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# THE IMPORTANCE OF EAST ASIAN COUNTRIES FOR THE TRADE IN AGRI-FOOD PRODUCTS MADE IN THE EUROPEAN UNION

**Abstract:** The aim of the article was to define the role of selected East Asian countries in the EU trade in agri-food products and to examine the competitive position of agri-food products made in the EU on the markets of that region in the years 2000-2007. Selected set of quantitative *ex post* measures of international competitive position was used in the research. It was proved that in the group of third countries those in East Asia are an important trade partner to the EU in the agri-food sector. From 2000 to 2007 labour-intensive products, especially the animal ones, made in the EU had a strong competitive position on the markets of those countries.

**Key words:** export, import, agri-food products, competitive advantage, the European Union, East Asian countries.

### 1. Introduction

The European Union countries are one of the world's most important exporters and importers of agri-food products. In 2008 the value of agri-food products exported from the EU was nearly 351 billion euro, whereas the import value reached almost 368 billion euro. About 78 and 73%, respectively, were realised as part of the intra-EU trade, according to the rules of the Single European Market. Of the third countries

<sup>&</sup>lt;sup>1</sup> ComExt-Eurostat, http://epp.eurostat.ec.europa.eu/newxtweb/ (accessed 23.02.2010).

<sup>&</sup>lt;sup>2</sup> The Single European Market is based on *the four freedoms* and guarantees the free movement of goods, persons, capital and services in the turnover between the EU member states (Art. 14 of the *Treaty establishing the European Economic Community*). The free movement of goods means their unlimited exchange due to the elimination of different forms of customs control and establishment of identical rules of trade with third countries as well as the elimination of other barriers on the markets of EU countries (E. Synowiec, Swoboda przepływu towarów, [in:] E. Kawecka-Wyrzykowska, E. Synowiec (eds.), *Unia Europejska*, Tom 1, IKCHZ, Warszawa 2004). The rules of the free movement of goods boil down to the prohibition of the use of import and export duties in mutual exchange as well as all fees with the equivalent effect and all quantitative limitations or means of similar effect (Art. 23, 25 and 28 of the *Treaty establishing the European Economic Community*). It is also worth mentioning that although Art. 14 of the *Treaty establishing the European Economic Community* lists four freedoms of

it is East Asian countries, including China, India, Japan and the countries belonging to the Association of South East Asian Nations (ASEAN)<sup>3</sup> that are significant trade partners to the European Union. In 2008 the income gained on export to the markets of those countries reached 12% of the total EU export value to third countries, whereas the import expenditures spent on agri-food products in that region of the world reached 17% of the total value of import from the countries not belonging to the group. The aim of this article is to define the role of selected East Asian countries in the EU trade in agri-food products and to examine the competitive position of agri-food products made in the EU on the markets of that region.

### 2. Material and research method

Data from the Statistical Office of the European Communities (ComExt-EUROSTAT),<sup>5</sup> as well as Food and Agriculture Organization of the United Nations (FAOSTAT-TradeSTAT)<sup>6</sup> were used in the paper. The analysis of the competitive position covered the key groups of agri-food products, setting apart according to the *Standard International Trade Classification*, i.e.: cereals and preparations of cereals, fruit and vegetables, oil seeds, oils and fats, sugar and honey, livestock, meat and meat preparations, dairy products and eggs.

The competitiveness of the EU in trade with East Asian countries was assessed with the use of a selected set of quantitative measures of international competitive position. The following indexes were applied: Export Specialisation Index (SI), Import-Export Coverage Ratio (CR), revealed comparative advantage indexes, including Relative Revealed Comparative Export Advantage Index (XRCA), Relative Import Penetration Index (MRCA), and Relative Trade Advantage Index (RTA) and Grubel-Lloyd Intra-Industry Trade Index (IIT).<sup>7</sup>

the internal market, in fact there are five of them. Besides the free movement of goods, persons, capital and services, the freedom of business should also be indicated, which is often defined as the freedom of enterprise. For more information on the subject see: J. Plaňavová-Latanowicz, *Wolności rynku wewnętrznego*, [in:] A.Z. Nowak, D. Milczarek (eds.), *Europeistyka w zarysie*, PWE, Warszawa 2006; Śliwińska M., *Jednolity Rynek Wewnętrzny*, [in:] E. Małuszyńska, B. Gruchman (eds.), *Kompendium wiedzy o Unii Europeiskiei*, Wydawnictwo Naukowe PWN, Warszawa 2007.

<sup>&</sup>lt;sup>3</sup> ASEAN – *The Association of South-East Asian Nations* was established in Bangkok in 1967; currently the members are: Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar (Burma), the Philippines, Singapore, Thailand and Vietnam, http://www.aseansec.org/18619.htm (accessed 30.04.2010).

<sup>&</sup>lt;sup>4</sup> Agricultural Trade Statistics 1999-2008, http://ec.europa.eu/agriculture/agrista/index\_en.htm (accessed 28.04.2010).

<sup>&</sup>lt;sup>5</sup> ComExt-Eurostat, http://epp.eurostat.ec.europa.eu/newxtweb/ (accessed 23.02.2010).

<sup>&</sup>lt;sup>6</sup> FAOSTAT-TradeSTAT, http://faostat.fao.org/site/406/default.aspx (accessed 28.04.2010).

<sup>&</sup>lt;sup>7</sup> For more information about the methods of international competitiveness measurement see: K. Pawlak, W. Poczta, *Konkurencyjność polskiego sektora rolno-spożywczego w handlu z krajami Unii Europejskiej*, Wydawnictwo Uniwersytetu Przyrodniczego w Poznaniu, Poznań 2008.

The Export Specialisation Index (SI) compares the share of product i in the country's export k with the share of the product in the world or region export:

$$SI_k = \frac{X_{ik}}{X_k} : \frac{X_{iw}}{X_w},$$

where: X – export; i – product groups; k – countries; w – the world/region.

High SI values are considered desirable. Otherwise, it is possible to conclude that the economy in question or its sector do not have satisfactory competitiveness.<sup>8</sup> Similarly to the SI, the Export-Import Coverage Ratio (CR):

$$CR_k = \frac{X_k}{M_k} \cdot 100\%,$$

enables the calculation of export specialisation of a given country within the analysed sector, product or group of products. The coefficient values exceeding 100 specify the specialisation of the analysed country, which gives a possibility to claim that it has relative advantage over partners. The indexes of revealed comparative advantages were calculated on the basis of the following formulae:

$$XRCA_{ik} = \frac{X_{ik}}{X_{im}} : \frac{\sum_{j,j \neq i} X_{jk}}{\sum_{j,j \neq i} X_{jm}}, \quad MRCA_{ik} = \frac{M_{ik}}{M_{im}} : \frac{\sum_{j,j \neq i} M_{jk}}{\sum_{j,j \neq i} M_{jm}},$$

$$RTA_{ik} = XRCA_{ik} - MRCA_{ik},$$

where: X – export; M – import; i, j – product groups; k, m – countries,

and then they were generally evaluated with the use of relations between them. Positive RTA index values and XRCA index values larger than unity show high competitiveness (+), but when the RTA index is negative and the MRCA index is larger than unity, the country shows no competitiveness (-). In other cases the results of analysis are not definite (+/-). Orubel-Lloyd Index (IIT)

<sup>8</sup> M. Jagiełło, Wskaźniki międzynarodowej konkurencyjności gospodarki, Studia i Materiały nr 80, IKCHZ, Warszawa 2003.

<sup>&</sup>lt;sup>9</sup> M. Lubiński, T. Michalski, J. Misala, *Międzynarodowa konkurencyjność gospodarki. Pojęcie i sposób mierzenia*, Raporty – Studia nad Konkurencyjnością, Instytut Rozwoju i Studiów Strategicznych, Warszawa 1995.

<sup>&</sup>lt;sup>10</sup> K. Frohberg, M. Hartmann, *Comparing Measures of Competitiveness*, Discussion Paper No. 2, IAMO, Halle 1997.

$$IIT_{k} = \frac{\left(X_{ik} + M_{ik}\right) - \left|X_{ik} - M_{ik}\right|}{\left(X_{ik} + M_{ik}\right)} \cdot 100\%$$

was applied to specify the importance of intra-industry trade. <sup>11</sup> High values of the index, which are close to 100, show the presence of intra-industry exchange, i.e. the exchange with a high degree of overlapping streams of export and import of products from the same branch. However, the IIT index assuming the value close to zero indicates the presence of inter-industry trade.

## 3. Trade in agri-food products made in the EU with East Asian countries

From 2000 to 2008 the value of agri-food products made in the EU exported to the analysed countries increased by over 27%, from 7.6 billion euro in 2000 to 9.7 billion euro in 2008. At the same time the import value increased by 77%, from 8.3 billion euro in 2000 to 14.7 billion euro in 2008 (Table 1). The most dynamic increase in the income gained on export of agri-food products was observed in the relations with China, i.e. nearly 2.5 times. The export volume to India and Singapore increased by nearly 75 and 65%, respectively. The highest rate of increase in import was observed for the food purchased in Malaysia, Indonesia and China, From 2000 to 2008 the expenditures spent on agri-food products imported from those countries increased by about 160, 95 and 71%, respectively. Above all, the following factors contributed to the development of trade in agri-food products between the EU countries and the East Asian region: the increasing degree of openness of the analysed Asian countries to the world economy and pro-export orientation of the industry of that region, the systematically growing level of per capita income determining the increase in the purchasing power and propensity to consume, the progressing processes of liberalisation of trade and facilitation of access to the EU market granted to developing countries, including China.

The most important export market in the East Asian region for the EU was Japan, where from 2000 to 2008 the value of agri-food products located there exceeded 4 billion euro annually (Table 1). However, it is necessary to note that the share of that country in the structure of the EU export to East Asian countries decreased from 57% in 2000 to 44% in 2008 (Table 2). Simultaneously, it is worth mentioning that the importance of Japan as a supplier of agri-food products to the Single European Market was marginal, 12 the import value from that country did not exceed 170 million euro and at highest amounted to slightly more than 2% of the total import from the

<sup>&</sup>lt;sup>11</sup> A. Cieślik, *Nowa teoria handlu zagranicznego w świetle badań empirycznych*, Wydawnictwo Naukowe PWN, Warszawa 2000.

<sup>&</sup>lt;sup>12</sup> In the group of the analysed countries it was only Singapore that had a smaller share in the EU structure of import to East Asia, which fluctuated around 1% (Table 2).

Table 1. Trade in agri-food products made in the EU with selected East Asian countries in the years 2000-2008

				Export					In	Import				Tra	Trade balance	es	
Countries	2000	2005	2006	2007		2008	2000	2005	2006	2007	2	2008	2000	2005	2006	2007	2008
		llim	illion euro	ıro		2000 = 100		m	million euro	0.		2000=100		m	million euro	0.	
China	753	1 231	1 372	1 633	1 813	240.8	2 179	2 616	2 946	3 443	3 727	171.0	-1 426	-1 385	-1 574	-1 810	-1 914
India	156	198	362	285	270	173.1	1 366	1 259	1 409	1 623	2 083	152.5	-1 210	-1 061	-1 047	-1 338	-1 813
Japan	4 306	4 018	4 082	4 012	4 248	98.7	170	139	134	140	156	91.8	4 136	3 879	3 948	3 872	4 092
ASEAN, including:	2 383	2 390	2 544	3 037	3 352	140.7	4 573	5 102	5 652	6 845	8 703	190.3	-2 190	-2 712	-3 108	-3 808	-5 351
Philippines	212	302	767	369	409	108.5	344	388	383	398	466	135.5	33	98–	68-	-29	-57
Indonesia	369	345	356	370	531	143.9	1 539	1 660	1 751	1 992	3 001	195.0	-1 170	-1 315	-1 395	-1 622	-2 470
Malaysia	322	311	312	393	371	115.2	778	1316	1 351	1 662	2 022	259.9	-456	-1 005	-1 039	-1 269	-1 651
Singapore	694	717	874	1 079	1 141	164.4	82	92	79	96	76	118.3	612	641	795	983	1 044
Thailand	462	484	472	529	521	112.8	1 295	1 091	1 269	1 617	1 936	149.5	-833	L09—	<i>L6L</i> -	-1 088	-1 415
Total	7 598	7 837	8 360	8 967	6 683	127.4	8 288	9 116	10 141	12 051	14 669	177.0	069-	-1 279	-1 781	-3 084	-4 986

Source: Agricultural Trade..., own calculations.

East Asian region. Hence, Japan was the only country of the region with which the EU generated a high active balance in agri-food products trade.

The ASEAN countries were the second biggest trade partner of the Community, both in terms of the value of export and import of agri-food products. They received about ½ of the products exported from the EU, whereas about 60% of the total import from the East Asian countries came from that region (Table 2). The importance of that group of countries in the EU agricultural trade increased both in the relative and absolute aspect. From 2000 to 2008 the value of export to the ASEAN countries increased by almost 41%, from 2.4 billion euro in 2000 to 3.4 billion euro in 2008, whereas the value of import increased by 90%, from 4.6 billion euro to 8.7 billion euro (Table 1). In this group of countries the EU had the most intense trade connections with Indonesia, Malaysia and Thailand.

What deserves special attention is the development of trade in agri-food products between the EU and China, which has been observed since 2000. The aforementioned increase by 2.5 times in the value of income gained on export of agri-food products and the 71% increase in the expenditures spent on import of the products resulted in 1.8 billion euro worth of agri-food products sold on the Chinese market in 2008, which made almost 20% of the total EU export to the East Asian countries. The food purchased in that country cost 3.7 billion euro, i.e. ¼ of the total expenditures spent on food in the analysed region (Tables 1 and 2). In view of the aforementioned fact, in 2008 China came third in the structure of EU agricultural trade with the East Asian countries.

**Table 2.** Geographical structure of trade in agri-food products made in the EU with selected East Asian countries in the years 2000-2008 (%)

Ct-i			Export					Import		
Countries	2000	2005	2006	2007	2008	2000	2005	2006	2007	2008
China	9.9	15.7	16.4	18.2	18.7	26.3	28.7	29.1	28.6	25.4
India	2.1	2.5	4.3	3.2	2.8	16.5	13.8	13.9	13.5	14.2
Japan	56.7	51.3	48.8	44.7	43.9	2.1	1.5	1.3	1.2	1.1
ASEAN, including:	31.4	30.5	30.4	33.9	34.6	55.2	56.0	55.7	56.8	59.3
Philippines	5.0	3.9	3.5	4.1	4.2	4.2	4.3	3.8	3.3	3.2
Indonesia	4.9	4.4	4.3	4.1	5.5	18.6	18.2	17.3	16.5	20.5
Malaysia	4.2	4.0	3.7	4.4	3.8	9.4	14.4	13.3	13.8	13.8
Singapore	9.1	9.1	10.5	12.0	11.8	1.0	0.8	0.8	0.8	0.7
Thailand	6.1	6.2	5.6	5.9	5.4	15.6	12.0	12.5	13.4	13.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Agricultural Trade..., own calculations.

What should be stressed is the fact that from 2000 to 2008 in the trade relations with both the ASEAN countries, except Singapore, and with China the European Community noted permanent and increasing deficit in the trade turnover in the agrifood sector (Table 1). The increasing surplus of import over export also accompanied the trade between the EU and India.

When analysing the commodity structure of the exchange it is possible to state that the EU export to the East Asian countries was dominated by animal products, whereas the import was dominated by plant products (Table 3).

**Table 3.** Commodity structure of trade in agri-food products made in the EU with selected East Asian countries in the years 2000-2008

			Export	t				Impor	t	
Product groups	200	0		2008	3	200	0		2008	3
Troduct groups	million euro	%	million euro	%	2000 = 100	million euro	%	million euro	%	2000 = 100
Cereals	105	1.4	61	0.6	58.4	257	3.1	591	4.0	229.9
Preparations of cereals	325	4.3	591	6.1	182.0	145	1.7	286	1.9	197.8
Fruit	47	0.6	76	0.8	164.3	403	4.9	855	5.8	212.0
Vegetables	68	0.9	86	0.9	126.5	673	8.1	702	4.8	104.4
Fruit and vegetable preparations	179	2.4	288	3.0	161.2	727	8.8	1 271	8.7	174.8
Oil seeds	147	1.9	163	1.7	111.1	382	4.6	667	4.5	174.6
Oils and fats	187	2.5	278	2.9	148.7	1 461	17.6	3 905	26.6	267.3
Sugar and sugar confectionery	106	1.4	152	1.6	143.0	67	0.8	175	1.2	261.0
Livestock	81	1.1	59	0.6	72.5	32	0.4	19	0.1	60.3
Meat and edible meat offal	1 259	16.6	1 020	10.5	81.0	195	2.4	36	0.2	18.6
Meat preparations	57	0.8	58	0.6	101.6	160	1.9	628	4.3	392.0
Dairy products	738	9.7	689	7.1	93.5	39	0.5	52	0.4	134.3
Other animal origin products	94	1.2	152	1.6	161.3	354	4.3	529	3.6	149.3
Other food products	549	7.2	763	7.9	139.0	250	3.0	587	4.0	234.9
Beverages	1 790	23.6	2 482	25.6	138.7	56	0.7	112	0.8	199.3
Tobacco products	323	4.2	454	4.7	140.7	238	2.9	263	1.8	110.2
Rest of product groups	1 545	20.3	2 310	23.9	149.6	2 849	34.4	3 990	27.2	140.1
Total agricultural products	7 598	100.0	9 683	100.0	127.4	8 288	100.0	14 669	100.0	177.0

Source: Agricultural Trade..., own calculations.

In 2000 and 2008 the basic (from the point of view of the structure of production in the EU) groups of animal products such as livestock, meat, offal and meat preparations and dairy products made about 30 and 20% of the total EU export to that region of the world, respectively, whereas the plant products made 50 and 58% of the total import, respectively. It is necessary to note that the turnover in plant products had a higher dynamics of changes. However, with the exception of fruit and vegetable preparations as well as oils and fats imported to the Single European Market, despite the significant increase in the export and import values, which frequently grew by nearly two or even two and a half times, the importance of individual groups of products in the structure of EU trade with the East Asian countries remained relatively small. What deserves attention is the fact that from 2000 to 2008 in the group of animal products there was nearly fourfold increase in the value of import of meat products, from 160 million euro in 2000 to 628 million euro in 2008. However, the aforementioned sums made only about 2 and 4% of the EU expenditures spent on import from the East Asian region.

# 4. The competitive position of the EU in trade with East Asian countries

The ex post analysis of the international competitive position proved that from 2000 to 2008 the animal products made in the EU were competitive in trade with Japan and the ASEAN countries. Besides, dairy products and eggs exported to China as well as livestock sold to India in 2007 gained high competitive advantage (Table 4). This fact is confirmed by the results of general evaluation of the indexes of revealed comparative advantages (RTA > 0 and XRCA > 1)<sup>13</sup>. Furthermore, the values of SI indexes indicate a higher degree of realised export specialisation (SI > 1) than in the analysed East Asian countries. The favourable competitive situation in the trade in the listed groups of products is also reflected by the surplus in the trade balance generated within all of the listed groups of products (CR > 100%). The EU trade in animal products was distinguished by a very high intensity of intra-industry trade, which was higher than in the plant production sector. This fact results from the values of IIT indexes fluctuating around 90%. However, in the case of meat and meat preparations they reach as much as 98%, which suggests the ability of the exporting country to satisfy the demand preferences of the foreign consumer and gives a positive opinion about the ability to adapt and compete in the analysed sectors. It is worth mentioning that even in the years when according to the general evaluation, the animal products made in the EU did not gain comparative advantages in trade with China or India (RTA < 0 and MRCA > 1), the share of specific groups of products in the total value of agri-food export was usually higher than in the listed countries of the East Asian region (SI > 1). The exporters from the European

<sup>&</sup>lt;sup>13</sup> Except for livestock exported to Japan in 2007.

**Table 4.** The competitiveness of animal origin products made in the EU in trade with selected East Asian countries in 2000 and 2007

Indexes	Years	China	India	Japan	ASEAN
1	2	3	4	5	6
		Liv	restock		,
CI.	2000	0.86	72.91	5.08	3.72
SI	2007	1.79	33.45	3.30	7.22
CD (0/)	2000	116.54	116.54	116.54	116.54
CR (%)	2007	118.08	118.08	118.08	118.08
VDC4	2000	0.85	74.76	5.19	3.79
XRCA	2007	1.81	34.17	3.35	7.36
N. C. C.	2000	8.33	212.27	4.03	1.08
MRCA	2007	14.68	19.43	3.76	1.37
D.T.	2000	-7.48	-137.51	1.15	2.70
RTA	2007	-12.87	14.74	-0.41	5.99
	2000	-	_	+	+
General evaluation	2007	_	+	-	+
YYT (0.()	2000	92.36	92.36	92.36	92.36
IIT (%)	2007	91.71	91.71	91.71	91.71
		Meat and m	eat preparations		
or.	2000	1.21	1.76	10.16	3.08
SI	2007	1.57	2.20	8.72	5.79
CD (A)	2000	110.10	110.10	110.10	110.10
CR (%)	2007	103.25	103.25	103.25	103.25
Ym C i	2000	1.23	1.86	11.36	3.35
XRCA	2007	1.65	2.36	9.76	6.44
	2000	1.78	1 705.15	0.38	2.74
MRCA	2007	2.52	393.35	0.54	3.11
D.T.	2000	-0.55	-1 703.29	10.98	0.61
RTA	2007	-0.87	-390.99	9.22	3.34
	2000	-	_	+	+
General evaluation	2007	_	_	+	+
	2000	95.19	95.19	95.19	95.19
IIT (%)	2007	98.40	98.40	98.40	98.40

Tabela 4, cont.

1	2	3	4	5	6
		Dairy prod	ucts and eggs		
SI	2000	16.16	11.83	26.38	8.44
51	2007	8.59	5.62	12.08	7.64
CD (0/)	2000	127.76	127.76	127.76	127.76
CR (%)	2007	122.57	122.57	122.57	122.57
VDCA	2000	17.96	13.12	29.40	9.33
XRCA	2007	9.48	6.16	13.38	8.42
MDCA	2000	3.16	24.53	4.36	0.94
MRCA	2007	3.60	49.10	3.42	0.82
PTA	2000	14.81	-11.41	25.04	8.39
RTA	2007	5.89	-42.93	9.96	7.59
	2000	+	-	+	+
General evaluation	2007	+	_	+	+
HT. (0/)	2000	87.81	87.81	87.81	87.81
IIT (%)	2007	89.86	89.86	89.86	89.86

Source: FAOSTAT-TradeSTAT, own calculations.

Community gained competitive advantage in export (XRCA > 1) and achieved an active turnover balance (CR > 100%). However, it is necessary to note that from 2000 to 2007 the competitive position of dairy products made in the EU became clearly weaker. In comparison with 2000 in 2007 there was a drop in the revealed comparative advantage in the export of this group of products (XRCA). The degree of realised export specialisation (SI) and active trade balance (CR) decreased, which resulted from the growing competitive pressure exerted by producers with low production costs, such as Australia or New Zealand. Their additional advantage is the short distance from Asian markets. As far as livestock and meat products are concerned, there was an increase in the competitive advantage in relations with India and the ASEAN countries and a decrease in the trade with Japan and China, which increased their degree of food self-sufficiency in this respect.

As far as plant products made in the EU are concerned, from 2000 to 2007 there was a high competitiveness of oil seeds exported to Japan and the ASEAN countries, oils and fats sold in China and fruit and vegetables exported to Japan. In 2000 this applied also to fruit and vegetables exported to the ASEAN countries and in 2007 to India (Table 5). This evaluation comes from both the results of general evaluation of the indexes of comparative advantage (RTA > 0 and XRCA > 1) and the values of export specialisation indexes (SI). In comparison with the analysed East Asian

countries in 2007 the degree of export specialisation (SI) for oil seeds was about 4 times higher in the EU, from 30 to 300% higher for oils and fats, and 2 times higher for fruit and vegetables. Apart from the trade in horticultural products in 2000, the trade in this group of products was accompanied by turnover deficit, which was illustrated by the values of import-export coverage ratio (CR) lower than 100%. It was determined by considerable intensity of intra-industry trade (IIT), which had a growing tendency for fruit, vegetables and oil seeds.

In view of the general evaluation the plant products made in the EU were of average or low competitiveness on the other analysed Asian markets (Table 5). Sugar and honey exported from the EU countries to the East Asian markets were deprived of comparative advantages to the greatest extent (-4.9 < RTA < 0.4). It is necessary to note that from 2000 to 2007 the EU countries did not take export specialisation in sugar, cereals and cereal preparations trade or the degree of specialisation was relatively low (SI < 1.4). In spite of this fact they reached a surplus in the trade balance (CR > 100%), except for the sugar and honey turnover in 2007. The phenomenon of simultaneous import and export of the products belonging to the same sector could be observed in the turnover of plant products. It was similar to the sector of animal products, but – as has been mentioned before – on a slightly smaller scale. The most intensive processes of intra-industry trade took place in sugar and honey trade (IIT = 94% in 2000 and IIT = 92% in 2007), cereals trade (IIT = 83% 2000 and IIT = 95% in 2007) and oils and fats trade (IIT = 96% 2000 and IIT = 88% in 2007).

**Table 5.** The competitiveness of plant origin products made in the EU in trade with selected East Asian countries in 2000 and 2007

Indexes	Years	China	India	Japan	ASEAN
1	2	3	4	5	6
		Oil	seeds		
SI	2000	0.27	0.17	19.21	1.63
51	2007	0.45	0.27	3.59	4.10
CR (%)	2000	28.09	28.09	28.09	28.09
CK (76)	2007	41.13	41.13	41.13	41.13
XRCA	2000	0.26	0.17	19.36	1.64
ARCA	2007	0.44	0.26	3.62	4.13
MRCA	2000	0.11	22.88	0.55	0.63
MRCA	2007	0.07	4.28	0.42	0.65
DTA	2000	0.15	-22.71	18.82	1.01
RTA	2007	0.37	-4.02	3.20	3.48
General evaluation	2000	+/-	_	+	+
General evaluation	2007	+/-	_	+	+

Table 5, cont.

1	2	3	4	5	6
HT (0/)	2000	43.86	43.86	43.86	43.86
IIT (%)	2007	58.29	58.29	58.29	58.29
		Oils a	and fats		
CI.	2000	3.24	0.74	1.01	0.15
SI	2007	3.21	1.30	1.44	0.12
CD (0/)	2000	92.87	92.87	92.87	92.87
CR (%)	2007	77.79	77.79	77.79	77.79
VDCA	2000	3.33	0.73	1.01	0.12
XRCA	2007	3.30	1.31	1.45	0.08
MDCA	2000	0.50	0.04	2.87	0.83
MRCA	2007	0.27	0.09	2.38	0.76
DTA	2000	2.82	0.69	-1.85	-0.71
RTA	2007	3.03	1.23	-0.92	-0.68
C	2000	+	+/_	_	+/_
General evaluation	2007	+	+	_	+/_
HT (0/)	2000	96.30	96.30	96.30	96.30
IIT (%)	2007	87.51	87.51	87.51	87.51
		Fruit and	vegetables		
cı	2000	0.58	0.82	3.04	1.28
SI	2007	0.41	1.65	2.14	1.80
CD (0/)	2000	380.17	380.17	380.17	380.17
CR (%)	2007	79.67	79.67	79.67	79.67
VDCA	2000	0.50	0.79	3.42	1.33
XRCA	2007	0.29	1.78	2.37	1.96
MDCA	2000	0.59	0.20	0.21	0.46
MRCA	2007	4.07	0.64	1.51	2.84
DTA	2000	-0.09	0.59	3.21	0.86
RTA	2007	-3.78	1.15	0.86	-0.88
C11	2000	+/	+/_	+	+
General evaluation	2007	_	+	+	_
HT (0/)	2000	41.65	41.65	41.65	41.65
IIT (%)	2007	88.69	88.69	88.69	88.69
		Cereals and prep	parations of cereals	-	
cı	2000	0.79	0.68	0.75	0.94
SI			0.49	0.84	1.05

1	2	3	4	5	6
CD (0/)	2000	140.09	140.09	140.09	140.09
CR (%)	2007	110.52	110.52	110.52	110.52
VD CA	2000	0.76	0.64	0.72	0.93
XRCA	2007	1.11	0.43	0.82	1.06
MRCA	2000	0.77	8.97	0.62	0.39
MRCA	2007	1.77	1.11	0.52	0.48
RTA	2000	-0.01	-8.33	0.11	0.54
KIA	2007	-0.66	-0.68	0.30	0.58
General evaluation	2000	+/_	_	+/-	+/_
General evaluation	2007	-	_	+/-	+
HT (0/)	2000	83.30	83.30	83.30	83.30
IIT (%)	2007	95.00	95.00	95.00	95.00
Sugar and honey					
SI	2000	1.43	1.30	0.86	0.78
51	2007	1.05	0.30	0.77	0.87
CD (0/)	2000	113.58	113.58	113.58	113.58
CR (%)	2007	84.49	84.49	84.49	84.49
XRCA	2000	1.44	1.31	0.86	0.77
ARCA	2007	1.05	0.28	0.77	0.87
MRCA	2000	1.38	4.84	2.11	0.60
WIKCA	2007	2.31	5.14	1.70	0.51
RTA	2000	0.06	-3.54	-1.25	0.17
KIA	2007	-1.26	-4.86	-0.94	0.36
General evaluation	2000	+	_	-	+/-
General evaluation	2007	-	_	_	+/-
HT (0/)	2000	93.64	93.64	93.64	93.64
IIT (%)	2007	91.59	91.59	91.59	91.59

Source: FAOSTAT-TradeSTAT, own calculations.

Considering the dynamic aspect of the competitive position of the EU agrifood sector on the East Asian markets, it is possible to state that from 2000 to 2007 there was an increase in the competitive advantages gained on trade in cereals and cereal preparations, oil seeds, <sup>14</sup> oils and fats. In the relations with Japan and the ASEAN countries the advantage was gained on sugar and honey trade, whereas the competitive situation worsened in the trade in the same group of products with China

<sup>&</sup>lt;sup>14</sup> Except for the Japanese market, in relation to which there was a decrease both in the degree of export specialisation (SI) realised by the EU countries and in the relative trade advantage (RTA) (Table 5).

and India, and, with the exception of India, 15 the same situation applied to the fruit and vegetable trade.

### 5. Concluding remarks

On the basis of the analyses it is possible to conclude that in the group of third countries those in East Asia are an important trade partner to the EU in the agrifood sector. From 2000 to 2007 the animal products made in the EU had a stronger competitive position on the markets of those countries than the plant products. It is also possible to find that in the group of products of relatively highest competitive position, labour-intensive products were dominant both in the animal and plant groups, which is in agreement with the Heckscher–Ohlin–Samuelson theorem on resource abundance.

The tendency to improve the competitive situation of most branches of the EU agri-food sector, especially in the plant production sector, in the East Asian region is a phenomenon that deserves attention. However, it is necessary to remember that these groups of products are of small significance to the structure of agricultural export from the EU to East Asian countries and from 2000 to 2007 there was an adverse trade balance in the turnover of those products. The EU sugar and dairy sectors struggle with the strongest competitive pressure exerted by the producers of cheaper food from outside the EU. They usually have the advantages resulting from the location rent and geographical closeness of the East Asian markets, which in consequence leads to a decrease in the comparative advantages gained by the EU in that region.

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<sup>&</sup>lt;sup>15</sup> From 2000 to 2007 the degree of export specialisation (SI) of the EU countries in fruit and vegetable trade and the level of relative trade advantage (RTA) in comparison with India increased by about two times (Table 5).

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### ZNACZENIE KRAJÓW AZJI WSCHODNIEJ W HANDLU ARTYKUŁAMI ROLNO-ŻYWNOŚCIOWYMI UNII EUROPEJSKIEJ

Streszczenie: Celem artykułu było określenie roli wybranych krajów Azji Wschodniej we wspólnotowym handlu artykułami rolno-żywnościowymi oraz zbadanie pozycji konkurencyjnej produktów rolno-spożywczych wytwarzanych w UE na rynkach państw tego regionu w latach 2000-2007. W analizie konkurencyjności wykorzystano celowo dobrany zestaw ilościowych mierników międzynarodowej pozycji konkurencyjnej *ex post*. Dowiedziono, że wśród krajów trzecich państwa Azji Wschodniej są istotnym partnerem handlowym UE w sektorze rolno-spożywczym. W latach 2000-2007 silną pozycją konkurencyjną w regionie Azji Wschodniej charakteryzowały się wytwarzane w UE produkty pracochłonne, szczególnie pochodzenia zwierzecego.