

EC-92 and International Trade

A. M. PHARHIZGARI

Florida International University, Florida, USA

ABSTRACT

*Full execution of EC-92 and its impact on intra-EC and international trade are investigated. Theoretical aspects of such integration are analyzed and a model capturing the **trade creation** and the **trade diversion** effect of EC-92 is designed and empirically tested. The implications of the results in terms of intra-EC trade and international trade are pointed out.*

Key Words: EC-92, Trade Creation, Trade Diversion, Econometrics

INTRODUCTION

The idea of creating a single European economy based on a common market is not a new one. Since the Treaty of Rome was signed in 1957, the European community has been building its common Market¹. The 1985 Commission's White Paper proposing the removal of all technical, physical and fiscal barriers in 1992², and the adoption of the Single European Act in 1986 represent the major steps in that direction.

The initial step taken in 1957 to create a common market involved two major elements. One was the elimination of custom duties, the other was the establishment of uniform custom duties for goods entering any state from non-EC countries. As a result of these measures, trade within the European community grew rapidly until 1972. For nearly a decade and a half thereafter, Europe experienced a prolonged period of relatively slow growth, high unemployment and slowdown in intra EC-trade (Jacquemin and Sapir, 1988). These, specially the deceleration of intra-community trade, were attributed to two factors: exchange rate variability and the failure to complete the process of European integration. After the success of the European Monetary System (EMS) in stabilizing exchange rates, the major explanation of the problem fell heavily on the structural barriers springing from lack of the desired integration. The 1992 move, it

could be argued, was intended to rectify this problem.

The purpose of this paper is to investigate the impact of European integration on intra-EC trade and international trade. Section I discusses the major structural barriers affecting trade in the two dimensions considered. Section II briefly analyzes the overall aspects of trade barrier elimination. In section III a model designed to capture the trade impact of 1992 is presented. Distinction is made between the trade creation effect of eliminating internal barriers and the trade diversion effect of increasing the common external tariff. In section IV the model is applied and its empirical results are presented. Finally, section V analyzes the implications of the results for intra-EC trade with the rest of the world, and discusses some strategic moves for EC and non-EC firms.

I. EC STRUCTURAL BARRIERS

The pre EC-92 major structural barriers affecting EC trade fell into three broad categories: physical, technical and fiscal.

Physical Barriers

Administration formalities and border related controls were the most obstructive barriers to cross border trade. Member countries used these controls to collect value added tax (VAT), to ensure conformity with varying

health and safety regulations, and to regulate products subject to import quotas.

According to a research study launched in 1986 by the European Commission, firms paid about ECU 8.0 billion³ (approximately 1.5 percent of the average consignment value) in administrative costs resulting from intra-EC customs procedures. When cost of delays was added to this figure, an estimate close to 20 percent was reached. Beyond the direct cost that customs formalities and delays imposed upon companies, there was an additional cost related to the business foregoing opportunities and turnover that was estimated at about 3 percent of total intra-EC trade. Finally, the cost to the European governments in terms of human resources required to artificially restrict trade was about ECU 500 to 1,000 million. These estimates corresponded to about, respectively, 15,000 and 30,000 employees who were involved in the administration of intra-EC customs and tax controls.

Substantial progress has been made towards the elimination of border controls. An example is improvements in documentation required of truckers crossing borders. Prior to January 1988 truckers were required to supply up to 35 import-export declaration documents when crossing borders within EC. This requirement was reduced to a single documentation and was abandoned altogether in December 1992.

Technical Barriers

Barriers in this category stemmed from differences between the EC countries' regulations, standards and certification procedures. These barriers in general resulted in significant direct and indirect costs to European producers and consumers. They: a) prevented large scale production; b) increased the cost of storing raw materials and finished products; and c) reduced competition, and its beneficial effects on prices and on the range of choices available to consumers. According to European Commission findings, the cost of these barriers was estimated to be as high as ECU 4.8 billion.

Under the EC-1992 programme, health, safety and environmental regulations were standardized among the members. The guidance principle in setting standards states that if a product is good enough to be offered in one EC country and meets the minimal EC requirements, it is good enough to be offered in all EC countries. For example, common radio wavelengths for mobile telephone are established, making a single standardized product available to all users in Europe. Similarly, compatible auto emissions standards for all cars are established.

A set of technical barriers are also embodied in the selection process and awarding of public contracts. In 1986, total purchases controlled by the public sector were worth ECU 530 billion (15 percent of the Community's GDP). The potential savings in public expenditure gained by opening up and harmonizing public procurement procedures are estimated to be ECU 17.5 billion (0.5 percent of the Community's GDP). This policy is expected to enhance competition and result in some structural changes. The competition would lead to downward pressure on prices charged by domestic firms as they strive to compete with one another and with foreign companies. The restructuring is expected to occur in the long run as industries reorganize themselves under the pressure of new competitive conditions.

Fiscal Barriers

Fiscal barriers were directly related to different rates of value added tax (VAT) and excise duties, and different accounting standards. It was estimated that the extra-administrative burden imposed by different fiscal and auditing systems accounts for up to 30 percent of the administrative costs of firms in the EC.

The Commission's 1985 White Paper, which was expected to be fully implemented by the end of 1992, treats border crossing transactions within the EC exactly like transactions within a member state. To this end, it recognized the need and purported to implement three basic measures: a) harmonization of the national excise duty

rates and regimes, b) provision of a community clearing mechanism, and c) harmonization of national VAT rates to lessen the risk of tax evasion and unfair competition. By now, implementation of most of these measures would have been accomplished.

II. EC TRADE BARRIER ELIMINATION

The removal of trade barriers has been expected to boost the EC significantly. The 1992 program created a huge unified market of 350 million consumers, with goods, services and capital moving across national borders as easily as they do across the state borders in the US. This is sizeable market compared with US and Japan which serve, respectively, 260 and 120 million (see Neven and Roller, 1991; and Hughes, 1992).

Beyond the cost directly saved by removing the trade barriers, additional long term gains have been expected due to the implementation of the 1992 program. Gains from increased economic efficiency can arise from the reallocation of production within the area on the basis of national endowments and comparative advantage. These gains can be reinforced by economies of scale that individual firms may be able to achieve. (The Commission estimated the savings from increasing the scale of production at about 2 percent of GDP⁴.) In addition and even more important has been the economic growth induced by the reduction of barriers to trade. An extra non-inflationary growth of 5 percent has been expected.

The extent to which these gains will be shared with, or achieved at the expense of, non-EC countries will depend in large on the balance between trade creation and trade diversion effect of the EC-92 program. Trade creation exists when the elimination of internal trade barriers increases the volume of trade by making lower the cost of goods and services available. Trade diversion will occur if less efficient producers inside the EC replace more efficient external producers because the outsider still faces the common external tariffs. The degree of trade diversion will depend on the height of the external tariffs.

III. AN EMPIRICAL MODEL

For brevity, intra-EC imports and the EC imports from the rest of the world are modelled. Analysis of intra-EC exports is the counterpart of imports by definition, though exports of EC to the rest of the world require separate consideration. Using a general functional form, it is hypothesized that for intra-EC imports:

$$M = f(CC, IC, TB, MP) \quad (1)$$

where M is the share of imports from community origin and is defined as the ratio of the amount of each EC country imports from community origin to its total imports. This ratio is hypothesized to depend on country characteristics (CC), industry characteristics (IC), trade barriers (TB) (internal and external), and import prices (MP). EC imports from the rest of the world is also hypothesized to follow relationship (1). In this case, M represents imports of each EC country from the rest of the world to the total EC imports from all the non-EC countries.

Some *a priori* (theoretical) specifics of relationship (1) follow.

Country Characteristics

The more similar the demand structures of two countries, the more intensive would be the trade between them. While no simple factor could be designated to capture the structure of demand, it is shown (see Balassa and Bauwens, 1988 and the references therein cited) that the level of average income and size have significant influence on the structure of demand. Balassa and Bauwens (1988) tested these variables within the context of a multi-country intra-industry model. Based on their results, we hypothesize that the extent of EC member imports from EC origin, as opposed to imports from non-EC countries, will be positively correlated with the level of average income and size. In testing this hypothesis, average income is measured as real per capita GNP; and size as the ratio of GNP of the member country to GNP of the Community.

Industry Characteristics

Theories of intra-industry trade have generally singled out economics of scale as the most predominant industry characteristics (see, for example, Greenaway and Hine, 1991 and Caballero and Lyons, 1990). Several indicators have been employed as proxies for economies of scale in empirical investigations of intra-industry trade. For example, Caves (1981) proxied this variable by the ratio of minimum plant size to a measure of the cost disadvantage of small firms. Building on Caves' measure, Balassa and Bauwens (1988) used the ratio of the share of the largest plants in the U.S. industry to the share of the value added per worker in the smaller plants.

Loertscher and Wolter (1980) used value added per establishment, and Jacquemin and Sapir (1988) used British data on the output achieved in each industry by the largest plant. Intuitively, this measure seems to convey a more realistic grasp of the 'scale' factor and does not impose much difficulty on the measurement side. This measure as well as a more strict measure of economies of scale, i.e., $\partial \ln TC / \partial \ln Q$, where TC and Q are total cost and output, respectively, and \ln is natural logarithms, are employed here. Though construction of proxies for scale requires more detailed data at the intra-industry level, at the aggregate country level only computation of a general measure of economies of scale is feasible.

Trade Barriers

Studies modelling trade barriers abound. Generally, internal and external barriers are treated separately. This is the approach taken here. Two variables, IBAR and EBAR, representing, respectively, internal and external barriers are considered.

Internal barriers (physical, technical and fiscal) are expected to have had a substantial effect on intra-EC imports. An *a priori* negative relationship between internal barriers and imports from EC is hypothesized. Elimination of these barriers would then result in increases in the volume of intra-EC trade via reductions in the cost of goods and

services available. This was termed earlier as 'trade creation effect.'

In the absence of data on the height of internal trade barriers, proxies based on the estimates made by the European commission are employed. These estimates purport that the combined total cost of physical, technical and fiscal barriers is about 3.5 percent of the industrial value added of the EC members⁵.

External barriers (EBAR) are proxied by the common external tariffs. An *a priori* positive relationship between the common external tariffs and the intra-EC imports is hypothesized. Thus, the higher the external tariffs, the more expensive the foreign products, hence the higher the volume of trade among the EC members. This variable is to capture another concept that was introduced earlier, i.e., the 'trade diversion effect'. Trade diversion will occur if the less efficient producers inside the EC replace the more efficient external producers as a result of the common external tariffs.

As a first step in measuring the common external tariffs, we employ the observed tariffs which correspond to the amount collected by each community member customs' office. To avoid technical difficulties at the estimation level, i.e., serial correlation, heteroscedasticity and possibly multicollinearity, this variable is expressed in ratio form by dividing it by the value of the EC imports from the rest of the world. Similar technical procedures are also considered in the construction of the other variables by expressing them in ratio forms (see Equation 2, below).

Import Prices

Theoretically, the law of supply and demand dictates here. There is thus an *a priori* expectation of a negative relationship between import prices and the quantity of imports. Accordingly, the higher the prices outside EC, the lower the imports from non-EC countries, and the higher the volume of trade among the EC members. For the technical reasons mentioned earlier, this variable, i.e., EC import prices, is also measured in ratio

form by dividing it by the world import prices.

Detailed Form of the Model

To recapitulate the above analysis, the expanded form of the general relationship (1) is:

$$M_i/TM_i = f(GNP_i/POP_i, GNP_i/GNP_{EC}, \Sigma_j (Q_{ij}/Q_{ij}^*), \Theta_i, IVA_i, TARIF_i/TMNEC_i, PMEC_i/PM_w)$$

where:

M_i	=	Intra-EC imports of country member i
TM_i	=	Total imports of country member i
GNP_i	=	Gross National Product of member i
GNP_{EC}	=	GNP of the Community
POP_i	=	Population of member i
Q_{ij}	=	Output of industry j in member i
Q_{ij}^*	=	Maximum output of the largest plant in industry j in member i
Θ_i	=	Commission's estimates of cost of physical, technical and fiscal barriers for member i
IVA_i	=	Industrial value added for member i
$TARIF_i$	=	Common external tariff imposed by member i
$TMNEC_i$	=	Total imports of country i from the rest of the world (=non-EC)
$PMEC_i$	=	Price of intra-EC imports in member i
PM_w	=	World import prices

Assuming an additive specification for practical purposes, relationship (2) is empirically applied in the next section.

IV. RESULTS

An additive form of relationship (2) is empirically estimated using quarterly data for

the years 1979 to 1990 on four major EC nations, i.e., U.K., Germany, Italy and France. The main portion of the data was collected from the International Financial Statistics, Government Finance Statistics, Direction of Trade Statistics, and the OECD Statistics (OECD Economic Outlook and OECD Indicators of Industrial Activity).

Considering the interrelationships that exist among the imports of the EC, the method of estimation chosen are both OLS and Zellner's (1970) SUR (seemingly unrelated regressions). For simplicity in presentation, we adhere to the more general notations used in relationship (1), though their underlying proxies as specified in relationship (2) are employed. For example, the dependent variable (M) is the level of the intra-EC imports to total imports. All variables are expressed in real terms (adjusted for inflation) and are in local currencies. Since these variables enter into the equation in ratio form, the effect of currency fluctuations are substantially mitigated, if not completely removed. Furthermore, the last variables, i.e., $PMEC_i/PM_w$, being measured in local currencies relative to the dollar, reflect the effect of foreign exchange directly.

Tables 1 and 2 provide the OLS and the SUR estimates of relationship (2) for the four countries considered. The t statistics are in parenthesis under the parameter estimates. Nearly all the estimated parameters are significant at the 5 percent level and carry the *a priori* expected signs. The R^2 , DW, and the F values of the equations suggest satisfactory robust results. In particular, lack of serial correlation, as evidenced by the relatively high values of DW, should be noted.

The overall performance of the variables measuring country characteristics (GNP_i/POP_i) and external trade barrier ($TARIF_i/TMNEC_i$) appear conclusive. These two seem to dictate the extent of intra-community trade and are statistically highly significant for the countries analyzed. The second variable could be the source of trade diversion which was pointed out earlier.

Internal barriers (Θ_i, IVA_i) and economies of scale ($\Sigma_j (Q_{ij}/Q_{ij}^*)$) have a reverse impact on imports from EC origin. These variables are highly significant as well. The former could be

TABLE 1. OLS Estimates of Intra-EC Imports

Country	Constant	GNP/POP	IBAR	EBAR	E. of S.	RMP	R ²	DW
U.K.	0.2807 (1.9323)	0.3591 (5.3129)	-0.0026 (-7.0075)	2.5132 (1.1783)	-0.0013 (-1.6379)	0.2285 (1.2609)	0.7743	1.7389
Germany	0.2413 (2.0788)	0.0628 (2.7939)	-0.0004 (-2.4515)	58.4079 (2.0201)	-0.0007 (-2.4531)	0.2721 (1.9166)	0.6053	1.7389
France	-0.4065 (-2.0998)	-0.0013 (-0.2147)	0.0002 (7.5345)	25.2860 (2.0789)	-0.0007 (-1.0452)	-0.0903 (-0.7967)	0.6896	1.9891
Italy	0.5155 (1.9571)	0.1140 (5.4730)	-7.1964 (-4.2978)	179.347 (3.6058)	-0.0015 (-1.8097)	-0.0685 (-0.7888)	0.7887	1.4386

EBAR = $TARIF_i / TMNEC_i$ (External Barriers)

IBAR = $Q_i / IV A_i$ (Internal Barriers)

E. of S. = $S_j Q_{ij} / Q_{ij}$

TABLE 2. SUR Estimates of Intra-EC Imports

Country	Constant	GNP/POP	IBAR	EBAR	E. of. S.	RMP
U.K.	0.01804 (0.1377)	0.0000004 (2.7792)	-0.0002 (-0.6576)	1.3828 (0.6378)	-0.0007 (-0.9357)	0.3980 (2.3089)
Germany	0.5102 (9.5349)	0.0094 (3.4229)	-0.0003 (-1.6634)	71.0565 (2.7291)	-0.0004 (-0.7667)	0.0299 (-0.3626)
France	0.6930 (3.3542)	0.0260 (3.0706)	0.00006 (0.7192)	12.3041 (0.7264)	-0.0035 (-3.9961)	-0.2061 (-1.3340)
Italy	0.7248 (2.2629)	0.0329 (2.4607)	-0.0065 (-0.6424)	32.6482 (0.5769)	-0.0024 (-2.8273)	-0.0627 (-0.7155)

the source of trade creation mentioned earlier. The negative sign in the economies of scale variable supports the results of previous studies (Jacquemin and Sapir, 1988). It suggests that the scale factor might be concomitant to oligopolistic or monopolistic powers and hence the arrival of higher prices. During the early years in the post EC-92 era, a lot of restructuring have been expected and firms belonging to both the EC and the non-EC countries have implemented a number of relocation strategies and have made substantial moves to exploit economies of scale.

The results for the import price variable is less conclusive since this variable is not significant for Italy and the United Kingdom and has the wrong sign for Germany. This could be due to data problem. The figures for EC import prices (numerator) may be somewhat inaccurate, reflecting not only imports from the EC origins but also some imports from the non-EC origins. To rectify this possible problem, relationship (2) is estimated without this variable as well. The OLS and SUR results (not reported for brevity⁶) support this point. All variables behave as expected and are statistically significant at the level of 5 percent or below. These results are also fully consistent with those in Tables 1 and 2 and support the hypotheses set forth in Section III.

V. IMPACT ANALYSIS AND CONCLUSIONS

Using the estimated form of relationship (2) which was presented in Table 1 and employing one or more of the dependent variables as policy variables, a set of impact analyses could be performed. For simplicity in presentation, we limit this analysis to the impact of EC-92 on intra-EC and international trade and focus mainly on the trade creation and the trade diversion effects of the change. Two key variables in this regard are the internal and external barriers, i.e., $\Theta_i IVA_i$ and $TARIF_i/TMNEC_i$. The import price variable ($PMEC_i/PM_w$), if quasi-controlled or influenced through some deliberate policies, could be effective as well.

The elasticities corresponding to the barrier variables are: $a_{i3} [\Theta_i IVA_i/(M_i/TM_i)]$ and $a_{i4} [(TARIF_i/TMNEC_i)/(M_i/TM_i)]$ where a_{i3} and a_{i4} are, respectively, the estimated coefficients on the internal and external barrier variables for country i (see Table 1 or Table 2). The trade creation and the trade diversion effects of a percentage change in the barrier variables are, therefore, multiples of a_{i3} and a_{i4} , respectively. We consider the trade creation effect first and assume *ceteris-paribus* for any changes discussed hereafter.

Since, as expected, a_{i3} is negative, complete removal of the internal barriers would lead to an increase in the volume of intra-EC trade. To avoid the inaccuracies that might be introduced into the results by forecasting the explanatory variables for the years 1993, 1994 and beyond, we resort to an "as if scenario" based on the "change" occurring at the end of our database. Since most of the variables are in ratio form, the effect of the change in variables in post EC-92 is expected to be mitigated, if not fully offset. To this extent, the assumption behind the as-if scenario might then be regarded less heuristic.

On the assumption that the physical, technical and fiscal barriers were to be completely removed at the end of the last quarter of 1990 (the last period in our database), the **direct** trade creation impact *per quarter* on United Kingdom, Germany and Italy would be, respectively, increases of \$23,743.00, \$29,619.00, and \$19,830.00 in imports from the EC members. These are, respectively, 126, 69, and 102 percent of each country's total intra-EC imports. These results, along with other estimates to be discussed later, are reported in Table 3. Further refinements of these estimates follow.

It could be argued that the above direct increases in intra-EC imports have been highly conducive to increased competitiveness as they would entail import penetration in each national market. Furthermore, the elimination of internal barriers have had indirect positive effect on intra-EC trade via its positive impact on GNP and economies of scale.

Regarding the indirect impact via GNP, the chain of analyses is straightforward.

Removal of barriers would reduce production costs which, under the pressure of strengthened competition, exert downward pressure on prices. This would result in a gain in purchasing power which in turn would stimulate the aggregate economic activity (GNP). The indirect impact on GNP of eliminating internal barriers is estimated elsewhere at about 5 percent⁷. The above estimates of trade creation could thus increase by an amount equal to a multiple of .05 (a_{ii}) of per capita GNP due to the induced positive GNP impact on intra-EC trade (a_{ii} is the coefficient of (GNP_i/POP_i) for country i). See Table 1, column 3, and Table 3, column 6.

Regarding the induced impact via economics of scale, the removal of technical barriers has allowed both the EC and non-EC businesses to reduce cost by exploiting fully potential economies of scale within the EC. Previous empirical work have shown that the greater the opening to trade, the greater would be the required size to compete⁸. Therefore, after the removal of barriers short run gains in intra-EC imports were achieved due to increases in production that in turn allowed the fixed investment cost to be covered by larger sales volume. This positive effect, however, may not sustain for the larger well established non-EC firms which now face no borders within the EC (see Scaperlanda, 1992).

It could be hypothesized that in the very long run this competitive edge of the non-EC units might be reversed, especially after the EC companies and production units restructure themselves and get closer to the most efficient scales of production. The Commission has provided a ball park estimate that in the very long run the total gains from increasing the scale of production will be about 2 percent of GDP⁹. Based on this estimate, the induced trade creation of EC-92 stemming from the resultant economies of scale on GNP would be $0.02 \times a_{ii} \sum_j GNP_i/POP_i$. This measure is included in column 7 of Table 3. The totals, i.e., direct plus induced trade creation impacts, are reported in the last column of Table 3.

The direct effect of trade diversion in each quarter per a one percent increase in common external tariff imposed by country i

is the value of its EBAR elasticity reported in column 1 of Table 3. These are 0.0174, 0.0497, 0.0647 and 0.1859, respectively, for the United Kingdom, Germany, France and Italy. The induced effect of this variable is somewhat unclear since it would depend mostly on the interplay of post EC-92 trade strategies of the EEC and the rest of the world (see, for example, De Lotto, 1993; Dehousse, 1992; Deppe, 1992; Jacquemin, 1993; and Jacquemin and Wright, 1993). It would remain purely heuristic at this point to foresee how and to what extent EC-92, NAFTA, and other emerging trade blocs may find common avenues to cooperate, and even merge, over the years to come.

NOTES

1. In 1951 the European Coal and Steel Community established the framework for European integration. The original six members of the community (Belgium, the Federal Republic of Germany, France, Italy, Luxembourg, and the Netherlands) subsequently signed the Treaty of Rome in 1957, which formally established the European Community. The principal aims of the Treaty were to preserve and strengthen peace; to create a region with the free movement of goods, people, services and capital; and ultimately to form a political union.
2. The 1985 White Paper, officially known as "Completing the Internal Market", established the program to create a single European market place for goods and financial services. The White Paper included approximately 300 directives designed to eliminate barriers to the free movement of goods, people services and capital among the 12 EC member states. The Single European Act—ratified in 1986—adopted the White Paper, amended the Treaty of Rome, and set December 1992 as the completion date of the Internal Market.
3. Paolo Cecchini, *"Europa 1992: Una Apuesta de Futuro"*, Alianza Editorial, 1988, pp. 8-9.
4. Commission of the European

TABLE 3. Trade Creation (TC) and Trade Diversion (TD) of EC-92

Country	Elasticity at Means		Direct TC (=via IBAR)		Induced TC		Total
	EBAR	(=TD) IBAR	Amount	Percent	Via GNP	Via GNP-Scale	
U.K.	0.0174	-1.2628	29473	126	1766	706	31945
Germany	0.0497	-1.3214	23619	69	3203	1281	28103
France	0.0647	1.9700	-62227*	-227*	-29*	-12*	-62268*
Italy	0.1859	-1.1377	19830	102	1384	554	21768

* = Incorrect sign on IBAR

Community, "The Big European Market a Trump Card for the Economy and Employment", *European Profile*, August-September, 1988, p. 7.

5. Office for Official Publications of the European Communities, *The Challenge: Creating a Single European Economy*, Luxembourg, 1988, p. 14.

6. These Tables are available upon request from the author.

7. Item 4 above, p. 12.

8. Item 3 above, p. 3.

9. Item 4 above, p. 7.

ACKNOWLEDGEMENT

An earlier version of this paper was presented at the November 1994 Annual Conference of the Euro-Asia Management Studies Association at Universiti Utara Malaysia, Malaysia. The author is grateful to the Editor, the participants at the Conference, and several colleagues at the FIU Finance Workshop for constructive suggestions and comments. All remaining errors, of course, are the author's alone.

REFERENCES

- Balassa, B. & Bauwens, L. (1988). The Determinants of Intra-European Trade in Manufactured Goods, *European Economic Review*, **32**: 1421-1437.
- Bureau, D. & Champsaur, P. (1992). Fiscal Federalism and European Economic Unification, *American Economic Review*, **82**(2): 88-92.
- Caballero, R. J. & Lyons, R. K. (1990). Internal Versus External Economies in European Industry, *European Economic Review*, **34**(4): 805-826.
- Caves, R. E. (1981). Intra-industry Trade and Market Structure in the Industrial Countries, *Oxford Economic Papers*, **33**(2): 203-223.
- De Lotto, P. F. (1993). Recent Developments in EEC External Preferential Agreements: Trade or Cooperation? *Economia Internazionale*, **46**(1): 33-44.
- Dehousse, R. (1992). Integration V. Regulation? On Dynamics of Regulation in European Community, *Journal of Common Market Studies*, **30**(4): 383-402.
- Deppe, F. (1992). Future of European Community: A Power Perspective, *International Journal of Political Economy*, **22**(1): 63-82.
- Greenaway, D. & Hine, R. C. (1991). Intra-industry Specialization, Trade Expansion and Adjustment in European Economic Space, *Journal of Common Market Studies*, **29**(6): 603-622.
- Hughes, K. S. (1992). Trade Performance of Main EC Economics Relative To USA and Japan in 1992-Sensitive Sectors, *Journal of Common Market Studies*, **30**(4): 437-454.
- Jacquemin, A. (1993). International Dimension of European Competition Policy, *Journal of Common Market Studies*, **31**(1): 91-101.
- Jacquemin, A. & Sapir, A. (1988). Internal Trade and Integration of the European Community, *European Economic Review*, **32**: 1439-1449.
- Jacquemin, A. & Wright, D. (1993). Corporate Strategies and European Challenges Post-1992, *Journal of Common Market Studies*, **31**(4): 525-537.
- Loertscher, R. & Wolter, F. (1980). Determinants of Intra-industry Trade: Among Countries and Across Industries, *Weltwirtschaftliches Archiv*, **116**(2): 280-292.
- Neven, D. J. & Roller, L. H. (1991). European Integration and Trade Flows, *European*

Economic Review, **35(6)**: 1295-1310.

Scaperlanda, A. (1992). European Community and Multinational Enterprises: Lessons in Social Control of Industry, *Journal of Economic Issues*, **36(2)**: 421-432.

Whitley, J. D. (1992). Comparative Simulation Analysis of European Multi-Country Models, *Journal of Forecasting*, **11(5)**: 423-458.