Globalization of Slovenian Agricultural and Food Trade

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This paper analyses globalization patterns in the Slovenian agricultural and food trade. It examines prevailing trade structures and trade types to study differences and similarities in trade specialization patterns between primary and processed agricultural and food products across product groups, over time and in comparison with some other European Union countries. We distinguish agricultural and food trade flows by the degree of processing on primary, processed and other agricultural and food products separately for direct household consumption and for industry. With this, we add to the existent literature for Slovenia and for other new European Union members this product classification. Most of Slovenian agricultural and food trade is in the processed products. One-way or inter-industry trade dominates Slovenian agricultural and food trade structures. Within the matched two-way or intra-industry trade the significance in specialization is on low-quality vertical intra-industry trade. This kind of trade types in agricultural and food trade structures is not consistent with the findings for countries with developed food processing, suggesting that restructuring of the Slovenian food-processing sector has not yet been completed.

Key Words: agri-food, trade-structures, trade-types,
    intra-industry trade
JEL *Classification:* F020, F140, Q170

Introduction

Agricultural and food trade over the last few decades have been widely analyzed for developed and developing countries. Attempts to explain agricultural and food trade flows have followed a number of different theoretical and methodological approaches of comparative trade advantage and intra-industry trade (IIT) (e. g. Balassa 1965; Grubel and Lloyd 1975). Several approaches have been developed in the literature for both

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the analysis of comparative trade advantages and IIT. The focus in this paper is on IIT. We investigate effects of trade liberalization and effects of adjustments toward the European Union (EU) on the degree of IIT in agricultural and food products.

The most widely used measure of IIT is the Grubel-Lloyd's (1975) index of degree of matched two-way trade in a certain product category. This measure distinguishes between IIT and inter-industry trade, but is not enough for in-depth analyses of trade types. Two main approaches using unit export and unit import values have been developed for assessing trade types. Greenaway, Hine, and Milner (1994) proposed the first methodological approach. They calculate IIT using the Grubel-Lloyd index. IIT is then split into horizontal and vertical components on the basis of the unit values of exports and imports. Fontagné, Freudenberg, and Peridy (1997) – FFP – proposed the second methodological approach. They employ a different definition of IIT in two-way trade flows when the value of the minority trade flow represents at least 10% of the majority trade flow in the similar product. When the minority flow is less than the set boundary the trade flow is defined as inter-industry or one-way trade. Similar as in the first approach, IIT can be separated into horizontally and vertically differentiated products, and the latter into high and low quality vertical IIT. The vertical IIT represents specialization in varieties of different quality requiring different factor endowments.

These approaches have been developed for analyzing trade types in general, but applied also in specific sector studies, including for agricultural and food products. Fertő (2004 and 2005) conducted analyses of agricultural and food trade in Central Europe focusing on Hungarian trade with the EU. Bojnec and Hartmann (2004) conducted a study on Slovenian agricultural and food trade developments using the IIT approach. However, their in-depth study does not cover the empirical analysis of horizontally and vertically differentiated products according to the level of processing. In spite of the fact that several studies on trade structures, nature of IIT and comparative trade advantage have been conducted for Central and Eastern European (CEE) countries (e. g. Hoekman and Djankov 1997; Eiteljörge and Hartmann 1999; Bojnec 2001; Fertö and Hubbard 2003), so far very rare studies have differentiated between processed and unprocessed agricultural products in the analysis of agricultural and food trade for CEE transition countries. Therefore, this paper adds differentiation between unprocessed and processed agricultural and food products to the analyses of the trade types in the Slovenian

agricultural and food products using the second approach by FFP. IIT is separated between horizontal and vertical product differentiation to study differences and similarities in trade specialization patterns between primary and processed agricultural and food products, over time and in comparison with some other countries. According to FFP, the different countries with different economic distances are likely to be engaged in IIT in vertically differentiated quality products, whereas similar ones are likely to be engaged in IIT of varieties within similar qualities. IIT between different varieties of the same product implies that neither substantial specialization process nor displacement of resources between industries is required. So this is the pattern that might be observed among similar countries with small economic distances. In such a case, reallocation costs, factor mobility and distribution of income are not a subject of special interest. However, the sector adjustments while entering in the economic integration may follow two different paths. On one side, the increased specialization along comparative trade advantages may rise in inter-industry trade with simultaneous exports and imports between industries, which may lead to more costly adjustments. On the other side, a convergence in production structures is likely to increase IIT. The latter specialization, based upon similarity of nations, may lead to cost-free adjustments, which are likely to increase efficiency and welfare gains associated with variety. In the late 1970s, Pelzman (1977) denoted that trade between centrally planned CEE economies was characterized by inter-industry specialization. As presented in this paper, this has remained strong for agricultural and food trade even after the decades passing.

In the structure of the global agricultural and food trade there is a tendency in trade from primary agricultural products towards processed food products. This is observed by Gehlhar and Coyle (2001), who found that agricultural and food trade over time tends to be more in processed foods rather than in primary agricultural produce in world exports of agricultural and food products. They argued that an important factor in the changing structures of the world agricultural and food trade is the dominant role of food consumption by the developed countries. The latter import a much greater share of processed consumer foods than do developing countries, while the opposite is true for bulk commodities. Surry, Herrard, and Le Roux (2002) also presented the increasing tendency in agricultural and food trade towards processed food products in their econometric investigation for France, using a differentiated-product approach. WTO (2004) reported that with the economic growth

the significance of processed food products in the world trade is increasing. The processed food products prevail in the trade of rich countries, while primary agricultural produce prevail in the trade of poor and less developed countries. Although the relative importance of primary agricultural products in trade declines, there is a considerable structural change within agricultural and food trade. Trade in processed food products tends to increase, while trade in primary agricultural products may even explore a declining tendency across some countries and product groups. The growth in imports of processed food products by developed countries is a reflection of increased per capita consumption, diet upgrading and diversification of consumption towards foreign varieties. Therefore, in this paper we investigate whether empirical evidence of a trade shift from unprocessed primary agricultural products to more processed food products in Slovenia is consistent with a well-known trend in world merchandise trade capturing the shift towards an increased share of manufactures at the expense of raw materials and primary products. We first present the methodology and data used. Then we present empirical results, followed by the final section, conclusion.

Methodology and Data

Trade flows on the basis of the overlap in trade flows can be classified into one-way and two-way trade, whereas the latter can be further classified by trade types according to the similarity/differences in unit values (uv) of exports vis-à-vis imports. Two main approaches to distinguishing trade types and the overlap in trade flows are developed in the literature. The first approach is developed by Greenaway, Hine, and Milner (1994; 1995) – GHM. They calculate IIT versus inter-industry trade components in trade flows using the Grubel-Lloyd (GL) index (1975). The IIT component is divided into horizontal and vertical components on the basis of a range of the similarity/differences in uv of exports and imports. The second approach is developed by Fontagné, Freudenberg, and Peridy (1997) – FFP. They apply a different definition of IIT or two-way trade: 'Trade in an item is considered to be "two-way" when the value of the minority flow (for example imports) represents at least 10% of the majority flow (exports).' The remaining part of trade is inter-industry (one-way) trade, depending on the degree of trade overlap. Therefore, the results of two-way versus one-way trade in the FFP procedures are sensitive to an overlapping criterion. As illustrated by Fertő (2004 and 2005) for agricultural and food trade between Hungary and the EU, the

TABLE 1 Classification criteria for decomposition of trade flows

(1)	(2)	
	Yes (horizontal differentiation)	No (vertical differentiation)
Yes	Two way trade in similar products	Two-way trade in vertically differentiated products: • LQVIIT: if $UV^X_{kk'pt}/UV^M_{kk'pt} < 1/1.15$ implies low export prices (indicates low export quality) and high quality of imports • HQVIIT: if $UV^X_{kk'pt}/UV^M_{kk'pt} > 1.15$ implies high export quality and low import quality
No		One-way trade

Note: Column headings as follows: (1) Degree of overlap between exports *(X)* and imports *(M)* values: Does the minority flow represent at least 10% of the majority flow? (2) Similarity of exports and imports unit values: Do *X* and *M* unit values differ less than 15%? LQVIIT = low quality vertical IIT, HQVIIT = high quality vertical IIT. Source: Bojnec, Majkovič, and Turk 2005.

FFP measure implies results for two-way trade which are slightly higher than those by GHM, because once the overlap threshold is met the entire trade flow is treated as two-way. In spite of these differences and instabilities in results between the GHM and FFP approaches, these approaches are complementary in disentangling the importance of different trade types.

In our case, we are focusing on the bilateral agricultural and food trade flows. The FFP approach is used. Table 1 summarizes the criteria for decomposition of trade flows and trade flows' classification, as it is used in the empirical part of this paper. As can be seen, we are using two criteria. Firstly, the 10% FFP trade overlapping criteria to distinguish between the one-way trade and the two-way trade. Secondly, the 15% range of the similarity/difference in UV of exports and imports to distinguish between horizontal IIT, low quality vertical IIT and high quality vertical IIT.

This classification is applied to the agricultural and food trade data for Slovenia and other new EU member states. As agricultural and food trade are considered the first 24 chapters of the Combined Nomenclature (CN). The data used in the empirical analysis come from two main data sources. First, from the Slovenian Statistical Office, whose trade data are disaggregated at the six-digit CN product level for the selected years. Second, from the Statistical Office of the European Communities (Eurostat) that provided the Comext trade database. In this case the data base is at

the eight-digit CN product level for the period from 1999 to 2003. These basic trade data for agricultural and food products are then 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 classification, agricultural and food products are classified into the following categories by the degree of processing and the purpose (final or intermediate) in consumption: first, primary products (food and beverages) mainly for industry, which are captured in the three-digit BEC product category 111, and primary products mainly for household consumption (category 112). Second, processed products mainly for industry refer to product category 121, while category 122 captures processed food and products intended for final consumption in households. Third, some of agricultural and food products are labelled in the category of industrial supplies, not else specified. Primary ones refer to category 21, and processed ones fall into category 22.

Results with Discussion

The general finding in literature on trade patterns in agricultural and food products explains that developed countries largely specialize towards exports in high value-added processed food products, while developing countries tend towards exports in primary agricultural products (Gehlhar and Coyle 2001; WTO 2004). According to relative income per capita, Slovenia is classified as a high-income non-OECD country (WTO 2004, 197). On this basis one may expect that, if structures in the economy are approximately equally developed – including in agriculture and the food sector – then Slovenia should be among those countries specializing in exports of high value-added processed agricultural and food products. However, an examination of the trade structures and trade patterns suggests that low value-added products prevailed among the matched two-way trade structures and only a minority of the matched two-way agricultural and food trade is in higher value-added products (table 2). This suggests a comparative trade disadvantage in agricultural and food trade for Slovenia. Moreover, Bojnec and Fertő (2005) have presented the bilateral Hungarian-Slovenian agricultural and food trade developments. They found that one-way, inter-industry trade from Hungary to Slovenia is far the most significant component among types of agricultural and food trade, where Hungary experienced considerable surplus in agricultural and food products. The degree of the matched

TABLE 2 Slovenian agricultural and food trade balance (x−m) by degree of processing* and by regions (in mio € and in % of x or m) in the year 2002

	Primary products		Processed products	
	mio €	%	mio €	%
EU-15				
Exports (x)	26.78	31.61	56.41	17.48
Imports (m)	155.01	50.79	258.95	57.05
Balance (x−m)	−128.22	−19.18	−202.55	−39.57
Ex-Yugoslav markets				
Exports	51.25	60.49	218.04	67.55
Imports	13.58	4.45	66.65	14.68
Balance	37.67	56.04	151.39	52.87
Central European Free Trade Agreement (CEFTA)** countries				
Exports	3.08	3.64	8.26	2.56
Imports	67.14	22.00	62.53	13.78
Balance	−64.06	−18.36	−54.26	−11.22
Other				
Exports	3.60	4.25	40.05	12.41
Imports	69.48	22.76	65.79	14.49
Balance	−65.88	−18.51	−25.75	−2.08
Total				
Exports	84.72	100,00	322.77	100.00
Imports	305.21	100,00	453.93	100.00
Balance	−220.49	–	−131.16	–

Notes: * primary group of products includes the following three BEC categories: 111, 112 and 21. In the processed group of products are included the remaining BEC categories: 121, 122, and 22; **CEFTA includes Hungary, Poland, the Czech and Slovak Republics, Bulgaria and Romania. Source: Own calculations (Majkovič 2005) based on data from the Slovenian Statistical Office.

two-way IIT is found to be relatively low. Within Hungarian IIT, trade in vertically differentiated agricultural and food products is the most significant component of IIT. Almost all Hungary's vertical IIT is in high-valued products, but less so for Slovenia. This indicates that Hungarian agricultural and food exports' specializations in the matched two-way trade flows are in high quality varieties, but less so for Slovenia.

Looking from the trade perspective, Slovenian agriculture is certainly

not a driving force of the Slovenian economy. This is confirmed by the empirical results in tables 2 and 3 for the year 2002, which more or less reflects average Slovenian agricultural and food trade structures and performances before the EU accession. The Slovenian agricultural and food trade sector has performed with a traditionally negative trade balance in the last decade. The negative balance is recorded with all main trading partners, except with the former Yugoslav markets. To the latter markets, Slovenia exports more processed food products than primary agricultural products. The major proportion of agricultural and food trade deficit is in trade with the EU, particularly in processed food products, but also in primary agricultural products. Prior to the EU accession, trade deficit was also substantial with CEFTA countries. Trade deficit in agricultural and food trade is also with the rest of the world, where deficit in primary agricultural products is a bit more significant than in processed food products. Considerable Slovenian trade deficit in agricultural and food products and significant asymmetry in the geographical structures of agricultural and food trade flows with imports from the EU (and previously from the CEFTA countries, most of which are now new EU members) and exports to the former Yugoslav markets provide the indication that Slovenia lacks competitiveness in the agricultural and food sector vis-à-vis the majority of its developed trading partners.

These findings are also consistent with some other most recent studies. In the year 2004, compared to the year 2003, as reported by the Ministry of Agriculture, Forestry and Food (Mistrstvo za kmetijstvo, gozdarstvo in prehrano 2005), the substantial increase in agricultural and food imports by 15%, and decreased exports by 11.4% occurred. The agricultural and food trade deficit increased from 370 million € in 2003 to 531 million € in 2004. The similarities in trade patterns and in trade geographical asymmetry continued as the surplus is observed only with the former Yugoslav countries. But even in these former traditional markets, the Slovenian agricultural and food exports decreased by 15%, whereas imports increased by 7%. In 2004, the Slovenian agricultural and food trade surplus in the former Yugoslav markets was reduced by 19%. The continuation of trade asymmetry is with the EU countries, where Slovenian agricultural and food imports increased by 31%, whereas in the same period Slovenian agricultural and food exports to these markets increased only by 1%.

For Slovenia and other CEE countries during the last decade, Falcetti, Sanfey, and Tepic (2005) argued that it has taken time for business to

TABLE 3 Structure of trade types (%) in Slovenian agri-food trade
by the value added content groups in 2002

	(1)	(2)	(3)	(4)
Primary products mainly for industry	98.86	0.17	0.97	0.00
Primary products mainly for household consumption	95.85	2.96	1.05	0.14
Processed products mainly for industry	85.53	3.09	10.00	1.38
Processed products for consumption in households	83.53	2.58	13.75	0.13
Primary industrial supplies, not else specified	92.42	1.90	5.18	0.50
Processed industrial supplies, not else specified	86.88	1.09	12.00	0.03

Notes: Column headings as follows: (1) one way trade; (2) two way trade in low quality; (3) two way trade in high quality; (4) two way trade in similar products. Source: Own computations (Majkovič 2005) based on data from Slovenian Statistical Office.

make new contacts, to develop acquired new marketing skills and to convince the EU and other clients abroad to trust that they are and will be the reliable partners. They also argued that the break-up of the former Yugoslavia had a significant effect on trade relations in the region as a whole. The CEE countries represent the third largest trading partner in the Euro's area, after the United Kingdom and the United States, whereas the Euro's area represents the most important trading partner for the majority of CEE countries, namely for the Czech Republic, Hungary, Poland, Romania, Slovakia and Slovenia (around 60% of their total trade) (Bussiere, Fidrmuc, and Schnatz 2005). However, this general trade orientation is not confirmed in the case of Slovenian trade in agricultural and food products.

Furthermore, table 3 presents trade types in Slovenian agricultural and food products, which are distinguished into the six product groups by the degree of processing on primary agricultural and processed food products and further disentangled by their final consumption. The analyzed trade types groups behave in a relatively stable way. Four main stylized facts can be derived from these results for Slovenian agricultural and food trade. Firstly, Slovenian agricultural and food trade is in general characterized by very high share of one-way, inter-industry trade

suggesting a trade specialization along lines of comparative advantages. Secondly, IIT is the lowest for primary agricultural products mainly for industry and the highest for processed food products for consumption in households. This finding is somehow consistent with theoretical expectations that IIT is increasing with the degree of food processing, where a greater role is given to product differentiation in varieties and qualities. Thirdly, within IIT, vertical IIT is far the more important component than horizontal IIT in similar variety products. Horizontal IIT is almost inexistent for primary agricultural products mainly for industry. It is the highest, but still relatively very low for processed food products mainly for industry. Finally, vertical high quality IIT, except for primary agricultural products mainly for household consumption, is much more important than vertical low quality IIT. This finding is inconsistent with the finding by Bojnec and Fertő (2005) for Slovenian agricultural and food exports to Hungary, but it holds for Hungarian agricultural and food exports to Slovenia. This suggests that our results for Slovenia are biased to the Slovenian agricultural and food trade to the former Yugoslav markets where Slovenia exports high quality agricultural and food products in exchange for lower quality ones in terms of their international trade prices.

As a result of the membership of Slovenia in the EU, we can expect an increase of IIT at the expense of inter-industry trade particularly in trade with the EU countries. This was the case in the previous EU enlargements, for example for Spain and Portugal, whose rise of IIT began already well before their entry into the EU. The greater proportion of IIT means that more trade exchanges within a certain product category are leading to greater varieties and qualities in similar products. However, there are some factors and circumstances in the Slovenian agricultural and food sectors that explain the Slovenian agricultural and food specificities and situation more deeply (see also Bojnec and Hartmann 2004). Firstly, the level of protection in the agricultural and food sector in Slovenia remained high over the transition period and adjustments towards the EU. Relatively high protection measurs, particularly border ones, hampered trade and trade creation effects. Secondly, Slovenian agricultural and food producers have not been successful in reaping economies of scale particularly in agricultural production due to the fragmental farm and agricultural structures but also in the food processing industry due to slow privatization and restructuring process of the food processing enterprises.

TABLE 4   Structure of trade types (%) in agri-food products of the new member states (NMS-10) of the EU in 1999 and 2003

	(1)	(2)	(3)	(4)
1999				
Czech Republic	89.41	2.78	5.14	2.67
Cyprus	98.56	0.38	0.81	0.25
Estonia	92.65	2.47	2.56	2.31
Hungary	95.77	1.31	2.01	0.91
Latvia	88.05	4.18	5.77	2.00
Lithuania	95.97	1.55	1.58	0.91
Malta	96.82	0.68	1.83	0.67
Poland	95.70	1.71	1.94	0.65
Slovakia	76.88	8.98	11.20	2.95
Slovenia	92.55	2.65	3.63	1.17
2003				
Czech Republic	81.64	6.87	6.09	5.41
Cyprus	98.04	0.55	1.30	0.11
Estonia	90.00	1.71	3.39	4.90
Hungary	92.54	3.38	2.66	1.43
Latvia	87.43	8.81	2.02	1.74
Lithuania	91.72	1.88	3.85	2.55
Malta	97.69	0.58	0.60	1.13
Poland	93.62	2.99	2.53	0.86
Slovakia	72.29	11.86	7.52	8.32
Slovenia	92.79	2.19	3.15	1.87

Notes: Column headings as follows: (1) one way trade; (2) two way trade in low quality; (3) two way trade in high quality; (4) two way trade in similar products. Source: Own computations (Majkovič 2005) based on data from Comext (Eurostat) database.

The structure of trade types in agricultural and food products of the ten new EU member states' (NMS-10), including Slovenia, are compared in table 4. Four main stylized facts are clearly observed. Firstly, a very high level of one-way, inter-industry trade represents the common characteristic of agricultural and food trade, but it varies between the NMS-10. While it is often around 90%, it is the lowest for Slovakia and the highest for Cyprus. Between 1999 and 2003, except for Malta and Slovenia, inter-industry trade has declined. This is consistent with theoretical

expectations that trade liberalization and economic growth induces in-creases in IIT, which do not hold for the Slovenian agricultural and food trade pattern. Secondly, the highest degree of IIT is significant for Slo-vakia with almost a third of its agricultural and food trade characterized as a two-way IIT, either with similar or vertically differentiated (high and low quality) products. So in this case, the biggest step toward EU av-erage of agricultural and food trade structure is noticeable. The higher share of IIT of all ranges (vertically and horizontally differentiated prod-ucts) is often arising due to the country similarities and similar tastes of consumers. Thirdly, vertical IIT is more significant than horizontal IIT. Horizontal IIT in similar quality products is the highest for Slovakia and then the Czech Republic, but the lowest for Cyprus. The structures of Slovak trade types in agricultural and food products seem to arise from strong orientation to the Czech markets, while the latter is more ori-ented towards the EU. Between 1999 and 2003, except for Cyprus and Latvia, horizontal IIT in the NMS increased. Finally, the NMS-10 agricul-tural and food trade types in general have not changed substantially over the analyzed period. The vertically differentiated products have gained a slightly higher proportion. Within vertical IIT the prevalence is on high quality vertical IIT rather than on low quality VIIT. However, some most recent changes have occurred in the cases of the Czech and Slovak Re-publics, Hungary, Poland and Latvia where increases in vertical IIT were in low quality vertical IIT, but less in high quality vertical IIT.

Dimensions of trade adjustments over time might, in the case of verti-cal differentiation, mean that a country might specialize inside industries on products with different levels of price ranges. For example it can spe-cialize in high quality vertical IIT by importing low qualities and export-ing high quality ones. Conversely, differences in quality would mean dif-ferentials arising from some specific factor endowments such as skilled and highly qualified labor, advanced capital or research and develop-ment. Specialization for a specific quality spectrum (high or low) may imply income distribution differences among individual countries and their trading partners. Table 5 presents historical developments in trade types in intra-EU trade. It compares between more processed food and beverages with primary agricultural products as well as with all trade in merchandise goods. IIT prevails in non agricultural and food products in intra-EU trade, but one way-trade prevails in agricultural and food prod-ucts. From the dynamic point of view, one-way trade is reduced and thus IIT has increased with trade liberalization and economic growth. The

TABLE 5 Trade types in intra-EU trade by selected industries and for all industries

Industry	Structure in 1994 (%)			Variation 1994 to 1985 (%)		
	(1)	(2)	(3)	(1)	(2)	(3)
Food and beverages	12.5	26.6	60.9	0.8	8.7	−9.5
Agriculture	9.3	16.8	73.9	2.6	5.2	−7.8
All industries	19.2	42.3	38.5	2.0	3.1	−5.1

Notes: Column headings as follows: (1) two-way trade in similar products; (2) two way trade in vertically differentiated products; (3) one way trade. Source: Fontagné, Freudenberg, and Peridy (1997).

increase in IIT was faster for food and beverages than for agriculture as well as for non agricultural and food products. Within two-way IIT, vertically differentiated products are at least twice as important as horizontal similar products. The significance of both components is increasing by the degree of processing or product's sophistication, being the lowest for agriculture, higher for food and beverages, and being the most significant for non agricultural and food products. However, the fastest increases in vertical IIT are recorded for agriculture and particularly for food and beverages. Due to the relatively low proportion of IIT in agricultural and food products, also agriculture and the food sector during the last twenty years have been under the increased pressures for restructuring. The lower share of IIT often during liberalization implies higher pressures for adjustments due to restructuring and reallocation of industries. Such restructurings between industries are much more painful and costly than adjustments along the product differentiation within a same industry, which alters product lines.

Conclusion

Agricultural and food trade has been analyzed for Slovenia in comparison with the EU and the other NMS-9. Agricultural and food trade flows have been analyzed using IIT approaches. The significance of the processed food products in Slovenian agricultural and food trade is increasing. The Slovenian agricultural and food sectors are becoming more exposed to global competition. Trade structures, trade types and the nature of IIT are changing under pressures of internal and external factors. The large proportion of Slovenian agricultural and food trade is in one-way, inter-industry trade. Among determinants of inter-industry trade type specialization are differences in factor endowments and productivity dif-

ferential, which are causing restructuring and adjustment costs along the economic activities, more than along the qualities.

The significance of IIT is increasing with the degree of product processing. It is the lowest for primary agricultural products and the highest for processed food products for household consumption. With income per capita increases, demands are towards varieties and qualities. Within IIT low-quality exports in vertical IIT prevail. This type of agricultural and food trade specialization on lower value-added products raises the question of the Slovenian agricultural and food sector competitiveness. The potential effect of EU integration is likely to lead to the specialization along comparative advantages. Greater efforts are needed to upgrade the relative quality of agricultural and food exports. This can be induced by internal restructuring at industry and firm level, and also by new investment activities to improve quality and international price competitiveness.

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