

**The Political Economy of Central European Trade with the
European Community: Why so Sensitive?
Comment to J. Rollo and A. Smith**

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This paper provides a careful but debatable account of the welfare effects of partial trade liberalization with the East. It focuses on the question of how output and welfare in sensitive sectors in the West will be affected by a substantial increase in trade. They consider a doubling of agricultural imports from the East and a 400% unilateral increase of sensitive manufactured goods from the East.

Only in the case of agricultural imports do the authors find substantial effects on the West. The quantity supplied to the Western European markets increases by between 1 and 8%, depending on the product categories. If agricultural prices are allowed to change, welfare in the West increases by 2% of current consumption. With manufactured goods, the relative output changes are much more moderate, and while there may be welfare gains, these are negligible by any standard. In the aggregate, they are no more than 0.3% of aggregate consumption.

I found these results in conflict with my prior, that trade liberalization with the East was a major event in Europe's history, and this leads me to question some aspects of the calculations.

First, the models used for agriculture and manufacturing are strikingly different. The first model, designed by Thompson in Aberdeen, is a conventional partial equilibrium model of the agricultural sector where cost functions are well-behaved and private agents are neoclassical optimizers. The second model, also a partial equilibrium exercise, assumes increasing returns to scale. In this context, adding welfare measures generated from different partial equilibrium models is somewhat heroic. The authors could have specified a general equilibrium model with both agricultural and manufacturing sectors. My conjecture is that smaller welfare differences across sectors would then obtain.

Second, potential exports to the East are not considered. In particular, the welfare effects in manufacturing could change significantly if some Western European sectors are allowed to expand their production. This expansion may create welfare gains that outweigh the losses from output reductions in the import-competing sectors.

Third, with increasing returns to scale (and markup pricing), a crowding out of domestic production increases the resource cost of national consumption. Such a cost increase can easily absorb most of the consumers' gains associated with lower prices. Accordingly, the assumptions of increasing returns to scale and markup pricing are central and should be justified.

Also, if Western firms really operated under increasing returns to scale, then we should not worry about trading with the East. It would

be much better if all the people from the East came to the West to exploit the returns to scale where they are available.

This brings me to the issue of migration. It is worth stressing that the more restrictions on East–West trade the European Community imposes, the larger is the incentive to migrate to the West. Factor price equalization will occur one way or another, via the movement of commodities or via the movement of people.

Currently, the annual migration into Germany is close to 1% of its Western population, or about 600,000 people, three times as much as Germany's internal East–West migration. Such a movement has not been observed in the last 1,000 years, and it is threatening the stability of the West. Germany will presumably react by imitating the restrictive immigration laws of its neighbours, but this is clearly a second-best policy option. The first-best policy would be to allow a perfect and rapid trade liberalization with the countries of the East. This policy would create jobs and general prosperity in the East, and it would also reduce the flood of migrants to more moderate levels. Unfortunately the Europe Agreements give little hope that such a solution will be available in the foreseeable future. The political risks of a continuation of trade restrictions and the imposition of immigration constraints are enormous.

The people of the East are willing to bear the hardships involved in a successful transition from communism to market economies. However, their patience is not infinite. If the current economic collapse continues and the economies of Eastern Europe do not enter a self-sustained growth process in the next few years, new nationalist movements may gain power which will then experiment with some new form of centralized decision-making or even dictatorship. This would be the end of the reform process, and it would endanger peace and prosperity in Europe as a whole. Western Europe would again be forced to increase its military spending, borders would have to be closed and the cold war would return. All of this would create huge welfare losses for the West which dwarf the temporary difficulties some sensitive sectors might encounter.

Surely these effects are more relevant for welfare comparisons than the changes in the sums of consumer and producer rents which economic equilibrium models are able to estimate.

In this context, it is very important that, in the next few years, the EC makes an active attempt to create lucrative markets for the Polish, Czech and Hungarian firms and to generate a self-sustained upswing. If successful, this policy will not only create a safety belt for Western Europe which serves as a protection against political disturbances that may still arise in the former USSR. It will also serve as an example of

a successful transition from communism to capitalism which will create imitation effects throughout the East.

General discussion

A number of Panel members pondered the importance of trade liberalization for Eastern Europe. Olivier Blanchard argued that during the transition state-owned enterprises should be provided with a potential market; this, in his view, is central to undertaking the necessary process of sorting competitive enterprises from uncompetitive ones. Hans-Werner Sinn concurred, and argued that if enterprises in Eastern Europe were barred from EC markets, a pattern of trade and specialization would emerge across formerly planned economies. This trade pattern would then be disrupted again when EC markets were opened. Two waves of restructuring would result and this, in his view, is unnecessary. He added that trade liberalization was in any case unavoidable because of the threat of migration. David Begg disagreed and suggested that if the European experience of migration between the South and the North of Europe in the 1950s is of any guidance, then current wage differentials between Eastern and Western Europe should not trigger migration in excess of some 5% of the labour force. This, in turn, accounts for less than 1.5% of the labour force in the EC and EFTA combined. Alasdair Smith concurred and suggested that large-scale migration was unlikely as long as living conditions were reasonably stable. This presumption, which is supported by observed migration behaviour in Europe and Mexico, suggests that potential migration from North Africa or the Western part of the former USSR is more threatening than that originating in Eastern Europe.

The restrictiveness of the agreements between the EC and Eastern European economies was emphasized. Richard Portes recalled that the Eastern European economies had committed themselves to adopt EC competition rules within three years. Paul Seabright insisted that these economies had also given up completely the right to impose tariffs against Community exports. He thought that the signalling effect of this decision on domestic firms in Eastern Europe should not be underestimated. Alan Winters also mentioned that safeguards in the agreements were particularly threatening and that for the first time in Community law these safeguards refer to disruption at the regional level.

What constituted a sensitive sector was also debated. Michael Burda argued that factor markets were the appropriate reference. Sectors where adjustment costs are high because of specific human capital might

thus appropriately be seen as sensitive. Winters suggested that wider political economy considerations should be taken into account; in particular, he thought that any liberalization granted to Eastern Europe would trigger a call for similar treatment from newly industrialized countries like Taiwan. Anticipating this prospect, the Community had probably been particularly restrictive in sectors where trade liberalization with the newly industrialized countries is contentious.

Appendix A. Trade regimes in sensitive products

Agriculture

The Common Agriculture Policy (CAP) is among the most protectionist agricultural regimes in the world. Consumers carry most of the costs of the regime (OECD, 1991) and non-tariff barriers reduce temperate agriculture imports very significantly. The basic form of frontier protection is the variable import levy which bridges the gap between offer prices at the frontier and support prices. This system applies to cereals, sugar, beef and milk products. A variant of it applies to pigs, poultry, meat and eggs, while fruit, vegetables and wine are subject to high tariffs (range, 15–30%) and minimum import prices. There are some products which were not part of the original CAP settlement and which have duties bound in GATT, notably sheep meat and oil seeds. When these were subsequently given full CAP-style protection the regimes were based on direct supplements to production in the form of production subsidies to bridge world and support prices. In the case of sheepmeat, there is a global voluntary export restraint (VER) which helps to curtail the tax-payer cost of such a regime.

The levies on raw materials are carried through to products. Thus biscuits, for example, carry an import levy based on cereal and sugar content. For some manufactured products with high CAP product content a high tariff is applied in place of a complex levy. Thus breads and pastries typically have tariffs in the range 50–80%; pastas in the range 20–45%; sugar confectionery 55–70% (Protocol 3 Annexe 2, Table 2, Association Agreement with Hungary).

The association agreement regimes for agriculture are based on levy or tariff quota concessions for major CAP products or tariff and levy concessions for manufactured goods. This leads to considerable complexity – a feature of highly protectionist trade regimes.

Manufactured foods have a separate protocol in each of the Europe Agreements. This sets out not only the quantities and duty concessions but also the basis on which the so-called mobile elements representing the levy on the CAP products are calculated and the rate at which they

can be run down. The protocol also allows substitution of a system of compensatory levies representing the difference in prices in the two markets and the abolition of tariff quotas should the Association Council so decide. The tariff quotas are calculated for some of the products by adding 10% in year 1, 20% in year 2 etc., up to 50% of 1990 imports in year 5 to the 1990 import figure. This applies to combined nomenclature headings 0710 (frozen vegetables), 1519 (fatty acids and alcohols), 1704 (sugar confectionery), 1803 (cocoa paste), 1901 (malt extract), 1902 (pasta), 1903 (tapioca), 1904 (cooked cereals), 1905 (bread etc.), 2001 (pickles), 2004 and 2005 (other frozen vegetables), 2101 (extracts of tea, coffee), 2103 (sauces), 2104 (broths), 2105 (ice cream), 2106 (food preparations), 2201 and 2202 (waters), 2203 (beers made from malt), 2205 (Vermouth etc.). This is clearly an arbitrary rule and in the light of the growth of manufactures generally (shown in Table 8) very restrictive.

The duty rates formulae laid down are complex and can consist of up to four elements: a base duty, a mobile element, a maximum *ad valorem* rate for the base plus the mobile element and an additional duty on sugar content. The behaviour of the full charge can therefore be difficult to predict. This opaque regime plus the apparently low rates of growth in tariff quotas suggests that the concessions are not very valuable.

The overall impact of agricultural protection and hence the value of concessions against the Eastern Europeans is difficult to calculate on a product-by-product basis. The quantities in receipt of these concessions are small relative to the EC market, however. As a guide to the overall level of agricultural protection against the Eastern Europeans, Messerlin (1992a) weighted the nominal protection coefficients for EC agriculture calculated by the OECD (OECD, 1991) by the Eastern European trade weights and arrived at an average of just over 100%. There is no reason to expect that the nominal protection facing Bulgaria and Romania will be less. Indeed the fact that, at the time of writing, the Bulgarians had refused to agree the EC offer on agriculture suggests that the Europe agreements for these countries are even more restrictive than those for Eastern Europe.

Iron and Steel

The association agreements led to an apparently significant liberalization of EC-Eastern European trade. From a position of facing a highly restrictive VER the Eastern Europeans have moved to one of facing no quantitative restrictions (QR) and tariffs which are initially low (average 4.8% for Eastern Europe, according to Messerlin, 1992b) and decline

to zero by the sixth year of the agreement. Superficially this seems a generally satisfactory outcome.

There are reasons, however, for expecting that EC-Eastern European trade will not be liberalized to the degree this might suggest. Most importantly, the EC industry has been in crisis since the 1970s, with strict market management under the auspices of the EC authorities (see Messerlin, 1992b, and Wang and Winters, 1992, for a full discussion). The impact of this was that the EC market was officially cartelized, with market shares determined by quota and prices set by the authorities. By the late 1980s the situation eased and the quantitative restrictions were removed and surveillance of monthly production and prices for particular products substituted. Price surveillance seems to be particularly important both in relation to domestic products and to imports. Messerlin (1992b, p. 90) has noted that despite a significant increase in the export quota to Eastern European producers in 1991, prices on the EC market have remained remarkably stable. From this he infers that the remaining price surveillance under ECSC rules, the increasing power of Eurofer – the EC producers organization – as a private cartel and the increasing EC share in ownership of Eastern European capacity all contribute to effective cartelization. In corroboration, Rollo (1992) reports discussions between Eurofer and CSFR steel producers on prices in 1992 after the interim trade agreements entered into force.

Messerlin, Rollo and Wang and Winters (1992) all warned of the deterrent effect of anti-dumping and safeguard provisions of the association agreements, not least in the steel sector, and their warnings have proved to be well-founded. In August 1992 the EC introduced safeguard measures in the form of quotas on CSFR exports of particular steel products into Germany, France and Italy (*Financial Times*, 19 August 1992, p. 2). Anti-dumping duties were raised on steel tubes from Eastern Europe and the former USSR in November 1992 (*Financial Times*, 20 November 1992, p. 6). Thus within six months of the Europe Agreements, QRs were back in evidence on EC-Eastern European trade. The strong implication is that despite specific prohibition of anti-competitive behaviour in the steel protocol and a proposed harmonization of general competition policy (see Messerlin, 1992b, for a discussion of the former and Rollo, 1992, for the latter), attempted cartelization of the Eastern European-EC trade is under way. It seems reasonable to assume, therefore, that price measures will continue to restrain trade between the Eastern Europeans and the EC despite the apparently liberal trade regime embodied in the association agreements. This judgement is reinforced by reports that there are special safeguard clauses for steel in the association agreements with Bulgaria and Romania.

Textiles and apparel

Until the entry into force of the association agreement rules in March 1992, trade in textiles and apparel between the EC and Eastern Europe was governed by quotas under the Multi-Fibre Arrangement and tariff concessions under GSP. The liberalization process set out in the association agreements with the Eastern Europeans is very simple. The MFA quotas will disappear at twice the rate set out in any general agreements to dismantle the MFA under the auspices of the Uruguay round negotiations, but before the end of a five-year period beginning 1 January 1993. Tariffs will be dismantled over six years from the entry into effect of the association agreement. The arrangements with Bulgaria and Romania are reportedly even less generous.

The degree of protection offered by the EC quotas and tariffs was significant. The average MFN tariff on textiles and apparel was 11.1% and 10.4% after allowing for the impact of GSP concessions granted in 1990 (Messerlin 1992b, Table 1.7). Information on the incidence and coverage of trade restrictions on Eastern European imports to the EC is given by Erzan and Holmes (1992).

As with steel, however, there must be doubts whether dismantling quotas and tariffs will lead to liberalized trade. Messerlin notes that bilateral agreements under MFA contained price constraints. Eastern European exports were not to be priced abnormally lower than the normal competitive level. The latter is defined in three possible ways – the price prevailing on the EC market; or the price generally charged by other exporting countries; or the lowest price charged under normal market conditions by another exporting country in the previous three months. These price rules bear a close resemblance to the tests applied to state trading countries under anti-dumping regulations. It is also worth noting that 70% of bilateral safeguard actions are brought by individual Member States under Article 115 of the Treaty of Rome have been on textiles and apparel. While such actions have diminished recently and are likely to be more difficult under single market rules, they do point to the prevalence of safeguards/anti-dumping psychology in the management of textiles trade.

The general safeguard clause in the association agreements, the maintenance of anti-dumping provisions in the association agreements plus the likelihood that the Community will demand a special safeguard clause for textiles in any negotiation over the precise pattern of the run down of MFA quotas, all suggest that price provisions will remain an important, if opaque, means of protection of EC textile and apparel producers. Thus, just as in steel, liberalization of textiles trade under the association agreements is likely to be less than promised at first sight.

Footwear

Footwear (Combined Nomenclature chapter 64) has been the subject of substantial non-tariff barriers (Winters, 1992b). The Europe agreements allow for the abolition of straightforward quota restrictions. They substitute a degressive tariff quota system in which tariffs go to zero over five years while the tariff-free quota is expanded over the same period (Winters, 1992 Figure 1). The existence of the tariff quotas, the five-year timetable and the history of NTBs in the sector all qualify footwear for *de facto* sensitive product status. The apparent shift to a more liberal regime under the Europe agreements may be illusory. The initial tariff quota for Hungary in the most important classification (6403) is only some 20% of actual trade in 1990. Any plausible liberalizing regime is thus going to leave considerable trade subject to tariffs throughout the transition period. At the same time the threat of anti-dumping and safeguards actions may be a significant deterrent to a rapid expansion of trade.

Chemicals

Chemicals are taken for these purposes to be inorganic and organic chemicals (chapters 28 and 29 in the Combined Nomenclature). The reason for classifying these as sensitive is less the fact that a number of chemicals are covered by ongoing tariff ceilings than their prevalence in EC anti-dumping cases against Eastern European countries in the 1980s. The Central and Eastern Europeans as a group attracted 64 out of 180 EC anti-dumping actions between 1980 and 1991. By industry, basic chemicals (ISIC 3511) attracted 26 actions and synthetic chemicals (ISIC 3513) one case out of the 64 cases against Eastern Europe. Total Eastern European cases against firms amounted to 34 out of which 19 were chemicals cases (Messerlin, 1992b, table 4.A2). From the same table of Messerlin (1992b) it is possible to compute the average anti-dumping duty in the chemicals cases from Eastern Europe as 15.4%. This represents a significant signal to Eastern European producers that the absence of overt protection is no guarantee of access.

Appendix B. The imperfect competition model

Each industry consists of a number of firms with economies of scale in production, selling varieties of a differentiated product in markets where prices are set independently. Demand for each product variety depends both on a price index for the whole product group and on the price of the individual variety relative to that price index. A firm

with a large market share has more influence on the aggregate product price and perceives a more inelastic demand. Firms have increasing returns to scale and set prices independently in each country. Even though many of the individual products of our three sectors are evidently intermediate goods, we model all demand as final demand. The initial equilibrium is one in which firms maximize profits and entry or exit has driven excess profits to zero.

Consumer preferences are modelled in the style of Dixit and Stiglitz (1977), which implies that demand for each product variety is a constant elasticity function of a price index for the whole product group and of the price of the individual variety relative to that price index

$$x_{ij} = a_{ij} p_j^{-\eta} (p_{ij}/P_j)^{-\epsilon} \quad (1)$$

where P_j is a function of all the individual variety prices, and where η , the elasticity of demand with respect to the price index (the 'product elasticity'), is smaller than ϵ , the elasticity with respect to the price of the individual variety (the 'variety elasticity'). Marginal revenue is

$$mr_{ij} = p_{ij}(1 - 1/e_{ij}) \quad (2)$$

where e_{ij} is the elasticity of demand perceived by the firm in this market. With firms making the Cournot assumption that other firms' outputs are given, the perceived inverse elasticity of demand is a weighted average of the inverses of the two elasticities in the demand function, with weights that depend of the firm's market share:

$$1/e_{ij} = s_{ij}(1/\eta) + (1 - s_{ij})(1/\epsilon) \quad (3)$$

where s_{ij} is firm i 's share of market j . Thus a firm with a large market share pays more attention to the product elasticity and perceives a less elastic demand.

Differences in firm sizes across countries are assumed to be accounted for by different numbers of product varieties produced by the different firms, and all firms are supposed to have the same output per variety in the initial equilibrium. There are no economies of scale at the level of product variety, but a form of cost function is chosen that allows firms to have both average and marginal cost decreasing in output per variety. Since firms have the same initial output per variety, firms in all countries start with the same degree of unexploited economies of scale.

Profit maximization implies that marginal cost is equal to marginal revenue, and Equation (1) then implies a simple but important relationship between the perceived elasticity of demand and the markup of price over marginal cost:

$$1/e_{ij} = (p_{ij} - mc_i)/p_{ij} \quad (4)$$

Firms' costs display increasing returns to scale, and free entry of firms implies price equal to average cost. If the firm were selling in a single market, the free entry condition would be

$$p_j = ac_i \quad (5)$$

and combined with the equation of marginal cost with marginal revenue, this gives the relation

$$1/e_{ij} = (ac_i - mc_i)/ac_i \quad (6)$$

which relates returns to scale to the perceived elasticity of demand. The greater are the economies of scale, so the greater the gap between average cost and marginal cost, so the more inelastic must be perceived demand – firms leave economies of scale unexploited only if they think that large price cuts are needed to expand their sales. In turn, Equation (3) shows how perceived demand elasticity is derived: a high perceived elasticity can be explained by high elasticities in the demand function, or by low concentration giving high weight to the higher variety elasticity.

Although the model used in the paper is a little more complex than this in that firms sell in several markets, so the free entry condition requires only that (B5) be satisfied on average across all markets, the essential point is unchanged, and the relation between concentration, returns to scale, and elasticity is the key relation in the calibration of the model. Since perceived demand elasticity depends on the market share of the individual firm, on the product elasticity and on the variety elasticity, and since we have information on the first three, the variety elasticity is determined endogenously by the requirement that the base dataset be an equilibrium of the model. Given a particular degree of returns to scale, a reduction in the assumed number of firms (or a division of the sector into subindustries) requires an increase in the calibrated variety elasticity in order to keep perceived elasticity unchanged. Similarly, an increase in the assumed degree of returns to scale requires a decrease in perceived elasticity, so a decrease in variety elasticity, given product elasticity and industry structure.

The data are the same as used by Gasiorek *et al.* (1992) – with the main data source being a (more or less) consistent set of trade and production data derived from the EC's BDS and VOLIMEX databases, the same dataset used in the derivation of Table 1. The data provide for each sector a value of the flow of sales from producers located in country i to consumers in country j .

Industry data required to calibrate the model numerically to each sector are the degree of returns to scale, the industry concentration, and the price elasticity of demand for the aggregate product. In each

case, we start with the parameters used by Gasiorek *et al.* (1992), but we also undertake some sensitivity analysis with respect to parameter changes. The degree of concentration was computed by Gasiorek *et al.* from Eurostat and national data on the size distribution of firms in each sector, transformed into an estimate of the equivalent number of equal-sized firms in each country by the use of Herfindahl indices, with adjustment for the problems arising from the way that data are reported for the largest firms. This procedure produces firm numbers which may seem implausibly large. For example, the estimate of seven equal-sized firms in the Ores and Metals sector in the UK is hard to reconcile with the dominant role of British Steel. One step towards a more plausible treatment of firm numbers is to suppose that each aggregate sector consists of a number of separate (equal-sized) sub-industries, and following Gasiorek *et al.*, we leave Ores and Metals as a single industry, divide Chemicals into three sub-industries and Textiles, Clothing and Leather into four sub-industries. Alternatively, we have experimented with the effects of more drastic reductions in assumed firm numbers on the behaviour of the model. The degree of returns to scale assumed in each sector is also based on Gasiorek *et al.* Economies of scale are measured as the increase in average cost resulting from a 50% reduction in output per variety, and this cost penalty is set at 6% for Ores and Metals, 15% for Chemical Products, and 3% for Textiles, Clothing and Leather, based on information in Pratten (1988). These numbers may be too small if the representative firm is too small (that is if Pratten's estimates are based on larger firms than are assumed here), so we have investigated the effect on our estimates of increasing the estimated economies of scale.

Reliable demand elasticity estimates are notoriously hard to find, and such estimates are in any case hard to interpret at the level of aggregation adopted here. We again follow Gasiorek *et al.* in assuming elasticities of demand of 1 as our central case, but again undertake sensitivity analysis. Trade between countries, both intra-EC and extra-EC incurs trade costs, and given an assumed level of such costs, the remaining parameters of the model are chosen to position demand curves so as to reproduce the base dataset as an equilibrium of the model.

The required increase in Eastern European exports to the EC is then generated by reductions in external trade costs for each sector in each EC economy that generates an increase in extra-EC imports that is equal to four times the share of Eastern Europe in extra-EC base imports.

Appendix C. Sensitivity analysis

Given that the parameter estimates are subject to a great deal of uncertainty it is useful to test how sensitive are the results. This appendix

Table C1. EC-CEE trade barrier reduction in iron and steel: variant with higher returns to scale and less elastic demand

	France	Germany	Italy	UK	EC North	Greece and Ireland	Iberia	EC total
Initial no of firms	23	51	27	7	17	12	20	157
change imports (%)	19.4	26.1	24.5	14.3	17.3	41.8	14.3	21.2
change EC production (%)	-3.0	-4.5	-3.3	-3.7	-4.9	-7.3	-1.1	-3.8
Welfare Change (Ecu millions)								
Consumer surplus	106.0	420.1	145.8	178.0	211.7	43.7	26.7	1,132.0
Producer surplus	-90.2	-300.6	-106.6	-117.6	-93.0	-19.5	-26.4	-754.0
Cons+Prod surplus	15.8	119.5	39.2	60.4	118.7	24.2	0.3	378.0
Changes in consumer and producer surplus as % of base consumption								
Consumer surplus	0.4	0.6	0.5	0.8	1.1	1.6	0.1	0.6
Producer surplus	-0.3	-0.4	-0.3	-0.6	-0.5	-0.7	-0.1	-0.4
Cons+Prod surplus	0.0	0.2	0.1	0.3	0.6	0.9	0.0	0.2
Rest of world profit change								1,484.8
Trade rent loss								-1,417.3

Note: Product elasticity: 1.00, Number of sub-industries: 1. Percentage cost penalty of 50% output reduction: 18. Variety elasticity: 5.10.

presents the results of a sensitivity analysis for the iron and steel sector, to be compared to the results presented in Table 13. Table C1 shows the same simulation when returns to scale are increased three-fold (now a halving of output per variety is supposed to incur an 18% cost penalty) and when firms face a more inelastic demand (the degree of substitutability between different varieties is comparable to that assumed by Wang and Winters (1992) as the variety elasticity is reduced to a value of five).

The impact on domestic production is not much different but the welfare effects on both consumers and producers are larger. Now in all individual EC economies the consumer gains exceed the producer losses, though both gains and losses are less than 1% of base consumption in most countries. The net gain for the EC as a whole is 0.2% of base consumption. The gain for foreign producers and the loss of trade rents are both also considerably increased to between Ecu 1,400 and 1,500 mn.

Sensitivity analysis with respect to the product elasticity did not yield very different results (not reported). The effect of a much more concentrated industry structure is shown in Table C2. The number of firms in each country is approximately one-tenth of the number assumed in Table 13 and the scale factor is raised to 18% (so that the variety elasticity rises to over 12). Because the consumer surplus effects are much smaller there is a net loss to the EC, but once again the overall effect is small, at 0.2% of base consumption. The gains to foreign producers exceed Ecu 1,200 mn., with a much smaller reduction in trade rents of around

Table C2. EC-CEE trade barrier reduction in iron and steel: variant

	France	Germany	Italy	UK	EC North	Greece and Ireland	Iberia	EC total
Initial no of firms	2	5	3	2	2	2	2	18
change imports (%)	19.4	26.1	24.5	14.3	17.3	41.8	14.3	21.2
change EC production (%)	-0.4	-2.4	-1.2	-0.8	-31.8	-12.8	0.9	-5.1
Welfare Change (Ecu millions)								
Consumer surplus	-41.3	247.1	154.2	86.8	-38.8	20.2	24.9	453.1
Producer surplus	18.8	-297.8	-154.9	-62.9	-253.0	-22.6	-5.9	-778.3
Cons+Prod surplus	-22.5	-50.7	-0.7	23.9	-291.8	-2.4	19.0	-325.2
Change in consumer and producer surplus as % of base consumption								
Consumer surplus	-0.1	0.4	0.5	0.4	-0.2	0.7	0.1	0.2
Producer surplus	0.0	-0.4	-0.5	-0.3	-1.3	-0.8	-0.0	-0.4
Cons+Prod surplus	-0.0	-0.0	0.0	0.1	-1.5	-0.0	0.1	-0.2
Rest of world profit change	1,221.1							
Trade rent loss		-683.7						

Note: Product elasticity: 1.00. Number of sub-industries: 1. Percentage cost penalty of 50% output reduction: 18. Variety elasticity: 12.37.

Ecu 700 mn. As in Table 13, the gains to foreign producers from improved market access to the EC are greater when the EC market has larger price-cost margins.

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