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POLISH-JAPANESE INVESTMENT AND TRADE RELATIONS

Abstract

Keywords

JEL

1. INTRODUCTION

In May 2017 Poland and Japan celebrated the 60th anniversary of the re-establishment of Polish-Japanese diplomatic relations and in March 2019 both countries will celebrate the 100th anniversary of the first establishment of bilateral diplomatic relations. Both anniversaries are good occasion to reflect on the current state of mutual relations and prospective opportunities for Polish-Japanese co-operation, including trade and economic aspects.

Although diplomatic relations between Poland and Japan were re-established in 1957, a breakthrough and 'new opening' in bilateral economic co-operation appeared at the turn of the 1980s and 1990s, when Poland initiated its political and economic transformation and entered the path towards democracy and free market economy. Economic liberalization and growing openness of the Polish economy since the beginning of the 1990s had triggered the progressive economic integration of Poland with European and global economy. During three decades of economic transformation (1990-2016) Poland's GDP increased more than sevenfold from 66.0 bn USD in 1990 to ca. 471 bn USD in 2016 (current prices). The country has also become an attractive place for hosting foreign direct investments (FDI). While in the mid-1990s the total value of FDI stocks amounted to ca. 7.8 bn USD in 2016 this was recorded at the level of 185.9 bn USD (current prices). Poland has become the most important destination place for locating FDI from all Central and East European countries (excluding Russia) and 10th within the whole European Union (UNCTAD 2017). The progressive globalization and growing openness of the Polish economy have also resulted in much more intensified trade links with its trade partners, stronger settlement within the global trade and economic system and the reduction of development gap to the most developed economies in the world. In 1990-2017 Poland's international trade volume expanded from 25.4 bn USD to 461.4 bn USD (from 13.8 bn USD to 231.0 bn USD for exports and from 11.6 to 230.4 bn USD for imports respectively; UNCTAD 2018).

On the 1st of May 2004 Poland became the member of the European Union, closing symbolically the processes of political and economic transformation initiated 15 years ago. The full membership in the European Union was not only 'a crowning achievement' of political efforts as well as legal and economic adjustments, but also a great stimulus for further economic growth and deeper integration with European and global economies. Through this membership Poland has become a part of the Single European Market as well as the member of EU customs union with all consequences for domestic economy and external economic relations.

From Japan's perspective the political and economic transformation in Poland opened a new business opportunities in the biggest economy of Central Europe with almost 40 million consumers. Growing political stability and progressive economic development have created a favorable environment for foreign direct investments and drawn attention also from the Japanese investors. This investment attractiveness was enhanced by well-educated and cheaper (than in Western Europe) labour force, the geographical proximity to the biggest European markets and potential - and finally realized – membership of Poland in the EU. For many companies from the outside of Europe – Poland was considered as a gate to Central Europe and attractive place for a supportive production (e.g. semi-products) to their business activities in Western Europe.

In terms of trade, the progressive liberalization of Polish economy has enabled a new trade opportunities. The membership of Poland in the EU has changed trade rules, as the country became part of the EU customs area, with single EU import and export rules. This also means that Poland will become naturally a party to the newly negotiated EU-Japan Economic Partnership Agreement (EPA) when it comes into force.

In 2015 Poland and Japan decided to further strengthen their bilateral ties and establish the Strategic Partnership between the parties. As the aftermath, in 2017 both parties adopted "*The Action Plan for the Implementation of the Strategic Partnership between the Government of Japan and the Government of the Republic of Poland for the years 2017-2020*". According to the Plan both countries declared to "(…) *continue effective cooperation with existing economic structures, including the Poland-Japan Economic Committee*, (…) *establish subcommittees focusing on cooperation in specific industries*, (…) *encourage bilateral business relations between Japanese and Polish entities* (…) *and improve business environments in both countries*" (Action Plan 2017). The parties declared also to develop bilateral sectorial co-operation in priority areas such as peaceful uses of nuclear energy, development of high temperature gas-cooled reactor technologies, clean coal technologies or copper mining industry.

Those developments encourage to the reflection on the evolution and nature of Polish-Japanese trade and economic relations in the recent time of dynamic changes in global economy. The general purpose of the study is to identify main trends and current status of bilateral investment and trade links. In our analysis we concentrate mostly on the first two decades of the 21st century (2001-2016/2017), but we also strongly refer in some aspects to historical perspective of Polish-Japanese co-operation as well as the context of economic transformation in Poland initiated at the turn of the 1980s and 1990s.

The paper has been divided into two parts. Firstly, we investigate the investment engagement of Japanese investors in Polish economy, starting from the second half of the 1990s to the recent years. We concentrate only on the unilateral flow of FDIs from Japan to Poland, as the engagement of Polish capital in Japan almost does not exist. In the second part of the paper we analyze the evolution of merchandise trade between Poland and Japan in 2001-2017 with some general references to previous periods as the context of broader analysis. We believe that better understanding of the nature and most recent trends in investment and trade links between Poland and Japan is a necessary step towards further development of bilateral links and enhanced economic cc-operation between the parties, including the utilization of potential opportunities from the EU-Japan Economic Partnership Agreement.

2. POLAND AS A DESTINATION PLACE FOR JAPANESE INVESTMENTS

The political and economic transformation initiated in Poland and other countries of the Central and Eastern Europe at the beginning of the 1990s brought a new wave of economic liberalization and progressing openness to foreign capital and investments. These general changes were accompanied by a great shift in trade and investment patterns, reversing from the Eastern (post-communist) countries to Western economies, with the leading – due to geographical proximity – position of West European countries. Japan, the largest FDI contributor in the world at that time, was almost completely absent from the region in terms of investments (Michalak 1993). According to JETRO data in 1991 there were only 8 Japanese investments located in Poland (all of them in services) and the region of Central Europe occupied a marginal place in Japan’s overseas direct investments (0.005% of all Japanese FDI in Europe, 1990)(Bakos 1992).

The economic transformation of Polish economy had been followed by the increase of incoming FDI, firstly paved by the pace of privatisation process, and secondly - in the second half of the 1990s (post-privatisation phase) – by the growing perspective of the membership of Poland in the European Union. The Japanese investment engagement in Central Europe, especially in the first half of the 1990s, was rather modest and given the Japanese significant global investment presence Japan's relative under-representation in the region was surprising (Cieślik & Ryan, 2002). Japanese investors were rather reluctant to joint ventures with Central European companies and preferred 'greenfield' investments, keeping distance from privatisation and unwilling to buy shares of existing companies and taking control over existing plant facilities (Berényi, 1996).

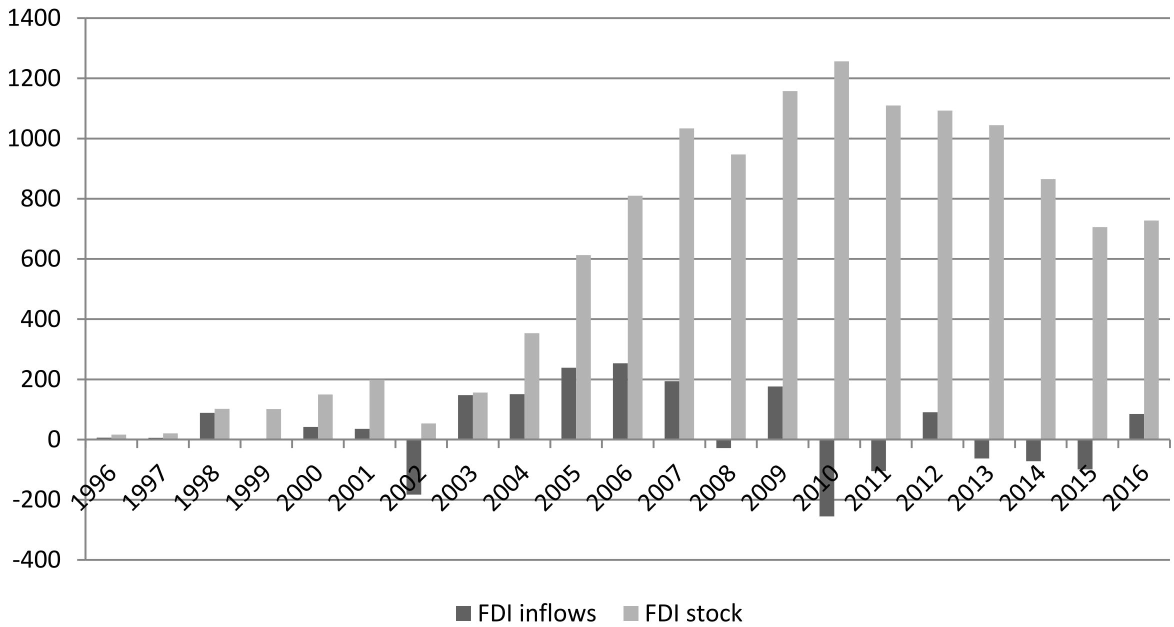
Growing stability of economic, legal and political system in Poland reinforced by the associate member status with the European Community (EC) and the mentioned perspective of full membership in the Community created friendlier and prospective business environment for investments. Poland became attractive not only as the biggest market in Central Europe. In many cases it was also as a trampoline to other markets of the region as well as important and large markets of Western Europe where goods could be channeled under favourable conditions (Berényi, 1996). In 1994 started functioning fully the free trade area between Poland and the European Community, with some restrictions saved for agricultural products. This resulted in highly liberalized access to the EU markets for goods originated in Poland and thus new business opportunities in the country.

In 1995 Poland surpassed Russia as the biggest recipient of Japanese FDI flowing to Central and Eastern Europe and in the second half of the 1990s became a leader in attracting new investments projects from Japan. This was vastly induced by the Polish aspiration of the EU membership. Many of those investments were made by firms interested in producing an intermediate inputs (parts and components) for other Japanese firms operating in Europe (38% of investments in Central and East European countries in the 1990s originated from EU-based affiliates of the Japanese parent company) and Japanese FDIs in Central Europe, including those in Poland, played a significant role in the entire European market servicing plans (Cieślik & Ryan, 2002). Among the main factors attracting Japanese investments to Central Europe at that time should be mentioned: a tradition of manufacturing, qualified and skilled workers and production managers, lower labour costs than in West European countries as well as advantageous geographical location for the whole EU market with relatively established infrastructure (Ikemoto, 2005). Moreover, further studies on the determinants of foreign direct investment inflows into the Central and Eastern European Countries in 1996-2009 show that Japanese investors tended to invest in those countries of the region that were bigger, more open to trade, with higher institutional quality, and that had a higher degree of economic freedom, political rights and civil liberties (Tintin, 2013).

As shown in graph, 1 the inflow of Japanese capital in Poland intensified at the end of the 1990s, but more remarkable growth had been observed since 2003 (Graph 1) – one year before the country joined the European Union (1st of May 2004). Since that moment we can notice a growing activity of Japanese companies investing and just three years after Poland became the member of the EU, the total value of Japan's FDI stocks exceeded the threshold of 1 bln EUR (at the end of 2007). The trend was continued until 2010 when Japanese FDI stock in Poland reached its record value of 1256.5 m EUR. It was more than 3.5 times higher in 2004. After joining the European Union Poland with its growing socio-economic stability, lower labour costs and growing productivity, became one of the most attractive countries for Japanese manufacturing investments. In 2005-2010 the number of Japanese manufacturing affiliates in Poland increased by 26, while the same number for Western Europe in the mentioned timeframe was stagnant or even declined. By the end of 2010 Poland hosted the fifth largest number of Japanese manufacturing affiliates in Europe (KPMG 2014).

However, since 2010 the engagement of Japanese capital in Polish economy has decreased in following years by almost a half of the record value. The downward trend was caused mostly by the withdrawal of Japanese capital in Poland's debt instruments and, to a lesser extent, by the decreasing value in equity. That can be to some extent explained as a repercussion of the financial and economic crisis in 2008/2009 and Eurozone crisis in 2011/2012. As Poland is not part of the Euro currency area and is still perceived rather as an emerging economy, the country is more vulnerable to any disruptions of global financial markets. This downward trend has been in contrast to the growing global Japanese FDI stocks in the European Union (e.g. Japan's FDI stocks in all UE-28 countries increased remarkably from 151.5 bn EUR in 2013 to 205.7 bn EUR in 2016; Eurostat 2018a).

Graph 1. Japanese foreign direct investment inflows and stocks (at the end of each year) in Poland in 1996-2016 (m EUR)



* FDI inflows below 0 (-) signify the withdrawal of capital from Poland

(Source: Own preparation on Statistical reports of the Polish National Central Bank on foreign direct investments in Poland (yearly reports for 2004-2017))

Although the latest data for 2017 are not yet available, the Polish Investment and Trade Agency reported recently more positive information on Japanese investments in Poland. In 2017 Japanese investors ranked (by the value of capital intended to invest) at the second position – after American and before German companies – of all foreign investors supported by the Agency, with 13 new investments projects of total value at 768.2 m EUR (PAP 2017). This might be a presage of more positive trends and prospective growing engagement of Japanese capital in Polish economy. Once those projects are realized, the value of Japanese FDI stocks should achieve its new record levels.

At the end of 2017 the number of Japanese companies that invested in Poland amounted to ca. 300 affiliates. From 77 Japanese companies, indicated at the list of major foreign investors in Poland (as of December 2017) by the Polish Investment and Trade Agency, most were in manufacturing sector (49 of 77 classified companies) and operated mainly in the manufacture of (PITA, 2017):

- parts and accessories for motor vehicles (8 companies; e.g. Daicel Corporation Ltd., Takata Petri AG, Denso Corporation, Toyota Motor Corporation);
- consumer electronics and domestic appliances (6; e.g. ORION Electric Co. Ltd, Ricoh Company Ltd., Sharp Corporation);
- general-purpose machinery (5; Amatsuji Steel Ball Mfg Co Ltd, Toho Industrial Co. Ltd., Makita Corporation);
- electronic components and boards (4; e. g. Okaya Group, Sony Corporation);
- plastic products (4; e.g U-Tec Corporation, Yamada Wentworth Tech);
- food products (3; Ajinomoto Frozen Foods Co Inc, Lotte, Mitsui & Co. Ltd);
- rubber products (3; Bridgestone Corporation, Toyo Seal Industries Co. Ltd., Sumitomo Riko Company Limited);
- motors/generators/transformers, electricity distribution and control apparatus (2; Nidec Corporation; Mabuchi Motor Co Ltd)
- glass and glass products (2; AGC Flat Glass, NSG Group).

Beside the manufacturing sector, Japanese biggest investors in Poland operate in services sectors, mostly in: wholesale, retail trade and repair of motor vehicles and motorcycles (13 companies; e.g. Electric Co., Ltd., Fanuc Robotics Ltd, Mitsubishi Electric, Suzuki Motor Corporation); transporting and storage (5 companies; e.g. Meiko Trans, Mitsubishi Corp., NYK Logistics); construction (4; e.g. Kajima Europe B.V., Sekisui Chemical CO., Ltd) as well as professional, scientific and technical activities (2; Maruboshi Co. Ltd., Tomoho Umeda) (PITA, 2017).

Further development of Japan's companies in Poland and desirable growth of the engagement of Japanese capital in Polish economy is dependent not only – in general – on future trends and prospects for Poland's stable and long-run economic development, but also the ability of the country to tackle barriers and problems faced by foreign investors, including those from Japan. In the JETRO survey on business conditions of Japanese companies in Europe (2014) Japanese investors defined the most important challenges in management and doing business in many European countries, including Poland. According to the survey, companies operating in manufacturing sector as the biggest challenges in management in Poland pointed: securing human resources, exchange rate fluctuations and entry of new competitors (the most commonly cited answers; 58.3% of all companies' responses). Those were followed by problems with visa/work permits (50.0%), transfer pricing taxation (50.0%), procurement costs (50.0%), high labour cost growth rate (41.7%) and poorly developed network of highways (41.7%). The latter was - in contrary - indicated as the biggest challenge by 87.5% of Japanese investors in non-manufacturing sector. On the following positions they also indicated: entry of new competitors (62.5%) and general road conditions (62.5%). Half of the investors in non-manufacturing sector complained also about: complex and/or non-transparent VAT refund procedures, low prices offered by competitors, quality of railway services, general European and social conditions as well as (potential) ripple effects on business from issues around the situation in Ukraine (JETRO 2015).

In our opinion two of the mentioned challenges should be briefly commented here. The first is the issue of poor infrastructure (roads, railway, highways) that has been widely indicated by Japanese investors in 2014 JETRO survey. It should be highlighted that this problem has been addressed by Polish authorities for many years and the situation in this area has been improving dynamically recently. At present Poland is the biggest beneficiary of structural funds from the EU budget and the vast majority of them are dedicated to develop infrastructure. As of January 2018 the total length of highways and express ways in Poland amounted to ca. 3500 km and more than 1100 km of new highways/express ways are under construction. The Programme for National Roads Construction in 2014-2023, adopted by the Polish government in 2015, assumed expenses on new roads, highways and express ways at 107 bn PLN (ca. 25 bn EUR), updated in 2017 to 135 bn PLN (PBDK 2017). The infrastructure quality and transport accessibility across the country have been improving dynamically each year that should have a positive influence for investment conditions and trigger new opportunities for doing business.

Contrary to infrastructure development, the second of biggest challenges indicated by Japanese investors - securing human resources and high labour cost growth rate – will be not easily solved in the foreseeable future. The long-term problem of ageing population in combine with high economic growth (4.6% in 2017; Eurostat 2018b) and decreasing unemployment rate in Poland (4.4% as of March 2018, seasonally adjusted; (Eurostat 2018c)) have induced a strong pressure on labour costs and emphasized the country's growing problem of labour shortage. The problem of securing human resources will continue in forthcoming years, although it could be addressed by growing number of immigrants (mostly from Ukraine). It should be also expected that labour market trends and high economic growth will continue to press on the growth of labour costs (according to the Polish National Central Bank forecasts the average annual growth of salaries will be at 6.0% in 2018 and 6.3% in 2019). Therefore the fast growth of labour costs and the problem of labour shortage will be among the main challenges for employers in Poland, including also present and prospective investors from Japan.

In conclusion of this part we find that, although growing Japan's foreign direct investments in Poland – especially during first years of Polish membership in the European Union – and some recent optimistic information on the growing number of companies from Japan interested in investing in Poland, a general relative engagement of Japanese capital in Poland is still modest and under potential of both parties. At the end of 2016 Japan was ranked as the biggest Asian investor (31.2% of FDI from Asia and the Middle East in Poland), but much lower – only at the 19th position – from the global perspective. Japanese foreign direct investments in Poland constituted only 5.29% of all investments from non-European countries and only 0.41% of total direct investments in Poland at the end of 2016 (PITA 2017). The picture looks ever gloomier from the Japanese perspective. The total value of Japan's FDI stocks in Poland was only 0.35% of Japanese stocks in the European Union (Eurostat 2018a) and scarcely 0.057% of all global Japanese FDI stocks (JETRO 2018, PITA 2018). Those numbers are highly disappointing especially when taken into account the position of Japan as one of globally leading investors (1 359 354 m USD at the end of 2016; JETRO 2018) and Poland's position as a hosting economy for foreign direct investments (185 903 m USD; WIR 2017).

3. POLISH-JAPANESE MERCHANDISE TRADE

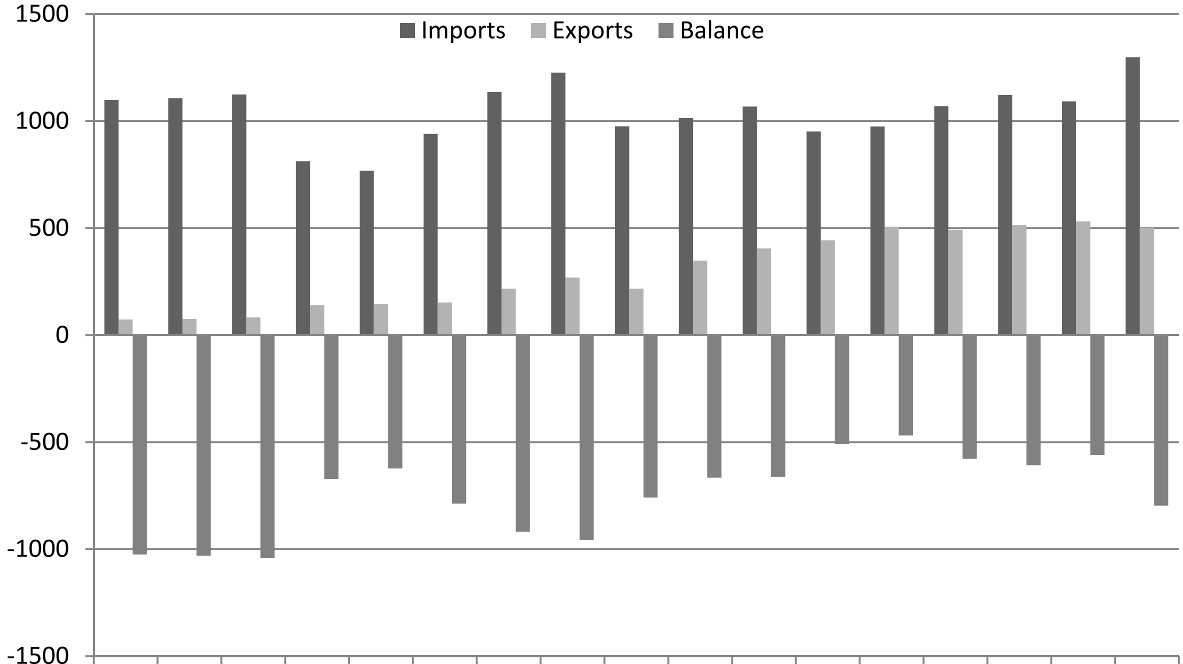
The economic transformation in Poland initiated at the breakthrough of the 1980s/1990s brought not only new investment opportunities in the country, but also initiated a process of dynamic changes in Poland's foreign trade. The collapse of communism and centrally planned economies in Central and Eastern Europe induced the gradual opening of those countries to global markets and historical geographical re-orientation in international trade, giving - since the beginning of the 1990s - the leading role as a main trade partner of Poland to the European Community. Trade liberalisation and growing economic integration with free-market economies had strongly influenced the volume and structure of trade. On the one side, expanding investments and growing demand, resulting from the increasing purchasing power of Polish consumers, generated growing imports to Poland of both investment and consumer goods. On the other hand, the modernizing economy, with its growing capabilities to produce higher quality goods and better access to foreign markets through progressing trade liberalisation, had brought many new opportunities to Polish producers and exporters.

Before the 1990s merchandise trade between Poland and Japan was very marginal and limited to a narrow range of products. Starting from the 1970s Poland imported from Japan mostly investment goods and technological lines to modernizing and developing industrial base in the country (e.g. lathes, technological lines for the production of PCV or rolling bearing). To a lesser extent Poland imported also some steel products, semi-products for chemical industry, textiles and electronics. In turn Poland exported mostly: coke (at the end of the 1970s a contract signed between Polish and Japanese companies amounted to more than 100 m USD/year), pneumatic and steam hammers, milk powder and spirits. It was also a time when Poland started to export a - highly valued in Japan - Polish down. In the 1980s bilateral merchandise trade was disrupted by political situation in Poland and resulting from this the Japanese economic sanctions against trade with Poland. During the decade the limited Polish exports to Japan mostly included mentioned down, powder milk, fishes and squids (fished by Polish companies from the nearby Sea of Okhotsk) as well as furniture. In the opposite direction Japan exported more, than in the previous decade, electronic products and motor cars. However bilateral merchandise trade was strongly restrained by the political conditions (Piech 1998).

The new political and economic opening in bilateral Polish-Japanese relations, although initiated yet at the end of the 1980s, accelerated with the beginning of Poland's political and economic transformation in the 1990s. In 1993-1997 merchandise trade volume between the parties increased from 378.3 m USD to 792.9 m USD. During the whole decade of the 1990s bilateral trade was strongly imbalanced for the detriment of Poland. In 1997 Japanese exports to Poland amounted to 734.5 m USD and was more than twelve times higher than imports from Poland (58.4 m USD). This resulted in relatively high trade deficits for Poland during the whole decade. Dominant products in the growing imports from Japan were consumer goods (mostly consumer electronics and passenger cars), in contrast to the previous decades when Poland imported mostly investment goods and technological lines. The Polish exports to Japan, which was rather marginal in terms of its value (only ca. 50 m USD per year in the 1990s) included mostly live animals and animal products (ca. ¼ of the value, 1997), base metals and articles of thereof, precious stones and metals and articles of thereof as well as spirits.

The first two decades of the 21st century have brought a further moderate increase in bilateral merchandise trade between Poland and Japan, mostly as a consequence of growing Polish exports to Japan (Graph 2).

Graph 2. Merchandise trade between Poland and Japan in 2001-2017 (m EUR)



	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Imports	1098	1107	1124	812	768	940	1136	1226	975	1014	1068	951	975	1070	1122	1092	1298
Exports	73	76	83	140	145	153	217	269	216	347	405	443	506	492	514	532	501
Balance	-102	-103	-104	-672	-623	-787	-919	-957	-759	-667	-663	-508	-469	-578	-608	-560	-797

(Source: Own preparation on Eurostat/Comext 2018)

In 2001-2017 the value of Polish imports from Japan was rather stable and fluctuated in the analyzed period at around 1 bn EUR (770-1280 m EUR). The stable level of import from Japan to Poland stands in the opposition to general EU trends in this area. In the analyzed period total EU imports from Japan decreased by more than 12 bn EUR and in 2017 it reached only ca. 85% of its value recorder at the beginning of the 21st century. That was related with the general trend of relative erosion of Japanese share in international exports (Mazur 2018). In this context stable level of Polish imports from Japan and the increase of Poland's share in total EU-28 imports from Japan from 1.35% (2001) to 1.88% (2017) could be assessed as a positive trend. However, an optimistic approach might be here illusory. Firstly, Poland's share in total EU imports is rather a statistical effect of decreasing general EU imports from Japan. Secondly, the stable level of Polish imports from Japan is rather disappointing when compared to dynamic growth of Polish imports in the analyzed years. In 2001-2017 the total value of Polish imports from all countries increased by 3.6 times, from 56.0 bn EUR (2001) to 204.0 bn (2017) (Eurostat/Comext 2018). Although the vast majority of Poland's merchandise trade is with EU partners (intra-EU ration for Poland is 71.3% for imports and 79.7% for exports) similar growth was recorded in extra-EU imports to Poland. In 2001-2017 it increased from 16.9 to 58.6 bn EUR. This resulted in decreasing importance of Japan as a source of merchandise trade to Poland. In 2001-2017 the Japanese share in total extra-EU[1] imports to Poland dropped from 6.48% to only 2.21% (1.96% to 0.64% of total Poland's imports respectively). In consequence in 2017 Japan was ranked only as the 26th import partner for Poland (in 2001 at 15th place). Some of this could explained by the general strategy of Japanese companies in the latest decades, where direct export has been replaced by Japanese foreign direct investments and through this producing the Japanese-branded products directly at destination markets (Pasierbiak 2015). In the case of Poland that - as an EU member - is a part of the Single European Market it might be realized by Japanese factories located in the country as well as in other EU member states. On the other hand the value of Japanese global exports in 2001-2017 increased by almost 60% (from 48.98 tn JPY (2001) to 78.27 tn JPY 2017) and only vestigial part of this growth was referred to Poland (JMF 2018).

More positive conclusions can be drawn from the perspective of Polish exports to Japan, especially during the latest decade. In 2001-2017 Poland's exports to Japan increased almost sevenfold, from only 73 m EUR in 2001 to 501 m EUR in 2017. This is a positive trend, especially visible and accelerated after 2006 (in 2006-2017 an average annual growth rate of exports from Poland to Japan amounted to 11.4%) that helped to make bilateral trade flows more balanced than before. In consequence of expanding Polish exports to Japan the chronic trade deficit of Poland in trade with Japan felt from -1 025 m EUR in 2001 to -797 m EUR 2017 (the lowest value of trade deficit was recorded in 2013 – only -469 m EUR). This corresponds with the general EU-Japan merchandise trends of growing EU-28 exports to Japan (in 2001-2017 from 45.56 to 60.67 bn EUR) and in consequence more balanced bilateral trade between the parties (in 2001-2017 EU-28 trade deficit with Japan felt from 35.73 to 8.20 bn EUR). It should be also stressed that in the analyzed period a share of Poland in total EU-28 exports to Japan increased from 0.16% to 0.83%.

Although the growing presence of Polish companies and goods at the Japanese market is a positive trend in bilateral trade relations, this development must be analyzed in a broader context of Poland's export expansion. Firstly, the proportional enormous growth of exports volume from Poland to Japan in the latest two decades is partly a statistical effect of marginal values in the base year (only 73 m EUR in 2001; Graph 2). Secondly, the share of Japan in total extra-EU Polish exports increased very moderately from 0.98% in 2001 to 1.20% in 2017 (0.18% to 0.24% of total Poland's exports respectively). In the analyzed timeframe total Polish exports expanded from 40.2 bn EUR (2001) to 204.4 bn EUR (2017) and for the Polish extra-EU trade relative values increased from 7.4 to 41.6 bn EUR (an average annual growth rate at 11.3% and after the economic crisis of 2008/2009 it amounted to 20.6% (2009-2017)). As the relative growth of exports to Japan was high (in some part as a mentioned statistical effect) but still very modest in nominal value, the importance of Japan as

[1] In our analysis we consider EU-28 since 2001 to avoid the statistical effect of enlargements in 2004, 2007 and 2013.

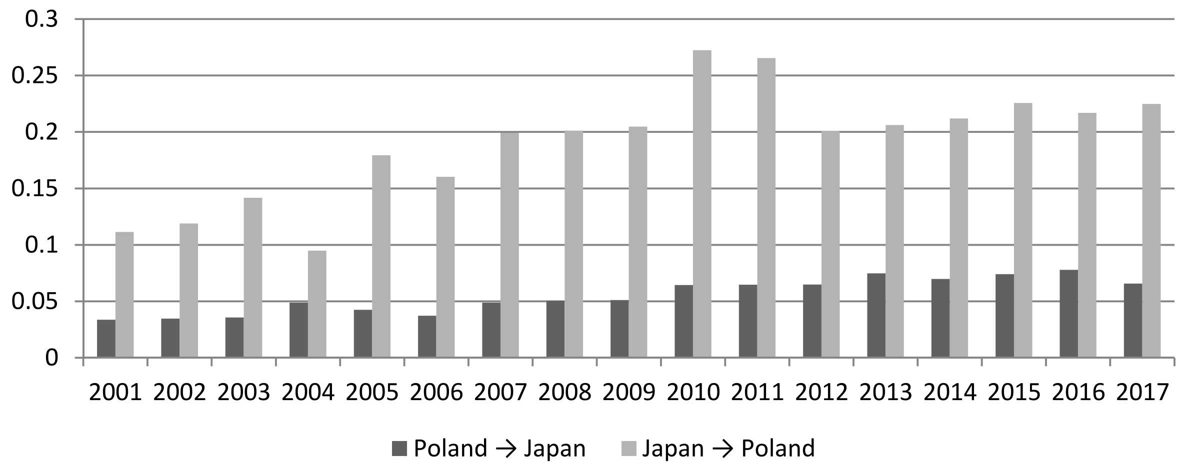
an export market for Poland is still very marginal. In 2017 Japan was ranked as 41st export market for Polish export and no progress was made in this area over the latest two decades (in 2001 Japan was at the 42nd position).

From the Japan's perspective the importance of Poland and its position in the hierarchy of Japan's most important trade partners is also very modest. Taking into account the above statistics for Polish-Japanese merchandise in 2017, Poland was classified as the 34th most important export market for Japan (the 8th in the European Union). The share of Poland in the Japan's global merchandise exports amounted to only 0.29% (and 2.60% of total Japanese exports to the European Union). In terms of imports Poland was ranked in 2017 at the 48th position among Japan's import partners with the share in global Japanese imports at 0.17% (1.48% in total Japanese imports from the European Union respectively) (JETRO 2018). Although those rankings and shares indicate relatively small importance of Poland for Japanese global trade relations, it should be emphasized that Poland remains the main trade partner of Japan in Central Europe, leaving behind (in both exports and imports) other economies of the region such as the Czech Republic, Hungary or Slovakia. In 2017 merchandise trade with Poland accounted to 37.2% of total trade flows between Japan and four mentioned countries of Central Europe.

This relative low reciprocal importance of partners in merchandise trade is strongly perceivable from the trade intensity index[2], presented at the graph 3. During the whole analyzed period 2001-2017 the index values were strongly below 1, which means that Polish exports to Japan and Japanese exports to Poland were strongly below the potential of both parties and much smaller than would be expected on the basis of the importance of both partners in world trade. For Polish exports – although it has increased in recent years - the index is still extremely low (only 0.066 in 2017) which reveals an untapped potential and opportunities of the Japanese market. This corresponds with the general unexploited opportunities of the Japanese market by the EU exporters – in 2015 the index value for the whole EU-28 amounted to only ca. 0.8 (Mazur & Takemura 2017). The TTI for Japanese exports to Poland is higher (0.225), but still quite low when compared to export potential of Japan and the total value of Polish import.

Graph 3. Poland's and Japan's trade intensity index in bilateral merchandise trade in 2001-2017

[2] Trade intensity index (TII) is the ratio of two export shares (the share of the destination of interest in the exports of the country under study divided by the share of the destination of interest in the exports of the world as a whole) and is used to determine whether the value of trade between two countries is greater or smaller than would be expected on the basis of their importance in world trade. The index takes value between 0 and +∞; values below (above) 1 indicate a bilateral export is smaller (larger) than expected, given the partner country's importance in world trade (WB 2018).



(Source: own calculation on: Eurostat/Comext 2018, WTO 2018, JMF 2018)

Referring to the commodity structure of bilateral trade the most important section is machinery and mechanical appliances that constitute 45.91% and 26.05% of Poland's imports and exports from and to Japan respectively (2017, Table 1). With regards to Polish imports from Japan, the mentioned section is followed by optical and photographic instruments (16.44% of total Poland's imports from Japan), transport equipment (9.58%), plastics, rubber and articles thereof (7.75%), base metals and articles of thereof (5.64%) and products of the chemical or allied industries (5.35%). Those six mentioned HS sections were responsible for almost 90.7% of total Polish imports from Japan in 2017. Among the leading imported goods from Japan into Poland are (2017): high- and medium-technology manufacturers, such as e.g. (classified at 4-digit HS leve) instruments and apparatus for physical or chemical analysis, pumps, compressors and fans, motor cars or electric accumulators (table 2).

As far as Polish exports to Japan is concerned, the most important section - machinery and mechanical appliances – is followed by transport equipment (17.61% of total Poland's exports to Japan), products of the chemical or allied industries (11.81%), base metals and articles of thereof (11.52%) as well as live animals and animal products (5.68%). Among the leading export products to Japan are (2017): motor cars and other motor vehicles, turbojets, turbo propellers and other gas turbines, non-electric razors and razor blades of base metal as well as graphite and preparations based on graphite or other carbon. From table 2, presenting the top 10 merchandises (at HS 4-digit classification) in bilateral Poland-Japan trade we can see that Polish exports to Japan is less technologically intensive than import and includes mostly medium-technology manufacturers, followed by low-tech as well as natural resource-based manufactures and even some commodities.

Table 1. Structure of merchandise trade flows between Poland and Japan by HS section in 2017

SECTION	IMPORTS			EXPORTS		
	Value Mio EUR	% of Total	change (2004 - 100)	Value Mio EUR	% of Total	change (2004 - 100)
Live animals; animal products	0.01	0.00%	174.4	28.43	5.68%	122.0
Vegetable products	0.28	0.02%	245.7	2.46	0.49%	762.1
Animal or vegetable fats and oils	0.05	0.00%	194.0	0.13	0.03%	-
Foodstuffs, beverages, tobacco	0.66	0.05%	344.0	14.30	2.86%	865.0
Mineral products	10.66	0.82%	1007.9	0.06	0.01%	128.2
Products of the chemical or allied industries	69.47	5.35%	190.2	59.11	11.81%	345.1
Plastics, rubber and articles thereof	100.67	7.75%	264.3	21.63	4.32%	1498.3
Raw hides and skins, and saddlery	0.15	0.01%	204.1	2.07	0.41%	632.1
Wood, charcoal and cork and articles of thereof	0.10	0.01%	227.4	5.32	1.06%	37.8
Pulp of wood, paper and paperboard and articles thereof	4.65	0.36%	157.4	0.44	0.09%	97.3
Textiles and textile articles	43.93	3.38%	479.6	16.54	3.30%	2570.9
Footwear, hats and other headgear	0.06	0.00%	144.2	0.90	0.18%	546.6
Articles of stone, glass and ceramic	18.31	1.41%	305.3	23.44	4.68%	696.7
Pearls, precious stones and metals and articles of thereof	0.21	0.02%	3342.6	0.48	0.10%	142.1
Base metals and articles of thereof	73.23	5.64%	186.6	57.69	11.52%	1418.7
Machinery and mechanical appliances	595.95	45.91%	125.1	130.43	26.05%	646.8
Transport equipment	124.40	9.58%	88.2	88.20	17.61%	227.7
Optical and photographic instruments	213.42	16.44%	386.5	22.64	4.52%	323.1
Arms and ammunition	0.74	0.06%	538.6	0.00	0.00%	-
Miscellaneous manufactured articles	35.33	2.72%	610.5	25.86	5.16%	461.0
Works of art and antiques	0.09	0.01%	49.9	0.01	0.00%	1.2
Not classified	5.82	0.45%	-	0.58	0.12%	
Total	1298.18	100.00%	159.8	500.73	100.00%	357.6

(Source: Own calculations based on Eurostat statistics Comext 2018)

Table 2. Top 10 merchandises (at HS 4-digit classification) in trade of Poland with Japan in 2017

	IMPORTS					EXPORTS				
	HS 4	Merchandise	TI	Value (m EUR)	% of total imports	HS 4	Merchandise	TI	Value	% of total exports
1.	9027	instruments and apparatus for physical or chemical analysis	HT	105,2	8,11%	8703	motor cars and other motor vehicles principally designed for the transport of persons	MT	66,3	13,24%
2.	8414	air or vacuum pumps; air or other gas compressors and fans; ventilating or recycling hoods incorporating a fan and parts thereof	MT	76,6	5,90%	8411	turbojets, turbopropellers and other gas turbines	MT	53,4	10,66%
3.	8703	motor cars and other motor vehicles principally designed for the transport of persons	MT	69,4	5,35%	8212	non-electric razors and razor blades of base metal	LT	35,3	7,04%
4.	8507	electric accumulators and parts thereof	HT	61,1	4,71%	3801	artificial graphite; colloidal or semi-colloidal graphite; preparations based on graphite or other carbon in the form of pastes, blocks, plates or other semi-manufactures	MT	28,9	5,76%
5.	8409	parts suitable for use solely or principally with internal combustion piston engine of heading 8407 or 8408	MT	54,6	4,21%	6909	ceramic wares (for laboratory, chemical or other technical uses); ceramic pots, jars and similar articles used for the conveyance or packing of goods refractory ceramic goods; household articles;	NRB	18,7	3,74%
6.	9032	regulating or controlling instruments and apparatus	HT	54,5	4,20%	8708	parts and accessories for tractors, motor vehicles (designed for the transport of passengers and goods) and motor cars	MT	17,1	3,42%
7.	8406	steam turbines and other vapour turbines; parts thereof	HT	52,2	4,02%	4011	new pneumatic tyres, of rubber	NRB	14,6	2,91%
8.	8708	parts and accessories for tractors, motor vehicles (designed for the transport of passengers and goods) and motor cars	MT	44,7	3,44%	9018	instruments and appliances used in medical, surgical, dental or veterinary sciences	HT	12,1	2,42%
9.	3906	acrylic polymers	MT	44,0	3,39%	9403	furniture and parts thereof	LT	10,5	2,09%
10.	8479	machines and mechanical appliances having individual functions and parts thereof	MT	32,3	2,49%	0505	skins and other parts of birds, incl. feathers or down	C	9,5	1,89%

Technology intensiveness (TI) (by Lall (2002)): HT (high-technology), MT (medium-technology), LT (low-technology), NRBM (natural resource-based manufactures), C (commodities).

(Source: Own calculations Eurostat statistics Comexts 2018

Only ca. 4% of the export value of top 10 exported merchandises could be classified as high-technology products. In contrast, among top 10 imported merchandises from Japan high-tech products constituted almost 46% of the value of imports. This disproportion is not surprising when we consider the Japan's strong position as one of leading global technology creators and relatively high funds allocated in Japanese economy for research and development. From many decades the traditional structure of Japanese exports bases strongly on goods with a high degree of technological intensity (Pasierbiak 2012) and this is also clearly visible in the case of Japan's exports to Poland.

4. CONCLUSIONS

The general aim of the study has been to identify main trends and define the current status of bilateral investment and trade links between Poland and Japan. The study extended very limited empirical literature on Polish-Japanese investment and trade relations, by incorporating the analysis on the most recent trends in bilateral co-operation between the parties. In our analysis we concentrated mostly on the first two decades of the 21st century, having regard with attention to the Poland's joining the European Union in 2004. However, in chosen aspects we also referred to more historical aspects of Polish-Japanese co-operation to settle our analysis in the broader context of bilateral relations. In considering the two most important aspects of this co-operation – namely the inflow of Japanese foreign direct investments to Poland and the development of merchandise trade between the countries – we come to the following conclusions.

Firstly and generally, we find that both Japanese investment engagements in Poland as well as merchandise trade links are strongly below the economic, investment and trade potential of both partners. Bilateral links between the parties do not reflect the Japan's potential as one of the biggest global investors and exporters and the Poland's position as an important hosting country for FDI as well as growing merchandise trader among EU members. Although the Polish economy is the biggest economy of Central Europe and the most important destination for world's FDI in this region, the Polish-Japanese investment and trade links are still marginal when compared to West European economies.

Secondly, Japanese foreign direct investment inflows to Poland accelerated in the second half of the 1990s and the most remarkable growth was observed in years following Poland's membership in the European Union. The trend lasted until 2010 (most of those investments have been in the manufacturing and focused in the electronics and automotive industries). Since that moment the Japanese engagement has taken the downward trend. This lies in contrast to general growing value of Japanese FDI stocks in the EU in recent years. Although some latest press releases have suggested the back growing interest of Japanese companies in investing in Poland, we find that current presence of Japanese FDIs in Polish economy is still low. Poland has attracted only 0.35% of Japanese FDIs in the European Union and scarcely 0.057% of all global Japanese FDI stocks. This gives Poland the 14th position in the EU as a hosting place for Japanese FDIs and the 3rd in Central Europe, after the Czech Republic and Hungary. It draws rather gloomy picture when comparing the economic potential of Poland and Japan. Considering the prospective development of Japanese FDIs in Poland we find that the catalysts for future inflow of Japanese capital are the size of Polish economy, prospects for Poland's stable and long-run economic development as well as improving infrastructure. As relevant hindrances for further development of Japanese investments in Poland we find the shortage of labour force and growing labour costs.

Thirdly, on the basis of the available data we find that Polish-Japanese merchandise trade has been developing during latest two decades. In the recent years the bilateral trade flows are also more balanced in favour of Poland. Poland's imports from Japan has been rather stable in the 2000s and the 2010s, but the value of Polish exports has been increasing, especially after 2009. This might be correlated with a need of searching by Polish exporters for a new demand markets in the context of economic slowdown in the EU as well as growing export potential of Polish economy. The Polish-Japanese merchandise trade evolution also correlates to some extent with general trends in the EU-Japan trade (stable – or even declining in some years – imports from Japan and growing EU exports to the country). We also find that, although bilateral merchandise trade has expanded in the analysed timeframe (since 2004, when Poland joined the EU, the value of Polish-Japanese trade has almost doubled) the growth rate was not enough to keep the pace of general Poland's foreign trade expansion both in EU-intra and EU–extra dimensions. This resulted in the erosion of importance of Japan as a trade partner for Poland. Since 2004 Japan's shares in total Polish imports has dropped from 1.13% to 0.64% (2017) and Japan's share in total Polish exports has stabilized (0.23% in 2004 and 0.24% in 2017). From Japanese perspective the importance of Poland in external trade has increased in the analyzed time (from 0.09% to 0.29% for Japan's exports and from 0.03% to 0.17% for Japan's imports). Although those shares indicate rather marginal mutual importance of both partners in their global trade relations, it should be emphasized that Poland remains the main trade partner of Japan in Central Europe.

The EU-Japan Economic Partnership Agreement, after entering into force, could be a next prospective incentive for further development of Polish-Japanese investment and trade relations. The comprehensive agreement promises a.o. deep liberalization of investment flows and re-movement of most of (tariff and non-tariff) trade barriers between the parties. Therefore it is expected that the agreement might me a new stimulus for deeper bilateral co-operation. For Polish-Japanese relations especially promising seems to be future highly liberalized access for agricultural and food products. Although Japanese market is difficult for foreign exporters and is highly saturated with its strong completion, Poland has succeeded in recent years in this sector, becoming one of the biggest producers and exporters of agricultural goods in the EU. From Japan's perspective, potential better access for all manufactured goods (e.g. including lower customs tariff for passenger cars and auto parts) will not only bring higher competitiveness at Polish market of almost 40 million consumers, but also open new business opportunities for investments. Cheaper import of semi-products to the EU and Poland will increase the competitiveness of Japanese companies and Japanese-own factories in Europe, that could allow for further expansion of the production and export to other countries in Europe and even beyond.

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