
International Trade in Goods and Services of Poland

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Abstract:

Purpose: The aim of the article is to examine how Poland's international trade is shaped in the context of exports and imports of goods and services in 2010–2017. Therefore, additional, detailed research questions were posed: (1) what are the basic directions of Polish exports and imports? (2) What is the balance of trade in goods? (3) What groups of goods are most often exported from Poland? (4) What Polish services are most often exported?

Design/Methodology/Approach: The survey of an illustrative nature was conducted based on the available source literature, own research as well as statistical data and results published by research institutions. First, general national data are presented, and then data for voivodships and voivodship cities.

Findings: The greatest export of Polish goods is to Germany and other European countries. It is similar in the case of Polish imports, which mainly come from: Germany, China, Russia, and other European countries. The balance of Polish trade in goods is positive with European countries, and negative with the countries of Far East Asia. The structure of trade in goods and services is very diverse. The highest values in services in 2017 were recorded for: transport services; foreign travel; telecommunications, IT and information services; refinements.

Practical Implications: The research results can be used to manage, support, and develop international trade, both by domestic decision makers and managers in enterprises, as well as for foreign trade partners.

Originality/Value: The conducted research contributed to the narrowing of the research gap concerning the structure of Polish foreign trade, especially in the context of groups of goods and services. This topic is taken up, despite appearances, quite rarely, usually limited to studying the directions of geographical expansion.

Keywords: International trade, international business, foreign trade, polish export, services trade, structure of export.

JEL Classification: J28, L20.

Paper Type: Research article.

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1. Introduction

International trade is growing thanks to technological intensification, increasing globalization and regional integration. The size and speed of these phenomena make it necessary to ensure their sustainability, care for the environment and energy production. In the analyzed period, Poland obtained a surplus in international trade, reaching its highest value in history in 2017. The greatest export of Polish goods is to Germany and other European countries. It is similar in the case of Polish imports, which mainly come from: Germany, China, Russia, and other European countries.

The balance of Polish trade in goods is positive with European countries, and negative with the countries of Far East Asia. The structure of trade in goods is very diverse. The geographic directions of urban trade vary but are generally consistent with directions for the entire country. Similarly, the industry structure of exports of individual cities and the level of concentration of a given industry are very diverse.

International trade means the exchange of goods or services with partners based outside the country. International business is a term used to describe an economic activity that goes beyond the country's borders, as well as the area of knowledge that explains this activity. International trade is essentially subject to two significant influences. On the one hand, there is a progressive globalization associated with the intensification of connections between entities in the world. On the other hand, the development of regional integration processes, which eliminates barriers to economic transfer between individual countries included in the integration. The latter are considered to support globalization or are its specific manifestation.

The article deals with the issue of exports in terms of directions, goods, and services in the context of economic development. Exports from voivodeship cities were also examined. To investigate these issues, an analysis of the literature in the above-mentioned areas (with particular emphasis on the macroeconomic framework) was carried out and an analysis of statistical data published by research institutions was carried out. The method adopted in this study is justified by the specificity of the subject of research, its scope and resource constraints, including time and money.

2. Foreign Trade in the Context of Economic Development

The development of technology, shortening the product life cycle, and popularizing the Internet have made international business possible not only for large corporations, but also small and medium-sized enterprises (Hirte, Lessmann, and Seidel, 2020; Exposito and Sanchis-Llopis, 2020). In addition, the relative reduction in international trade costs, which are determined by maritime transport connections, the number of days and documents required in export transactions, and the reduction of tariffs allowed for the intensification of trade (Staboulis *et al.*, 2020).

The openness of labor markets and the free flow of human resources increases, which is associated with various consequences, such as draining some areas from the best units and polarization of wages and the labor market (Furusawa, Konishi, and Tran, 2020).

Changes in exchange rates are also an important factor influencing international trade, especially when they occur suddenly and unexpectedly (Annelies *et al.*, 2020). Economic development, the flow of foreign capital, export-oriented industrialization, expansion of infrastructure all increases the demand for energy. Financial development, increasing the availability of loans support the expansion of production, the growth of the capital market, creating the growth of enterprises and the standard of living of societies (Schumpeter, 1912; Destek, 2018; Ozturk and Acaravci, 2013; Topcu and Payne, 2017).

The relationship between trade and energy consumption (Shahbaz, Nasreen, and Ling, 2014; Sadorsky, 2010; 2011) necessitates the search for and use of renewable energy sources (Dincer, 2000). Replacing fossil energy sources with them, which significantly contribute to environmental degradation (Tour, Kittrell, and Colvin, 2010; Panwar, Kaushik, and Kothari, 2011) is still a challenge for the world (Valentine, 2011). The literature shows the existence of long-term asymmetric relationships between financial development, trade openness, capital flows and renewable energy consumption (Qamruzzaman and Wei, 2020).

Export, commonly indicated as the first step of foreign involvement, is the most frequently used method of expansion. It does not involve the necessity of incurring such significant expenditures as in the case of direct investments, and ignorance of the market and ways of operating on it may be neutralized by participation in export coalitions and cooperation with a company specializing in exports. The exporter is the participant who delivers the product and obtains the appropriate equivalent, while the importer is the entity receiving the product and pays the payment. An export transaction is also an import transaction.

Indirect export takes place when the manufacturer transfers the goods to a domestic exporter or a representative office of a foreign importer for further sale abroad. Such a solution does not require the exporter to initiate actions relating to the crossing of the border by goods and does not oblige him to meet the reality and conditions of the country of destination. It is used when the high market potential and sales opportunities do not encourage wider activity of the enterprise, or the manufacturer does not have knowledge of specific markets or appropriate export competences.

Direct export occurs when the producer undertakes operations involving the crossing of the border and the disposal of goods. The advantages of such an approach include, first, minimal risk, relatively low capital, and personnel expenditure, as well as significant adaptation potential, i.e., the possibility of modifying the activity (e.g., in terms of the form of internationalization, resignation or its change).

3. Methodology

The aim of the article is to examine how Poland's international trade is shaped in the context of exports and imports of goods and services in 2010–2017. Therefore, additional, detailed research questions were posed: (1) what are the basic directions of Polish exports and imports? (2) What is the balance of trade in goods? (3) What groups

of goods are most often exported from Poland? (4) What Polish services are most often exported? The main source of information for the study is the database of the National Bank of Poland (NBP).

The data was also taken from the 2018 Competitiveness Report, edited by Marzenna Anna Weresa and Arkadiusz Michał Kowalski, especially from the chapter written by Mariusz Jan Radło. Some of the data in the 2018 Competitiveness Report was prepared specially by the Chamber of Tax Administration. First, general national data on foreign trade, directions of exports and imports are presented, and then data for voivodships and voivodship cities. Additionally, information on the groups of goods and services of the greatest importance in the country's trade exchange is provided.

4. Research Results

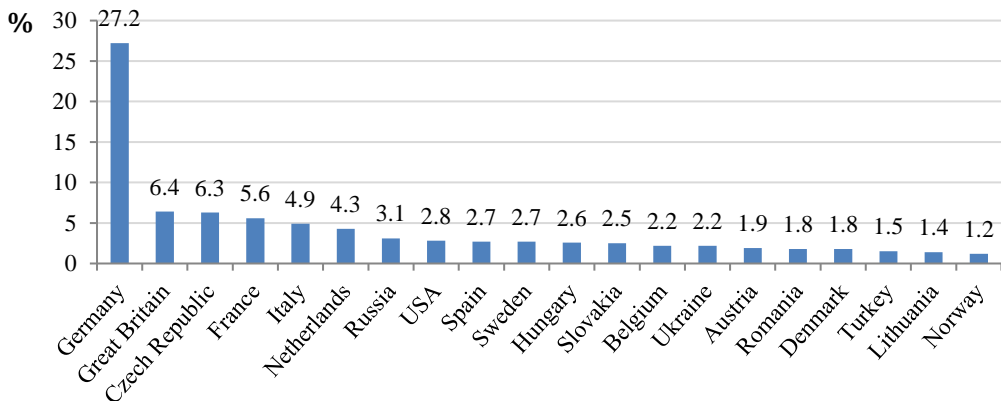
The results of the analysis concerning Polish foreign trade in 2010-2017 are presented in Table 1.

Table 1. Polish foreign trade in goods and services in 2010 - 2017 (in EUR billion)

Foreign trade	2010	2011	2012	2013	2014	2015	2016	2017
Export of goods	118.1	132.5	141,0	149.1	158.6	172.1	177.4	201.9
Import of goods	129,0	145.8	149.2	149.4	161.9	169.9	174.5	200.5
Balance of trade in goods	-10.9	-13.3	-8.1	-0.3	-3.3	2.2	2.9	1.4
Export of services	26.8	29.4	31.9	33.6	36.7	40.7	45,0	51.9
Service import	23.5	24.2	25.9	25.9	27.7	29.7	30.9	33.9
Balance on services	3.3	5.2	6,0	7.6	9.1	10.9	14.1	18.0
Total exports	144.8	161.8	173,0	182.7	195.4	212.8	220.4	253.8
Total imports	152.5	170,0	175.1	175.4	189.5	199.7	205.5	234.4
Total trade balance	-7.6	-8.1	-2.1	7.3	5.8	13.1	14.9	19.4

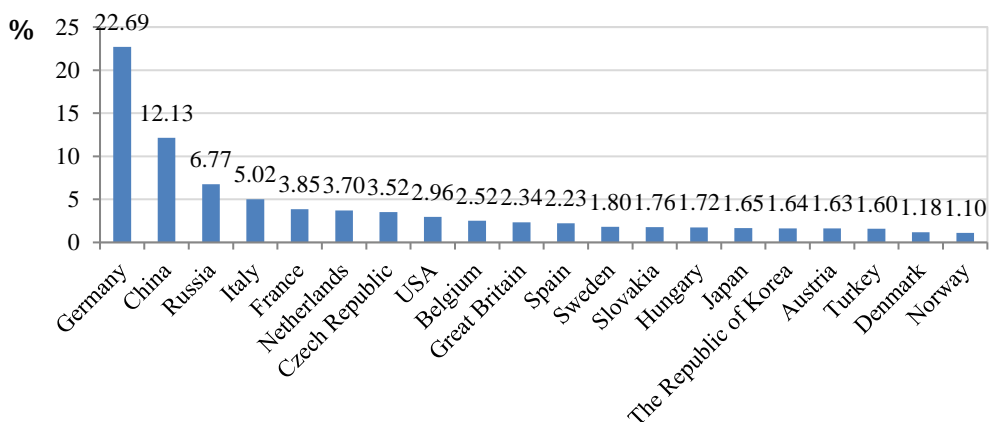
Source: Own study based on NBP data (2018a).

Figure 1. Directions of Polish exports in 2017 (% of total exports)



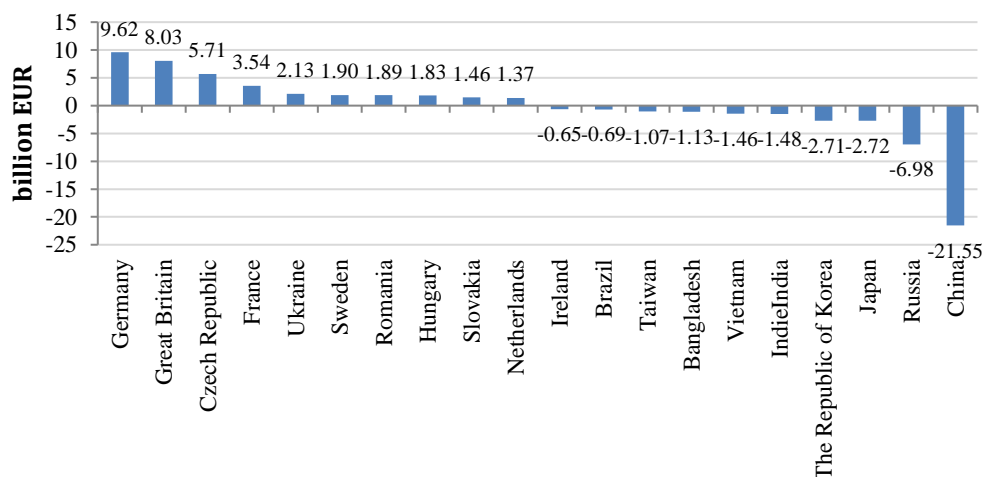
Source: Study based on the 2018 Competitiveness Report.

Figure 2. Directions of import of goods to Poland in 2017 (% of total exports)



Source: Study based on the 2018 Competitiveness Report.

Figure 3. Balance of Polish trade in goods with selected countries – import directions by country of origin (EUR billion).



Source: Study based on the 2018 Competitiveness Report.

The results of the study of the directions of exports and imports of goods and the balance of Polish trade in goods with selected countries are presented in Figure 2, Figure 3 and Figure 4 respectively.

The results of a more detailed analysis of Polish exports are presented in Table 2. The presented list includes 20 groups of goods included in the combined nomenclature, which have the highest share in exports. Table 3 presents the results of the analysis of Polish trade in services.

Table 2. Exports by groups of goods in 2017 (value in billion EUR)

Code (two-digit) and the name of the goods group / group names from the four-digit level	Exports billion EUR	Export %	Balance EUR billion
84: nuclear reactors, boilers, machinery, and mechanical appliances	26.11	13.21	2.25
87: vehicles other than railways, and parts and accessories thereof	23.72	12,00	4.4
parts and accessories for the motor vehicles of headings 8701 to 8705	11.08	5.61	4.47
cars and other motor vehicles designed for the transport of passengers	6.75	3.41	-1.37
85: electrical machinery and equipment and parts thereof	21.4	10.83	-1.59
94: furniture, bedding, mattresses, mattress frames, pillows	11.5	5.82	8.63
39: plastics and articles thereof	9.18	4.64	-2.28
73: articles of iron or steel	6.1	3.08	1.4
27: mineral fuels, mineral oils, and products of their distillation	5.04	2.55	-9.35
40: rubber and articles thereof	4.68	2.37	1.27
02: meat and edible offal	4.53	2.29	2.98
72: cast iron and steel	4.04	2.04	-3.49
30: pharmaceutical products	3.87	1.96	-1.74
44: wood and articles of wood; charcoal	3.82	1.93	2.43
48: paper and cardboard; articles of pulp, paper or cardboard	3.78	1.91	-0.23
90: optical, photographic, cinematographic instruments and apparatus	3.61	1.83	-0.66
24: tobacco and manufactured tobacco substitutes	2.97	1.5	2.22
74: copper and articles thereof	2.96	1.5	1.54
33: essential oils and resinoids; perfumery, cosmetic or toilet preparations	2.9	1.47	0.68
76: aluminium and articles thereof	2.76	1.4	-0.96
62: garments and clothing accessories, not knitted or crocheted	2.56	1.29	-0.3
89: ships, boats, and floating structures	2.43	1.23	1.01

Source: 2018 Competitiveness Report.

Table 3. Polish trade in services in 2017 (PLN million)

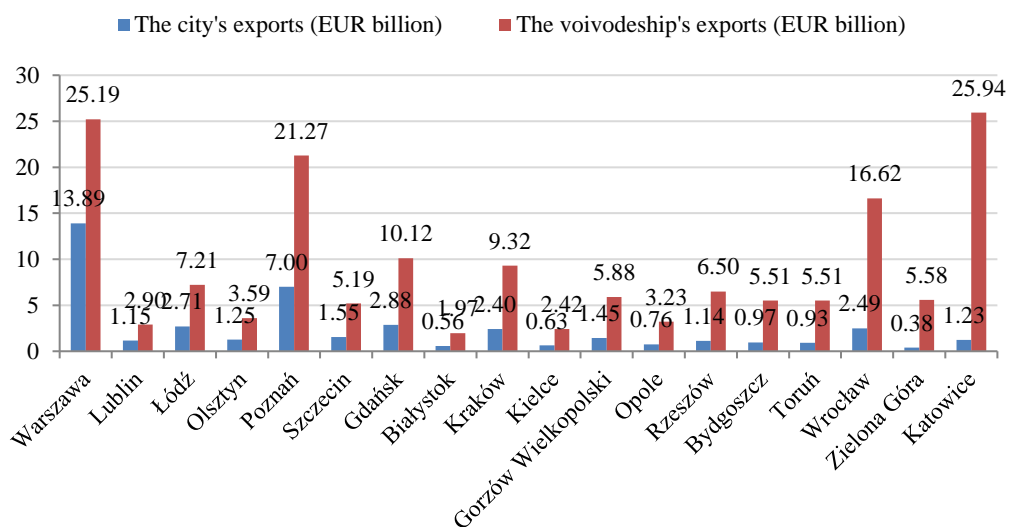
Name of service	Export	Import	Balance
Total services	220720,00	144334,00	76386,00
Processing	15934,00	1434,00	14499,00
Repairs	6563,00	3578,00	2984,00
Transportation services:	59615,00	33039,00	26575,00
maritime transport	1995,00	5350,00	-3356,00
air transport	7255,00	6018,00	1236,00

other transport services (except sea and air)	49727,00	20820,00	28907,00
postal and courier services	637,00	850,00	-213,00
Foreign travel	47974,00	33264,00	14709,00
Construction services	7492,00	1799,00	5692,00
Insurance services	1747,00	2560,00	-814,00
Financial services	3465,00	3590,00	-126,00
Fees for the use of intellectual property	2160,00	11884,00	-9724,00
Telecommunications, IT and information services:	24029,00	13742,00	10287,00
telecommunication services	2060,00	2705,00	-646,00
IT services	20295,00	9919,00	10376,00
information services	1673,00	1118,00	555,00
Other business services:	48917,00	35914,00	13002,00
research and development services	5075,00	1077,00	3998,00
services provided by professionals	25956,00	20421,00	5535,00
legal, accounting, management, and public relations services	17534,00	15463,00	2071,00
marketing services in the field of market research and public opinion research	8421,00	4957,00	3464,00
technical, trade-related, and other business services	17885,00	14416,00	3468,00
Cultural and recreational services	2820,00	3073,00	-254,00

Source: Own study based on NBP data (2018b).

The results of the study of the volume of exports in Polish voivodship cities and voivodships are presented in Figure 4.

Figure 4. The value of exports in 2017 from voivodship cities and provinces



Source: Study based on 2018 Competitiveness Report.

5. Discussion

The last years of the period under review were marked by a trade surplus in total goods and services, and 2017 saw the highest ever trade surplus of Polish trade. The study of the directions of Polish exports of goods confirmed that the main trade partners of Poland are Germany and the European Union countries (Szyguła and Więcek-Janka, 2019), besides Russia, USA, Ukraine, Turkey, and Norway. The directions of Polish imports are like those of export. The first places are taken by Germany, Great Britain, the Czech Republic, i.e., European countries.

The balance of Polish trade in goods is positive for most European countries, and negative especially for Asian countries, especially China, Korea, Japan, and for Russia. The structure of Polish exports in relation to groups of goods is very diverse. The goods of the highest value exported by Polish enterprises belong to the following groups: nuclear reactors, boilers, machinery, and mechanical devices, non-rail vehicles and their parts and accessories; electrical machinery and equipment and parts thereof. The services of the highest value exported by Polish enterprises are various types of transport services, foreign travel, telecommunications, computer and information services, refinement, repairs.

Among the voivodship cities, Warsaw achieves by far the highest value of exports, the export of which accounts for over half of the total exports of the voivodeship. Further places are occupied by Poznań, Gdańsk, Łódź, Wrocław and Kraków. The industry structure and concentration of a given industry for individual cities are highly heterogeneous. It is stated that the objectives of the article have been achieved and the research questions have been answered.

6. Summary

It can be concluded that Polish international trade was developing in the analyzed period, and Germany and the EU countries are the largest trade partners. More detailed data and the industry structure may support decision-making regarding further actions aimed at further development of trade and its strategic areas.

Similarly, from the micro perspective, they can help company managers in making decisions about the directions of sales or acquisition of resources. It may also have an encouraging effect on enterprises that are not yet undertaking foreign activity, as well as provide arguments for organizations and institutions promoting international activity.

Conclusions from research on international trade issues can be used to develop strategies that will allow for the optimal use of the available potential and implementation of planned projects, as well as ensure the relative resilience of the economy or enterprise.

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