

Stehn, Jürgen

Book Part — Accepted Manuscript (Postprint)

Deepening and widening of the EU: a contradiction?

Provided in Cooperation with:

Kiel Institute for the World Economy – Leibniz Center for Research on Global Economic Challenges

Suggested Citation: Stehn, Jürgen (1997) : Deepening and widening of the EU: a contradiction?, In: Fritsch, Michael Hansen, Hendrik (Ed.): Rules of competition and East-West integration, ISBN 0-7923-8040-1, Kluwer Acad. Publ., Boston, MA, pp. 39-52

This Version is available at:

<https://hdl.handle.net/10419/2818>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.

Deepening and Widening of the EU: A Contradiction?

by

Jürgen Stehn

Head of Division on 'International Economics and Structural Change'

Kiel Institute of World Economics

In: Michael Fritsch, Hendrik Hansen (Eds.), Rules of Competition and East-West
Integration. Boston 1977. S. 39-52

1. The Problem

The process of European integration has reached a formerly unknown speed. The completion of the Internal Market has led to a mutual recognition or harmonization of varying standards, norms, and regulations among EU member countries. Moreover, the treaty of Maastricht widened the competences of the EU in various areas of economic policy. At the same time, the former EFTA-members Sweden, Finland, and Austria joined the European Union; the Central and Eastern European reform countries are willing to follow as soon as possible. Above all, the knocking-on-the-door of the young market-economies in Eastern Europe has raised the question, whether a widening of the integration area with countries that are lagging behind with regard to their economic development is in contradiction to a deepening of the European Union.

Thus, this paper aims at discussing potential contradictions and alternative concepts of resolution. In a first part, it will be shown that the deepening of the EU has gone beyond the economic optimal degree and is, therefore, indeed in contradiction to a full membership of Central and Eastern European countries in the EU. Then, alternative concepts of an opening-up of EU-markets towards Eastern Europe will be discussed.

2. The Optimal and the Factual Degree of Economic Integration

From a normative economic viewpoint, there is almost no contradiction between a deepening and a widening of an integration area. For economists, "deepening" means — above all — the implementation of the "four freedoms" in economic relations among member countries: The freedom of trade in goods, the freedom of trade in services as well as the free movement of capital and people across borders. Thus, a main instrument for the deepening of an integration area is the introduction of the country of origin-principle. The country of origin principle has been mainly discussed with respect to turnover taxation within the EU. Under this scheme, exports are charged with the tax rate of the country of origin, imports are free of tax. The introduction of the country of origin principle leads to some sort of tax competition, because exporters in high-tax countries would realise a deterioration of their competitive position compared to exporting firms in low-tax countries. These changes in competition advantages might

influence the tax policy of member states, for countries with relatively high value-added-tax (VAT) rates would lose tax revenue due to the decreasing foreign turnover of domestic exporters and the increasing direct purchases of private consumers. Hence, it can be expected that high-tax countries would reduce their VAT rates to prevent further revenue losses, while low-tax nations would gain fiscal space to increase VAT rates. This competition of locations would finally result in a competitive adjustment of VAT rates.

An introduction of the country of origin principle in transborder trade between EU member countries would mean that all goods and services that are produced according to the norms, standards, and regulations of the exporting country can be freely shipped to any other member country of the EU. The resulting competition of locations would consequently lead to a gradual 'market-driven' harmonisation of differing norms, standards, and regulations between member states. In a similar vein, an introduction of the country of origin principle would result in a mutual recognition of workers' qualifications.

In addition, the deepening of an integration area goes hand in hand with a transfer of certain economic competences from the national to the supranational level. It is important, however, that the resulting distribution of competences is based on the strong economic principle of subsidiarity. The main message of this principle is that a transfer of competences from a minor to a major political level always leads to a negligence of individual preferences.¹ If all public services are supplied by a central government body, the height of the supply always reflects a compromise between varying needs of different groups of consumers. Thus, as a consequence of a transfer of competences in favour of the EU Commission, some groups of consumers become "forced riders", i.e., they are forced to consume a higher quantity of public goods and services than they prefer, while other groups of consumers will suffer from welfare losses because of an

¹ See among others Klodt, Stehn et al. (1992); Stehn (1993c); Laaser, Stehn (1996).

undersupply with public goods and services.² As a general rule, the strong economic principle of subsidiarity recommends that economic competences should be transferred to the lowest possible government body. Only if a transfer of competences to the supranational level leads to efficiency gains that exceed the welfare losses due to a centralization, national and regional responsibility should be replaced by supranational competences.

Above all, a centralization of tasks within the EU promises to generate welfare gains if the public services and goods supplied by one member country can also be consumed by inhabitants of other member countries. In this case, there are — due to the existence of positive externalities — no incentives for a sufficient decentralized supply. An important example for supranational public goods is the guarantee of the openness of markets within the EU, because free market access may generate gains for all inhabitants of the EU. The advantages of an international division of labour, the cost advantages of mass production and the dynamic incentives of a fierce competition may lead to welfare gains for all consumers within the EU. Thus, one fundamental task of the EU is the supervision of national subsidy programs in the framework of the aid supervision system and the merger control with respect to mergers and acquisitions that generate Europe-wide competition effects.

Efficiency gains may also be realized by a centralization of competences in environmental policies, especially with a view to cross-border environmental damages due to air pollution or water pollution. Moreover, a transfer of certain competences in the area of research and development policy to the supranational level might be in accordance with the strong economic principle of subsidiarity. As empirical research indicates, basic research and development, especially with a view to high-technology R&D, can be expected to generate considerable cross-border spillover effects giving rise to an almost free dissemination of basic knowledge, because basic knowledge is

² See Stehn (1993a) for a detailed analysis of the welfare losses.

hardly codifiable and thus cannot be patented.³ In this case, cross-border externalities can lead to an underinvestment in basic research activities that can only be prevented by a transfer of responsibilities from the national to the supranational level. A transfer of further economic competences to the supranational level, however, is not in accordance with the strong economic principle of subsidiarity.

Any deepening of economic relations among the member countries of the EU that follows the economic principles sketched above is in accordance with a widening of the integration area by the Central and Eastern European countries. The mutual opening of markets due to the introduction of the four freedoms in economic relations between the young market-economies in Eastern Europe and the old EU-members will deepen the division of labour and subsequently increase the income potentials within the enlarged Union; and a transfer of economic competences to the EU-level that follows the strong economic principle of subsidiarity will generate efficiency gains for old and new members.

However, as it stands now, the integration process within the EU is by no means a mirror image of this normative picture. On the one hand side, the four freedoms are limited by the Common Agriculture Policy (CAP) as well as the harmonization of norms, standards and regulations as a result of the Internal Market Program. On the other hand side, it is obvious that the EU has taken over competences in the framework of the regional and cohesion policy as well as the research and industrial policy that aggravate a full membership of countries that are economically lagging behind. It is thus this deepening of economic relations that goes beyond the economically optimal degree that generates contradictions between a deepening and a widening of the EU.

Above all, there is a lively public and political debate about the participation of Central and Eastern European countries in the Common Agriculture Policy and the Common Cohesion Policy in case of a full membership in the EU. There are fears that a free

³ For an excellent survey of recent empirical studies on interregional knowledge diffusion see Paqué (1995).

access of the reform countries in Eastern Europe to the agriculture fund and the structural funds, which aim at promoting the development of backward regions within the Union, will lead to an almost unbearable financial burden for the old members of the EU. However, it is very difficult to calculate the costs of a full membership of Central and Eastern European countries in the EU with respect to their participation in agricultural and structural funds. Nevertheless, assuming that the distribution of funds stays unchanged after an enlargement of the EU, a tentative simulation can give some rough estimation of the potential costs (see Stehn, 1994b). The simulation is based on the assumption that per capita income in Central and Eastern Europe will double in the near future (basis year: 1989) and that the share of the agriculture sector in total production in the reform countries will decrease because of structural changes after an enlargement by about 25 percent.

Based on these assumptions, the yearly net costs of a full membership of Poland, Hungary, the Czech Republic, the Slovakian Republic, Bulgaria, and Romania in the EU will amount to roughly 11 billion ECU. Thus, a participation of Central and Eastern European countries in the Common Agriculture Policy and the cohesion and regional policy would lead to an increase in yearly expenditures for the agricultural and structural funds of about 18 percent and would amount to a share of 0.2 percent in the GDP of EU 15.⁴

With a view to the current budget of the EU which amounts to roughly 1.2 percent of EU GDP, such an additional burden seems to be high, but not unbearable. Hence, a participation of Central and Eastern European countries in the agricultural and structural funds is more a problem of political economy than a problem of financial politics. There is the danger that considerable West-East-transfers will generate severe moral-hazard-problems in Central and Eastern Europe which could — in the worst case — counteract

⁴ An alternative simulation of the CEPR (1992) that does not take into account possible structural changes after an accession of Central and Eastern European countries estimates the total costs of an Eastern enlargement to roughly 14 billion ECU.

the reform efforts in these countries (Welfens, 1993). Moreover, it is highly likely that a huge subsidy program in favour of Central and Eastern European countries would stimulate old members in Southern Europe to ask for additional regional subsidies. The new cohesion fund (volume 1994-1997: 15 billion ECU) which aims at promoting infrastructure programs in member countries with a per capita income of less than 90 percent of the EU average, namely Spain, Portugal, Greece, and Ireland, is a good example for the polit-economic processes in the EU because it can be regarded as a direct return for the agreement of South European countries to create a European Monetary Union. Under these circumstances, a full membership of reform countries in Eastern Europe in the EU seems to be possible only after a substantial reform of the agriculture and structural funds of the EU.

Difficulties for a full membership of the young market-economies in Eastern Europe also arise from the Internal Market Program. Notwithstanding that high administrative hurdles hindered the EU-Commission to implement a harmonization of trade distorting norms, regulations and standards on a high level, the agreed upon social, environmental and technical basic norms have — to a large extent — reached a level that erects significant trade barriers for Central and Eastern European countries which can be climbed only under a loss of price competitiveness. A mutual recognition of norms and standards in these areas is, therefore, an important prerequisite for the integration of the reform countries. However, it is highly unlikely that the EU 15 will be ready to offer the new members such far-reaching preferences. It is far more likely that the resistance of the richer countries in Western Europe against an introduction of a country of origin-principle which could be observed in the course of the implementation of the Internal Market Program and Maastricht negotiations, would increase in case of an accession of Central and Eastern European countries. Under these circumstances, it is highly likely that a full membership of the reform countries in the EU would result in re-negotiations of the Internal Market Program with the objective to intensify the harmonization efforts. However, this would be the worst alternative.

Conflicts between a deepening and a widening of the EU could also arise in the area of research and industrial policy. With respect to the common research policy, there is a

longstanding debate about the implementation of fair criteria for the distribution of funds among the member states. One school of thinking argues that research funds should flow overproportionally to rich countries because these countries would realize the highest technological potential and subsequently the highest gains from research funds. Another school of thinking points to the fact that a distribution of funds in favour of rich countries would counteract the objective of the common regional policy because the implementation of a basic technological potential is a necessary prerequisite for a successful catching-up process of the less developed regions in the EU. An Eastern enlargement of the EU would — without doubt — strengthen these already existing conflicts. A similar conflict potential could arise in the area of industrial policies because those industries that are defined as future industries in the treaty of Maastricht can be found almost exclusively in the richer member countries.

It is obvious that the deepening of European integration has gone beyond the economically optimal degree and thus erects high barriers for a full membership of Central and Eastern European countries in the EU. However, it is also obvious that an open access to the markets in Western Europe is an important prerequisite for the success of economic reforms in Eastern Europe because the EU is by far the most important export market for these countries. About 60 percent of all exports of Poland, Hungary, the Czech Republic, the Slovakian Republic, Bulgaria, and Romania are currently shipped into the Internal Market. This seemingly contradiction can only be resolved in the framework of an integration process that allows for varying speeds of integration and focuses on a stepwise integration of the young market-economies. Three alternative concepts that could be part of such a variable integration process will be discussed in the following sections.

3. Alternative Concepts of Integration

a) Integration by Association

Preference- and association agreements with third countries have a long tradition as a trade policy instrument of the European Union. For example, the ACP countries are enjoying a special external tariff of the EU and the EFTA member countries have a free

access to the Internal Market in the area of manufacturing. First steps towards an association of Central and Eastern European countries with the EU have been made with the notification of the so-called Europe Agreements between Poland, Hungary, and (former) Czechoslovakia⁵ on the one hand side and the EU on the other hand side in December 1991 which were followed by association agreements with Romania and Bulgaria in 1993 and with the Baltic States and Slovenia in 1995.

There is no doubt that the Europe Agreements are an important first step towards an opening of the European Internal Market for Central and Eastern European countries⁶. However, these agreements are by no means sufficient to offer the young market-economies in Eastern Europe an open access to the Internal Market. Above all, market access is limited in "sensitive" areas like agriculture, textiles, and steel. The share of these sectors in total exports of the Visegrad-countries into the EU currently varies between 30.5 percent in the Czech and Slovakian Republic and 43.4 percent in Hungary. However, the limited market access for sensitive goods will lose importance in the medium term because it can be expected that the countries of the Visegrad-group will gain comparative advantages in the production of so-called "mobile Schumpeter goods". These research-intensive goods are characterized by a distinct separation between the development of the production technology and the production process as such.⁷ Mobile Schumpeter goods, such as automobiles, chemicals, or pharmaceuticals can thus be produced with imported knowledge which can be bought abroad. With respect to these mobile Schumpeter goods, the Europe Agreements offer an almost free access to the Internal Market for the Central and Eastern European countries.

⁵ After separation, the agreement was extended to both new countries.

⁶ For a detailed analysis of the Europe Agreements, see Böhnlein, Heitger (1991), and Langhammer (1992).

⁷ See Klodt (1987) for a detailed categorisation of mobile and immobile Schumpeter goods.

However, it is important to note that the Europe Agreements include a safeguard clause which can be used by EU member countries as a last resort instrument to leave the liberalization path if domestic suppliers suffer from increasing import pressure from Central and Eastern European countries. With a view to the defensive trade policy of the EU against import competition from South-East-Asian NICs in this area which is above all based on antidumping measures and voluntary export self-restraints, it can realistically be assumed that the EU member countries will make use of this safeguard clause. The imposition of countervailing duties on steel products from Eastern Europe during the last steel crisis also points in this direction. All in all, it can be feared that the safeguard clause of the Europe Agreements will play a similar role as Article XXIV of the General Agreement on Tariffs and Trade (GATT) which allows a departure from the most-favoured-nation-principle in case of "serious difficulties", but is abused in practical trade policies for protection purposes.

Even under the rather heroic assumption that the member countries of the EU will not use the safeguard clause for industrial and regional policy purposes in the near future, the mere existence of this clause may be harmful for the economic development of the young market-economies. For potential investors, an open access to the EU Internal Market is an important prerequisite for a transfer of production locations towards Eastern Europe. If there is any doubt about the future development, they will highly likely prefer production locations in Portugal or Spain. Moreover, the safeguard clause of Article 30 Europe Agreements counteracts the basic objective of these agreements, namely to give incentives for economic reforms in Central and Eastern European countries. The young market economies are also free to make use of the safeguard clause in order to protect their young industries against import competition from the EU. Strong economic interest groups in these countries might thus exert strong pressures on their politicians to make use of this protection instrument.

Problems with respect to future economic reforms in Central and Eastern Europe also arise because the Europe Agreements do not include a mechanism that promotes the development of a free trade area among Eastern European countries (Baldwin, 1992). An association to the EU without the formation of a free trade area among the reform

countries offers production locations within the Union an artificial locational advantage vis-à-vis production locations in Eastern Europe (Stehn, 1994b). Association agreements between the EU and the Central and Eastern European countries can thus only reach the full liberalization potential when they are accompanied by a liberalization of East-East-trade. Up to now, all attempts to create a Central European Free Trade Area have failed on political grounds. The establishment of a free trade-area among Central and Eastern European countries should, therefore, be incorporated into a concept of integrating the reform countries into the EU.

b) The EFTA Option

A participation of Central and Eastern European countries in the European Free Trade Association (EFTA) and a widening of the current bilateral trade agreements between the EU and the old EFTA members towards the reform countries in Eastern Europe could contribute to mitigate the problems associated with the Europe Agreements. This integration step would offer the Central and Eastern European countries an open access to the Internal Market in the area of the whole manufacturing industry, without exemptions for sensitive sectors, and would at the same time build up a "safe harbour" for long-term investments in the area of mobile Schumpeter-goods against the safeguard clause of the Europe Agreements. Moreover, a full membership in the EFTA would raise the attraction of locations in Eastern Europe for mobile capital because this integration step would go hand in hand with a creation of Central European Free Trade Area. It should be noted, however, that even in case of a full membership in the EFTA, the Central and Eastern European countries would have no access to the common agriculture market of the EU.

However, it can realistically be doubted that the EFTA option will lead to a sufficient integration of reform countries into their "natural" export market. An important barrier are the antidumping regulations of the EU which can be used against all third countries, even against associated EFTA members. The antidumping regulations of the EU provide that countervailing duties can be raised against producers in third countries whose product prices within the Internal Market are below domestic prices or below production costs. Since the last criteria is used very often in practical trade policies,

these regulations leave a broad leeway for national discretion. As a general rule, antidumping measures of the EU lead to "voluntary" export self-restraints between the respective countries. There are currently about 50 export self-restraint agreements of the EU with third countries, with a tariff equivalent varying between 3 percent and 50 percent and an average tariff equivalent of 15 percent.⁸ Antidumping measures have thus become one of the most important protection instruments of EU countries. About 60 percent of these export self-restraints are focused against suppliers in South-East-Asian NICs. It can thus be feared that in case of a membership of Central and Eastern European countries in the EFTA, antidumping measures will be used as a safeguard clause in the EU-EFTA Trade Agreement.

An abuse of antidumping regulations as protection instrument against suppliers in Central and Eastern European countries could be prevented by a widening of the European Economic Area (EEA) towards Eastern European reform countries. In this case, the new members in Eastern Europe would have to adapt their competition law to the regulations of the EU and would thus be immune against antidumping measures initiated by old members.

c) The Widening of the European Economic Area (EEA)

With the ratification of the agreement on the establishment of a European Economic Area, which came into force on January 1, 1994, all rights and obligations of the Internal Market Program of the EU were extended to the former EFTA members, with the exception of Switzerland. There is no doubt that an integration of Central and Eastern European reform countries into the EU Internal Market would raise the attractiveness of production locations in Eastern Europe. A study of Nerb (1988) which is based on a firm sample of 20,000 firms located in the EU shows that the variety of technical standards and regulations prior to the completion of the Internal Market raised the production costs of firms within the Internal Market by about 2 percent. Pelkmans,

⁸ For a comparison: The average external tariff rate of the EU only amounts to about 5 percent. See Stehn (1993b).

Wallace, and Winters (1988) have estimated that even if all technical norms and regulations stayed unchanged the cost reductions due to the implementation of the country of origin principle would reach a level of 1 to 3 percent of intra-EU trade. In this case, producers could realise substantial economies of scale because they only had to take into account the norms and regulations of their production locations. In case that these estimations come close to reality, production locations within the EU will gain attractiveness vis-à-vis competing locations in Eastern Europe. From this perspective, a participation of Central and Eastern European countries in the Internal Market is a necessary condition for the success of the reform processes in the young market economies.

It should be noted, however, that the cost reducing effects of the Internal Market Program heavily depend on an efficient implementation of the integration steps listed in the EU White Paper. The integration steps that have been undertaken up to now cast some doubts about the rather optimistic estimations that have been made prior to the implementation of the Internal Market Program, especially with a view to the transition system of turnover taxation in the Internal Market which might increase rather than decrease the costs of transborder trade within the EU (Stehn, 1994a). Thus, it is ambiguous, whether a participation in the Internal Market Program would be advantageous for the reform countries in Eastern Europe. A participation in the Internal Market Program would, on the one hand side, raise the attractiveness of production locations in Eastern Europe, but would, on the other hand side, also result in an decreasing price competitiveness of domestic suppliers on foreign markets. However, it can be expected that those countries in Eastern Europe that have made rapid progress in structural change towards the production of technology-intensive Schumpeter-goods might rather gain than lose from a participation in the Internal Market.

Above all, the countries of the Visegrad-group, perhaps with the exception of the Slovakian Republic which is still lagging behind with respect to the necessary structural adjustments, might gain from a widening of the European Economic Area because they might be in a position to take advantage from the dynamic effects of the Internal Market. These dynamic effects are a result of a fiercer competition due to the reduction,

mutual recognition, or harmonization of technical standards and norms. These dynamic effects are gaining importance with an increasing degree of monopolistic competition within the EU. Venables and Smith (1988) have shown that in this case even the reduction of quantitatively rather unimportant trade barriers lead to a significant increase in competition intensity and subsequently to a reduction of monopolistic market power. At the same time, the decreasing market segmentation widens the leeway for the realization of economies of scale (Siebert, 1989; 1990). A good indicator for the height of dynamic integration effects is the degree of intraindustry trade between the EU and the countries of the Visegrad-group because the reciprocal trade with similar products can above all be explained with the existence of market segmentations.

Table 1 shows the Grubel-Lloyd-coefficients for trade between the EU and the Visegrad-group. As reference data, it also includes the degree of intraindustry trade within the EU and between the EFTA members and the EU. The closer the value of the Grubel-Lloyd-coefficient comes to 100, the higher is the intraindustry trade between the two trading partners.⁹ It is obvious that intraindustry trade between the countries of the Visegrad-group and the EU is rather significant. The Grubel-coefficient for all countries of the Visegrad-group is higher than that for the EU members Portugal, Greece, and Finland and the EFTA members Norway and Iceland. The degree of intraindustry trade between Hungary and the EU even comes close to the level of Denmark's and Ireland's intraindustry trade with EU partners. Thus, it can realistically be assumed that the countries of the Visegrad-group, with the exception of the Slovakian Republic, will gain rather than lose from a participation in the Internal Market Program.

4. Conclusions

The considerations in this paper have shown that — from a pure welfare economic viewpoint — there is no contradiction between a deepening and a widening of the European Union. However, it has also been shown that the factual degree of deepening

⁹ See Grubel, Lloyd (1971) for conceptual issues.

efforts by far exceeds the economically optimal one. Above all the Common Agriculture Policy, the Common Cohesion Policy, and the observable tendency towards a centralisation of economic competences raise high barriers for a full membership of Central and Eastern European countries in the EU. Thus, a full accession of the young market economies to the EU will only be possible after substantial institutional reforms have been made within the EU. To offer Central and Eastern European countries a better access to what can be called their 'natural' export market, the most advanced reform countries, such as the Czech Republic, Poland, Hungary, and Slovenia, should become members of the European Economic Area (EEA). With regard to the state of economic development in other Central and Eastern European countries such as Bulgaria, Romania, or the Baltic States, the hurdles erected by the basic norms of the Internal Market might be too high in case of a membership in the EEA. These countries should, therefore, become members of the EFTA. However, to provide incentives for further economic reforms, these countries should be assured that they are free to join the European Economic Area after they have reached a state of economic development which is similar to that of the Visegrad-group.

Table 1 — Intraindustry Trade with the EU, 1994

Country	Grubel-Lloyd Coefficient	Country	Grubel-Lloyd Coefficient
EU-Members			
France	84	Austria	64
United Kingdom	79	Italy	61
Netherlands	78	Ireland	58
Belgium/Luxemburg	77	Denmark	57
Germany	77	Portugal	39
Sweden	72	Finland	37
Spain	67	Greece	27
EFTA-Members			
Switzerland	79	Iceland	4
Norway	35		
Visegrad-Group			
Hungary	53	Poland	44
Czech Republic/ Slovakian Republic	48		
¹ The Grubel-coefficient is calculated as: $B_i = \frac{\sum_i (x_i - m_i) \cdot x_i - m_i }{\sum_i (x_i + m_i)} \times 100$ where x_i and m_i are the exports and imports in category i . The closer the value of the Grubel-Lloyd-coefficient comes to 100, the higher is the intraindustry trade between two trading partners.			

Source: Commission of the European Communities, COMEXT Data Base; own calculations.

Bibliography

- BALDWIN, Richard, An Eastern Enlargement of EFTA: Why the East Europeans Should Join and the EFTAs Should Want Them. Institut Universitaire des Hautes Études Internationales, Discussion Papers in International Economics, Geneva, October 1992.
- BÖHNLEIN, Barbara, Bernhard HEITGER, "Die neue Handelspolitik der EG gegenüber Osteuropa". Die Weltwirtschaft, H. 2, 1991, S. 130-145.
- CENTRE FOR ECONOMIC POLICY RESEARCH (CEPR), Is Bigger Better? The Economics of EC Enlargement. Monitoring European Integration 3, London 1992.
- GRUBEL, Herbert, Peter LLOYD, "The Empirical Measurement of Intra-Industry Trade". The Economic Record, Vol. 47, 1971, S. 494-517.
- KLODT, Henning, Wettlauf um die Zukunft. Technologiepolitik im internationalen Vergleich. Kieler Studien, 206, Tübingen 1987.
- , Jürgen STEHN, Claus-Friedrich LAASER, Rainer MAURER, Axel D. NEU, Rüdiger SOLTWEDEL, Die Strukturpolitik der EG. Kieler Studien, 249, Tübingen 1992.
- LAASER, Claus-Friedrich, Jürgen STEHN, "Marktwirtschaft und Subsidiarität: Die föderative Arbeitsteilung auf dem Prüfstand". Zeitschrift für Wirtschaftspolitik, Jg. 45 (1996), Heft 1, S. 58-91.
- LANGHAMMER, Rolf J., Die Assoziierungsabkommen mit der CSFR, Polen und Ungarn: wegweisend oder abweisend? Kiel Institute of World Economics, Kiel Discussion Papers, 182, March 1992.
- PAQUÉ, Karl-Heinz, The Case for Technology Policy. A Tentative Evaluation. Kiel Institute of World Economics, Kiel Working Papers, 714, December 1995.
- NERB, Gernot, The Completion of the Internal Market: A Survey of Europe's Industry Perception of the Likely Effects. Research on the Costs of Non-Europe, Basic Findings Vol. 3, Commission of the European Communities, Brüssel 1988.
- PELKMANS, Jaques, Helen WALLACE, L. Alan WINTERS, The European Domestic Market. London 1988.
- SIEBERT, Horst, "The Harmonization Issue in Europe: Prior Agreement or a Competitive Process?". In: Horst SIEBERT (Hrsg.), The Completion of the Internal Market. Tübingen 1990, S. 53-75.

- , "Perspektiven zur Vollendung des Europäischen Binnenmarktes". *Kyklos*, Vol. 42, 1989, S. 181--201.
- STEHN, Jürgen [1994a], *Turnover Taxation in the EC: Options for Future Reforms*. Kiel Institute of World Economics, Kiel Working Papers, 613, February 1994.
- [1994b], "Stufen einer Osterweiterung der Europäischen Union". *Die Weltwirtschaft*, 1994, Heft 2, S. 194--219.
- [1993a], *Maastricht und das Subsidiaritätsprinzip*. Kiel Institute of World Economics, Kiel Working Papers, 553, January 1993.
- [1993b], *America's Departure from Multilateralism: Highway or Dirt Road to Freer Trade?* Kiel Institute of World Economics, Kiel Discussion Papers, 212, June 1993.
- [1993c], "Theorie des fiskalischen Föderalismus: Ein Referenzmaßstab zur Beurteilung der Beschlüsse von Maastricht". In: Horst SIEBERT, *Die zweifache Integration: Deutschland und Europa*. Workshop zur Strukturberichterstattung, Tübingen 1993.
- VENABLES, Anthony J., Alasdair SMITH, "Completing the Internal Market in the European Community: Some Industry Simulations". *European Economic Review*, Vol. 32, 1988, S. 1501-1525.
- WELFENS, Paul J. J., "Integration der mittel- und osteuropäischen Staaten mit der EG: Ausgangsbedingungen, Anpassungsprobleme und Chancen". In: Erhard KANTZENBACH, Otto G. MAYER (Hrsg.), *Europäische Gemeinschaft -- Bestandsaufnahme und Perspektiven*. Schriften des Vereins für Socialpolitik, Gesellschaft für Wirtschafts- und Sozialwissenschaften, N. F. Band 225, Berlin 1993.