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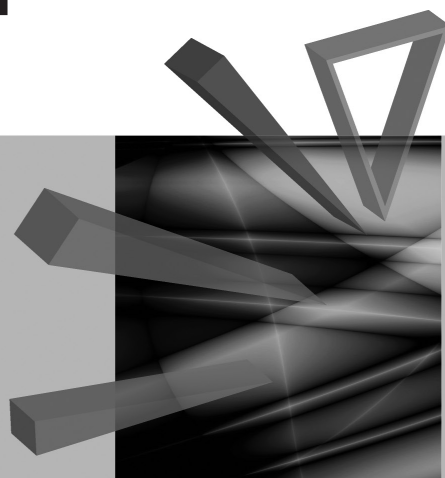
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THE EVALUATION OF TRADE RELATIONS BETWEEN POLAND AND CHINA

Abstract: The majority of Poland's trade partners are European countries. Among its partners in imports, however, China is one of the leaders. The paper aims at presenting trade relations between Poland and China from 2006 to 2011. The intensity and dynamics of exports and imports, as well as trade balance have been studied. Commodity pattern of the Polish-Chinese trade has been analysed. The character of Poland's trade with China has been evaluated with the application of: trade coverage indicator (TC), B. Balassa's revealed comparative advantage indicator (RCA) and H.G. Grubel-P.J. Lloyd's intra-industry trade indicator (IIT).

Keywords: China, Poland, trade relations, trade coverage, intra-industry trade, revealed comparative advantage.

1. Introduction

Since the beginning of the 1990s the Polish economy has changed considerably. The gradual opening of the Polish economy as well as the process of trade liberalisation have resulted in the tightening of the relations between Poland and other subjects of the world. At the same time the Chinese economy has become one of the crucial players in the globalised world economy (one of the leaders in the world exports).¹

The paper aims at presenting trade relations between Poland and China from 2006 to 2011. The intensity and dynamics of exports and imports, as well as trade balance have been studied. Commodity pattern of the Polish-Chinese trade has been analysed. The character of Poland's trade with China has been evaluated with the application of: trade coverage indicator (TC), B. Balassa's revealed comparative advantage indicator (RCA), and H.G. Grubel-P.J. Lloyd's intra-industry trade indicator (IIT).

¹ B. Liberska, *Perspektywy rozwojowe chińskiej gospodarki do 2050 roku*, *Ekonomista* 2010, no. 4, p. 339. See also: E. Cieślak, *Efekt smoka. Skutki ekspansji gospodarczej Chin po 1978 roku*, CeDeWu, Warszawa 2012, pp. 55–59, 127–147.

Trade in goods is a dominant form of economic cooperation between Poland and China. The Polish-Chinese trade is evolving constantly. Both its value and structure change. An important feature of trade between the two economies is its asymmetry which results from the differences in their economic potential.

2. Poland and China as trade partners

The value of Polish total exports increased from 109.6 billion USD in 2006 to 190.2 billion USD in 2011. At the same time Poland's total imports rose from 125.6 billion USD to 212.3 billion USD. Thus, the deficit in the Polish trade increased from 16 billion USD in 2006 to 22.1 billion USD in 2011 (in 2008 the trade deficit amounted to more than 38 billion USD).

A huge part of the deficit results from the imbalance in Poland's trade relations with China. In 2006 Poland exported goods worth just 762 million USD to China and imported commodities worth as much as 7.7 billion USD from China. In 2011 the Polish exports to China amounted to 1.9 billion USD and imports from China equalled 18.4 billion USD. That means trade deficit in relations with China amounting to 6.9 million USD in 2006 and to as much as 16.5 billion USD in 2011 (see Table 1).

Table 1. Poland's trade with the world and China from 2006 to 2011 (million USD)

Economy		2006	2007	2008	2009	2010	2011
World	Imports	125 645.3	164 172.5	210 478.5	149 569.8	178 062.9	212 330.9
	Exports	109 584.1	138 784.9	171 859.9	136 641.3	159 757.6	190 247.5
	Balance	-16 061.2	-25 387.5	-38 618.6	-12 928.5	-18 305.3	-22 083.4
China	Imports	7 711.7	11 753.4	16 797.9	13 914.4	16 703.3	18 386.4
	Exports	762.6	986.5	1 278.4	1 469.6	1 627.5	1 860.9
	Balance	-6 949.1	-10 766.9	-15 519.5	-12 444.8	-15 075.8	-16 525.5

Source: *Yearbook of Foreign Trade Statistics of Poland 2007*, Central Statistical Office, Warsaw 2007; *Yearbook of Foreign Trade Statistics of Poland 2008*, Central Statistical Office, Warsaw 2008; *Yearbook of Foreign Trade Statistics of Poland 2009*, Central Statistical Office, Warsaw 2009; *Yearbook of Foreign Trade Statistics of Poland 2010*, Central Statistical Office, Warsaw 2010; *Yearbook of Foreign Trade Statistics of Poland 2011*, Central Statistical Office, Warsaw 2011; *Yearbook of Foreign Trade Statistics of Poland 2012*, Central Statistical Office, Warsaw 2012.

The share of China in Poland's imports increased from 6.1% in 2006 to 8.7% in 2011. It was as high as 9.3–9.4% in 2009–2010. The share of Poland's exports to China equalled just 0.7–0.8% from 2006 to 2008 and 1.0–1.1 per cent from 2009 to 2011 (see Table 2).

Tables 3, 4 and 5 present commodity pattern of Poland's trade with China according to 21 CN sections. With respect to imports from China the following four

Table 2. China as Poland's trade partner from 2006 to 2011
(per cent of Poland's total exports and imports)

Year	2006	2007	2008	2009	2010	2011
China's imports	6.1	7.1	8.1	9.3	9.4	8.7
China's exports	0.7	0.7	0.8	1.1	1.1	1.0

Source: *Yearbook of Foreign Trade... 2007–2012*.

Table 3. Commodity pattern of Poland's exports to and China by CN sections (thousand USD)

Code of section	2006	2007	2008	2009	2010	2011
I	20 988	20 108	14 411	18 595	25 936	49 143
II	2 320	3 908	3 753	3 522	4 800	3 524
III	15	–	–	–	–	–
IV	5 262	2 892	3 029	3 056	5 836	6 312
V	16 828	41 824	62 275	35 372	26 234	27 186
VI	151 164	206 205	139 945	192 027	222 003	226 512
VII	27 323	26 303	39 288	82 808	79 261	94 489
VIII	1 237	793	3 549	5 439	5 118	4 627
IX	3 005	1 816	2 630	1 999	4 164	4 435
X	12 566	17 307	15 440	12 001	11 692	8 997
XI	3 592	5 524	6 318	4 917	5 169	7 222
XII	1	3	247	196	37	90
XIII	10 710	9 056	46 866	23 837	17 402	21 204
XIV	197	246	6 382	478	680	620
XV	359 199	334 614	506 192	572 821	661 491	886 785
XVI	122 928	255 533	290 447	372 369	351 760	367 677
XVII	9 654	22 877	49 955	66 957	113 971	43 704
XVIII	4 629	10 355	22 645	33 395	29 322	23 372
XIX	0	1	0	35	–	0
XX	5 247	26 729	64 820	39 707	60 979	84 885
XXI	5 732	360	178	59	1 557	0
TOTAL	762 595	986 458	1 278 423	1 469 610	1 627 488	1 860 864

I – live animals, animal products; II – vegetable products; III – fats and oils; IV – prepared food-stuffs; V – mineral products; VI – products of the chemical industry; VII – plastics and rubber and articles thereof; VIII – raw hides and skins, articles thereof; IX – wood and articles of wood; X – pulp of wood, paper, paperboard and articles thereof; XI – textiles and textile articles; XII – footwear, headwear and articles thereof; XIII – articles of stone, ceramic products, glass; XIV – pearls, precious stones and metals, articles thereof; XV – base metals and articles thereof; XVI – machinery and mechanical appliances, electrical engines equipment; XVII – transport equipment; XVIII – optical, photographic, measuring, checking instruments; XIX – arms and ammunition; XX – miscellaneous manufactured articles (furniture, toys); XXI – works of art, collectors pieces and antiques.

Source: *Yearbook of Foreign Trade... 2007–2012*.

Table 4. Commodity pattern of Poland's imports from China by CN sections (thousand USD)

Code of section	2006	2007	2008	2009	2010	2011
I	144 948	169 697	282 326	229 235	211 566	213 257
II	64 002	88 672	104 524	80 501	100 956	121 722
III	684	–	–	–	–	–
IV	32 897	74 394	70 983	62 949	97 437	108 662
V	35 022	47 285	84 817	55 170	63 821	97 546
VI	209 185	295 608	429 567	311 145	379 626	509 774
VII	191 107	359 128	427 965	347 174	424 103	523 428
VIII	157 152	211 642	305 308	229 180	269 724	293 963
IX	41 152	67 550	92 507	71 545	86 697	924 373
X	49 556	81 207	109 635	80 103	916 629	103 666
XI	817 388	1 222 116	1 849 436	1 816 948	2 126 112	2 419 355
XII	285 009	357 677	488 486	445 692	531 794	641 439
XIII	187 397	328 424	384 858	271 774	319 772	355 275
XIV	33 187	43 324	68 253	62 208	71 381	79 167
XV	571 823	1 212 637	1 376 832	756 961	942 585	1 283 053
XVI	3 958 686	5 796 963	8 765 353	7 643 742	9 278 791	9 425 277
XVII	155 797	289 872	497 276	272 837	313 770	395 696
XVIII	218 893	223 360	306 704	268 459	355 898	445 886
XIX	1 975	4 326	8 503	6 959	–	–
XX	555 088	878 419	1 143 309	900 610	1 032 030	1 266 568
XXI	735	629	778	699	688	–
TOTAL	7 711 682	11 753 417	16 797 908	13 914 394	16 703 345	18 386 425

Source: *Yearbook of Foreign Trade...* 2007–2012.

sections are crucial: section XVI – machinery and mechanical appliances, electrical and electronic equipment, section XI – textiles and textile articles, section XV – base metals and articles thereof, and section XX – miscellaneous manufactured articles including toys and furniture. Machinery and mechanical appliances, electrical and electronic equipment constituted about 52% of Poland's imports from China (in 2009–2010 it was even more – 55%). The share of textiles and textile articles in the Polish imports from China increased from 10.5% to 13.2%. The share of toys and furniture amounted to 7%. Base metals and articles thereof constituted 7% of Poland's imports from China. Thus the above-mentioned four commodity sections reflected almost 80% of what Poland imported from China.

The analysis of commodity pattern of the Polish exports to the Chinese market brought a similar result. A strong concentration was observed. Four commodity

Table 5. Commodity pattern of Poland's exports to and imports from China by CN sections (%)

CN section	Exports						Imports					
	2006	2007	2008	2009	2010	2011	2006	2007	2008	2009	2010	2011
I	2.8	2.0	1.1	1.3	1.6	2.6	1.9	1.4	1.7	1.6	1.3	1.2
II	0.3	0.4	0.3	0.2	0.3	0.2	0.8	0.8	0.6	0.6	0.6	0.7
III	0.0	–	–	–	–	–	0.0	–	–	–	–	–
IV	0.7	0.3	0.2	0.2	0.4	0.3	0.4	0.6	0.4	0.5	0.6	0.6
V	2.2	4.2	4.9	2.4	1.6	1.5	0.5	0.4	0.5	0.4	0.4	0.5
VI	19.8	20.9	10.9	13.1	13.6	12.2	2.7	2.5	2.6	2.2	2.3	2.8
VII	3.6	2.7	3.1	5.6	4.9	5.1	2.5	3.1	2.5	2.5	2.5	2.8
VIII	0.2	0.1	0.3	0.4	0.3	0.2	2.0	1.8	1.8	1.6	1.6	1.6
IX	0.4	0.2	0.2	0.1	0.3	0.2	0.5	0.6	0.6	0.5	0.5	5.0
X	1.6	1.8	1.2	0.8	0.7	0.5	0.6	0.7	0.7	0.6	5.5	0.6
XI	0.5	0.6	0.5	0.3	0.3	0.4	10.6	10.4	11.0	13.1	12.7	13.2
XII	0.0	0.0	0.0	0.0	0.0	0.0	3.7	3.0	2.9	3.2	3.2	3.5
XIII	1.4	0.9	3.7	1.6	1.1	1.1	2.4	2.8	2.3	2.0	1.9	1.9
XIV	0.0	0.0	0.5	0.0	0.0	0.0	0.4	0.4	0.4	0.4	0.4	0.4
XV	47.1	33.9	39.6	39.0	40.6	47.7	7.4	10.3	8.2	5.4	5.6	7.0
XVI	16.1	25.9	22.7	25.3	21.6	19.8	51.3	49.3	52.2	54.9	55.6	51.3
XVII	1.3	2.3	3.9	4.6	7.0	2.3	2.0	2.5	3.0	2.0	1.9	2.2
XVIII	0.6	1.0	1.8	2.3	1.8	1.3	2.8	1.9	1.8	1.9	2.1	2.4
XIX	–	0.0	–	0.0	–	–	0.0	0.0	0.1	0.1	–	–
XX	0.7	2.7	5.1	2.7	3.7	4.6	7.2	7.5	6.8	6.5	6.2	6.9
XXI	0.8	0.0	0.0	0.0	0.1	–	0.0	0.0	0.0	0.0	0.0	–
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: *Yearbook Foreign Trade... 2007–2012*.

sections are the leaders: section XV – base metals and articles thereof, section XVI – machinery and mechanical appliances, electrical and electronic equipment, section VI – products of the chemical industry and section VII – plastics and rubber and articles thereof. Section XV must be seen as an unquestionable leader; the share of base metals and articles thereof constituted 47% of Polish exports to China in 2006 and 2011. Section XVI took the second position. The share of machinery and mechanical appliances, electrical engines and equipment amounted to 16% in 2006 and 20–26% from 2007 to 2011. Products of chemical industry were responsible for about 20% in 2006 and 2007 but since 2008 section VI has represented just 10–13% of Poland's exports to China. A different tendency was observed with respect to section VII – plastics and rubber and articles thereof. This section accounted for

3.6% of Poland's exports to China in 2006 and for as much as 5.0–5.6% from 2009 to 2011. In 2011 the above-mentioned four sections represented 85% of Poland's exports to China.

In order to analyse the character of Poland's trade with China the following three indices have been used:

- trade coverage indicator (TC),
- revealed comparative advantage indicator (RCA),
- intra-industry trade indicator (IIT).

Trade coverage indicator reflects the degree to which the analysed country's imports are covered by its exports. TC indicator is formulated as follows:²

$$TC_{iy} = \frac{Ex_{iy}}{Im_{iy}} \cdot 100,$$

where: i – commodity section,

y – trade partner,

Ex – exports,

Im – imports.

If TC indicator is bigger than 100, one may assume that exports of commodity section i to the analysed partner y covers imports of commodity section i from country y . If TC is close to 0 it means that the country's imports are not covered by its exports to the analysed partner.

B. Balassa formulated RCA indicator as follows:

$$RCA_{iy} = \frac{\frac{Ex_{iy}}{\sum Ex_{iy}}}{\frac{Im_{iy}}{\sum Im_{iy}}},$$

where: i – commodity section,

y – trade partner,

Ex – exports,

Im – imports.

If the RCA indicator is bigger than one, one may assume that a country enjoys a favourable position in trade (i.e. gains comparative advantage).³

Intra-industry trade is considered an important tendency in international trade in the 21st century. That is why the analysis of the intensity of intra-industry trade

² M. Lubiński, T. Michalski, J. Misala, *Międzynarodowa konkurencyjność gospodarki. Pojęcie i sposób mierzenia*, IriSS, Warszawa 1995.

³ B. Balassa, Trade liberalization and 'revealed comparative advantage', *The Manchester School* 1965, vol. 33, no. 2. See also: K. Budzowski, S. Wydimus (Eds.), *Handel zagraniczny: metody, problemy, tendencje*, Akademia Ekonomiczna w Krakowie, Kraków 1999, part I, p. 10.

between Poland and China has been included in the present work. It is believed that intensive intra-industry trade stimulates economic development of the economies.⁴ H.G. Grubel and P.J. Lloyd's method has been adopted. IIT indicator is formulated in the following way:⁵

$$IIT_i = \frac{(Ex_i + Im_i) - |Ex_i - Im_i|}{(Ex_i + Im_i)} \cdot 100 = \left[1 - \frac{|Ex_i - Im_i|}{(Ex_i + Im_i)}\right] \cdot 100,$$

where: i – commodity section,

Ex – exports,

Im – imports.

Table 6. Trade coverage (TC) in Poland's trade with China

Code of section	2006	2007	2008	2009	2010	2011
I	14.480	11.849	5.104	8.112	12.259	23.044
II	3.625	4.407	3.591	4.375	4.755	2.895
III	2.193	–	–	–	–	–
IV	15.995	3.887	4.267	4.855	5.990	5.809
V	48.050	88.451	73.423	64.115	41.106	27.870
VI	72.263	69.756	32.578	61.716	58.479	44.434
VII	14.297	7.324	9.180	23.852	18.689	18.052
VIII	0.787	0.375	1.162	2.373	1.897	1.574
IX	7.302	2.688	2.843	2.794	4.803	0.480
X	25.357	21.312	14.083	14.982	1.276	8.679
XI	0.439	0.452	0.342	0.271	0.243	0.299
XII	0.000	0.001	0.051	0.044	0.007	0.014
XIII	5.715	2.757	12.177	8.771	5.442	5.968
XIV	0.594	0.568	9.351	0.768	0.953	0.783
XV	62.816	27.594	36.765	75.674	70.178	69.115
XVI	3.105	4.408	3.314	4.872	3.791	3.901
XVII	6.197	7.892	10.046	24.541	36.323	11.045
XVIII	2.115	4.636	7.383	12.440	8.239	5.242
XIX	0.000	0.023	0.000	0.503	–	–
XX	0.945	3.043	5.670	4.409	5.909	6.702
XXI	779.864	57.234	22.879	8.441	226.308	–

Source: own calculations.

⁴ E. Czarny, *Teoria i praktyka handlu wewnątrzgałęziowego*, SGH, Warszawa 2002, p. 21. See also: T. Rynarzewski (Ed.), *Teoria handlu międzynarodowego a współczesna gospodarka światowa*, Akademia Ekonomiczna w Poznaniu, Poznań 2004, p. 101.

⁵ I. Pawlas, H. Tendera-Właszczuk, *Poland's Economy Competitiveness with Respect to the Integration with the European Union*, Warsaw University Centre for Europe, Warsaw 1999, p. 49.

IIT ranges from 0 to 100. If IIT is close to 100, intensive intra-industry trade is observed. IIT close to 0 means intensive inter-industry specialisation.⁶

The results of the analysis with the application of the above-described indicators have been presented in Tables 6, 7 and 8.

Table 7. Revealed Comparative Advantage (RCA) in Poland's trade with China

Code of section	2006	2007	2008	2009	2010	2011
I	1.464	1.412	0.671	0.768	1.258	2.277
II	0.367	0.525	0.472	0.414	0.488	0.286
III	0.222	–	–	–	–	–
IV	1.618	0.463	0.561	0.460	0.615	0.574
V	4.859	10.539	9.647	6.070	4.219	2.754
VI	7.308	8.311	4.281	5.843	6.002	4.390
VII	1.446	0.873	1.206	2.258	1.918	1.784
VIII	0.080	0.045	0.153	0.225	0.195	0.156
IX	0.738	0.320	0.374	0.265	0.493	0.047
X	2.564	2.539	1.850	1.419	0.131	0.858
XI	0.044	0.054	0.045	0.026	0.025	0.029
XII	0.000	0.000	0.007	0.004	0.001	0.001
XIII	0.578	0.329	1.600	0.830	0.559	0.590
XIV	0.060	0.068	1.229	0.073	0.098	0.077
XV	6.352	3.288	4.831	7.165	7.203	6.829
XVI	0.314	0.525	0.435	0.461	0.389	0.385
XVII	0.627	0.940	1.320	2.324	3.728	1.091
XVIII	0.214	0.552	0.970	1.178	0.846	0.518
XIX	0.000	0.003	0.000	0.048	–	–
XX	0.096	0.363	0.745	0.417	0.606	0.662
XXI	78.863	6.819	3.006	0.799	23.227	–

Source: own calculations.

Trade coverage in Poland's trade with China reflects the character of relations between the two countries. There is no single section with TC above 100 (not taking into account section XXI – works of art, collectors pieces and antiques). Section XV is the only one for which TC is higher than 50. What is more with respect to most sections the value of TC is below 20.

In the analysed period of time (from 2006 to 2011) Poland achieved comparative advantage in trade with China in three commodity sections: section V – mineral

⁶ A. Budnikowski, *Międzynarodowe stosunki gospodarcze*, PWE, Warszawa 2003, pp. 105, 106.

Table 8. Intensity of intra-industry trade (IIT) in Poland's trade with China

Code of section	2006	2007	2008	2009	2010	2011
I	0.253	0.212	0.097	0.150	0.218	0.375
II	0.070	0.084	0.069	0.084	0.091	0.056
III	0.043	–	–	–	–	–
IV	0.276	0.075	0.082	0.093	0.113	0.110
V	0.649	0.939	0.847	0.781	0.583	0.436
VI	0.839	0.822	0.491	0.763	0.738	0.615
VII	0.250	0.136	0.168	0.385	0.315	0.306
VIII	0.016	0.007	0.023	0.046	0.037	0.031
IX	0.136	0.052	0.055	0.054	0.092	0.010
X	0.405	0.351	0.247	0.261	0.025	0.160
XI	0.009	0.009	0.007	0.005	0.005	0.006
XII	0.000	0.000	0.001	0.001	0.000	0.000
XIII	0.108	0.054	0.217	0.161	0.103	0.113
XIV	0.012	0.011	0.171	0.015	0.019	0.016
XV	0.772	0.433	0.538	0.862	0.825	0.817
XVI	0.060	0.084	0.064	0.093	0.073	0.075
XVII	0.117	0.146	0.183	0.394	0.533	0.199
XVIII	0.041	0.089	0.138	0.221	0.152	0.100
XIX	0.000	0.000	0.000	0.010	–	–
XX	0.019	0.059	0.107	0.084	0.112	0.126
XXI	0.227	0.728	0.372	0.156	0.613	–

Source: own calculations.

products, section VI – products of chemical industry, and section XV – base metals and articles thereof. With respect to section VII – plastics and rubber and articles thereof revealed comparative advantage was noted in 2006–2011 with the exception of 2007. In case of section X – pulp of wood, paper, paperboard and articles thereof revealed comparative advantage was observed for the first three years of the analysis (i.e. 2006–2008). Unfortunately all mentioned sections are raw materials intensive ones. Since 2008 revealed comparative advantage has been achieved in section XVII – transport equipment.

Trade between Poland and China can be described as inter-industry cooperation. In almost all CN sections the value of IIT was really low in the analysed period of time. There are only few exceptions here, i.e. the situation in section V – mineral products (from 2006 to 2009), section VI – products of chemical industry (from 2006 to 2011 but the year 2008) and section XV – base metals and articles thereof (in 2006 and since 2009).

3. Conclusions

Globalisation of trade has resulted in an increase of trade relations between Poland and Asia, even though European economies remain the most important trade partners for Poland.⁷ China is the crucial Asian trade partner for Poland. A much more intensive imports from China than exports to this country is observed.⁸ China accounts for 9% of Poland's total imports and only 1% of its exports. That is why a huge trade deficit in Poland's trade with China is noted.

Poland sells raw materials intensive goods (metals, mineral products, chemicals, plastics and rubber) as well as machinery and mechanical equipment on the Chinese market. The Polish imports from China concentrates on electric and electronic equipment, machinery and mechanical appliances, textiles and textile articles, toys, furniture and lighting devices.

An extremely low level of trade coverage in Poland's trade with China reflects the character and asymmetry of relations between the two countries. With respect to the majority of CN sections intensive inter-industry trade between Poland and China has been confirmed. The situation in section V – mineral products, section VI – products of chemical industry, and section XV – base metals and articles thereof where more intensive intra-industry trade has been observed is quite exceptional. Poland achieved revealed comparative advantage in trade with China in some raw materials intensive commodity sections: mineral products, products of chemical industry, base metals and articles thereof, plastics and rubber and articles thereof. For the first three years of the analysis revealed comparative advantage for pulp of wood, paper, paperboard and articles thereof was observed. In addition to that revealed comparative advantage has been achieved in section XVII – transport equipment since 2008.

One can anticipate further expansion of the Chinese goods on the Polish market. It will be partly connected with the Chinese direct investment in Poland. Poland as a member state of the European Union and a quite stable economy at the time of global instability is likely to attract the Chinese investors.⁹

⁷ I. Pawlas, Trade relations between Poland and Asian economies from 2006 to 2008, [in:] B. Skulska (Ed.), *Asia-Europe. Partnership or Rivalry?*, Research Papers of Wrocław University of Economics No. 126, Wrocław 2010, pp. 316–325.

⁸ Compare: K. Palonka, Economic and trade relations between Poland and China since 2004, *Asia Europe Journal* 2010, vol. 8, no. 3, p. 369.

⁹ Q. Jize, China to boost trade with Poland, *China Daily* 2011, December 22, http://www.chinadaily.com.cn/business/2011-12/22/content_14304691.htm (retrieved 20.08.2013). Compare: M. Sobczyk, *China Ready to Double Trade with Poland over Five Years*, [wsj.com/emerging/europe/2012/04/26/china-ready-to-double-trade-with-poland-over-five-years/](http://www.wsj.com/emerging/europe/2012/04/26/china-ready-to-double-trade-with-poland-over-five-years/) (retrieved 20.08.2013). See also: M. Kitchen, China exports, imports rebound sharply in July, *The Wall Street Journal. Market Watch* 2013, August 8th, <http://www.marketwatch.com/story/china-exports-imports-rebound-sharply-in-july-2013-08-08> (retrieved 21.08.2013).

On the other hand, it is necessary to promote the Polish goods in China and stimulate the activity of the Polish exporters on the Chinese market.¹⁰ The implementation of financial and non-financial instruments by the government is highly recommended. The potential of the Chinese market is enormous. That is why Poland should try to develop its export activity in China offering not only raw materials intensive goods.

References

- Balassa B., Trade liberalization and 'revealed comparative advantage', *The Manchester School* 1965, vol. 33, no. 2.
- Budnikowski A., *Międzynarodowe stosunki gospodarcze*, PWE, Warszawa 2003.
- Budzowski K., Wydymus S. (Eds.), *Handel zagraniczny: metody, problemy, tendencje*, Akademia Ekonomiczna w Krakowie, Kraków 1999, part I.
- Cieślak E., *Efekt smoka. Skutki ekspansji gospodarczej Chin po 1978 roku*, CeDeWu, Warszawa 2012.
- Czarny E., *Teoria i praktyka handlu wewnątrzgałęziowego*, SGH, Warszawa 2002.
- Development Prospects for Polish-Chinese Business Ties*, http://www.msp.gov.pl/portal/en/88/3247/Development_prospects_for_PolishChinese_business_ties.html.
- Jize Q., *China to boost trade with Poland*, "China Daily" 2011, December 22nd, http://www.chinadaily.com.cn/business/2011-12/22/content_14304691.htm.
- Kitchen M., China exports, imports rebound sharply in July, *The Wall Street Journal. Market Watch* 2013, August 8th, <http://www.marketwatch.com/story/china-exports-imports-rebound-sharply-in-july-2013-08-08>.
- Liberska B., Perspektywy rozwojowe chińskiej gospodarki do 2050 roku, *Ekonomista* 2010, no. 4.
- Lubiński M., Michalski T., Misala J., *Międzynarodowa konkurencyjność gospodarki. Pojęcie i sposób mierzenia*, IriSS, Warszawa 1995.
- Palonka K., Economic and trade relations between Poland and China since 2004, *Asia Europe Journal* 2010, vol. 8, no. 3.
- Pawlas I., Trade relations between Poland and Asian economies from 2006 to 2008, [in:] B. Skulska (Ed.), *Asia-Europe. Partnership or Rivalry?*, Research Papers of Wrocław University of Economics No. 126, Wrocław 2010.
- Pawlas I., Tendera-Właszczuk H., *Poland's Economy Competitiveness with Respect to the Integration with the European Union*, Warsaw University Centre for Europe, Warsaw 1999.
- Rynarzewski T. (Ed.), *Teoria handlu międzynarodowego a współczesna gospodarka światowa*, Akademia Ekonomiczna w Poznaniu, Poznań 2004.
- Sobczyk M., *China Ready to Double Trade with Poland over Five Years*, wsj.com/emerging-europe/2012/04/26/china-ready-to-double-trade-with-poland-over-five-years/.
- Yearbook of Foreign Trade Statistics of Poland 2007*, Central Statistical Office, Warsaw 2007.
- Yearbook of Foreign Trade Statistics of Poland 2008*, Central Statistical Office, Warsaw 2008.
- Yearbook of Foreign Trade Statistics of Poland 2009*, Central Statistical Office, Warsaw 2009.
- Yearbook of Foreign Trade Statistics of Poland 2010*, Central Statistical Office, Warsaw 2010.
- Yearbook of Foreign Trade Statistics of Poland 2011*, Central Statistical Office, Warsaw 2011.
- Yearbook of Foreign Trade Statistics of Poland 2012*, Central Statistical Office, Warsaw 2012.

¹⁰ *Development Prospects for Polish-Chinese Business Ties*, http://www.msp.gov.pl/portal/en/88/3247/Development_prospects_for_PolishChinese_business_ties.html (retrieved 20.08.2013).

ROZWÓJ STOSUNKÓW HANDLOWYCH MIĘDZY POLSKĄ I CHINAMI – PRÓBA OCENY

Streszczenie: W zdecydowanej większości głównymi partnerami handlowymi Polski są kraje europejskie. Jednak wśród partnerów w imporcie jednym z najważniejszych krajów są Chiny. Celem artykułu jest przedstawienie powiązań handlowych między Polską i Chinami w latach 2006–2011. Uwzględniono intensywność i dynamikę eksportu oraz importu, a także stan bilansu handlowego. Szczegółowo przeanalizowano strukturę towarową wymiany towarowej między Polską i Chinami. Do oceny charakteru polsko-chińskich powiązań handlowych wykorzystano wskaźnik pokrycia handlu (TC), wskaźnik ujawnionej przewagi komparatywnej B. Balassy (RCA) i wskaźnik intensywności handlu wewnątrzgałęziowego H.G. Grubela i P.J. Lloyda (IIT).

Słowa kluczowe: Chiny, Polska, stosunki handlowe, pokrycie handlu, intensywność handlu wewnątrzgałęziowego, ujawniona przewaga komparatywna.