entrants' market shares have increased from 0 to 60 percent in certain cases. However, a supply elasticity of 2 has been used, to remain on the safe side. Last, it has seemed reasonable to adopt a substantial elasticity of substitution of 3. As a result, elasticities of 0.8, 2, and 3 (for demand, supply, and substitution, respectively) have been used to estimate the costs of protection.