

The impact of economic and behavioural factors on the shaping of international relations with the Russian Federation. A comparative analysis of Poland and Germany

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Quote as: Motowidlak, T., & Motowidlak, U. (2024). The impact of economic and behavioural factors on the shaping of international relations with the Russian Federation. A comparative analysis of Poland and Germany. *Argumenta Oeconomica*, 2(53), 120-129.

DOI: [10.15611/aoe.2024.2.08](https://doi.org/10.15611/aoe.2024.2.08)

JEL: F51, P28, P51, Q43, Q48

Abstract

Research background: The article addressed the importance of economic and behavioural factors in shaping relations between states. This significance was examined in the context of the possibility of building the power and strength of the state, ensuring economic security, and in particular energy security.

Purpose of the article: The aim of the article was to identify the main economic and behavioural dependencies of the diverse attitudes of Poland and Germany towards the Russian Federation, and to determine the impact of these dependencies on these attitudes.

Methods: The research methods and techniques included: elementary analysis, desk research, cause-and-effect analysis, and selected qualitative and quantitative analysis methods.

Findings and value added: The obtained results are important for international political economy and geoeconomics. The study covered the economic and behavioural factors determining the relations between Poland and the Russian Federation as well as those between Germany and the Russian Federation. The results of the comparison of these two categories of bilateral relations explain the different attitudes of Poland and Germany towards the Russian Federation, which was particularly

visible in the context of the Russian aggression against Ukraine and contribute to reducing the research gap in this thematic area.

Keywords: Polish-Russian relations, German-Russian relations, economic and behavioural factors in shaping international relations, Russian Federation (RF), international political economy (IPE)

1. Introduction

The economies of states, and more precisely the dependencies between them, are one of the most important determinants of international relations. Thus, they shape the relations between countries to a large extent (Bieleń 2015, p. 164). The dependence of political actions on the state of the economy and economic dependencies applies in particular to democratically managed countries. The ruling elites of these countries (as well as their political opponents) treat the economy as an instrument that can ensure a high standard of living for their citizens, allowing to win their votes in subsequent elections and maintain (or gain) power.

The relationship between the economy and economic couplings and the shaping of relations between states has begun to play an important role in scientific research along with the 'politicisation' of economic relations and the growing influence of economic interests on state policy (Gilpin 1987, p. 4). This research focused mainly on two newly distinguished scientific sub-disciplines within international relations, i.e. the international political economy (IPE) and geoeconomics. Both of these sub-disciplines stress the influence of international economic relations on the relations between states (Milner 2002, p. 284).

Economic potential is the basis of the power and strength of the state. A strong economy is considered to be the foundation of military power, and together these two elements are necessary to obtain the status of an international superpower (Kennedy 1994, p. 7).

The importance of the economy as a determinant of political relations between states has increased along with its significance for the economic security of the state. In particular, for the political elites of democratic countries, the impact of this security on the well-being and quality of life of citizens and their development opportunities is particularly visible and significant (A. Łuczyszyn and T. Łuczyszyn 2020, pp. 138-139).

An important determinant of the economic security of the state is its energy security, which means the reliability of energy supplies (Kozak-Siara and Majakowska 2018, p. 144). Therefore, for many countries it is important to have a stable and cost-effective import of energy resources, which requires maintaining good political relations with the countries that own their resources.

Apart from economic factors and dependencies, also behavioural factors influence relations between states. This influence is especially visible through the prism of Poland's and Germany's relations with the Russian Federation (RF), seen in the context of the armed conflict in Ukraine.

2. Literature review

The globalisation of the economic system has increased the susceptibility of domestic economies to events abroad. In the 1970s, a number of studies (such as Cooper 2005, p. 10; Keohane, Nye 1971, pp. 329-349), noted that IPE was beginning to play a key role in shaping political relations (Chavagneux 2001, pp. 609-632). Research conducted by Strange led to the conclusion that if researchers do not take into account the economic factor, then scientific works on foreign policy will not reflect the actual state of affairs (Strange 1970, p. 309).

Geoeconomics, as a scientific concept, appeared with the evolution of international relations at the end of the 20th century. It seems that despite the ambiguity of this concept and its many different definitions, it can be assumed that it denotes the concept according to which state policy depends on

economic factors (Blackwill and Harris 2016, p. 19). According to Luttwak (1990), Wigell and Vihma (2016), economic goals have priority over political goals, equated with the perception of geoeconomics by Western countries (Wigell and Vihma 2016, pp. 613-614). These researchers believed that there would be no effective foreign policy of a state if it did not have adequate economic power (Luttwak 1990, p. 76).

Other studies (Jean 2003, pp. 226-227; Grosse 2014, pp. 17-18) treated geopolitics as an instrument. Their views generally concurred with those of Koczetow, Neklessa and Sorokin, the main precursors of the approach to geoeconomics in the RF, for whom it is connected with the geoeconomic zones of influence of the RF of a geographic nature, shaped in the historical process (Potulski 2010, pp. 258-268).

The elements that create the strength and power of the state are economic, military, demographic and spatial factors (Sulek 2001, pp. 35-37). Among the economic factors that contribute to the power and strength of the state, publications by Spykman, Fisher and Stoessinger distinguished, among others, industrial and technological development, trade development and financial resources (cf. Fisher 1942, p. 19; Stoessinger 1965, p. 21). Research by Organski and Cline pointed directly to the economic potential of the state as a component of its strength and power, taking as its measure, among others, gross domestic product (GDP), GDP per capita, share in world trade, non-agricultural employment and the degree of urbanisation of the country (Organski 1967, pp. 116-184; Cline 1994, p. 27).

The essence of economic security can be focused on the conclusion that it reflects the ability of the state's economic system to use internal and international economic interdependencies to increase the dynamics of socio-economic development and improve the efficiency of the national economy, which translates into the standards and quality of life of citizens (Leszczyńska 2018, pp. 291-292). This conclusion clearly emphasised that in order to ensure the economic security of the state, it is necessary to efficiently operate the economy and its ability to satisfy the needs of society.

The essence of the economy was clearly stated by Łuczyszyn and Łuczyszyn (2020), Haliżak (1997, pp. 77-92) and Green (1996, p. 22), ascribing directly to it the role of the guarantor of economic security. Łuczyszyn and Łuczyszyn (2020) also indicated that the responsibility for this security rests with the state (2020, p. 135).

The limited rationality of decision-makers may have a real impact on the relations between states. H.A. Simon, the creator of the concept of bounded rationality, noted that behavioural economics, although it deals mainly with economic problems, is largely derived from psychology, hence an individual cannot lose their emotionality and the so-called human factor in decision making (Simon 1976, pp. 129-148). In turn, Thaler showed that people do not always act rationally, have problems with self-control, and their behaviour is influenced by social preferences (Thaler 1980, pp. 39-60).

3. Research methodology

The research used the desk research method, which allowed for the analysis of epistemological aspects of the influence of the state of the economy of countries on their political decisions and for a review of the concepts and categories related to these aspects. Using the method of analysis and criticism of the literature, a set of the most important concepts and categories was selected for the identification of the directions of this influence. The observational method was applied to distinguish the states/subjects of research and their scope. The comprehensive application of this method allowed for the planned acquisition of information from the perception and its interpretation as facts, events or phenomena, important in the study of the role of behavioural factors in the decision-making processes of Poland and Germany.

The statistical method allowed for ordering and measuring certain categories and bilateral economic relations between Poland and the RF and between Germany and the RF. Its application made it possible to create a coherent statistical database characterising the trade in goods between these

countries, with particular emphasis on trade in energy resources and the volume of foreign direct investment (FDI). The combination of the quantitative methodology with the qualitative methodology and the use of the comparative and cause-effect methods allowed to obtain cognitive value (Drewes 2021, pp. 15-16; Burnewicz 2021, pp. 388-397) regarding the factors determining the attitudes of Poland and Germany towards the RF and Ukraine.

4. Results

The trade in goods between Poland and Germany with the RF in 2021 amounted to EUR 25.1 billion and EUR 59.7 billion, respectively. The higher level of this turnover in Germany was mainly the result of the advantage of German exports, with the value of EUR 26.6 billion, compared to EUR 8.0 billion on the Polish side (Table 1). The value of German imports from the RF amounted to EUR 33.0 billion, compared to EUR 17.1 billion on the Polish side.

Table 1. Commodity exchange between Poland and Germany with the RF

Country	Trade direction	2015		2018		2021	
		bn EUR	%	bn EUR	%	bn EUR	%
Poland	Export	5.1	2.9%	6.8	3.0%	8.0	2.8%
	Import	12.9	7.3%	16.3	7.1%	17.1	6.0%
	Turnover	18.1	5.0%	23.1	5.1%	25.1	4.4%
Germany	Export	21.6	1.8%	25.9	2.0%	26.6	1.9%
	Import	30.1	3.2%	36.0	3.3%	33.0	2.7%
	Turnover	51.7	2.4%	61.9	2.6%	59.7	2.3%

Source: own study based on *Tabellarische Darstellung des Außenhandel nach Ländern: Russische Föderation*, Statistischer Bundesamt (DESTATIS), <https://www.destatis.de/DE/Themen/Wirtschaft/Aussenhandel/Tabellen/russische-foederation-xlsx.html> (access: 06/07/2022) and on *Rocznik Statystyczny Handlu Zagranicznego*, Central Statistical Office (GUS), <https://stat.gov.pl/obszary-tematyczne/roczniki-statystyczne/roczniki-statystyczne/rocznik-statystyczny-handlu-zagranicznego-2022,9,16.html> (access: 06/07/2022).

The comparison of the significance of the trade in goods between Poland and Germany and the RF for the total goods turnover of these countries with foreign countries indicated their greater significance for the Polish economy (Table 1); for Poland, this turnover accounted for 4.4% of the total foreign trade turnover in 2021, compared to 2.3% on the German side. Imports of goods from the RF constituted 6.0% of total domestic imports of goods, while in Germany – 2.7%. For Poland, the share of exports of goods to the Russian Federation in domestic exports of goods was also higher at 2.8%, while for Germany it was 1.9%.

Poland's exports of goods to the RF showed a lower degree of assortment diversification. The three most important categories (machinery and mechanical devices, chemical industry products, vehicles) in 2021 accounted for 58.2% of the total value of exports of goods. The above listed products played a similar role in Germany's exports to the RF, but their share in this value was 8.5 pp. lower than in the case of Poland¹. The above relations prove that the German economy is more flexible with regard to possible restrictions on exports to the RF.

The German economy is more dependent on the import of goods from the RF, the structure of which is dominated by energy resources. Imports of oil, gas and hard coal in 2021 accounted for 65.4% of the total value of imports of goods, while in Poland this was 51.71%. Attention should be drawn to the much higher dynamics of Poland's limiting the import of energy resources from the RF. Just in the period 2018-2021, their share in the total value of imports of goods to Poland decreased by 15.12 pp., while to Germany only by 2.8 pp.

¹ The sources of the data used in the text on the trade in goods and the energy sector of Poland and Germany were: GUS and DESTATIS.

The basic element that differentiates the raw material structures of the volumes of the total primary energy supply (TPES) in Poland and Germany is the share of hard coal. In the structure of TPES in Poland, this was 36.6% in 2020, compared to 7.2% in the structure of TPES in Germany. In Germany, the role of hydrocarbons imported from the RF is more important. The share of gas in the TPES structure of Germany was 25.7%, i.e. 6.3 pp. higher than for Poland. The corresponding oil parameters were 34.7% and 2.9 pp. respectively. In the period 2015-2020, both in Poland and in Germany, an increase in the importance of oil and gas in the structures of their TPES was recorded.

In 2020, Poland used 26.1 million tonnes of crude oil, of which 24.9 million tonnes (95.4% of domestic consumption) was imported, including 17.9 million tonnes from the RF. Crude oil imports from the RF accounted for 72.0% of domestic crude oil imports and 68.7% of domestic crude oil consumption in Poland (Table 2). In the same year, German oil consumption amounted to 96.2 million tonnes (86.0% of total consumption), of which 82.7 million tonnes were imported from abroad, including 28.1 million tonnes from the RF. Crude oil imports from the RF constituted 34.0% of domestic crude oil imports and 29.2% of domestic crude oil consumption in Germany.

The conclusions drawn from the analysis show the greater dependence of the Polish economy on oil imports from the RF, and at the same time, a higher dynamics of reducing Poland's dependence in the period 2015-2020.

Natural gas consumption in Poland amounted to 19.9 bcm in 2020, of which 17.4 bcm (87.4% of domestic gas consumption) was imported, including 9.6 bcm from the RF. Gas imports from the RF accounted for 54.9% of domestic gas imports and 47.9% of total domestic gas consumption in Poland (Table 2). In Germany, 74 bcm of gas was consumed in 2020, while imports of this raw material amounted to 89.4 bcm (Germany also sold 20.0 bcm of gas abroad), including 52.5 bcm from the RF. Gas imports from the RF accounted for 58.7% of the domestic gas imports and 70.9% of the domestic consumption of this raw material by Germany.

The conducted analysis indicates different trends in the development of the dependence of the economies of both countries on gas imports from the RF in the period 2015-2020. Poland's decreasing dependence (in 2015, gas imports from the RF amounted to 72.5% of total imports of this raw material), as Germany was increasingly dependent (in 2015, gas imports from the RF accounted for 42.6% of total imports of this raw material). As a consequence of these trends, in 2020 the German economy became more dependent on gas imports from the RF.

Table 2. Importance of energy raw materials imports from the RF for the economies of Poland and Germany

Description		2015		2020	
		Poland	Germany	Poland	Germany
Oil imports from RF in relation to:	total domestic oil imports	88.3%	35.7%	72.0%	34.0%
	total domestic oil consumption	87.0%	30.5%	68.7%	29.2%
Gas imports from RF in relation to:	total domestic gas imports	72.5%	42.6%	54.9%	58.7%
	total domestic gas consumption	54.4%	56.3%	47.9%	70.9%
Coal imports from RF in relation to:	total domestic coal imports	59.6%	27.0%	73.6%	48.1%
	total domestic coal consumption	6.8%	25.7%	15.0%	49.0%

Source: own study based on *Energieverbrauch Deutschland*, DESTATIS, https://www.destatis.de/DE/Themen/Branchen-Unternehmen/Energie/Verwendung/_inhalt.html (access: 20/07/2022) and on *Gospodarka paliwowo-energetyczna*, GUS, <https://stat.gov.pl/obszary-tematyczne/srodowisko-energia/energia/gospodarka-paliwowo-energetyczna-w-latach-2020-i-2021,4,17.html> data (access: 20/07/2022).

Poland consumed 62.6 million tons of hard coal in 2020, while importing 12.8 million tons (20.4% of domestic coal consumption) of this raw material, including 9.4 million tons from the RF, simultaneously producing 54.4 million tons of hard coal and exporting 4.6 million tons. Coal imports from the RF accounted for 73.6% of domestic coal imports and 15.0% of Poland's total coal consumption (Table 2). Germany consumed 29.0 million tons of hard coal in 2020, and the entire demand for this raw material

was covered by imports (Germany stopped mining hard coal completely). Moreover, Germany imported 29.6 million tons of coal in 2020, including 14.2 million tons, i.e. 48.1%, from the RF.

The analysis shows that the German economy became more dependent on hard coal imports from the RF, and this dependence increased in the period 2015-2020. In 2015, coal imports from the RF satisfied only 27.0% of the country's demand for this raw material. Although Poland satisfied most of its coal imports in 2020 with imports from the RF, the raw material imported from the RF catered for only 15.0% of the domestic demand for this raw material, compared to 49.0% in Germany.

An important economic determinant of the differentiated attitudes of Poland and Germany towards the RF is the diversified volume of foreign direct investment (FDI) of both countries in the RF and the resulting personal and financial ties. In the period 2015-2020, the value of Poland's FDI in the RF amounted to EUR 226.1 million, which was only 2.1% of the value of Germany's FDI in the RF (Table 3). In 2020, i.e. in the most favourable year for Poland of this period, this ratio slightly exceeded 25%.

Table 3. Direct foreign investments of Poland and Germany in the FR

Description	2015	2017	2019	2020	Total 2015-2020
FDI GER (M EUR)	470.1	2 813.1	2 204.2	233.8	10 935.2
FDI POL (M EUR)	47.9	66.1	34.5	58.9	226.1
FDI POL/FDI GER (%)	10.2%	2.3%	1.6%	25.2%	2.1%

Source: own study based on *EU direct investment flows, by country and economic activity*, Eurostat, https://ec.europa.eu/eurostat/databrowser/view/BOP_FDI6_FLOW__custom_2794782/default/table?lang=en data (access: 26/07/2022).

The much higher value of Germany's FDI in the RF affected the mutual economic ties of these countries to a much greater extent than the corresponding volume of Poland. In 2020, the cumulative number of German FDI in the RF amounted to 717, and their value was EUR 22.7 billion. German FDI units in the RF allowed to employ 274,000 people and generate a total turnover of EUR 72.4 billion. The total amount of current receivables of these entities was EUR 23.7 billion, and current liabilities – EUR 1.02 billion (Direktinvestitionen 2021, p. 50).

In shaping the attitudes of Poland and Germany towards the RF, the different economic potentials of both countries play a large role, which is the reason for the differences in their international importance and the standard of living of their inhabitants. The GDP and GDP per capita of Germany were, respectively, more than six times and almost three times higher than the analogous parameters for Poland (Table 4). Germany's share in world trade was almost 5 times higher. These relations were reflected in the IMF rankings of the richest countries and the largest economies in the world. In the first of these rankings, Germany was 18th and Poland 42nd. The second ranking placed Germany in 4th and Poland in 22nd (Frączyk 2021).

Table 4. Economic potential of Poland and Germany

Description	Unit	Poland	Germany
GDP	M EUR	574 385	3 570 620
GDP per capita	EUR	15 050	42 920
The richest countries in the world	rank	42	18
The world's largest economies	rank	22	4
The average annual income of a person	EUR	8 022	25 989
The degree of urbanisation of the country	%	60.1	77.5
Employment outside agriculture	%	90.5	98.4
Participation in world trade	%	1.48	7.11

Source: own study based on *Europa in Zahlen*, DESTATIS, https://www.destatis.de/Europa/DE/Home/_inhalt.htm (access: 20/07/2022) and on *Wskaźniki makroekonomiczne*, GUS, <https://stat.gov.pl/wskazniki-makroekonomiczne> (access: 20/07/2022).

Apart from economic dependencies, an important determinant of the diverse attitudes of Poland and Germany towards the RF were behavioural factors. According to the theory of behavioural economics, these factors influence the rationality of investors and the perception of processes taking place in capital markets (Szyszka 2009, p. 6). Although this theory relates directly to capital markets (Adamczyk-Kowalczyk 2022, p. 34), the research has shown that it also successfully explains the reasons for economic and political decisions of states, taken by the 'human factor', since human behaviour cannot be analysed and predicted solely on the basis of economics (Bąbel, Ostaszewski 2021, p. 8). People are often guided by emotions, i.e. subjective states caused by specific psychological stimuli (Zygan 2013, p. 9, Rosyidah, Pratikto 2022, pp. 157-158).

In the case of Germany, the overconfidence effect is of great importance in shaping attitudes towards the RF, the essence of which, according to the theory of behavioural economics, is illusory control, excessive optimism and unrealistic wishful thinking (Alpert and Raiffa 1982). The functioning of this effect should be related, among others, with positive associations in Germany resulting from long and deeply entrenched cooperation with Russia (now the RF), a liking for submission to strong power and a fascination with powerful leaders.

It would seem that the effect of overconfidence can be attributed, for example, to the attitude of Germany, consisting in making promises to support Ukraine, without any clear intention of maintaining them or overestimating the Russian Federation's declaration of energy security. This effect may explain Germany's perception of the construction of the NS I and NS II gas pipelines only as RF initiatives aimed at removing obstacles to ensuring gas supplies. Its derivative is, to a large extent, the confidence of the Germans in the implementation of the Minsk agreements, the durability of any peace concluded at the expense of Ukrainian territory, and the Cold War myth that the Russians would cooperate even in a difficult geopolitical situation.

The mechanism of the anchoring effect, in line with the theory of behavioural economics, is based on the reluctance to change a previously formed opinion under the influence of new information (Stephan and Kiell 2000). Its source in the case of Germany may rest mainly in its subconscious fear of the RF, in part as a result of its defeat in the war with the USSR. This sense of fear, as well as the respect by the RF, may condition the German conviction that Ukraine is unable to win the war. In Germany, the treatment of the RF as an integral element of the European security architecture, a guarantor of energy security and the operation of the European gas hub in Germany has been firmly established. Germany appears trapped in this reasoning also due to the lack of sufficient understanding of the processes taking place in the former Soviet territory.

A derivative of the anchoring effect in terms of making economic and political decisions and shaping behaviour towards the RF is, among others, indecision about providing (significant) military aid to Ukraine, ignoring the negative experiences of the countries of Central and Eastern Europe concerning the RF, and resulting from the application of the Fallin-Kwiciński doctrine by the RF and the related gas crises. The scope of Germany ignoring the experiences of Central and Eastern European countries also includes their conclusions pointing to the need to treat the RF as an empire, and therefore dangerous. The anchoring effect may be largely attributed to Germany's advocacy in refusing to grant Ukraine membership of NATO.

The study of the role of the behavioural factors in the processes of economic and political decision-making and the shaping of Poland's attitude towards the RF showed its significant difference, both in terms of the scope of influence and the direction of the impact of these factors. In Poland, the 'behavioural factor' is highly concentrated in the anchoring effect.

The source of the anchoring effect in the case of Poland are primarily negative historical experiences, which play an important role in connection with the particular Polish sensitivity to symbolic issues in the perception of the RF, and in attaching great importance to its own history of martyrdom, as well as the universal expectation of repentance for the damage and harm done to Poland, and clarification of the disputed issues by the RF. Important reasons for this effect are rooted in the Polish perception

of the RF as an eternal enemy and potential aggressor, the belief that Russian imperialism is timeless, and treating being anti-Russian as the main criterion of patriotism. The Russian public holiday, commemorating the anniversary of the expulsion of Poles from the Kremlin in 1612, the justification of the Molotov-Ribbentrop Pact and blaming Poland for the outbreak of the Second World War, is negatively perceived in Poland (Załęcki 2017, p. 169).

The reasons for the strong anchoring effect in Poland in terms of making economic and political decisions and shaping behaviour towards the Russian Federation may be also the perception of the RF as a country with a corrupt bureaucracy and a soulless and unprofessional administration, and a negative attitude to the forms of exercising power (leanings to autocracy, despotism). Among the sources of the anchoring effect in Poland, one should also mention the negative attitude to the past political and economic practices applied by the USSR towards Poland, as well as religious prejudice.

The main consequences of the anchoring effect in Poland, in terms of making economic and political decisions and shaping the behaviour towards the RF, are in clear opposition to the analogous consequences in the case of Germany. They include, in the first place, the lack of trust in security matters and the exposition of the Russian energy threat resulting from the Falin-Kvitsinsky doctrine, which translates into the search for geopolitical possibilities of shaping the regional order in Central and Eastern Europe in opposition to the RF, and the perception of the construction of the Baltic gas pipelines as a serious threat to energy security. Unlike in Germany, the consequence of the anchoring effect in Poland are the Jagiellonian and Promethean concepts, assuming an anti-Russian attitude and a missionary attitude towards its eastern neighbours.

5. Conclusions

The main conclusion from the research carried out is that the determinants of maintaining good economic and political relations with the RF on the German side predominate. This advantage is confirmed by a direct comparison of the absolute measures and the relative measures of these determinants² (Table 5). The sum of the relative measures regarding Germany was 58.4, whilst for Poland – 21.2. However, it should be noted that the main source of this advantage is German FDI in the RF, with the value over 36 times higher than Polish FDI in the RF. Therefore, FDI is a particularly important factor for Germany in favour of maintaining good economic and political relations with the RF, and may explain Germany's reserve regarding the military support of Ukraine in its conflict with the RF.

As regards the trade between Poland and Germany and the RF (numbers 1 to 6, Table 5) and the determinants of energy security in both countries (nos. 7 to 15, Table 5), the sums of relative measures assigned to both countries were comparable; for Poland, this was 20.2, and for Germany – 22.1.

Significant determinants of Germany's maintaining good relations with the RF, increasing the above-mentioned advantage over Poland in this respect, were higher economic potential, a higher standard of living and behavioural factors. The first two determinants (see Table 4) create a kind of high-value asset that is both a source of concern and a (high) fear of losing it. Germany, 'having more to lose', is less prone to jeopardising its economic relations with the RF, especially those which determine to the greatest extent the maintenance of this potential and level.

² Relative measures were determined as the quotient of absolute measures, with the lower of these measures being taken as the denominator.

Table 5. The main economic determinants of the relationship between the diversified policies of Poland and Germany towards the RF

No.	Determinant	POL	GER	POL	GER
		Absolute measure		Relative measure / weight	
1.	Export of goods to the RF (bn EUR)	8.0	26.0	1	3.3
2.	Import of goods from the FR (bn EUR)	17.1	33.0	1	1.9
3.	Export of goods to the RF (%)	2.8	1.9	1.5	1
4.	Import of goods from the FR (%)	5.9	2.8	2.1	1
5.	Diversification of export of goods to FR (%)	58.2	49.7	1.2	1
6.	Diversification of import of goods from FR (%)	51.7	65.4	1	1.3
7.	Oil shares in TPES (%)	31.8	34.7	1	1.1
8.	Gas shares in TPES (%)	19.4	25.7	1	1.3
9.	Coal shares in TPES (%)	36.6	21.1	1.7	1
10.	Oil imports from the FR/total imports of oil (%)	72.0	34.0	2.1	1
11.	Oil imports from the FR/total oil consumption (%)	68.7	29.2	2.4	1
12.	Gas imports from the FR/total imports of gas (%)	61.4	58.7	1,0	1
13.	Gas imports from the FR/total gas consumption (%)	49.9	70.9	1	1.4
14.	Coal imports from the FR/total imports of coal (%)	65.8	56.6	1.2	1
15.	Coal imports from the FR/total coal consumption (%)	15.0	57.5	1	3.8
	Partial sum of measures	x	x	20.2	22.1
16.	FDI in RF (bn EUR)	0.3	10.9	1	36.3
	Cumulative sum of measures	x	x	21.2	58.4

Source: own study based on the research results.

The clearly greater importance of behavioural factors for the maintenance of the aforementioned relations in Germany than in Poland lies primarily in the fact that the mutual influence of these factors is strongly confrontational. In Germany, these factors support behaviour aimed at maintaining good relations with the RF, while in Poland they are a source of firm attitudes towards the RF.

Despite the predominance of determinants of maintaining good economic and political relations with the RF on the German side, Poland could benefit from some of Germany's experience in shaping trade and economic relations with the RF in order to limit them. The share of exports and imports of goods to and from the RF of Germany in total exports and imports of goods was respectively 1.5 times and 2.1 times smaller. Poland gives way to Germany in terms of the degree of diversification of goods exported to the RF. In particular, for Poland, the determinants of the share of oil imports from the RF in the total oil import and consumption should be the German levels, respectively 2.1 times and 2.4 times lower, of these shares³.

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³ These recommendations are based on data from 2020-2021, which reflect the state of trade and economic relations from the period immediately preceding the Russian aggression against Ukraine.

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