

Adam, Antonis; Moutos, Thomas

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The Political Economy of EU Enlargement: Or, Why Japan is not a Candidate Country?

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Working Papers

THE POLITICAL ECONOMY OF EU ENLARGEMENT: OR, WHY JAPAN IS NOT A CANDIDATE COUNTRY?

Antonis Adam
Thomas Moutos*

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CESifo
Center for Economic Studies & Ifo Institute for Economic Research
Poschingerstr. 5, 81679 Munich, Germany
Phone: +49 (89) 9224-1410 - Fax: +49 (89) 9224-1409
e-mail: office@CESifo.de
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THE POLITICAL ECONOMY OF EU ENLARGEMENT: OR, WHY JAPAN IS NOT A CANDIDATE COUNTRY?

Abstract

In this paper we argue that strong political economy forces explain the rush of the EU to expand eastwards. We use a model of vertical product differentiation in order to claim that technologically- advanced EU firms (residing in high-income member countries) prefer a mutual market-opening with less technologically sophisticated countries than multilateral liberalization, which would necessarily involve the reciprocal opening of markets with other technologically-advanced countries. By the same token, less technologically sophisticated firms residing in low-income member countries would prefer an enlargement that is directed towards high-income countries. The evidence presented in the paper supports our hypothesis.

JEL Classification: F13, F15, D7.

Keywords: EU enlargement, vertically differentiated products, political economy, customs unions.

*Antonis Adam
DIEES
Athens University of Economics and
Business
Patission 76
Athens 104 34
Greece*

*Thomas Moutos
DIEES
Athens University of Economics and
Business
Patission 76
Athens 104 34
Greece
tmoutos@aueb.gr*

1.Introduction

The planned eastward enlargement of the European Union (EU) is seen by many observers as both a historic opportunity and the greatest challenge the EU has faced so far. It will involve (in absolute terms) the biggest increase in the number of countries, in population size and in surface area. In December 1997, at its summit in Luxembourg, the European Council launched the process that will make possible the accession of the following thirteen countries: Bulgaria, Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, the Slovak Republic, Slovenia and Turkey. By February 2000 accession negotiations had been formally opened with all of the above countries except Turkey¹.

Professional opinion regarding the trade-related effects of enlargement on the current EU member states is unanimous: in addition to geopolitical benefits the EU is expected to reap economic benefits as well (see, for example, Rollo and Smith (1992), Hamilton and Winters (1992), Baldwin (1994)). Moreover, the studies assembled in Faini and Portes (1994a) lead them to conclude that “it is virtually impossible to find significant negative effects of opening trade with the CEECs at the national, regional and sectoral levels” (Faini and Portes (1994b, p. 16)). Some back-of-the-envelope calculations conducted by Baldwin, Francois and Portes (1997) suggest that the distribution of economic benefits among the EU (15) countries is more-or-less proportional to the aggregate GDP of each country. The biggest (absolute) gains are expected to be experienced by Germany, France, UK, Italy and Spain, with Portugal being the only country which is not expected to benefit (it is estimated that it will incur a very small loss). On the basis of these projections, Faini and Portes (1994b) note “a striking paradox”: even though the trade effects are expected to be benign, policy-makers in the EU have continued to restrict access for products from the CEECs. Accordingly they urge policy-makers to not “... hesitate to take advantage of the historic opportunities created by the 1989 revolution in Central and Eastern Europe”.

¹ The Helsinki European Council confirmed that Turkey is a candidate country destined to join the EU on the basis of the same criteria as applied to the other candidate countries (European Commission (2000)).

In the present paper we argue that the trade-related inter-country distributional consequences of EU enlargement may not be so benign. Our argument is based on a model of intra-industry trade in *vertically* differentiated products (see, Falvey (1981) and Eaton and Kierzkowski (1984) for early models of vertical differentiation). In this model differences in technology between the incumbent countries interact with the technological capabilities of the candidate countries to determine both the inter-country and intra-country distribution of benefits and costs of enlargement.

It is usually thought that intra-industry trade imposes very few adjustment costs. This sanguine view regarding intra-industry trade is a consequence of the assumption that trade is conducted in horizontally differentiated products. In these models, the opening of trade between two economies results in an increase in the number of varieties consumed by households (relative to autarky). This increase in the number of varieties consumed, can be associated with either an increase in the scale of production of each variety (in which case the number of varieties produced in each country declines), or with no change in the scale of production and the number of varieties produced by each country. The same logic applies if a CU between a number of countries expands to include one or more countries. Accordingly, import competition (at worst) requires workers only to move between firms (or assembly lines) within the same industry². If, instead, trade involves the exchange of *vertically* differentiated products, the effects of CU enlargement on the incumbent members can be asymmetric³. One (incumbent) country may enjoy increased access to the joining country's market without having to face a displacement of domestic production by imports, whereas another (incumbent) country may have to face increased import penetration. As we demonstrate in section 3, low-income (and technologically lagging) incumbent countries would prefer that enlargement is directed towards high-income (and technologically advanced) countries, which have comparative advantage in producing high-quality varieties of differentiated products. By the same token, high-income incumbent countries will prefer that enlargement is directed towards countries, which have comparative advantage in

² In contrast, inter-industry trade in homogeneous goods requires the reallocation of workers from one industry to another, possibly involving lower wages if the imported goods are labor intensive.

³ There is a considerable body of evidence which testifies to the importance of vertical intra-industry trade (see, for example, Greenaway, Hine and Milner (1995), Durkin and Krygier (2000), Schott (2001), and Malley and Moutos (2002)). The accumulating evidence suggests that vertical intra-industry trade is quantitatively more important than horizontal intra-industry trade.

producing low-quality varieties – thus avoiding the head-on competition that enlargement towards a high-income (and technologically sophisticated) country would imply.

The above argument rests –among other things- on two premises. First, that trade between the EU countries and the CEECs is conducted almost exclusively in vertically differentiated products. Second, that there are significant differences with respect to vertical specialization among EU countries. We provide detailed (and direct) evidence in support of the second premise in section 4 of the paper. As far as the first premise is concerned, it is clear that it can not be taken as a literal representation of actual trade patterns, but as a simplifying assumption whose relevance depends on whether trade in vertically differentiated products is an important and growing category of trade between the EU and the CEECs. The evidence (see, Freudenberg and Lemoine (1999)) is clear that trade in vertically differentiated products is by far the fastest growing trade category between the EU-12 and the CEECs (between 1993 and 1996 the share of two-way trade in vertically differentiated goods increased by 4.4 percentage points, the share for horizontally differentiated goods increased by 0.4 percentage points and the share of one-way trade decreased by 4.8 percentage points). With respect to the importance of vertical versus horizontal two-way trade, Freudenberg and Lemoine calculate that in 1996, trade in vertically differentiated goods was five times more important than trade in horizontally differentiated goods. We thus have some confidence that our assumed theoretical structure describes an important part of actual trade patterns.

In the rest of the paper, we first provide a brief review of the literature explaining why countries may want to form (or join already existing) CU's. We then present a simple model of trade in vertically differentiated products in order to examine the intra-country and inter-country consequences of enlargement (section 3). In section 4, we present evidence in support of our basic assumptions regarding the relative position of EU countries, the CEECs and Japan on the quality ladder based on the analysis of unit value data for about 1500 products. We also present the results of some econometric testing of the main implication of our model (i.e., that an incumbent country's net exports are more likely to increase if enlargement is directed towards countries on the opposite side of the technological spectrum) by looking at the effects of previous enlargements. We

find that the data provide considerable support for our model. In the final section we summarize our findings and discuss possible extensions of the paper.

2. Why do countries form (or accede to) Customs Unions?

A basic question that any analysis of the effects of customs union formation (and enlargement) must face is why countries do not engage in unilateral trade liberalization. After all, a basic premise of international trade theory is that small countries which face perfectly competitive markets will be better served through a unilateral reduction in their tariffs than from agreements for reciprocal liberalization involving only a limited number of countries⁴. Answers to this question have varied depending on the perspective one wants to adopt. Corden (1984, p.121), following Viner (1950) submits, "... in the main, unions are formed for non-economic reasons ... so that the role of the economist is simply to analyze the incidental economic effects".

Amongst non-economic reasons, security considerations have been featured by many authors as an important factor in the desire for regional integration. The "founding fathers" of the European Community, Robert Schuman and Jean Monnet, aimed at economic integration with the belief that it would make war "materially impossible", hoping that the interlocking of steel, coal, and other strategic industries would leave countries unable to wage war against each other (see, Milward (1984)).

Political scientists have argued that negotiations on trade issues between political elites help to build trust, which is subsequently used for mutually beneficial collaboration in other policy areas (see also Viner (1950), p.87). The examples usually cited in this respect include the Zollverein of 1834 (a CU among the numerous German principalities which eventually led to political unification in 1871), and the CU formed between Moldavia and Wallachia in 1847, which paved the way for the creation of Romania in 1859. However, there are also examples in which policy-induced integration triggered conflict

⁴ It must, however, be mentioned that in the absence of complete insurance, risk averse individuals may not prefer full trade liberalization. Consider, for example, a policy, which by restricting trade guarantees to all workers an income equal to 100. Consider also a policy of free trade which is expected to increase the incomes of those with employment to 120, whereas those that are unemployed receive an income of 30. Let each worker perceive that she has an 80 percent chance of being amongst those employed. This makes the expected income of each worker be higher than the trade-restricting policy by 2 percent. If the utility function displays a modest degree of risk aversion (for example, $U=Y(\exp .7)$) then the workers would vote in favor of the trade-restricting policy since the utility of the sure thing is greater than the expected utility under free trade.

(the American Civil War, and the creation of Bangladesh when East Pakistan broke free from West Pakistan being the most prominent ones). What both of these examples illustrate is that tariff preferences that induce regional trade may create large income transfers within the region and concentration of industry in one location. Thus, there is a need for regional integration to be paired with side payments to the disaffected areas if conflict is to be avoided⁵.

Assuming a purely economic perspective, the answer hinges on terms of trade effects (see, for example, Mundell (1964), Vanek (1965), Kemp (1969)). Countries hope that by banding together to negotiate an agreement with common external barriers they will increase their “bargaining power” vis-à-vis third countries (Arndt (1968,1969)). For many observers this idea was shared by the countries involved in the formation of the EC in the 1950s – especially in connection to acquiring leverage in their negotiations with the United States⁶. Riezman (1985) demonstrates that customs union (CU) formation may result (by appropriate setting of the common external tariff) in higher welfare for the countries involved compared to what they could achieve in a free-trade equilibrium. Nevertheless, imposition of “optimal tariffs” is in practice one of the *less* used instruments of trade policy (according to Perroni and Whalley’s (1994) calculations the (Nash) optimal tariff rate for the US is about 500 percent, and for the EU about 900 percent). Arguments regarding infant industries, employment and adjustment costs appear to be more important determinants of trade policy. Moreover, the frequent use of competitive devaluation policies (which aim at deteriorating the terms of trade) by many countries places in doubt the real world relevance of the terms-of-trade argument as a motivating factor in CU formation.

Another motive - which also hinges on the terms-of-trade argument - is that countries (especially small ones) wish to buy insurance against an outbreak of protectionism in the future (see, Whalley, (1998)). This could take either the form of a tariff war or –more plausibly- the use of administered protection (like quantitative restrictions, import

⁵ According to Tsoukalis (1993), the EU has always been careful to diffuse tensions by accommodating member states when they signaled that an EU policy would cause them major harm (as in the case of Spain and Portugal which were granted with gradual adjustment over some issues or in the case of the UK regarding the budget rebate).

⁶ Moravcsik (1998) claims that it was the creation of the EC which induced the United States to commence the Dillon (1959-61) and subsequently the Kennedy (1963-67) and Tokyo (1974-79) Rounds of GATT negotiations. Meunier (2000) also reports that the pro-European camp in France used the slogan “Let’s unite. And the world will listen to us” during the campaign before the 1992 referendum on the Maastricht Treaty on European Union.

surveillance, antidumping and countervailing duties, and safeguard measures). The gains for small countries in this case arise not only from having continued and preferential access to the other CU member's markets, but also from the fact that the tariff against non-members rises. It is obvious from this line of argument that small countries will be endeavoring to form partnerships with large countries, and that large countries will be able to extract side payments from the small ones. There is indeed some evidence that this has happened. Ethier (1998) and Whalley (1998), for example, report that in forming NAFTA, Canada and Mexico made implicit side payments in the form of changes in domestic policies which were favorable to the United States. Also, the Europe Agreements (EAs) involve very few "concessions" by the EU. A number of EU "sensitive" sectors are exempt from the EAs – these being the sectors in which the CEECs have comparative advantage (see, Lavigne (1995)). Moreover, the candidate countries have been forced to undertake domestic reforms, which have been to the interest of the EU.

It must, however, be stated that sometimes governments have used integration agreements as a commitment mechanism which helps to lock-in domestic reforms. This may prove particularly helpful if the country has no track record of reform or, worse, if the country has a history of reversing reform. The hope is that by binding the country to an international trade treaty, any future reversal of domestic policy reform becomes more difficult to implement. Mexico's decision to enter NAFTA is frequently discussed in such terms (Tornell and Esquivel (1997)), as well as Greece's decision to seek membership in EMU (Pagoulatos (2001)) , and the decision of CEECs to apply for accession to the EU (Fernandez and Portes (1998))⁷. Existing members of a regional group may also be able to influence the domestic economic policies and the political institutions of prospective members by demanding that they undertake domestic reforms prior to accession. The EU at the 1993 Copenhagen European Council made it clear to the candidate countries that satisfaction of economic and political criteria is a prerequisite for the opening of accession negotiations⁸.

⁷ The recent experience of countries using accession to a regional group in order to stimulate economic and political liberalization is rather unique by historical standards. In 1976 Chile, for example, withdrew from the Andean Pact because it wanted to implement a reform package that this agreement prohibited (Nogues and Quintanilla (1993)).

⁸ Existing members of a regional group are often happy to assist in the implementation of reforms by a candidate country. For example, the US made it clear to Mexico that by consolidating the reforms it had undertaken in the previous years, it would have a stronger claim on US financial assistance (Francois (1997)). The EU has also adopted this attitude with the candidate countries (European Commission (2000)). For both the EU and the US the motivation

A distinguishing feature of preferential trade agreements (PTAs) is that they discriminate against third parties. In this way they generate rents for certain domestic agents who become strong supporters for their formation and maintenance. Import-competing firms that face intense competition from competitors located outside the area and export-oriented industries that stand to benefit from preferential access to the other member members markets will be amongst the staunchest supporters of regional integration. For these agents regional integration may appear more attractive than unilateral (non-preferential) liberalization. This will be the case since a PTA limits the international competition to which the import-competing firms are subjected, and secures to export-oriented firms improved (relative to non-members) market access to partners countries' markets. For these reasons PTAs hold some appeal for governments who must strike a balance between promoting a country's aggregate economic welfare and accommodating interest groups whose support is needed to retain office. Indeed, a number of authors have argued that politically sustainable trade agreements are usually only those that involve a significant amount of trade diversion (see, for example, Grossman and Helpman (1994, 1995) and Krishna (1998)). This is because when a PTA is formed, domestic firms benefit from preferential access to the partners' market, but lose from giving a similar access to its partners in its own domestic market. In the absence of trade diversion, this increased penetration of each other's market is close to being a zero-sum game – it is not likely that firms from *all* partner countries will gain from it. Thus, the agreement has little chance of coming into effect. However, if trade is diverted away (in all partner country markets) from the rest of the world firms, then it becomes more likely that firms from *all* countries gain and the PTA is supported by all countries.

The predominance of key producer interests -emphasized in the previous paragraph- has been for many observers the predominant factor behind the formation of the EEC and its subsequent evolution (see, Lynch (1997), and Moravcsik (1998) for extensive arguments in support of this view – for an opposite argument see Parsons (2000))⁹. In the present

for this policy has been related to emigration. By making reforms in Mexico and in the candidate countries more credible, they hoped to raise the growth rate of these countries thereby reducing immigration pressures.

⁹ Moravcsik explains, for example, why a “small Europe” customs union (with provisions for agriculture, atomic energy and supranational institutions) came into effect rather than a pan-European free trade area (FTA), on the basis of producer interests, the distribution of relative power and the desire for future elaboration and implementation of policy.

paper we argue that this view may also explain why the EU has taken decisive steps towards enlargement to the east, despite the widespread unease among the population of EU countries about this prospect. As we explain in the following section, enlargement to the east offers to technologically advanced EU firms the possibility of expanding their market share in the acceding countries' markets without having to sacrifice their market share in EU countries – the increased imports from the candidate countries will substitute for the domestic sales of less technologically sophisticated EU firms.

3. The Model

We construct the simplest possible model capable of highlighting the issues we wish to emphasize. The model assumes the existence of two goods and four countries. The first good is a non-traded homogeneous good, whereas the second good is a vertically differentiated product, which is internationally traded. Among the four countries, two are assumed to belong to a CU, whereas each of the other two countries, applies (and receives) non-preferential treatment in its trade with the other three countries. The latter two countries are assumed to represent the rest of the world (ROW). For ease of exposition, we identify the two CU members as Germany (D) and Greece (G), and the two ROW (groups of) countries as the Central and Eastern European candidate countries (E) and the non-EU high-income countries (i.e. Japan, US, etc.) which we denote by S. The reasons for splitting the ROW into two different countries will become apparent later in the paper.

3.1 Technology and Supply Relationships

Each of the four countries is assumed to produce a homogeneous non-traded good and (some) varieties of the vertically differentiated good. Given our interest in international trade, we use the homogeneous good as the numeraire, and set its price equal to unity in each country. With perfect competition and labour as the only input in the production of both goods this implies that productivity differentials across countries are reflected in wage differentials.

We start our analysis by assuming that within each country the vertically differentiated product, Y , is produced under perfectly competitive conditions by identical firms. (This

assumption is not necessary for our analysis, but it greatly simplifies it; we discuss later the case of infra-marginal firms.) This good is differentiated according to quality, which is measured by an index Q in the range $[1, \infty]$. We assume that there is perfect information regarding the quality index. We further assume that production costs in all countries depend on quality and that each unit of a given quality is produced at a constant cost (which differs across countries). We capture the above assumptions by writing the production function for Germany as

$$Y_D(Q) = \frac{L_D}{\gamma_D Q^{\varepsilon_D}}, \quad \gamma_D > 0, \varepsilon_D > 1, \quad (1)$$

where $Y_D(Q)$ denotes the number of units of quality Q produced in Germany, and γ_D and ε_D are parameters. Our assumption that $\varepsilon_D > 1$ implies that although costs per unit in terms of quantity are constant, increases in quality are associated with more than equiproportional increases in unit costs. This assumption is motivated by the fact that increases in quality – for a given state of technological capability – require the employment of an increasing number of workers. These workers must be allocated not only to the production of a higher number of features attached to each good (e.g. electric windows, air bags, ABS, security devices, etc. in the case of automobiles) that directly absorb labor, but also to the development and refinement of these features as well. We assume that these endeavors are subject to diminishing returns (see, Flam and Helpman (1987) for a similar assumption).

Equation (1) implies that the average cost at which each unit of quality Q will be produced by German producers is

$$AC_D(Q) = w_D \gamma_D Q^{\varepsilon_D} \quad (2)$$

We now assume that Germany has absolute advantage in the production of every quality level of the differentiated good over Greece, and that its comparative advantage (CA) lies in high-quality varieties of the differentiated good. These assumptions are reflected in the following production function for Greece,

$$Y_G(Q) = \frac{L_G}{\gamma_G Q^{\varepsilon_G}}, \quad \gamma_G > \gamma_D, \quad \varepsilon_G > \varepsilon_D \quad (3)$$

According to equation (3) the average cost at which each unit of quality Q will be produced by Greek producers will be

$$AC_G = w_G \gamma_G Q^{\varepsilon_G} \quad (4)$$

Under these conditions it is obvious that if the wage rates were equal in the two countries, Greek producers would not be able to produce any varieties at a lower cost (price) than their German counterparts. For this reason, we assume that wages in Greece are sufficiently lower than German wages, i.e. that $w_D \gg w_G$. This assumption guarantees that Greek producers will be able to produce at least some low-quality varieties (those ones in which the country has CA) at a lower cost than German producers.

With respect to the two ROW (groups of) countries we assume that S is the most technologically sophisticated country in the world, whereas E is less technologically sophisticated than Greece. This stark assumption is made as a way of capturing the different levels of technological sophistication between S and E, by placing them on the opposite sites of technological sophistication relative to the Germany and Greece. The production functions for S and E are written as

$$Y_S(Q) = \frac{L_S}{\gamma_S Q^{\varepsilon_S}}, \quad 0 < \gamma_S < \gamma_D, \quad 1 \leq \varepsilon_S < \varepsilon_D \quad (5)$$

$$Y_E = \frac{L_E}{\gamma_E Q^{\varepsilon_E}}, \quad \gamma_E > \gamma_G, \quad \varepsilon_E > \gamma_G \quad (6)$$

and the associated average cost functions as

$$AC_S(Q) = w_S \gamma_S Q^{\varepsilon_S} \quad (7)$$

$$AC_E(Q) = w_E \gamma_E Q^{\varepsilon_E} \quad (8)$$

Again, our assumptions about technology dictate that a necessary condition for each country to be able to produce some varieties of the differentiated good at a lower cost than the other countries is that wages are lowest in E and highest in S, that is $w_S > w_D > w_G > w_E$. In Figure 1 we depict the relationship between average cost and quality for the four countries. The assumption that E has the lowest wage allows this country to produce at the lowest cost all varieties with quality in the range $[1, Q_{EG}]$. This is a manifestation of the assumption that E has comparative advantage in low-quality varieties of the differentiated good.

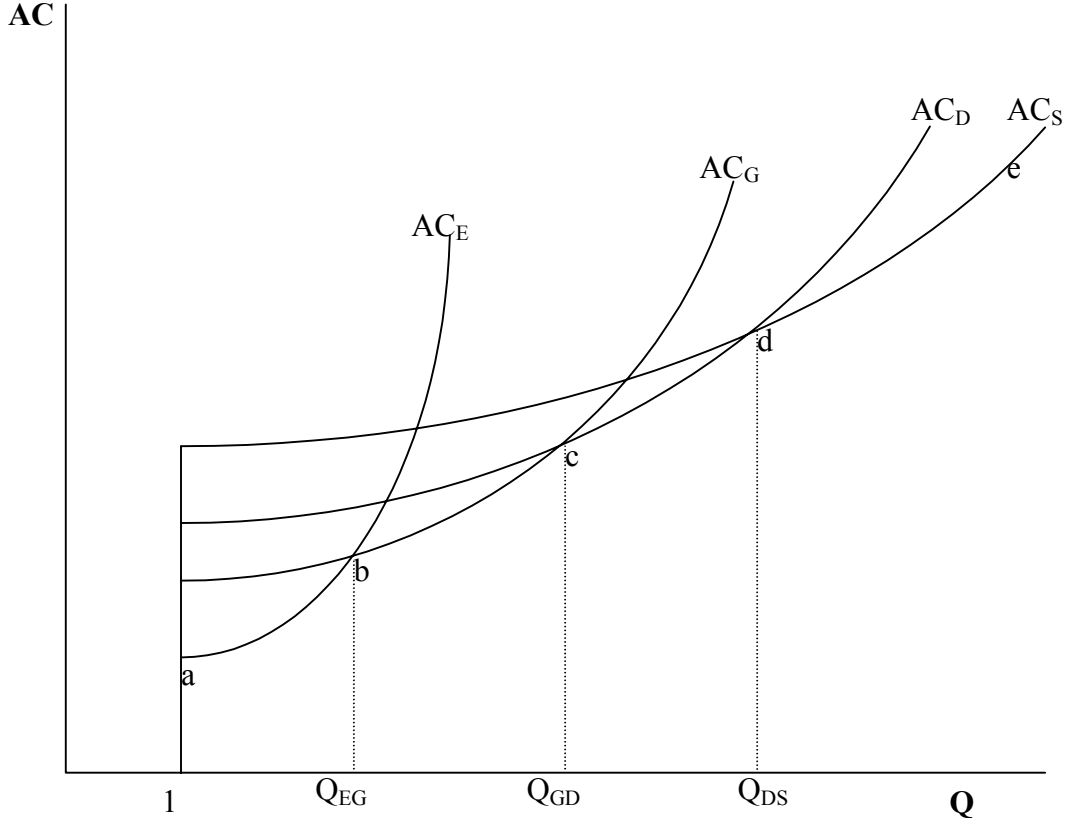


Figure 1: The relation between quality and cost

We define Q_{EG} as the market-dividing quality level between E and G producers. On the other hand, S will be the least cost producer for varieties with quality greater than Q_{DS} , i.e., S has comparative advantage in very high-quality varieties.

Similarly, Greece's and Germany's comparative advantage is restricted to middle-quality varieties and high-quality varieties, i.e. those ones with quality in the ranges $[Q_{EG}, Q_{GD}]$ and $[Q_{GD}, Q_{DS}]$, with Q_{GD} and Q_{DS} being the market-dividing quality levels between Greek and German producers, and German and S producers, respectively. From Figure 1 it also becomes obvious that the “competitive threat” to a country's producers is only from those foreign producers, which have comparative advantage in supplying contiguous (in terms of quality) varieties.

The above representation of technological differences between countries is an attempt to capture the “average” differences in terms of vertical product specialization between the countries involved. It is obvious, and the empirical evidence presented in section 4 verifies this, that there are some products for which the CEECs may have comparative advantage in producing higher quality varieties than the EU countries or the ROW. This

is mainly due to the transfer of technology through foreign direct investment (FDI) from (mainly) EU countries. In many cases FDI is associated with the international fragmentation of the production process (see, Jones (2000) and Jones and Kierzkowski (2001)). In these instances, a country may acquire a comparative advantage in producing high quality varieties of some intermediate inputs (components), without necessarily having comparative advantage in the production of high quality varieties of other components or of the final product. There is indeed evidence that such processes are at work in some CEECs, but, as yet (circa 1999), the contribution of FDI to the upgrading of domestically produced varieties has not raised average quality to the level observed in the least technologically advanced EU countries (see, Table 1 in section 4).

3.2 Preferences and the Structure of Demand

Households in all countries are assumed to have similar preference structures, and to be endowed with one unit of labor, which they offer inelastically. There are, however, differences in skill between households (both within and across countries), which are reflected in the endowment of effective labor supply. This is in turn reflected in differences in income across households. For simplicity, we assume that incomes are uniformly distributed within each country. We also assume that the differences in productivity across countries are reflected in differences of per-capita income among them – with S being the highest (per-capita) income country, followed by D, G and E.

Following Rosen (1974), Gabszewicz and Thisse (1979), and Flam and Helpman (1987), we assume that the homogeneous good can be consumed in every desirable quantity, whereas the quality differentiated product is indivisible and households can consume only one unit of it. A popular functional form for the utility function that captures the above assumption is

$$U = Q(I - P(Q))$$

where I stands for household income, and $P(Q)$ is the price at which a unit of quality Q can be bought. Accordingly, $I - P(Q)$ is the amount available to purchase the homogeneous good. This utility function has the property that for given prices, the marginal utility of quality rises with an increase in the consumer's income.

Under conditions of free (and costless) trade, perfect competition implies that the price of each quality (variety) of the differentiated good will be equal to the lowest cost of producing this good in the four countries;

$$P(Q) = \min\{w_E\gamma_E Q^{\varepsilon_E}, w_G\gamma_G Q^{\varepsilon_G}, w_D\gamma_D Q^{\varepsilon_D}, w_S\gamma_S Q^{\varepsilon_S}\} \quad (11)$$

Equation (11) implies that the price schedule (as a function of quality) has a kink at the market-dividing quality levels Q_{EG} , Q_{GD} , and Q_{DS} . This price schedule is depicted as the kinked line *abcde* in Figure 1. This further implies that the budget constraint of a typical household will be also kinked (i.e. non-differentiable) at the corresponding market-dividing quality levels. The budget constraint of a high-income household is depicted as the schedule *abcde* in Figure 2, with the maximum utility achieved on indifference curve u_1 at point **1**. In this particular example, the household chooses to buy a ‘middle-quality’ variety, which Greek producers offer at the lowest price. A household’s income determines the variety desired, and indirectly, the country of origin of this particular variety. In Figure 2 we also show the budget constraints of a wealthier (poorer) household. This is depicted by the kinked schedules *fghkm* (*nprs*), with point **2 (0)** being now the point of maximum attainable utility on indifference curve u_2 (u_0). The higher-income household chooses to consume a high-quality variety, which is offered at the lowest cost by German producers. On the other hand, the low-income household consumes a low quality variety, which is offered at the lowest cost by E’s producers. Note that this household even if it wanted to spend all its income on the differentiated product, it could not afford the varieties that are offered at the lowest cost by S’s producers. Given our assumption about the inter-country income distribution between E, G, D and S, it follows that households in S will consume (on average) the highest quality varieties, whereas households in E will (on average) consume the lowest quality varieties¹⁰. This observation further implies that whereas, for example, the majority of consumers in G would prefer the elimination of tariffs on imports from E, the majority of consumers in D would prefer that imports from S receive preferential treatment, instead.

¹⁰ From Figure 2 we can also deduce that there will exist some households whose income levels and preference structures are such that there is more than one point of tangency between their highest indifference curve and their budget constraint. Such households will be indifferent between buying, for example, D-produced and S-produced varieties.

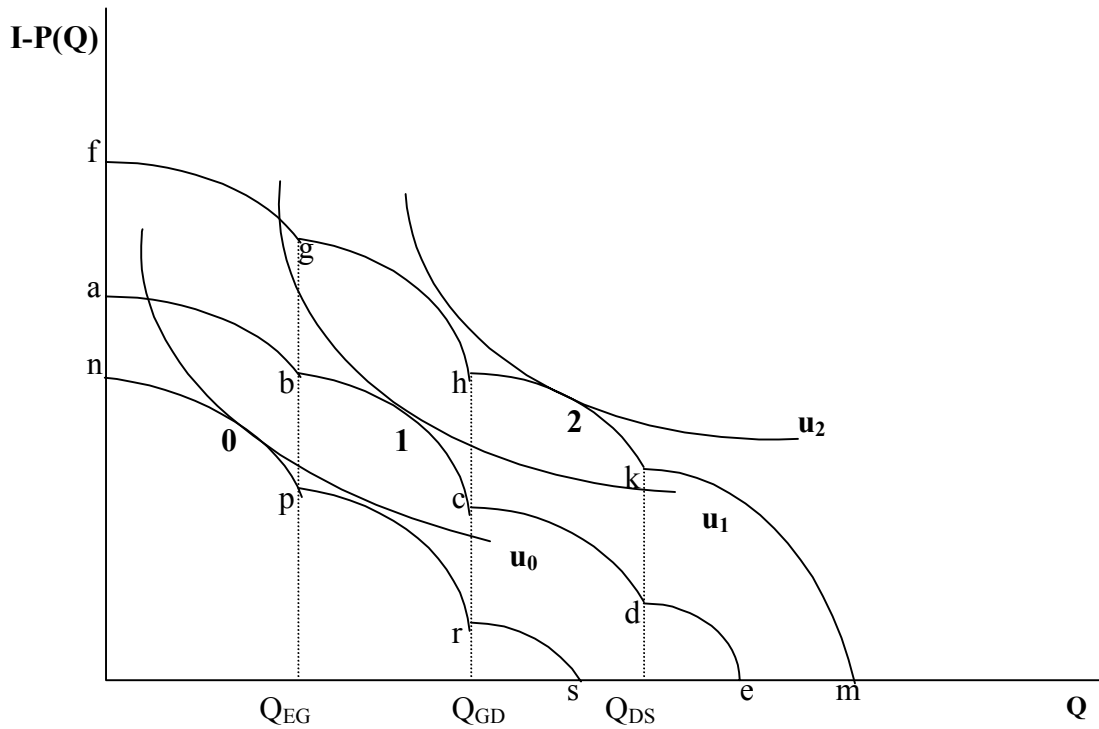


Figure 2: Incomes and the choice of quality

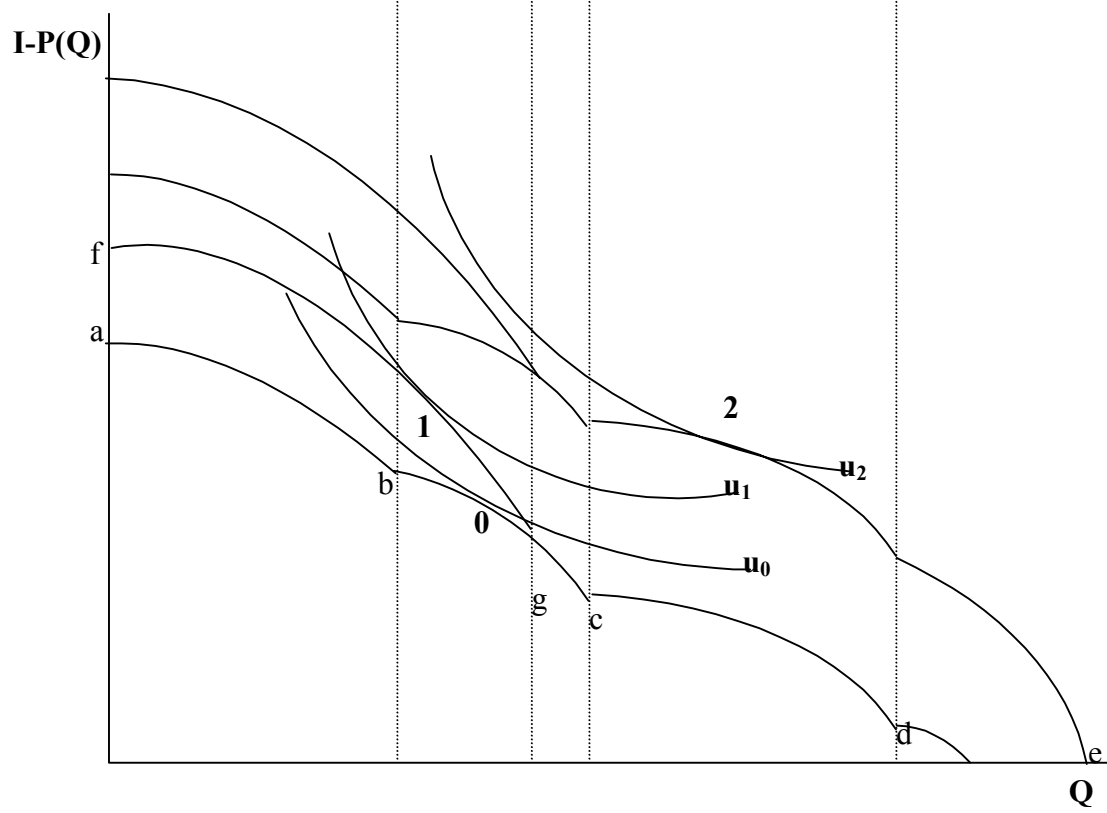
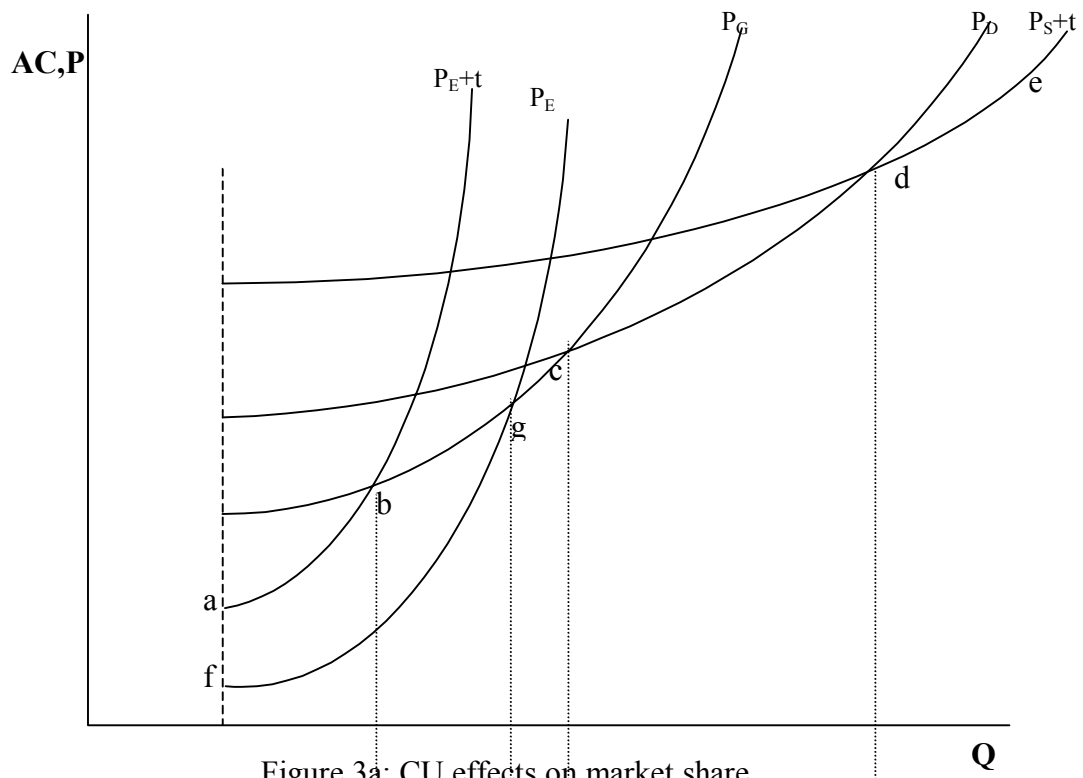
3.3 The Effects of Customs Union

International trade between the four countries will involve the exchange of different quality varieties – since, for example, there will be some low-income Germans wishing to consume low quality varieties produced at the lowest cost in E, and some very-high income households in E wishing to buy varieties which are produced at the lowest cost in S. The distribution of income thus plays a crucial role in the analysis of this paper in that households with identical preference structures may nevertheless consume varieties produced in different countries if they have different incomes (see, also Falvey and Kierzkowski (1987) and Flam and Helpman (1987) for models with similar features). The within-country income inequality assumed in this paper implies that even though there is a single factor of production, households will differ in their preferences as to the direction of trade liberalization.

We start our analysis by assuming the existence of a CU between Germany and Greece. We assume that there are no technical, regulatory or other cost-increasing trade barriers within the CU (it took the EU more than thirty years since its inception for this

assumption to approximate reality even in the trade between Germany and France), but that there is a common external tariff (CET) which it is applied on imports from either E or S. We assume away the existence of (differential) transport costs between the four countries and of any other trade barriers, except the per-unit CET, t . In Figures 3a and 3b, we depict the consequences of an enlargement of the CU between D and G, to include E. Before the enlargement, the price schedule and the budget constraint facing consumers in D and G are depicted by the kinked line abcde in Figure 3a and 3b, respectively. The curves P_E+t and P_S+t depict the tariff inclusive prices that producers in E and S charge to D's and G's consumers. Under these circumstances, the range of varieties, which E will be exporting to D and G, will be up to Q_{EG}^0 , whereas S will be exporting to D and G all varieties with quality greater than Q_{DS} . After the accession of E to the CU, the price schedule and the budget constraint facing Ds and Gs consumers are given by the kinked line fgcd in both Figures. The range of varieties which now E exports to D and G expands up to Q_{EG}^1 , whereas Gs range of varieties that it supplies at the lowest cost in Ds and Gs market diminishes by the same amount (e.g. distance $Q_{EG}^0 - Q_{EG}^1$). In Figure 3b, the drop in the prices of low-quality varieties results in utility gains for low-income (and possibly middle-income) households, and no change in the welfare indicator of high-income households, if we assume that the government does not reduce its lump-sum transfers to make up for its loss of tariff revenue¹¹. We note at this moment that in their role as consumers, low-income households in both D and G stand to gain from the Eastern enlargement, whereas high-income households do not expect such gains. Nevertheless, such unanimity of interests between the low-income households in D and G may not likely be observed once we realize that –at least the short-run – job prospects of low-income households in D will definitely improve from the Eastern enlargement, whereas the job prospects of the same households in G may deteriorate.

¹¹ For a political economy analysis of the role of tariff revenue in a median-voter model with both homogeneous goods and vertically differentiated products, see, Moutos (2001).



In Figure 4 we depict the consequences of enlargement for E's market. G's export share in this market increases at the expense of local production – the range of Greek exports increases by the distance $Q_{EG}^0 Q_{EG}^1$. D's export share in E's market also increases - at the expense of S's exports by the distance $Q_{DS}^0 Q_{DS}^1$. By drawing a diagram similar to Figure 3b, it becomes evident that among E's households, it will be mainly the middle- and high-income ones that will be the beneficiaries of the country's accession to the CU.

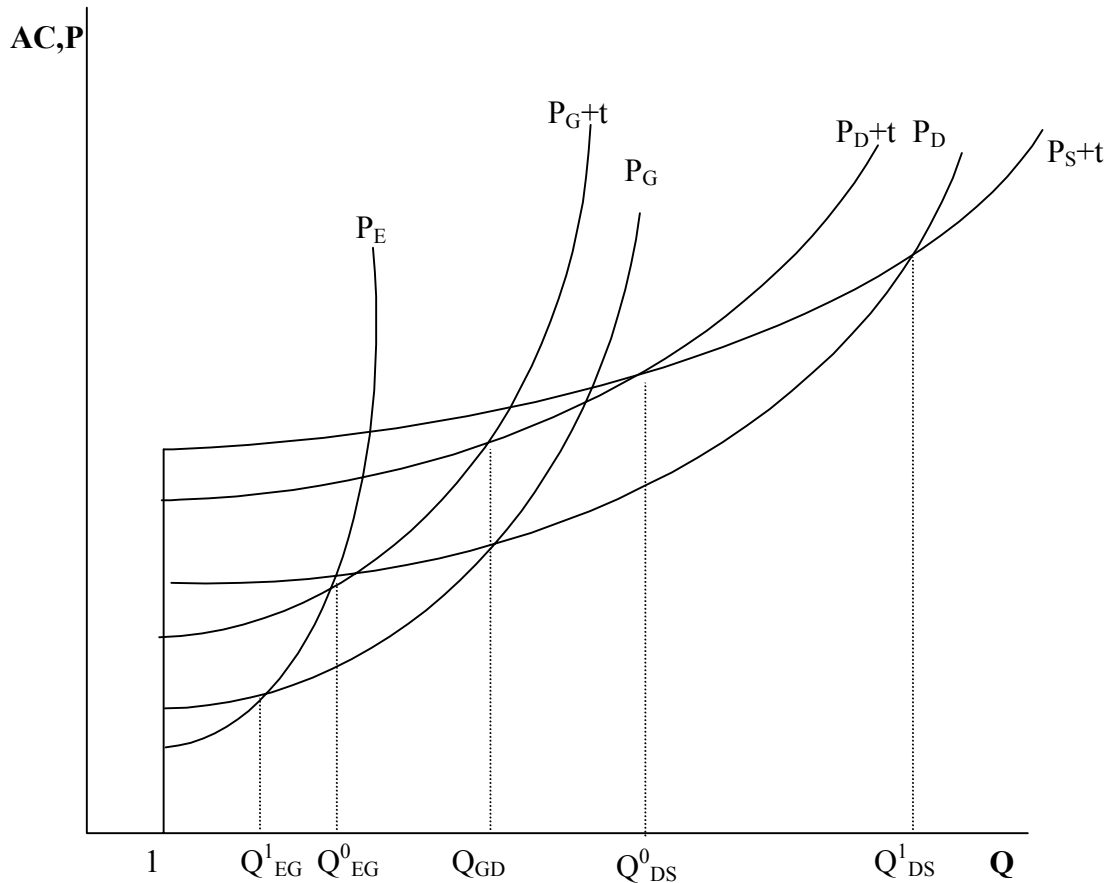


Figure 4: CU effects on market shares
(E acceding)

Moreover, if the reduction in tariff revenue is partly “financed” by a cut in government transfers to the low-income households, these households may be made worse-off by the country's accession to the “rich man's” CU.

In summary, the enlargement to include E into the CU results in an increase of Greek and German exports to E and an increase of E's exports to G and D. However, the increase in E's exports is done at the expense of Greek producers only. Higher sales of

E's producers into the Greek market displace only domestically produced varieties there – German exports do not decline. Similarly, higher exports of E's producers to Germany do not displace German firm's sales – they just displace Greek exports. Nevertheless, in this stylized model in which price equals average cost for all firms, neither Greek nor German producers have any interest in resisting or supporting E's accession. However, the model could be easily amended to accommodate the existence of (economic) profits in two ways. First, we could maintain the hypothesis of a large number of firms, so that each one is a price-taker, with some of them being more productive than others (a model of pure competition). The more productive firms will be earning profits in equilibrium (infra-marginal firms), and they will be interested in an expansion of demand, which would allow higher cost firms to enter the industry, thereby raising the equilibrium price above the average cost of infra-marginal firms and allowing them to increase their profits further. Second, and more realistically, we can consider a model of oligopoly in which firms choose the price-quality combination, which maximizes profits. In this model, the elimination of tariffs on imports from E results in reductions in the prices that G, D and S firms charge to consumers in the incumbent countries, in an effort to maintain their market share. Despite these complications, the prediction of the competitive model (that Germany's net exports increase if E accedes to the CU) remains intact.

This asymmetric impact of enlargement to include E is reversed when the CU expands to include S, instead. In Figure 5 the effects of enlargement on the distribution of sales in D's and G's market is displayed. Initially, the market segments, which producers of the four countries serve, are given by $1 \leq Q \leq Q_{EG}$ for E, $Q_{EG} \leq Q \leq Q_{DS}$ for G, $Q_{GD} \leq Q \leq Q_{DS}$ for D, with all varieties with quality higher than Q_{DS}^0 being captured by S. The accession of S into the CU implies that its exports to D and G increase – its market segment increases by $Q_{DS}^0 Q_{DS}^1$.

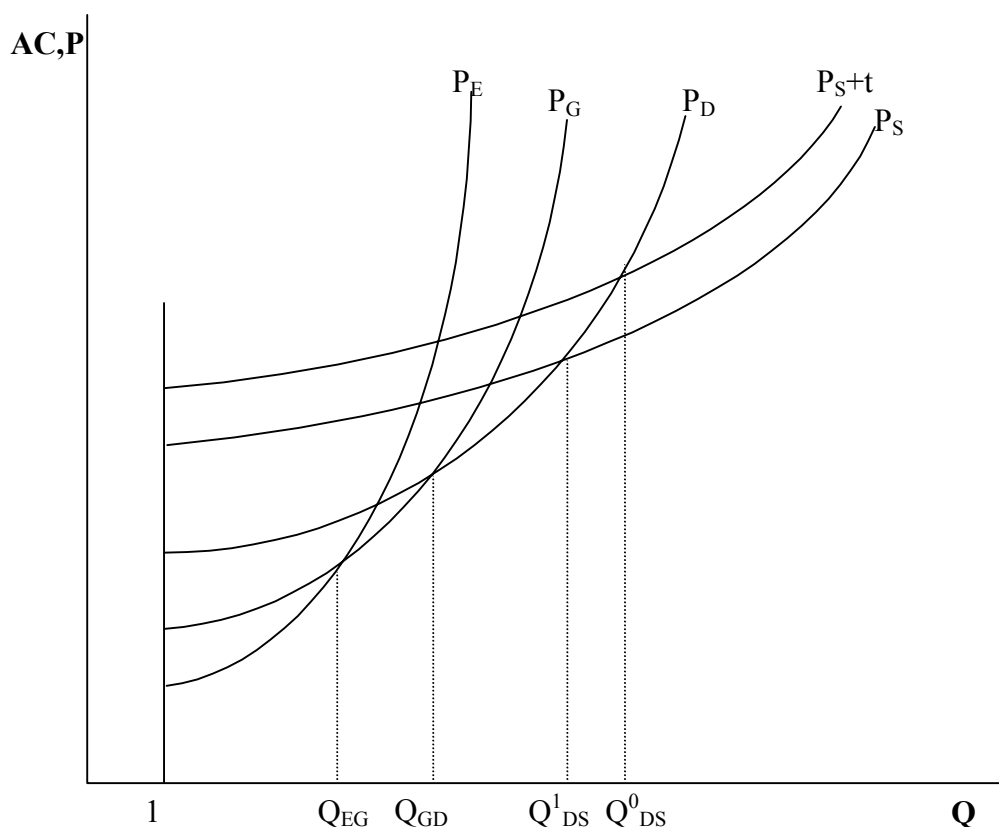


Figure 5: CU effects on market share
(S acceding)

However, this increase is accomplished at the expense of German producers only, who suffer both a decline in their domestic market sales and in their exports to Greece. Both D and G will obviously increase their exports to S's market. Germany will do so at the expense of S's producers, whereas Greece's exports will increase at the expense of E's exports. The intra-country distributional consequences are also reversed in this case. Low- and middle-income households in the incumbent countries are expected to lose from the enlargement, whereas in S it will be low- and middle-income households that will benefit from acceding to a "poor man's" CU. The above analysis implies that both the intra- and inter-country effects of CU enlargement depend on whether it is directed towards countries with lower or higher technological capabilities. As far as the intra-country effects are concerned, incumbent country households (in their role as consumers) prefer that enlargement be directed towards countries that have comparative advantage in varieties that they are consuming. On the other hand, producers prefer that the acceding countries have comparative advantage in varieties that are far removed from the quality spectrum in which they specialize.

The above analysis has been partial-equilibrium in nature since it has paid no attention to the repercussions that would be set in motion by the creation of a trade imbalance. However, since our analysis tries to focus on the preferences of individual producers towards enlargement, it is reasonable to assume that producers care only about the prospect of higher profits. Moreover, even if –somehow– producers had a general equilibrium awareness and could perceive the possible future rise in their (relative) costs, which may result as domestic wages and/or the exchange rate adjust in order to keep the balance of payments in equilibrium, they would still regard an (effectively) non-reciprocal opening of foreign markets to their products (which the Eastern enlargement affords to technologically advanced EU firms) as preferable to a reciprocal opening of domestic and foreign markets.

4. Empirical evidence

In this section we first present some evidence in support of our basic assumptions regarding the differences in technological sophistication and the resulting differences in comparative advantage between the CEECs, the EU countries and Japan. We also present some econometric evidence based on aggregate data, which provides some support for our conclusion regarding the differential impact of trade flows on countries of different technological sophistication as a result of previous EU enlargements.

Our hypothesis that the CEECs have comparative advantage in producing low-quality varieties relative to the EU countries is examined by constructing measures of export quality for the CEECs relative to each EU country. We approximate the quality of exports by the unit values of total exports of Hungary, Poland, Czech Republic and Slovakia relative to each EU country's exports unit value. To this purpose we use 5-digit data from the OECD's "SourceOECD- Trade by Commodities" database, for all SITC 2nd revision categories (they involve 1473 products). The data are for 1999 and the EU countries considered here are Denmark, France, Germany, Greece, Ireland, Italy, Netherlands, Portugal, Spain, and UK. Following Greenaway et. al.(1995), and Fontagne and Freudenberg (1997), we will consider the varieties of a particular product exported by CEE country (j) to be relatively high quality if their unit values are at least 15% higher than the unit values of the varieties exported by EU county (i). Similarly varieties of a product will be characterized as low quality if their unit value in country j

is less than 15% of the unit values of country i . If the relative unit values are within the 15% range then the varieties will be considered of equal quality. We then calculate the share of high quality exports (relative to country i) to total trade of country j ¹².

The logic behind this kind of methodology is that differences in relative unit values reflect differences in relative qualities. Since our data are fairly disaggregated, it is likely that differences in prices will truly reflect differences in quality. Also, since we are using total world trade for each country, it is rather improbable that differences in prices among countries reflect differences in market power across countries.

In table 1, presented below, it is shown that the exports of each CEEC country are concentrated in lower qualities, than every EU(12) country. However, there large variations between countries. The most technologically advanced of the CEECs group are Hungary and the Czech Republic, being slightly below the average quality of Greece, Spain and Portugal. The less technologically advanced is Slovak republic having more than 90% of all its exports in goods whose quality is lower than the quality supplied by every EU country. There is also ample evidence that –with the exception of Estonia and Slovenia, which are similar to Hungary in terms of technological sophistication, -the rest of the candidate countries (Latvia, Lithuania, Bulgaria, Romania) specialize in the production of lower quality varieties.

As for the EU countries, the countries facing higher competition from the CEECs are Greece, Italy, Netherlands, Spain, and Portugal, countries with which the CEECs have the highest share of their exports in higher or same quality varieties. In Table 1f we present the same calculations for Japan, showing that Japan has only 23% of its exports being in lower quality varieties than the EU (12) average (the average for the four CEECs is 86%), whereas it has 62% of its exports being in higher quality varieties than the EU (12) average (the relevant number for the four CEECs is 9%). In fact, there is no EU (12) country, which has a higher share of its exports being in high quality varieties

¹² In many cases a country did no export in same of the product categories, so for each country the total number of products used to construct the index is smaller than the total number of categories available. The calculated values are normalized to sum to one.

than Japan. We also calculate the relative positions of Greece, Portugal and Spain on the quality ladder during their time of accession. Table 2 presents this evidence.

Table 1: Relative Export Unit Values of CEECs and Japan to EU-10 in 1999

Table 1a: Hungary

Country i	Low Quality	Same Quality	High Quality
Denmark	77.71%	13.09%	9.20%
France	73.17%	9.51%	17.33%
Germany	77.80%	8.07%	14.13%
Greece	60.33%	14.97%	24.70%
Ireland	74.89%	10.21%	14.90%
Italy	67.10%	12.35%	20.54%
Netherlands	67.58%	14.86%	17.55%
Portugal	60.04%	20.30%	19.66%
Spain	57.89%	18.20%	23.90%
UK	75.80%	8.86%	15.34%

Table 1b: Czech Republic

Country i	Low Quality	Same Quality	High Quality
Denmark	75.11%	10.10%	14.80%
France	63.31%	18.40%	18.28%
Germany	72.70%	11.14%	16.16%
Greece	47.20%	20.47%	32.33%
Ireland	69.04%	11.00%	19.97%
Italy	60.48%	15.89%	23.63%
Netherlands	59.54%	13.67%	26.78%
Portugal	57.14%	19.66%	23.21%
Spain	54.28%	15.37%	30.35%
UK	67.47%	13.46%	19.07%

Table 1c: Slovak Republic

Country i	Low Quality	Same Quality	High Quality
Denmark	99.44%	0.02%	0.54%
France	99.69%	0.12%	0.18%
Germany	99.55%	0.14%	0.30%
Greece	97.81%	0.02%	2.17%
Ireland	99.58%	0.11%	0.30%
Italy	99.68%	0.01%	0.31%
Netherlands	96.31%	0.32%	3.38%
Portugal	99.29%	0.07%	0.63%
Spain	99.46%	0.12%	0.42%
UK	99.66%	0.06%	0.28%

Table 1d: Poland

Country i	Low Quality	Same Quality	High Quality
Denmark	77.87%	4.97%	17.16%
France	75.09%	11.31%	13.60%
Germany	74.92%	19.02%	6.07%
Greece	63.69%	17.46%	18.85%
Ireland	81.10%	11.94%	6.96%
Italy	73.21%	12.97%	13.82%
Netherlands	65.01%	15.59%	19.40%
Portugal	60.24%	27.78%	11.99%
Spain	65.51%	19.46%	15.03%
UK	74.44%	12.68%	12.88%

Table 1e: CEEC average

Country i	Low Quality	Same Quality	High Quality
Denmark	91.64%	1.00%	7.36%
France	87.43%	3.94%	8.63%
Germany	90.97%	5.74%	3.29%
Greece	82.64%	7.40%	9.96%
Ireland	90.69%	6.00%	3.32%
Italy	83.38%	7.18%	9.45%
Netherlands	81.35%	5.92%	12.73%
Portugal	77.45%	7.98%	14.57%
Spain	84.01%	7.79%	8.20%
UK	87.23%	8.59%	4.18%
Total EU	86.48%	4.73%	8.79%

Table 1f: Japan

Country i	Low Quality	Same Quality	High Quality
Denmark	40.48%	11.88%	47.64%
France	22.36%	13.51%	64.12%
Germany	27.37%	16.26%	56.37%
Greece	25.08%	7.42%	67.50%
Ireland	41.17%	15.39%	43.45%
Italy	20.49%	13.99%	65.52%
Netherlands	33.05%	13.55%	53.40%
Portugal	20.85%	11.21%	67.94%
Spain	20.62%	8.90%	70.48%
UK	26.14%	14.03%	59.83%
Total EU	23.34%	14.86%	61.80%

Table 2: Relative Export Unit Values of Greece, Portugal and Spain to EU countries at the time of their accession

Table 2a:Greece 1980

Country i	Low Quality	Same Quality	High Quality
Denmark	76.82%	13.12%	10.05%
France	65.68%	20.53%	13.79%
Germany	61.16%	20.33%	18.51%
Ireland	52.60%	26.99%	20.40%
Italy	41.00%	35.82%	23.18%
Netherlands	47.81%	35.49%	16.70%
UK	72.19%	18.42%	9.39%
TOTAL EU	53.19%	29.34%	17.47%

Table 2b: Spain 1985

Country i	Low Quality	Same Quality	High Quality
Denmark	67.35%	17.45%	15.20%
France	51.89%	33.45%	14.66%
Germany	62.33%	24.36%	13.31%
Greece	34.99%	30.35%	34.65%
Ireland	63.08%	16.80%	20.12%
Italy	42.77%	38.83%	18.40%
Netherlands	46.91%	35.81%	17.28%
UK	63.41%	24.50%	12.09%
TOTAL EU	52.88%	33.61%	13.51%

Table 2c: Portugal 1985

Country i	Low Quality	Same Quality	High Quality
Denmark	67.85%	19.69%	12.46%
France	64.96%	25.18%	9.86%
Germany	62.17%	29.07%	8.76%
Greece	35.40%	30.41%	34.19%
Ireland	57.01%	19.83%	23.16%
Italy	65.07%	19.60%	15.33%
Netherlands	50.70%	31.25%	18.05%
UK	61.41%	27.35%	11.24%
TOTAL EU	56.75%	27.63%	15.62%

It is obvious from the tables above that the three economies had very similar features during the time of their accession, producing varieties of lower quality than the EU average. Since the CEECs enlargement involves countries which specialize (on average) in the production of even lower quality varieties, compared to the EU-12 average, than the countries of the 1981 and 1986 enlargements, we expect that the effects for the incumbent countries will be in the same direction but stronger than those created by the 1981 and 1986 enlargements.

In the rest of the section we estimate a Net Exports equation in order to find to what extent differential effects on the incumbent EU countries can be expected from the Eastern enlargement. As noted earlier, one may expect that the subsequent adjustment of wage rates and exchange rates in order to restore balance of payments equilibrium may

diminish through time so that no such effects can be uncovered by the data. However, the subsequent macroeconomic adjustments usually have long gestation periods. In such cases, one may expect that the effects of customs union enlargement on an incumbent country's net exports identified earlier will be observed in the data.

Our interest is to establish whether there exists a regime switch in the trade pattern of the EU countries due to the 1981 (Greece) and 1986 (Spain and Portugal) enlargements. From the analysis of the previous section we would expect that –*ceteris paribus*– only the countries, which are not contiguous in the qualities they offer to the acceding countries, will experience an increase in their net exports. The accession of Denmark, Ireland and the UK in 1973 does not give us the opportunity to test this prediction, since the acceding countries were offering varieties that covered the whole quality spectrum (Ireland was offering mainly low-quality varieties, whereas the UK and Denmark were offering mainly middle- and- high quality ones).

The regressions are conducted with annual data for the period 1960-1998 for eight EU countries, which were members before the Iberian accession (namely, Denmark, France, Germany, Greece, Ireland, Italy, Netherlands, and UK). We excluded Belgium and Luxemburg due to missing data from their series. The estimated equation is:

$$NX_{it} = a + \beta X_{it} + \gamma D + e_{it} ,$$

where e_{it} is an iid error, NX_{it} is real total net exports of country i D are intercept dummies. X_{it} is the vector of explanatory variables. In common with the empirical literature on net exports (see, Rose (1991), we use as explanatory variables the logarithms of domestic GDP, World GDP and Real Exchange Rates (RER).

We use dummies in order to capture the effects of previous enlargements. Our prime interests, for the reasons mentioned above, are the enlargements of 1981 and 1986. These two events may cause a regime switch and a change in the slope and intercept coefficients¹³. However, the same effect may also be produced from the 1973 enlargement. In addition to these enlargements, starting from 1990 a number of events

¹³ We estimated the equation allowing for a change in the slope coefficients (slope dummies). In most equations these slope dummies were found to be insignificant. Slope breaks were found to be significant only in the estimated equations for Greece, Denmark and Ireland, but even in these cases there was no change in the results for the intercept dummies.

altered existing patterns of international trade. These include the extension of the Generalized System of Preferences concessions to the CEECs countries, the reunification of Germany, and the Europe Agreements between the EU and the CEECs (most of them came into effect after 1994). A-priori it is difficult to form an opinion about the joint effects of these changes. Moreover, these effects are not likely to be picked up by the data, since there are very few observations after 1991 (when the results of these effects may have been strong enough).

The data for real domestic GDP and real World GDP were obtained from the CHELEM (Harmonized Data for International Trade and World Economy) database, the real net exports data were taken from the OECD's Main Economic Indicators, and the real exchange rate data were taken from the IMF's International Financial Statistics. All variables were tested for stationarity, by means of the Augmented Dickey Fuller test. For all countries the variables were found to be non-stationary, with the exception of the real net exports (dependent variable) for Ireland and France. After that the equations were tested for cointegration with the Engle-Granger test. None of the equations were found to be cointegrated¹⁴. In order to see whether this was due to the structural break in the sample (see for example, Maddala and Kim, 1998), we split the whole sample in two sub-samples before and after the expected (from our theory) break. Even in this case no significant evidence of a co-integrated relation was found in the sub-samples. (Since the results of these tests are similar to the ones found by Rose (1991) and are not crucial for our findings, we do not present them here -but they are available upon request). As a result the analysis is conducted by taking the first differences of the non-stationary series.

Our strategy with respect to the regime switching dummies is as follows: We first estimated the equation without the dummies. We then performed Cusum and Cusum Squares test to test the stability of the coefficients. When one of the tests showed instability, we performed Chow breakpoint tests for these years. Whenever we established that indeed at the time of enlargement existed a breakpoint we included the particular dummies (intercept dummy).

In table 3 we present the results of the econometric testing¹⁵. First, we note that the 1973 enlargement had no effect on the incumbent countries, a result that is consistent with our theoretical framework. Second, we find that Greece's accession in 1981 resulted in a (statistically) significant reduction of net exports for Italy only – a result explained both by Greece's small size and the fact that Italy was the most contiguous country to Greece in quality terms in 1981 (see, Table 2a). Third, the Iberian accession in 1986 resulted in (statistically) significant positive effects on the net exports of Germany and Ireland, and negative effects on the net exports of France and Greece. The contrasting effects on the net exports of Germany and Greece (two countries which occupied opposite positions in terms of vertical specialization vis-à-vis Spain and Portugal in 1986, see Tables 2b and 2c) also provide some support that our predictions regarding the differential effects of the Eastern enlargement may not be too wide off the mark.

Table 3: Main Results

	Denmark	France	Germany	Greece	Ireland	Italy	Netherlands	UK
Constant	19.29**	86.99***	12.20***	6.21*	-9.45	35.12***	-1.22	2.71
GDP	-533.62***	-991.9*	-369.45***	-105.07**	354**	-780.58***	-90.94***	-274.95**
WorldGDP	54.45	-762.68***	50.57	-17.55	-250.59***	99.15*	133.45***	-10.49
RER	-66.64	166.0961	201.39**	-30.18	192.30*	-148.82**	-31.77	160***
Dummy								
1974	-5.21				-15.98*			
1981				6.17	17	-11.67*		
1986		-70.88**	12.04**	-7.19**	54.30***			
R-square	0.44	0.46	0.45	0.33	0.77	0.54	0.80	0.35

*statistical significance at 10%

**statistical significance at 5%

***statistical significance at 1%

5. Concluding Remarks

In this paper we have argued that the effects of CU expansion may vary significantly among the incumbent countries, and that a primary determinant of how the effects are

¹⁴ Since we are interested in hypothesis testing we adopted a strict test for stationarity, testing the null of no cointegration at 1% level of statistical significance using the Augmented DF test for cointegration and the critical values provided by MacKinnon(1991) .

¹⁵ As is well known, there is simultaneous determination of some of the right-hand side variables and of the trade balance. Following standard practice (see, Rose (1991)) we have also estimated the equations using instrumental variables. Since the results turned out to be the same in both cases, we have chosen to present the results of the most efficient estimator, which is the OLS.

spread among them, is whether the expansion is directed towards countries with higher or lower technological sophistication than the incumbent ones. We have also argued that among EU firms only those that are technologically advanced (i.e. those residing in high-income countries) may stand to gain more from the planned Eastern enlargement, than from a multilateral opening of the markets. In contrast, less technologically sophisticated firms (usually residing in low-income EU countries) would prefer that enhanced opportunities for market access were traded with high-income countries.

The mechanism behind the (possibly) asymmetric effects of the Eastern enlargement identified in this paper is by no means the only one. Another – potentially complementary, and in the long-run more important - mechanism through which the enlargement could produce significant changes in existing trading patterns is through the intensification of the ongoing process of reorientation of FDI away from the Southern EU members toward the new entrants. Studying the influence of FDI flows on quality upgrading and the changing trade patterns at a dis-aggregate level is gradually becoming possible as the available data relating to these changes accumulate.

From a political economy perspective, this paper seems to suggest that after the first wave of candidate countries has entered the EU, the decision to expand further to the East and to the South will be slightly more complicated. Key producer interests in the technologically advanced EU countries will still prefer to give “preferential access” to the (second wave) candidate countries firms to the EU markets in exchange for receiving similar treatment in those countries markets. But, the coalition against further expansion will by then have grown stronger since not only the Southern EU countries will be potential opponents of further expansion, but the newly admitted countries (and their producer’s) as well – in addition to those disaffected by immigration or reduced access to existing side-payments (i.e. CAP, structural funds, etc.). The “invention” of complicated schemes for further side-payments (including political ones) will then be a crucial factor behind the possibility of further enlargement.

References

- Arndt, S. (1968), "On Discriminatory Versus Non-Preferential Tariff Policies", *Economic Journal*, 78, 971-979.
- Arndt, S. (1969), "Customs Union and the Theory of Tariffs", *American Economic Review*, 59, 108-118.
- Baldwin, R. (1994), *Towards an Integrated Europe*, Centre for Economic Policy Research, London.
- Baldwin, R., J. Francois and R. Portes (1997), "The Costs and Benefits of Eastern Enlargement: The Impact on EU and Central Europe", *Economic Policy*, 127-176.
- Bhagwati, J. (1993), "Regionalism and Multilateralism: An Overview", in J. de Melo and A. Panagariya (eds.), *New Dimensions in Regional Integration*, Centre for Economic Policy Research, London.
- Burenstam-Linder, S. (1961), *An Essay on Trade and Transformation*, Almqvist and Wiksell, Stockholm.
- Corden, W.M. (1984), "The Normative Theory of International Trade", in R. Jones and P. Kenen (eds.), *Handbook of International Economics*, vol. I, North-Holland, Amsterdam.
- Durkin, J.T. and M. Krygier, (2000), "Differences in GDP per Capita and the Share of Intra-Industry Trade: The Role of Vertically Differentiated Trade", *Review of International Economics*, 8, 760-774.
- Eaton, J. and H. Kierzkowski, (1984), "Oligopolistic Competition, Product Variety, and International Trade", in H. Kierzkowski (ed.), *Monopolistic Competition and International Trade*, Oxford University Press, Oxford UK.
- Ethier, W. (1998), "The New Regionalism", *Economic Journal*, 108, 1149-1161.
- Faini, R. and R. Portes (eds.) (1995a), *EU Trade with Eastern Europe: Adjustment and Opportunities*, Centre for Economic Policy Research, London.
- Faini, R. and R. Portes (1995b), "Opportunities Outweigh Adjustment: The Political Economy of Trade with Central and Eastern Europe", in R. Faini and R. Portes(eds.), *EU Trade with Eastern Europe: Adjustment and Opportunities*, Centre for Economic Policy Research, London.
- Falvey, R. (1981), "Commercial Policy and Intra-Industry Trade", *Journal of International Economics*, 11, 495-511.
- Falvey, R. and H. Kierzkowski (1987), "Product Quality, Intra-Industry Trade and (Im)perfect Competition", in H. Kierzkowski (ed.), *Protection and Competition in International Trade, Essays in Honor of W. M. Corden*, Basil Blackwell, Oxford, UK.
- Fernandez, R. and J. Portes (1998), "Returns to Regionalism: An Analysis of Nontraditional Gains from Regional Trade Agreements", *World Bank Economic Review*, 12, 197-220.
- Flam, H. and E. Helpman (1987), "Vertical Product Differentiation and North-South Trade", *American Economic Review*, 77, 810-822.

- Francois, J. (1997), "External Bindings and the Credibility of Reform", in A. Galal and B. Hoekman (eds.), *Regional Partners in Global Markets*, Centre for Economic Policy Research, London.
- Freudenberg, M. and F. Lemoine (1999), "Central and Eastern European Countries in the International Division of Labour in Europe", CEPII Working Paper, 1999-05.
- Gabszewicz, J. and Thisse, J., (1979), "Price Competition, Quality and Income Disparities", *Journal of Economic Theory*, 20, 340-359.
- Greenaway, D., Hine, R.C. and C.R. Milner (1995), Vertical and Horizontal Intra-Industry Trade: A Cross-Industry Analysis for the United Kingdom, *Economic Journal*, 105, 1505-1519.
- Grossman, G. and E. Helpman (1994), "Protection for Sale", *American Economic Review*, 84, 833-850.
- Grossman, G. and E. Helpman (1995), "The Politics of Free-Trade Agreements", *American Economic Review*, 85, 667-690.
- Hamilton, C. and A. Winters (1992), "Opening Up Trade in Eastern Europe", *Economic Policy*, 14, 77-117.
- Jones, R. (2000), *Globalization and the Theory of Input Trade*, MIT Press, Cambridge, Mass.
- Jones, R. and H. Kierzkowski (2001), "A Framework For Fragmentation", in S. Arndt and H. Kierzkowski (eds) *Fragmentation: New Production Patterns in the World Economy*, Oxford University Press, Oxford, UK.
- Kemp, M. (1969), *The Pure Theory of International Trade and Investment*, Prentice-Hall, Englewood Cliffs, N.J..
- Krishna, P. (1998), "Regionalism and Multilateralism: A Political Economy Approach", *Quarterly Journal of Economics*, 113, 227-251.
- Lavigne, M. (1995), *The Economics of Transition*, Macmillan, London.
- Lynch, F. (1997), *France and the International Economy: From Vichy to the Treaty of Rome*, Routledge, New York.
- Mackinnon, J. , (1991), Critical Values for Co-integration tests, in R.F. Engle and C.W.J. Granger (eds.), *Long Run Economic Relationships*, Oxford University Press, Oxford, UK.
- Maddala, G.S., Kim, I.M., (1998), *Unit roots, Cointegration and Structural Change*, Cambridge University Press, Oxford, UK.
- Malley, J. and T. Moutos (2002), Vertical Product Differentiation and the Import Demand Function: Theory and Evidence, forthcoming, *Canadian Journal of Economics*.
- Meunier, S. (2000), "What Single Voice? European Institutions and EU-U.S. Trade Negotiations", *International Organization*, 54, 103-135.
- Milward, A. (1984), *The Reconstruction of Europe, 1945-51*, Berkeley University Press, Berkeley.

- Moravcsik, A. (1998), *The Choice for Europe: Social Purpose and State Power from Messina to Maastricht*, Cornell University Press, Ithaca.
- Moutos, T., (2001), Why Do Poor Democracies Collect A Lot of Tariff Revenue?, *Economics and Politics*, 13, 95-112
- Mundell, R. (1964), "Tariff Preferences and the Terms of Trade", *Manchester School of Economic and Social Studies*, 32, 1-13.
- Nogues, J. and R. Quintanilla (1993), "Latin America's Integration and the Multilateral Trading System", in J. de Melo and A. Panagariya (eds.), *New Dimensions in Regional Integration*, Centre for Economic Policy Research, London.
- Pagoulatos, G. (2000), "Economic Adjustment and Financial Reform: Greece's Europeanization and the Emergence of a Stabilization State", *South European Society and Politics*, 5, 191-214.
- Panagariya, A. (2000), "Preferential Trade Liberalization: The Traditional Theory and New Developments", *Journal of Economic Literature*, 38, 287-332.
- Parsons, G. (2000), "Domestic Interests, Ideas and Integration: Lessons from the French Case", *Journal of Common Market Studies*, 38, 45-70.
- Perroni, C. and J. Whalley (1994), "The New Regionalism: Trade Liberalization or Insurance?", NBER Working Paper no. 4626, National Bureau of Economic Research, Cambridge, Mass.
- Riezman, R. (1985), "Customs Unions and the Core", *Journal of International Economics*, 19, 355-365.
- Rollo, J. and A. Smith (1993), "The Political Economy of Eastern European Trade with the European Community: Why So Sensitive ?", *Economic Policy*, 16, 140-81.
- Rose, A. (1991), "The Role of Exchange Rates in a Popular Model of International Trade: Does the Marshall-Lerner Condition Hold?", *Journal of International Economics*, 30, 301-316.
- Schott, P. K., (2001), "Do Rich and Poor Countries Specialize in a Different Mix of Goods? Evidence from Product-Level US Data", NBER Working Paper W8492.
- Tornell, A. and G. Esquivel (1997), "The Political Economy of Mexico's Entry into NAFTA", in T. Ito and A. Krueger (eds.), *Regionalism Versus Multilateral Trade Agreements*, Chicago University Press, Chicago.
- Tsoukalis, L. (1993), *The New European Economy: The Politics and Economics of European Integration*, Oxford University Press, Oxford.
- Vanek, J. (1965), *General Equilibrium of International Discrimination: The Case of Customs Unions*, Harvard University Press, Cambridge, Mass.
- Viner, J. (1950), *The Customs Union Issue*, Carnegie Endowment for International Peace, Lancaster, PA.
- Whalley, J. (1998), "Why Do Countries Seek Regional Trade Agreements", in J. Frankel (ed.), *The Regionalization of the World Economy*, Chicago University Press, Chicago.