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Prevalence of Key Developments in Trade of Agro-Food Produces in the New Member States of the European Union

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Prevalence of Key Developments in Trade of Agro- Food Produces in the New Member States of the European Union

Štefan Bojnec, Darja Majkovič and Jernej Turk¹

Abstract

The ten new member states (NMS-10) of the European Union (EU) have contributed to an enhancement in agro-food trade among current EU-25 members. Intra- industry trade (IIT) represents only minor part of NMS-10 trade in agro- food products. Their trade in agro- food products is specialised to different countries in terms of economic distance, factor endowments and/or degree of competitiveness of their agro- food sectors. The borderless EU markets are likely to influence the increase of IIT with implications for the EU trade policy, since more than one- third of agro- food trade in the current EU-25 members is represented by NMS-10.

Key words: *New Member States, Slovenia, Agro- Food Trade, Intra- Industry Trade .*

Introduction

The year 2004 was the first year of the ten New Member States (NMS-10) full membership in the European Union (EU-25).¹ The changes in the trading regime have not inflicted the economy as a whole substantially. For some successful exporting branches this provides a new opportunity to explore some less traditional markets within EU-25. But, there might be some exceptions by NMS-10. In Slovenia, for example, the agricultural sector was rather affected and the food industry even in a bigger extent. One of the main reasons is the reduction in relatively high agro- food trade protection and traditional Slovenian export orientation of agro- food products to the markets of ex- Yugoslavia, where after the 1st May 2004 the preferential trading agreements were abolished. According to MAFF (2005), the agricultural sector has not suffered such deep consequences of the trade policy changes due to the fact that Slovenian agricultural policy and legislation were already harmonised with the EU before the accession. More drastic changes in the sector already occurred few years before, especially in the time when the

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adjustment package of reforms in the years 1999- 2000 was introduced, while the food industry experienced the EU entrance with much more painful consequences. Some effects have been seen in the last period in the form of workers being dismissed in the food industry, whereas an additional labour shrinking in the sector is still expected.

Trade flows play vital role in determination of the level and composition of activities in the economy, and affect economic stability and economic growth. It is somewhat dubious to openly claim that the NMS-10 are among the countries with the most dynamic trade developments in the agro- food sector.² To clarify possible ambiguities with this respect, all 10 newcomers in the Single European Market (SEM) and their trade performances in the last years were examined in various studies (e.g. WTO, 2004; Bussière et al., 2005). The conventional assumption in most trade studies is that trade liberalisation would transmit into an increase in trade flows within the European Union integration. Most of this rise would be of intra- industry trade (IIT) type, i.e. simultaneous exports and imports within the same industry. Adjustment costs in such trade developments are generally considered to be much smaller than those associated with the inter- industry trade specialisation. The latter tends to drive forces towards a concentration of economic activity on a limited number of industries and the abandonment of others. It is possible to assume that the integration effects for NMS-10 should lead to trade creation effects with the trade flows' increases within the enlarged EU-25 with associated reallocation effects on productive factors. In the late 1970s, Pelzman (1977) acknowledged that trade between centrally planned economies is characterised by inter- industry specialisation which, as demonstrated in this paper, in the NMS-10 agro- food sector has remained a prevailing feature even at a present.

The rest of the paper is structured as follows: first, we provide comparisons on the role of Slovenian agriculture in the economy and in international trade. Second, we explain the methodology and data sets used. Then we analyse the export and import structures with the emphasis on the value- added content of agricultural and food produce. The total trade with agricultural and food products is disentangled into various trade types which differ substantially across product groups and over time. Prevailing similarities and differences in results among the NMS-10 agro- food sectors are discussed in the final chapter, which also derives some policy implications and conclusions.

The Role of Agriculture in the Economy

We focus in this section to Slovenia, which is one of the NMS-10. Its agriculture is typical by small- scale family farms. Despite the fact that agriculture represents minor proportion of the Slovenian economy, its economical meaning is still more substantial than in EU-15 (1.6 % of GDP, 4% in total employment and 6.2% in export and import in the year 2003). For more detailed overview on the role of Slovenian agriculture in the economy see Table 1.

Table 1. Slovenian Agriculture in Figures, 1995- 2004

	1 995	1 996	1 997	1 998	1 999	2 000	2 001	2 002	2 003	2 004
Agricultural land in use (1000 ha)			466. 6			485. 9			486. 5	
Number of agricultural holdings (1000)			90.8			86.5			77.1	
Land in use per agricultural holding (ha)			5.1			5.6			6.3	
GDP of agriculture, hunting and forestry										
• (mio EUR)	562	547	613	621	563	577	568	650	547	570
• % of GDP	3.6	3.3	3.5	3.3	2.8	2.8	2.6	2.7	2.2	2.2
Employment in agriculture, hunting and forestry										
• number of workers (1000)	129. 6	121. 4	118. 4	114. 4	109. 7	106. 2	102. 7	9 9.9	98.1	9 5.8
• % of total employment	14.2	13.6	13.5	13.1	12.4	11.9	11.4	1 1.0	10.8	1 0.5
Trade with agro- food products as										
• the share in total export (%)	5.1	4.3	4.0	3.9	3.9	3.8	3.7	3.7	3.6	2.8
• the share in total import (%)	10.8	8.4	8.0	7.3	6.8	6.4	6.6	6.6	6.3	6.3
Agro- food trade balance (mio EUR)	- 464	- 352	- 365	- 341	- 327	- 343	- 361	- 352	- 370	- 531
% of expenses for food, beverages and tobacco in final consumption of households (%)	23.8	23.0	22.6	22.8	21.9	21.9	21.8	2 1.5	21.3	2 0.1

Source: MAFF (2005).

Slovenian agro- food export is approximately two- times lower than import and hence deficit in agro- food products is approximately of similar size as Slovenian agro- food exports. Trade in agro- food products increased in the year 2004 by 6% and reached 1,246 million €, but this was on the expense of import growth. Agro- food trade deficit reached 531 million €(Table 1). Major Slovenian agro- food trading partners have remained EU's and ex- Yugoslavia's countries. With the latter in 2004 there is still recorded trade surplus, but

reduced in comparison with the previous years, while with the former trade deficit is growing.

The year 2004 is found as the turning point for the food industry. The EU enlargement induced economical restructuring in the sector, the process which was in the transition period mitigated by suitable trading policy. The abolishment of the preferential trading regimes with important trading partners in ex-Yugoslavia led to increases of import duties on Slovenian exports that reduce competitiveness of Slovenian agro-food exporters to these traditional markets. In 2004, Slovenian food industry's output decreased by 6.8%, while the employment fell by 4%. All this is leading to the changes in product's composition and in geographic export and import structures. Export targeting on the EU markets and exploring their new business opportunities are now one of the priority tasks of the Slovenian food industry. As Falcetti et al. (2005) argue, for Slovenia and other Central and Eastern European (CEE) countries during the last decade, it has taken time for business to make new contacts, to develop acquired new marketing skills and to convince the EU and other clients abroad about trust that they are and will be the reliable partners. They also claim that the break-up of the former Yugoslavia had a significant effect on trade relations in the region as a whole.

Whereas Tables 1 and 2 on Slovenian agro-food trade are not fully comparable due to different definition used, Table 2 additionally compares the pre- and post-EU enlargement trade developments. It is clearly illustrated that between 2003 and 2005 Slovenian agro-food export declined in nominal Euro (€) terms, whereas agro-food imports grew rapidly leading to the rapid increase in Slovenian agro-food trade deficit. The borderless SEM provides opportunities for imports, whereas agro-food exports cope with the increased competitive pressures.

Table 2. Slovenian Agro-Food Trade (in mio €), 1996- 2005

	1996	1999	2001	2003	2005
Export	282.4	317.2	386.3	457.0	413.9
Import	634.0	644.7	747.7	876.0	1013.4
Balance	- 351.6	- 327.5	- 361.6	- 419.0	- 599.5

Source: Own computations based on data from Slovenian Statistical Office.

Whereas in 2005 Slovenian agro-food exports in absolute nominal amount declined, as can be seen from Table 2, there is a significant shift in the structure of Slovenian agro-food trade towards the EU-15 (Table 3): around two-third of Slovenian agro-food imports is from the EU-15 and more than 43% of Slovenian agro-food exports is directed to the EU-15 markets. The relative importance of Slovenian agro-food exports to the ex-Yugoslav markets is reduced, because these traditional markets have now by the applied trade regimes become the third markets, whereas Slovenian agro-food imports from the rest of the world is also reduced. On the other hand, the EU membership has brought less significant changes in Slovenian agro-food trade with the NMS-9. Therefore, the major shifts in the Slovenian post-EU-enlargement agro-food trade developments are characterised by trade creation

with the EU-15 and trade diversion from the ex- Yugoslav and other third markets. However, it is expected also an increase in agro- food trade with the NMS-9, which so far has been less substantial.

Table 3. Geographical Repartition of Slovenian Agro- Food Trade (in % of Export and Import, Respectively), 1996- 2005

	EU-15		New Member States		Ex- Yugoslavia		Rest of the World	
	Expor t	Import	Export	Import	Expor t	Impor t	Expor t	Import
1996	23.22	49.99	3.02	14.25	62.16	12.95	11.60	22.81
1999	28.49	54.25	3.16	16.44	56.57	10.35	11.78	18.95
2001	17.03	54.45	2.16	16.91	68.12	9.93	12.69	18.71
2003	25.83	54.07	3.43	16.11	60.57	10.98	10.17	18.84
2005	43.49	66.70	3.12	15.86	45.38	8.32	8.01	9.12

Source: Own computations based on data from Slovenian Statistical Office.

Methodology and Data

When investigating in details the bilateral and multilateral trade flows, one should first think about the country's prevailing trade types and their determinants. This is a typical approach in the mainstream economic literature for in-depth investigation of insights into the countries' and sectors' specific characteristics on trade developments, trade types and trade specialisation for the economy as a whole and/or for their respective sectors. The common research and policy question that arise is on the nature of trade: whether it is inter- industry trade (trade between the industry groups) or whether we are dealing with IIT with simultaneous exports (X) and imports (M) within the same industry group. Krugman (1979) points at the crucial role of economies of scale within the framework of IIT trade analysis. If an industry consists of a large number of firms all producing somewhat differentiated products and all operating on the downward- sloping parts of their average cost curves, then there is more likely to occur a two- way international trade within an industry, because firms in different countries specialise in production of alternative differentiated products. What prevents firms in each country from producing a complete range of products domestically is the existence of fixed costs of

production. The most widely used measure of IIT is the Grubel–Lloyd IIT (GLIIT) index:

$$GLIIT_t = \left(1 - \frac{\sum_i |X_{it} - M_{it}|}{\sum_i (X_{it} + M_{it})} \right) \cdot 100 \quad (1)$$

where X represents value of exports and M value of imports of commodity group i in year t . The GLIIT index is equal to 100% if all trade of the country is IIT and it is equal to 0% if trade is exclusively of inter- industry nature. Since integration increases a share of IIT, the GLIIT index is often considered as an indicator for economic integration among countries with similar factor endowments. Moreover, the research question is also what kind of IIT we are dealing with. An approach, used by Greenway et al. (1994) and Fontagné et al. (1997), disentangles trade into one-way and two-way trade type, with the latter further disaggregated into different types of IIT. Therefore, this methodology allows us to take a look at the nature of two-way IIT distinguishing between horizontally and vertically differentiated products. It is often assumed that differences in export vis-à-vis import prices reflect quality differences (e.g. Abd- el- Rahman, 1991). So, to measure trade quality differences, we use differences in unit values of X and M for the same product group. A threshold of 10 per cent for trade overlap is introduced by Fontagné et al. (1997), when the minority flow represents at least 10 per cent of majority flow, that overlap is considered as IIT. Below that threshold, the trade overlap is explained as not significant. It is defined as inter- industry trade type. Products with the ratio export to import prices within a 15 per cent threshold in a given year are considered as similar or horizontally differentiated (Fontagné et al., 1997):

$$\frac{1}{1.15} \leq \frac{UV_{kk'pt}^X}{UV_{kk'pt}^M} \leq 1.15 \quad (2)$$

where UV refers to unit value and X and M refer to exports and import, respectively, at the 6-digit Combined Nomenclature (CN) product level. Indices k represent the declaring country, k' the partner country and p the product in year t . When equation (2) for two-way trade or for IIT does not hold, products are considered as vertically differentiated. It is assumed that differences in quality are reflected in price differences. In the latter case of vertically differentiated IIT we consider the exchange of qualities, while in the former case of horizontally differentiated IIT the exchange of varieties. According to Fontagné et al. (1997), determinants of IIT in horizontally differentiated products are different from those in vertical. In the former case, products sold at the same price may be considered as perfect substitutes, while in the second common ranking of consumer preferences can be associated with differences in quality. In this case, the adjustment costs might be sizeable, since it might not be equivalent to specialize in high or low quality products in the same industry. So, IIT is divided into exchange of horizontally (HIIT) differentiated products in varieties and vertically (VIIT) differentiated products in qualities:

$$IIT = HIIT + VIIT \quad (3) \quad .$$

It is furthermore assumed that VIIT has two components, high quality (HQ) and low quality (LQ) VIIT (Díaz Mora, 2002). A high share of LQ of VIIT implies that a country is specialising into relatively low-price export goods in the vertically differentiated product groups or sectors and otherwise, high share of HQ of VIIT implies that VIIT is in the form of high-value added exports vis-à-vis similar imports. Therefore, trade flows can be classified into three trade types according to the unit values (UV) of X and M in the matched two-way trade flows. Table 4 summarises the criteria for decomposition of trade flows and trade flows' classification, as it is further used in the empirical part of this study.

Table 4. Criteria for Decomposition of Trade Flows and Trade Flows

Classification

Degree of overlap between export (X)	Similarity of export and import unit values: Do X and M unit values differ less than 15%?
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and import (M) values: Does the minority flow represent at least 10% of the majority flow?		
	Yes (horizontal differentiation)	No (vertical differentiation)
Yes	<i>Two way trade in similar products</i>	<i>Two – way trade in vertically differentiated products:</i> <ul style="list-style-type: none"> • LQ: if $UV_{kk'pt}^X / UV_{kk'pt}^M < 1/1.15$: low export prices (indicates low X quality) and high quality of M • HQ: if $UV_{kk'pt}^X / UV_{kk'pt}^M > 1.15$: high X quality and low M quality
No		<i>One – way trade</i>

Source: Bojnec, Majkovič and Turk (2005).

The trade data used in this paper comes from two main data sources: first, Slovenian Statistical Office (SORS) at the six-digit product level of CN, and second, Eurostat's COMEXT trade databases, where the observations from 1999 to 2003 at the eight-digit product level of CN are comprised. For the purpose of this analysis, the products from the first 24 chapters of the CN are considered. The agricultural and food produces are further disentangled by the value added content according to the United Nations (UN) classification of the products using the Broad Economic Categories (BEC) classification Revision 3. According to this criteria, agricultural and food products are classified into the following categories by the degree of processing and the purpose in (final or intermediate) consumption:

- primary products (food and beverages) mainly for industry, captured in three-digit BEC product category 111, and primary products mainly for household consumption (category 112);
- processed products mainly for industry refer to the product category 121, while processed products in category 122 are intended for final consumption in households;

- minority of agro- food products are included in category of industrial supplies, not else specified. Primary ones refer to category 21, and processed fell into category 22.

Results and Discussion

Smaller countries, as it is the case with a vast majority of NMS, are less likely to produce and trade greater varieties of different agro- food product groups. Small countries rather rely more on niche products and product categories with comparative advantages to utilise economies of scale in domestic and international markets. Although all NMS entered the negotiations and began adjustments towards the EU in the 1990s (free trade and Association Agreements), agriculture and the food sector in some NMS such as in Slovenia remained rather protected. The most protected branches in the past are often the least prepared for the open competition and with the EU accession there are declines in incomes more considerable. It is generally recognised that IIT in similar products and its horizontal component increases with the size of the country. The increasing size of the country leads to trade of a greater variety. The differences in the size of trading partners inhibit this trade as the potentials for welfare gains in variety. The second factor, which counts in favour of the mentioned trading IIT type, is the standard of living: the richer the country, the higher the income per capita, and the greater demands by consumers for variety and differentiation in similar products.

For agricultural products, where the distortions prior the accession in the borderless SEM were relatively significant, one should expect that such markets and sectors will face the greatest adjustments pressures. These developments imply sizeable costs that might occur due to the specialisation in the diversified quality varieties (high or low) within the similar industries. If the future development follows a path with the increase of inter- industry trade, this trade specialisation between rather than within industries would be seen not just in the traditional light of comparative advantages, but also from the agglomeration (EU) economy point of view, where NMS and regions would exhibit a high degree of industrial specialization. But, as Bojnec et al. (2005)

explained, the EU integration promotes an IIT commercial specialisation, with mentioning the cases of Greece, Spain and Portugal in one of previous enlargements. These countries have converted their trade to IIT in much greater extent than the former old EU member states. On the other hand, it should be stressed that these results were related to the aggregated trade for the economy as a whole. In the case of agriculture and, to a lesser extent, of the food processing industry patterns in development are more mixed. One reason, particularly for agriculture, relates to the relatively immobile production factors such as land. Yet, the production processes in agriculture are in the large extent influenced by external, often unpredictable factors such as unfavourable weather conditions, disease occurrences, and the labour force, which is especially in the agricultural sector often less skilled and qualified.

Table 5. Agricultural and Food Trade Structures of the New Member States (NMS-10) by the Value- Added Content in the EU-15 Markets (in per cent), 1999 and 2003

	1999				2003			
	Primary products		Processed products		Primary products		Processed products	
	Export share	Import share	Export Share	Import share	Export share	Import share	Export share	Import share
Malta	0.35	2.41	1.48	4.22	0.53	2.08	1.35	3.44
Estonia	2.07	2.96	3.16	4.96	1.09	3.76	4.66	5.18
Latvia	0.71	3.00	1.81	5.04	1.40	4.63	2.23	5.21
Lithuania	3.00	4.42	5.87	6.23	8.27	5.31	5.74	6.22
Poland	30.51	41.57	34.35	29.48	33.50	32.45	34.20	27.42
Czech Republic	12.47	18.27	16.58	18.64	10.89	20.86	15.21	19.81
Slovakia	4.84	7.22	6.64	9.6	5.45	8.17	6.09	8.94
Hungary	40.7	9.03	24.46	10.03	34.75	11.08	25.93	13.05
Slovenia	2.84	7.52	4.19	7.18	1.69	7.41	3.46	6.48
Cyprus	2.50	3.59	1.46	4.61	2.41	4.25	1.12	4.24
Total NMS-10	100	100	100	100	100	100	100	100

Source: Own computations from Eurostat's Comext database

Tables 5 and 6 demonstrate the agro- food trade structures and trade types for the each NMS-10, which entered the EU on the 1st of May 2004. The agro- food trade composition of the NMS-10 of the EU reveals the predominant role of Hungary and Poland in the EU-15 agro- food trade. In 2003, Hungary and Poland were the greatest exporters (among the NMS-10) of primary products (products with lower degree of value- added compared to processed ones) to the EU-15 market. In the case of imports of the primary products, Poland is again the leading NMS-10, with the substantial share of the Czech Republic at the second place. Very similar structures are found for the most important trading partners in the case of processed products.

Table 6. Trade Types (in percentage) in Agricultural and Food Products for New Member States (NMS-10) in 2003

	Two way trade in similar products	Two way trade in low quality	Two way trade in high quality	One way trade
Malta	1.13	0.58	0.60	97.69
Estonia	4.90	1.71	3.39	90.00
Latvia	1.74	8.81	2.02	87.43
Lithuania	2.55	1.88	3.85	91.72
Poland	0.86	2.99	2.53	93.62
Czech Republic	5.41	6.87	6.09	81.64
Slovakia	8.32	11.86	7.52	72.29
Hungary	1.43	3.38	2.66	92.54
Slovenia	1.87	2.19	3.15	92.79
Cyprus	0.11	0.55	1.30	98.04

Source: Own computations from Eurostat's Comext database.

A very high proportion of one- way trade represents the common characteristic of NMS-10 agro- food trade. In most cases it is even higher than 90%. The lowest proportion of one- way trade is found for the Slovak Republic,

where almost one-third of its trade is characterised by a two-way trade, which is either horizontally or vertically differentiated (high and low quality) IIT. The example of the Slovak Republic seems to be the closest to the EU-15 average trade type structures in agro-food trade in the intra-EU-15 trade. The Slovak trade type structures are likely to be biased in a great extent towards trade with the Czech Republic, while the latter is oriented more towards the EU-15. Possible explanation of this development pattern is that the higher proportion of both IIT in vertically and in horizontally differentiated products is often arising from the country similarities in factor endowments and similar preferences and tastes by the consumers. The relatively high proportion of one-way trade, which prevails in the case of the NMS-10 (a declining trend is most noticeable in the case of the Czech and Slovak Republics), indicates gains arising from the specialization. They can be derived from greater exploitation of scale economies. On the other side, in the case of IIT the gains are likely to be encouraged by exchanges in product varieties and their qualities which also depend on the consumers' preferences. The higher the share of IIT, the greater is external integration of a certain product category, and thus the lower are expected pressures and related adjustment costs arising from further trade liberalization. And vice versa, the restructuring and reallocation of production factors across industries would be much more painful as such processes requires not only adjustments along the product differentiation within the certain product lines, but particularly movements of production factors, their reallocations and restructuring between different industries.

Conclusions

IIT denotes simultaneous exports and imports of products that are very close substitutes for each other in terms of factor inputs and consumption (Tharakan and Calfat, 1996). Important determinants of prevailing IIT are similarity of factor endowment between trading countries, the prevalence of product differentiation and economies of scale. GLIIT index for IIT in the similar products imply degree of external integration, which on the short-term does not require particular specialisation efforts or displacement of resources

across different industries. This IIT pattern is often observed in trade among countries with similar factor endowments as well as among countries with small economic distances. In such cases, adjustment costs, factor mobility and income distribution are changing less substantially. Similar findings and conclusions are derived for agro-food trade of the NMS-10, where IIT type in agro-food trade flows is not very frequent and significant. In contrast, the most of agro-food trade in the NMS-10 is characterised by the prevailing inter-industry trade. The persistence of NMS' high share of inter-industry trade implies that their trade in agro-food products is specialised. Their trading partners may not be similar countries in terms of economic distance. They may trade more with economically remote, not necessarily less developed countries, but surely countries with different factor endowments and/or different degree of competitiveness of their agro-food sectors. As it was illustrated for Slovenia, the EU-15 was such trading partners and something similar is likely to hold also for other NMS-9. Huge efforts should be thus made to increase competitiveness of the agro-food sector in the NMS-10 on the EU markets. Finally, it should be especially borne in mind that the EU membership, coupled with the process of joining the borderless SEM result the abolishment of internal trade barriers, which are more likely to influence the increase of IIT. These development patterns should have implications for the EU trade policy considering the fact that more than one-third of agro-food trade in the current EU-25 members is represented by the NMS-10.

Notes

1. The previous version of this paper was presented at the 98th EAAE Seminar "Marketing Dynamics within the Global Trading System: New Perspectives", which was held between 29 June and 2 July 2006 at the Mediterranean Agronomic Institute of Chania (MAICh), Chania, Greece. The useful comments by participants are gratefully acknowledged.
2. The agro-food sector comprises agricultural production and food industry, while we refer to agricultural and food products as agro-food products.

References

- Abd- el- Rahman, K.S. (1991). Firms' Competitive and National Comparative Advantages as Joint Determinants of Trade Composition. *Weltwirtschaftliches Archiv*, 127(1): 83- 97.
- Bojnec, Š., Majkovič, D., and Turk, J. (2005). Trade Types in Slovenian Primary and Processed Agricultural Trade. Contributed Paper Presented at EAAE Congress, Copenhagen, 24- 27 August 2005.
- Bussière, M., Fidrmuc, J., and Schnatz, B. (2005). Trade Integration of Central and Eastern European Countries. Lessons from a Gravity Model. European Central Bank Working Paper Series. No.545/November, 36 pp.
- Díaz Mora, C. (2002). The Role of Comparative Advantage in Trade within Industries: A Panel Data Approach for the European Union. *Weltwirtschaftliches Archiv*, 138(2): 291- 316.
- Falcetti, E., Sanfey, P., and S. Tepic (2005). South- East Europe: Opportunities and Potential for Investment and Growth. Paper presented at the ECB, 15th February 2005.
- Fontagné, L., Freundenberg, M., and Peridy, N. (1997). Trade Patterns in the Single Market. CEPII, Working Paper N° 97- 07. CEPII, Paris, 145 pp.
- Greenway, D., Hine, R., and Milner, C. (1994). Country – Specific Factors and the Pattern of Horizontal and Vertical Intra- Industry Trade in UK. *Weltwirtschaftliches Archiv*, 130(1): 77- 100.
- Krugman, P. (1979). Increasing Returns, Monopolistic Competition and International Trade. *Journal of International Economics*, 9: 469- 79.
- MAFF (2005). Poročilo o stanju kmetijstva, gozdarstva in ribištva v letu 2004 (Report on Agriculture, Forestry and Fisheries in 2004). Ljubljana: Ministry of Agriculture, Forestry and Food in cooperation with Agricultural Institute of Slovenia, 172 pp.
- Pelzman, J. (1977). Trade Creation and Trade Diversion in the Council of Mutual Economic Assistance, 1954- 1970. *American Economic Review*, 67(4): 713- 722.
- Tharakan, P.K.M. and Calfat, G. (1996). Empirical Analyses of International Trade Flows. In: Greenway, D. (ed.): *Current Issues in International Trade*. 2nd Edition. Macmillan Press LTD, London: 59- 82.
- WTO (2004). *World Trade Report. Exploring the Linkage between the Domestic Policy Environment and International Trade*. 276 pp.