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Impact of Sanctions on the Internal and External Environment of Companies: Review

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Abstract

The purpose of our study is to identify the main scientific results and promising areas related to sanctions against companies, assessment of their effectiveness, and creation of an anti-sanctions policy. To achieve this goal, we used the text analysis methodology and expert assessment. The empirical base of the study included 724 publications about sanctions for 2014–2024, indexed in Scopus. Based on the text analysis methodology (calculating the frequency of words and phrases, correlations, conducting a thematic analysis using BERTopic), the main scientific areas were identified: a company's internal environment, external environment – the financial and banking sector, and external environment – trade policy and foreign investment. To test model quality, we analyzed their Coherence Score and Divergence, the topics do not overlap and have sufficient internal coherence. Based on expert analysis, the main scientific ideas and authors were identified for each direction. The articles highlight Russia's potential key partners, in particular China, and researchers attempt to predict long-term effects of sanctions or to assess the actual impact that they have already exerted. This work will be useful for researchers in the development of the proposed scientific directions, and for practitioners in formulating anti-sanction policies to mitigate the negative consequences of sanctions.

Keywords: sanctions, impact of sanctions, sanctions and economy, text analysis, review article

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Introduction

There is a number of theoretical and empiric studies dedicated to evaluating both primary and secondary impact of sanctions on the internal and external corporate environment. Primary sanctions are levied on companies from various industries in a sanctioned country. However, due to deep global economic integration, sanctions have an impact on companies both in the sanctioning and the sanctioned countries, as well as on enterprises in third countries [1]. If the latter violate the sanctions regime, penalties are also likely to be imposed on them. This type of sanctions are called secondary sanctions [2], i.e., penalties levied by the USA on Chinese companies for engaging in financial operations with North Korea. According to [3; 4] sanctions may also be imposed on various areas of a company's activities. A sanctions campaign may be divided into several stages that are indicative of their potential power: diplomatic actions (such as suspension of joint projects, expulsion from international organizations, etc.), measures applied to certain individuals and companies (ban on entering certain countries, assets freeze, credit restraints), sectoral sanctions (trade and financial restrictions, ban on exports of technologies). At the same time, sanctions' efficiency is also questionable. Some authors think that large and self-sufficient countries deal with the negative consequences of sanctions much more effectively than small nations [5], while others assume that tough sanctions [6] and narrowly focused sanctions [7] may be effective. As for the sanctions against Russia, there are contradictory assessments in scientific research. For example, Korhonen et al. assert that sanctions have produced an obvious and negative impact [8]. Besides, no adjustment strategies are capable of restoring the economy quickly to the pre-sanction size [9].

At the same time, Kholodilin and Netšunajev stated that sanctions had merely an insignificant effect [10], while Klinova and Sidorova found no significant influence of sanctions on the Russian economy [11]. Paper [12] demonstrates the possible unsuccessful results of imposing sweeping sanctions on a country using the example of unilateral sanctions levied against North Korea. Sometimes sanctions initiators fail when a correct strategy allows a country to develop its industry and science with a high degree of autonomy.

The purpose of our research is to reveal the main scientific results and promising areas related to sanctions against companies and an assessment of their effectiveness, as well as devising an anti-sanctions policy. To achieve this goal, we applied text analysis methodology and expert assessment.

The empirical base of the research comprised 724 articles about sanctions published in 2014–2024 and indexed in Scopus. It should also be noted that in spite of a number of review articles dedicated to the evaluation of the sanctions' impact on corporate operations, these papers focused on the study of certain problems. For instance, one of the papers studies 345 articles on sanctions imposed by the UN Security Council (1990–2023) and defines the main sanctioned areas [13]. Thus, it is virtually the first time when the studies dedicated to sanctions and their impact on the internal and external environment of companies in Russian and foreign literature are systematized.

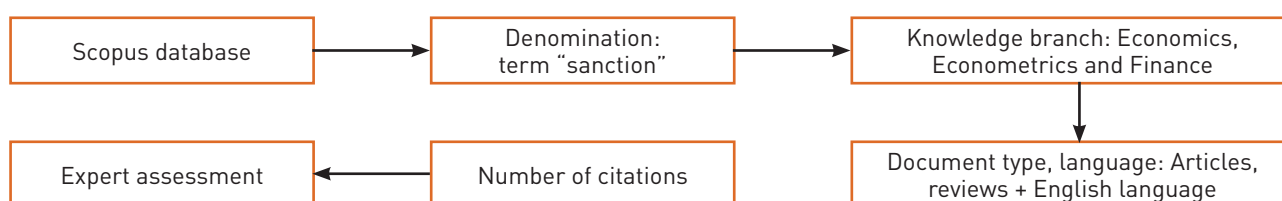
Research Methodology

In considering the methodology of structuring a review article, we may subdivide it, with certain reservations, into several approaches. The first approach comprises an expert assessment, which implies that researchers read a large body of literature on a certain subject, analyze it and determine the principal scientific areas, current scientific trends, and define the core issues of the studies. However, there are some drawbacks in this approach: subjective estimates and a limited corpus of literature. To eliminate these drawbacks, certain researchers used another approach: bibliometric analysis which entails the selection of the most frequently cited publications. In our research we apply algorithmic computer analysis, which provides an opportunity to automatically analyze the texts and special features of papers by summing or visualizing text data.

Data Description

In order to review the studies dedicated to the impact of sanctions on the external and internal environment of corporate operations, we compiled a sample of articles in English using the Scopus international database. Search requests on the research topic were used to select papers, the term “sanction” and “company” was applied to compile the sample, while the branch of knowledge was limited to Economics, Econometrics and Finance. At the next stage, the database was refined by using additional filters: document types (only articles and literature reviews) and language (only English). We also manually eliminated the articles that did not completely match the studied topic. As a result, the final database comprised 730 English-language papers. The structure chart the demonstrates the sample compilation method is presented in Figure 1. Thus, the subsequent analysis of thematic fields was performed on the basis of the most-cited articles in international databases.

Figure 1. Formation of the analytical base

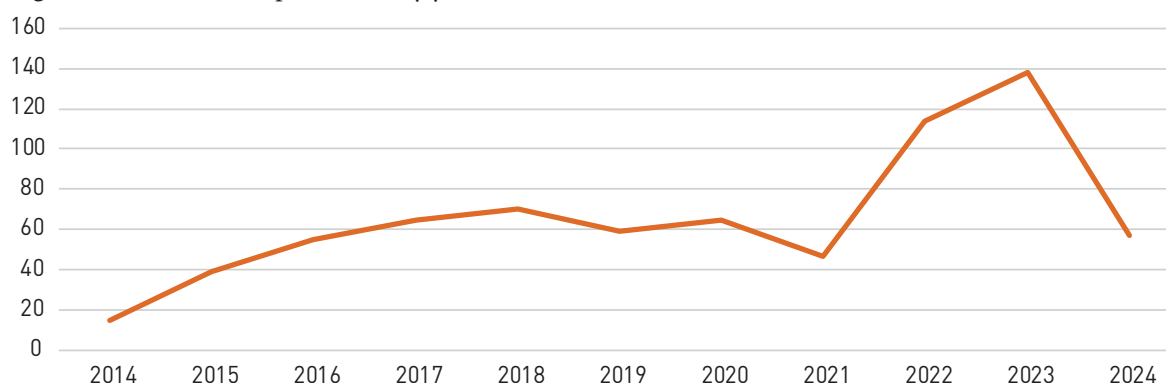


Source: Authors' calculations.

Figure 2 shows the number of articles dedicated to sanctions by year. The number of publications on the topic of sanctions was growing gradually in 2014-2018, peaking at the

time of sanctions being imposed on Russia. After the special operation began in 2022, the number of papers doubled as compared to the previous year and grew even more in 2023.

Figure 2. Number of Scopus articles by year



Source: Authors' calculations.

Using the text analysis methods, we determine the principal topics of these articles and compile general reviews of this research field.

Research Results

We are going to analyze the abstracts, or the short, succinct summaries of the articles that describe the relevance, purpose, methods and results of the research. In general, our analysis follows the algorithm below:

- 1) preliminary preparation of the text, which is obligatory for text analysis and comprises elimination of figures, special characters and stop words (prepositions, pronouns etc.). Consequently, text lemmatization (reduction to the base word form) is performed;
- 2) statistical text analysis: analysis of the number of word and word combination entries ;
- 3) correlation analysis, which essentially demonstrates how often the words occur together with the words we target. We will study correlations with the words "sanction", "company", "stock";
- 4) topic modeling of abstracts by applying the BERTopic machine learning algorithm. At this stage we use implementation of the BERT neural transformer network for topic modeling by applying the BERTopic algorithm. It is the latest topic modeling method that takes into account word semantics and analyzes sentences as a whole.

As for text analysis methods, in our research we apply several techniques. At the first stage, we resort to the frequency analysis technique. Table 1 presents 40 most frequent terms.

Table 1. Word frequency in article abstracts

Word	Frequency	Word	Frequency
economic	929	import	264
country	729	financial	254
trade	603	crisis	239

Word	Frequency	Word	Frequency
policy	487	energy	222
state	473	global	220
market	441	cooperation	217
economy	427	factor	215
development	391	European	213
international	374	change	212
foreign	339	China	212
impact	336	world	211
result	335	growth	205
political	328	industry	203
increase	304	price	197
effect	303	period	193
region	289	level	192
relation	288	national	189
company	267	sector	189
export	267	Ukraine	187
investment	266	risk	169

Source: Authors' calculations.

It should be noted that we have eliminated the words "Russia / Russian" and "sanction" because their high frequency is obvious and provides no value for the analysis of articles' contents. We manually eliminated the words insignificant for the studied topic that frequently appear in abstracts (for example, "article"). It is evident from Table 1 that the papers on sanctions are mainly focused on the issues of economy and trade relevant for companies, along with import and export issues. We may also note that the words assessing the impact of sanctions (impact, effect) were mentioned 336 times. As for countries, China was the subject of discussion as often as Russia. Some of the articles

are dedicated to anti-sanction policy and cooperation of countries; sanctions affect investment policy and targeted specific industries.

At the next stage of text analysis, we determine the frequency of word combinations in the text array. Table 2 presents 40 most frequent word combinations.

Table 2. Frequency of word combinations in article abstracts

Word combination	Frequency	Word combination	Frequency
economic sanction	103	stock market	41
Russian economy	96	direct investment	41
long term	95	member state	40
European Union	94	economic policy	40
sanction Russia	87	Western country	38
United States	76	negative impact	38
sanction impose	75	short term	37
import substitution	75	Russia Ukraine	37
foreign policy	74	Russia China	37
academy science	74	national economy	37
foreign trade	73	international relation	37
exchange rate	73	impact sanction	37
economic development	67	Ukrainian crisis	36
economic growth	61	economic relation	36
North Korea	57	relation Russia	33
limit trade	52	growth rate	33
Russian company	48	financial sanction	33
effect sanction	48	sanction regime	32
political economic	43	cooperation Russia	32
sanction policy	42	export import	30

Source: Authors' calculations.

We also eliminated from Table 2 the word combinations insignificant for the topic (for example, "result", "show"). We may note that the combinations "economic sanctions" and "Russian economy" occur most frequently. Long-term effects (long term) occupy the third position among frequently occurring word combinations, i.e., article abstracts evaluate the effect of sanctions over a long-term horizon. As for analyzed countries, there are the sanctioned ones, for example, North Korea and the ones imposing sanctions – the European Union, the United States. The main research topics comprise the exchange rate, trade restrictions, financial sanctions, sanctions policy and economic policy. We also consider the issues of influence on certain Russian companies (Russian company) and cooperation issues.

At the next stage we are going to analyze word correlation. Table 3 presents 20 words which correlate most closely with the words "sanctions", "companies" and "stock".

Table 3. Word correlations in article abstracts for the words "sanction", "company", "stock"

Sanction	Company	Stock
Impose	Russia / Russian	return
Russia / Russian	foreign	volatility
pressure	investment	market
impact	sector	index
effect	activity	traditional
economic	large	exchange
measure	market	price
policy	German	reaction
regime	government	Federation
consequence	private	ruble
Iran	business	common
negative	economy	rate
condition	firm	joint
Western	policy	position
target	enterprise	government
crisis	state	global
result	direct	Russia / Russian
financial	domestic	labor
influence	capital	audit
significant	investor	billion
imposition	banking	demand
introduce	manufacturing	Ukraine

Source: Authors' calculations.

Let us examine the word “sanctions” and its correlations. As we see in Table 3, the word “impose” (which contextually represents the topic of introducing sanctions) most closely correlates with “sanctions”. Pressure and influence are also among the main topics, and these terms (impact, effect, measure, consequence, result) constitute a large share. As for the correlation with the word “company”, we see that studies consider the issues of foreign investment, the impact of sanctions on companies from different sectors, aspects of sanctions’ impact on government-owned companies, and investment. As for the stock market and stock, their volatility and response are mainly considered in relation to ongoing events. The topic of the impact of sanctions on the exchange rate and stock market indices is studied most frequently.

Now we proceed from statistical methods to topic analysis using BERTopic. In the automatic mode, the algorithm

determined three prevailing topics in narrowly focused articles that only examine sanctions and their influence on Russia. In order to test model quality, we applied the Coherence Score. This metric measures the extent to which the words from each topic are interrelated. The higher the Coherence Score, the more coherent and interpretable the topic. We also used the Divergence metric to test them. This metric measures the extent of difference between the topics in the model. It is important because topic modeling should reveal the topics that are sufficiently distinct to provide a useful and accurate view on the content of data. We obtained the following values: Coherence Score 0.41 and Divergence 0.55. These are the optimal values; the topics do not overlap and are sufficiently internally interrelated.

Table 4 contains lists of defined words and a certain topic.

Table 4. Topic modeling results

Topic	Words
Corporate internal environment	sanction, enforcement, target, punishment, individual, effect, behavior, paper, policy, reward, right, audit, state, find, result, provide, sender, crime, country, institution
External environment – financial and banking sectors	Russia, market, price, economic, sanction, economy, financial, rate, shock, global, stock, bank, exchange, country, growth, currency, stress, study, reserve
External environment – trade payout and financing investment	Russia, sanction, economic, country, relation, trade, policy, study, region, development, foreign, industry, political, article, economy, European, state, author, cooperation

Source: Authors’ calculations.

The BERT algorithm determined the prevailing topics of the sanctions’ impact on the internal and external environment of a company. The internal environment comprises the issues of individual effects for companies, audit, parties’ behavior, etc. The external environment was divided by the algorithm into two subtopics. The first one is related to the impact of sanctions on the stock market, banking sector, and exchange rate. The second subtopic comprises the issues of trade policy and export-import relations.

In the next section, we are going to determine the principal scientific ideas within three major topics.

Principal Scientific Fields

Internal Environment of a Company

The first portion of studies is related to the impact of primary sanctions on corporate finance. Sanctions may influence various aspects of company’s operations. Resource limitations, weakening of bonds with international markets and increased risk and uncertainty caused by sanctions change the company’s business operations [14]. Economic sanctions may adversely affect social policy and exacerbate instability [15]. Some researchers believe that the imposed sanctions raise the risk for global investors by decreasing direct foreign investment [16; 17]. Also, sanctions influence indirectly trading partners and supply chains, causing

market failures [18], high transaction costs, weak protection of intellectual property rights or significant uncertainty [17; 19].

Sanctions influence the procurement of human capital and may also impede international mobility and external hire of essential professionals, as well as drive up national demand for highly qualified specialists. Social instability may potentially hinder educational progress and force skilled personnel to migrate. Ultimately, sanctions can slow down the process of human capital development and cause damage to the national educational system as a result of loss of professionals able to impart knowledge to others [20]. Some studies address the impact of sanctions on the companies’ HR management. Sanctions may change living conditions for the worse, thus affecting corporate personnel [21]. The authors of a study based on panel regression and analysis of 137 countries from 1961 to 2018 found out that as a result of UN and US-European sanctions, emigration from the targeted countries increases by approximately 20%. Besides, they revealed no gender differences in the migration effect of sanctions [22].

Russian and foreign studies consider the issues related to the specific features of the external and internal corporate strategy [23]. Insofar as economic motivation is concerned, it is apparent that the companies’ cost price increases to overcome the consequences of sanctions. At the same time,

the cost of conducting business grows, thus providing certain opportunities for institutional arbitrage [24]. In a formerly targeted country, risks of conducting business and extra costs related to entering a new location arise. All of the above may influence companies' investment attractiveness. Some industries (for example, oil and gas, coal mining, shipbuilding, agricultural-industrial or microelectronics) have to adjust continuously to changes and respond to new external challenges and develop specialized narrowly focused counter-sanctions measures [25–28].

Theoretical and empirical studies determined various corporate counter-sanctions strategies. The behavior of Vietnamese timber exporters in the framework of the US and Chinese economic sanctions is studied on the basis of interviews with key government officials and companies' top management [1]. Applying the key concepts of the realism school and stakeholder theory, the authors found out that companies experienced both positive and negative consequences of sanctions. Besides, they utilized four strategies: alignment, evaluation of prospects, mitigation, and isolation. The authors proved that companies applied several strategies to address the negative consequences of sanctions.

A series of studies address the development of transnational corporations' strategy under sanctions, for example, they study the impact of US transnational corporations and the subsequent financial market response to Russia's special military operation in Ukraine in February 2022 [29]. The decisions of transnational corporations at the company level range from withdrawing from Russia to remaining on the Russian market under any sanctions. However, such extreme strategies are lossmaking for the companies committed to them. It may be noted that in the short term, transnational companies prefer "intermediate" solutions, which maintain a balance between shareholder interests and regulatory and ethical requirements. Also, country differences in corporate strategies were revealed, for example, Chinese investors "do not punish" the companies that stay in Russia. The authors defined 8 business development strategies: 1) business termination; 2) suspension of all operations; 3) suspension of insignificant operations; 4) cessation of new types of activity; 5) termination of further investment; 6) cessation of new supplies to branches; 7) reducing operations; 8) continuance of ordinary business. The studies also describe another strategy of withdrawal from the sanctioned country for international companies, which consists in selling assets to the local elite in order to preserve a part of the company value [30].

Sanctions influence companies in both sanctioning and sanctioned countries, as well as enterprises in third countries. Secondary sanctions are the sanctions imposed on the countries that do not observe the sanctions regime [2], for example, the USA levied penalties on Chinese companies for financial transactions with North Korea. As for the Russian-Ukrainian conflict, economic sanctions were imposed on the countries and companies conducting business with Russia [31]. From the economic point of view, companies should reconsider their business relations

because relationships with sanctioned entities may result in punitive measures applied by sanctioning bodies, first and foremost, the United States and European Union [32]. Companies are forced to balance between their economic interests and geopolitical pressure, especially when they face possible financial and reputational damage [33]. Apart from that, multinational enterprises that operate under sanctions regimes and intend to withdraw should also take into consideration the ethical implications and face the risk of reputational damage that arises due to the support of the targeted regime [18; 34].

Yet another study analyzes the relations between business risk and audit price formation by means of studying economic sanctions of 2014 imposed on Russia by the Western community [35]. Sanctions mostly targeted Russian government-owned companies, thus, possibly raised business risks for such companies, and increased audit fees due to pass-through expenses arising from an increased audit risk caused by sanctions, which are transferred to customers. After the sanctions were imposed, the Big Four companies charged government-owned companies higher fees for their audit.

Thus, on the basis of the literature review, we revealed the main scientific fields related to human capital, internal and external strategies, and mitigation of additional risks caused by sanctions against companies.

External Environment – Financial and Banking Sectors

The second area is related to evaluating the impact of sanctions and international conflicts on financial markets. Geopolitical risk affects stock markets [36], correlation of financial markets, and thereby, occurrence of crises [37] and the overall stability of the financial system [38].

We are going to consider the area related to the impact of sanctions on the stock market. A series of studies have proven that the short-term impact of international conflicts on financial markets is usually negative. If we consider sanctions and the companies' behavior in the course of the last conflict, stock return estimates will be different for the companies that stayed in Russia and the ones that left. Some authors think that the strategy of withdrawal from Russia is optimal based on studying the short-term effects of unadjusted stock returns weighted by the market value [29]. It turned out that the portfolios of companies that have remained in Russia are inferior to those of the companies that pulled out. Some other authors (see, for example, Glambsky and Peterburgsky [39]) prove that the companies that have withdrawn from Russia completely have the highest negative abnormal returns.

The next category of authors evaluates the spillover of financial crises caused by international conflicts and sanctions. Preceding studies pointed out a change in the financial integration of stock markets during a crisis. The majority of studies address an increase in volatility during a financial crisis [40; 41]. As for sanctions, the reason behind the concerted market movement may be the links be-

tween economies or the impact of sanctions, which is estimated by a set of dummy variables depending on the dates when sanctions were imposed, inter-market correlation coefficients, the GARCH structure, cointegration model and probit model. For example, in order to assess the influence of sanctions on stock markets, estimates of moving cross-market correlations and models from the GARCH family are used to model stock returns and volatility [42].

Apart from the above, statistical evaluation of the stock indices' distribution before and after introduction of sanctions revealed a statistically significant increase in volatility. At the same time, structural breaks in "heavy tails" were not proven, i.e., the impact of sanctions on the Russian stock market is ambiguous [43]. The researchers used the event window methodology and found out that investors value the companies located in the countries that have imposed sanctions on Russia higher than the stock markets in the countries that have not introduced sanctions against Russia. Besides, investors assess the companies differently when they are politically connected to or located in countries with lower geopolitical risks [44].

As for the financial system in general, based on the data from TARGET2 (the real-time gross settlement system for the euro zone), it was revealed that the sanctions introduced by the European Union against Russian banks significantly reduced financial transactions with authorized Russian bank accounts, both in terms of the extensive and intensive margins. Exclusion from SWIFT, a global provider of secure financial messaging services, turned out to be the most effective sanction measure [45]. The role of restrictions on the use of international reserves as economic sanctions is studied, leading to determine the optimal manner for a sanctioning country to impose restrictions, taking into account geopolitical benefits [46]. Sanctions may also influence the interbank market, for example, some studies demonstrate that sanctions imposed on Russia probably impact the banks of Belorussia and Kazakhstan [47].

A series of studies evaluate whether bitcoin is used to circumvent financial sanctions. Blockchain-based cryptocurrencies, which are considered as an alternative to the conventional financial system, may process payments internationally and entirely independently of any banks. Nevertheless, there are studies that prove that bitcoin is not used to evade sanctions on a large scale [48]. Researchers determined the impact of sanctions on the volatility of exchange rates and oil prices. Thus, using a panel vector autoregressive model (VAR) that comprises data on 23 countries other than Russia and Ukraine for the period of 01.02.2022 to 24.02.2023, the studies demonstrated that the overall impact of the economic support provided to Ukraine is generally limited. Sanctions against Russia affect Ukraine as well. If they are imposed by the G7 countries or developed countries, the consequences for Russia are typically more pronounced [49].

So, we may note that sanctions influence the behavior of the financial market, however, their impact is ambiguous.

External Environment – Trading Policy and Foreign Investment

Sanctions influence companies' trading activities. Trading sanctions are intended to damage the sanctioned country's economy. However, this impact is double-natured: if sanctions restrain trade, they also cause damage to the sanctioning countries. Studies attempt to estimate the spillover of sanctions within a certain economy, or within a group of countries, or within transition economies in general. Some studies prove that insignificant sanctions increase welfare in the sanctioning country because sanctions ignore the elasticity of supply and demand in the sanctioning country [50]. It was also revealed that EU sanction measures exert a greater impact on Russia than US measures, while Russian countersanction measures will produce a more serious impact on the EU than on the US.

From the economic point of view, it would be optimal for the US and EU to drop sanctions against Russia, while counter measures should take into consideration the effects of trade redirection. Some authors determine the impact of sanctions on corporate export and import policy [51]. They note that Russian sanctions imposed on European and American food imports reduced the trade flows to a greater extent (almost eightfold) than those levied by the EU and US on exports of oil-field equipment. The sanctions may be ineffective because a multilateral agreement aimed at introducing the measures that create costs for countries of origin was made and enforced [52; 53]. Kaempfer and Lowenberg assumed that manufactures were a more cohesive and politically efficient group of interests than consumers. So, sanctions are more likely to restrict imports from the targeted country than exports to the targeted country [54]. In a broader sense, one might say that a ban on exports deprives exporters of the sanctioning country of foreign markets, while a ban on imports creates new markets for domestic producers in the targeted country. Therefore, it is more likely that import restrictions will evoke more political support than export restrictions [55].

In the next study, the authors evaluated the quantitative estimate of the impact of economic sanctions imposed on Russia by Western and other countries based on the model of global trade general equilibrium [56]. They revealed that if the countries of origin decide to impose 100% import duties and export taxes on trade with Russia, the Russian GDP would decrease by 3-7% due to a significant shrinkage of exports. Such a decision would affect to a certain extent all countries of origin; for example, electric power and town gas prices in Japan would grow by 3-4%.

The impact of economic sanctions imposed by Western countries on exports from the Russian Federation and the impact of counter sanctions on its imports were studied based on the data on 49 trading partners of the Russian Federation in 2011-2018. Gravity modeling revealed that economic sanctions against the Russian Federation and its counter sanctions result in a decrease in the aggregate value of both Russian exports and imports [57]. Sanctions

reduce the value of Russian exports to sanctioning countries by 25.25%, while counter sanctions decrease the value of Russian imports from sanctioned countries by 25.92%. The effect of sanctions and counter sanctions on exported and imported products is nonuniform.

The authors of an empirical study estimated the impact of exporting companies on sanctions using French companies as an example by applying dynamic binary choice models with fixed effects. It was discovered that new sanctions imposed on Iran and Russia significantly reduced the likelihood that companies would provide services to such sanctioned markets, while the (temporary) removal of the US sanctions from Cuba and lifting of sanctions from Myanmar produced no effect or had an insignificant effect on trade, respectively. Apart from that, the impact of sanctions is highly heterogeneous from the viewpoint of firm size. The companies more dependent on trade financing tools suffer more damages, while previous experience of conducting business in a sanctioned country significantly reduces the effect of sanctions. Companies may evade sanctions by means of indirect export through neighboring countries [57]. Considering the efficacy of sanctions from the standpoint of Russian companies, Golikova and Kuznetsov think that Russian companies most involved in trade and technological chains with the European Union and Ukraine will be most damaged by sanctions [58]. Sectoral sanctions may also result in economic severance from traditional trading partners, while sanctions against the defense industry may increase a country's defense expenditures [59]. Another article asserts that sanctions may further enhance the role of the Russian Federation not just in the sectors directly affected by sanctions, but also in the Russian economy in general [60].

The studies address rather narrow topics. Thus, evaluation of the impact of sanctions on the environment showed that by restricting the purchase of high-performance technologies, sanctions may lead to a depletion of natural resources and influence environmental indicators [43]. According to the results, the majority of sanctions cause environmental degradation, while trading sanctions improve the environment of the targeted country. Apart from that, secondary sanctions inadvertently exacerbate economic instability, especially in such sectors as the power industry, where Russia plays a prominent part in global supplies [61].

The impact of sanctions on corporate trade flows, export and import is evaluated in this section. It has been revealed that sanctions have a mixed effect due to the expansion of the domestic market and redirection of companies' trade flows.

Conclusion

We have analyzed academic papers dedicated to sanctions. The largest number of sanctions was imposed in 2022–2023. The topic aroused less interest only during the COVID-19 pandemic, when no new large sanctions packages were introduced. The main topics are the examination of the impact on the financial market and banking, as well as

on industry and external trading relations between countries. Articles often describe prospective principal partners for Russia, in particular, China. As a rule, researchers try to forecast long-term effects of sanctions or evaluate the impact that has already been produced.

Based on the text analysis methodology, the principal areas have been determined: the internal environment of a company, the external environment – financial and banking sector, the external environment – trade policy and foreign investment. Relying on expert analysis, the main scientific ideas and authors were defined for each area. The present paper will be useful for researchers in developing the proposed scientific fields, and for practitioners in formulating anti-sanction policies to mitigate the negative consequences of sanctions.

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