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DYNAMICS OF ECONOMIC SANCTIONS: ANALYZING TARGETS AND THEIR RESPONSES

In the modern world, economic sanctions have become one of the most popular political tools for encouraging states to comply with international norms. This tool is usually criticized and often referred to as ineffective. There are various factors influencing the success of economic sanctions. It is essential to analyze the traits and response ways of target states to have a comprehensive understanding of the conditions when sanctions achieve their intended goals. The article examines traits like the democratic level and size of the economy; response mechanisms like increased military expenditure and trade diversification; and sanction characteristics like how many aspects it restricts. To test this, research utilized the multinomial logistic regression analysis using 451 cases. Results displayed various insights into the influencing factors, like a higher democracy level leading to an increased likelihood of failure, higher sanction coverage leading to an escalated probability of success, and increased military expenditure having a significant influence on the failure of the sanctions.

Keywords: economic sanctions, target state, sanction effectiveness, multinomial logistic regression.

Introduction

The term economic sanction refers to measures imposed by one or more states to influence the policies or behavior of another state [1]. Economic sanctions involve the withdrawal or the threat of withdrawing a target state from established trade or financial interactions. In today's interconnected global economy, economic sanctions serve as a potent instrument of diplomacy. The international community frequently employs sanctions as a coercive measure to express disapproval of a state's actions. These measures are often utilized by policymakers to address critical geopolitical issues such as terrorism and armed conflicts [2]. Economic sanctions are employed for various purposes, including compelling a state to alter undesirable policies, as demonstrated by sanctions imposed on South Africa during the apartheid era. They may also serve to deter future undesirable actions by condemning current behavior, such as the sanctions against Russia following the annexation of Crimea. Additionally, sanctions

can aim to restrict a state's access to resources that could support objectionable activities, as in the case of measures targeting Iran's nuclear weapons program. In some instances, sanctions function as symbolic acts of diplomatic isolation, with no expectation of immediate tangible outcomes [3]. Furthermore, economic sanctions are sometimes used to promote regime change or democratization [4]. Sanctions typically take one of four forms: restrictions on the flow of goods, services, and capital, or limitations on market access [5].

Although widely utilized in contemporary politics, economic sanctions are frequently regarded as ineffective [6]. This perception arises from various factors, including the strategies employed by target states to circumvent sanctions. This article seeks to analyze the responses of targeted states and identify the key elements that may affect the efficacy of economic sanctions.

The research is relevant to broader society as politicians of diverse countries often use

sanctions in modern times. Many states around the world are under economic sanctions. Such a political environment influences the daily lives of many citizens across the globe. Economic sanctions make it hard for people to attain previously accessible goods and cause issues with poverty, income per capita, mortality, inequality, and human rights issues [7]. Therefore, an in-depth examination of conditions that influence the success of this coercive mechanism is essential to reduce adverse outcomes.

Literature Review

Economic sanctions are described as the suspension or restriction of economic interactions with a specific country [8]. These measures encompass actions such as embargoes, export and capital controls, trade restrictions, asset freezes or seizures, and travel bans [9]. Sanctions are implemented by one or more states to exert economic pressure on a target country, aiming to achieve specific policy objectives [10]. Governments often employ sanctions in response to various political challenges, including armed conflicts and terrorism [11]. The application and outcomes of economic sanctions can be analyzed through theoretical frameworks such as public choice theory, game theory, realism, and liberal internationalism.

Public choice theory suggests an applied mechanism to understand the impact of economic sanctions on the socioeconomic consequences of trade, investment, finances, and others [12]. This theory views sanctions as a tool for warfare. Therefore, according to public choice theory, the success of sanctions depends on the ratio between the economic power of the sender and the target country. At the same time, public choice theory recognizes that sanctions might be ineffective and, instead of resulting in policy changes, might result in the enrichment of the elite controlling the economy of sanctioned countries and hardening the living conditions of ordinary citizens. The theory suggests that the sanctions' effectiveness depends not only on their structures but also on the target country's political regime, culture, and social norms. From the normative perspective, this theory underlines the significance of accountability, transparency, and stability of sanctions, meaning that sanctions should be implemented only after discussing with all relevant stakeholders, they must be targeted, proportionate, and evidence-based, and they

should be often reviewed and reversible in order to not cause significant damage to the global economy. Also, it suggests that sanctions are often made by the influence of domestic groups through intensive lobbying [13].

From the game theory perspective, economic sanctions are strategies to gain an advantage in a game between sender and target [14]. The theory suggests two game models, which are cooperative and non-cooperative. In the cooperative model, sanctions are harmful as they disrupt trust and damage cooperation between participants [15]. On the other hand, in the non-cooperative model, where all participants are more self-interested, sanctions are viewed as a positive move as they help to gain an advantage over other actors. Tsebelis (1990) suggests six scenarios that might develop during the game. These scenarios differ from each other by having contrasting assumptions about both players. These scenarios lead to a mixed-strategy equilibrium outcome, meaning that the success ratio of sanctions results from a mixed approach. The target country randomly chooses a violation to commit, and the sender country randomly chooses a sanction to impose. Such a layout results in probability where neither country can get the expected payoff by changing strategy unilaterally. He suggests that the size of the sanctions seemingly has no impact on their success, but rather frequency matters.

Realists view economic sanctions as a tool to expand actors' self-interest in the international system [16]. The main political actors, according to realism, are states. Economic sanctions are not used as moral punishment against other states' actions but exclusively to advance states' egoistic interests [17]. According to realist scholars, primary senders are states, not the international community or organizations. Economic sanctions are not aimed at enforcing international law or condemning other countries' policies and actions; instead, they are used as a tool for one country to coerce another according to their wishes. Realists cannot argue about the effectiveness of the sanctions, but they believe that economic sanctions are a cheaper competitive alternative than war [18]. Also, realists think that economic sanctions are more likely to be used as a tool by large, strong countries because the imposition of economic sanctions requires accompanying

resources for the sending country to be able to conduct them [19]. Even though conflict of interest might exist between big and small nations, it is unlikely that small nations will be willing to engage in sanctions that are likely to fail and not push another state to desired changes.

As liberal internationalism promotes a symbiotic international system where countries depend on each other and have a close relationship, all actors must care about what others think about them [20]. As economic interdependence is beneficial for all member states, sanctions become a helpful tool to effectively politically shame and economically impact the sanctioned states. Modern international politics strives to be based on values of liberal internationalism, expressed in the existence of the United Nations – an organization that aims to create an interdependent international system based on values of nonviolence, dialogue, and compliance with international law. As liberal internationalism promotes the nonviolent resolution of conflicts, sanctions become one of the tools to coerce other countries into complying with international norms and values.

Whether economic sanctions are effective is a subject of debate in recent times [21]. It is hard to form an objective, evidential conclusion on their efficacy. Many scholars doubt the efficiency of economic sanctions and state that they are unproductive [22]. Gutmann et al. (2023) state that 65 to 95 percent of imposed sanctions fail. However, sanctions to foster democratization tend to be more successful in achieving their goals. Economic sanctions are politically attractive tools as they help to express actual adverse action instead of just threats. Despite being a nonviolent way of pursuing international goals, most of the sanctions implemented by the US are after previous armed conflicts like sanctions against North Korea, Libya, South Africa, Cambodia, and so on [23]. However, outcomes like economic inefficiency, humanitarian issues, and conceptual problems hinder the perception of sanctions as somewhat effective.

One problematic outcome of economic sanctions is mutual loss [24]. Unilateral or multilateral economic sanctions are suitable for generating economic damage, but such damage spreads on both sides of the participants. In case

the target country creates economic alliances with a third party, the damage expands. According to Lipsky (2023), sanctioning China during the Taiwan crisis is expected to cost the world economy 3 trillion dollars. Secondly, it is argued that economic sanctions aimed at improving human rights issues in another country are more likely to damage the situation [25]. Economic sanctions imposed on developing countries are more likely to fail and might cause a humanitarian crisis. Sanctions are more likely to harm civilian populations of the target country and affect those living close to poverty [26]. In such a situation, local elite groups often increase violence in order to stay in power, which can cause greater social division and humanitarian crises.

Another area for improvement in evaluating the effectiveness of economic sanctions is the absence of coherent terminology and concepts [27]. Malloy et al. (1990) state that there is uncertainty regarding the criteria for measuring efficacy, which creates inconveniences in evaluation. Pala (2021) points out problems with the interpretation of terminology related to effectiveness and highlights the deficiency of semantic consensus between basic concepts.

There are various factors affecting the success and effectiveness of the economic sanctions. These factors can be grouped into four categories: characteristics of sender, sanction, goals, and target [28]. Moreover, the effects of economic sanctions are expected to be revealed in up to three years period after the imposition [29].

Characteristics of the sender country play an essential role in the effectiveness of the sanction. First of all, the sender should be in a solid economic position in order to be able to uphold sanctions despite the costs [30]. Also, democratic countries tend to be more careful with imposing sanctions and are more likely to conduct comprehensive analyses before implementing them. Moreover, democracies are more trustworthy in executing their threats. These conditions facilitate the success of economic sanctions. Also, the involvement of international institutions on the sanctioning side significantly helps the effectiveness of the restrictions [31].

The type and structure of the implemented sanctions influence the outcome they bring. If the sanctions are more narrowly focused,

meaning that they are attributed, for example, to a concrete person of the ruling party, they are more likely to succeed (Pala, 2021). Pala (2021) further explains that, for sanctions to bring favorable results, they should be implemented as a complementary tool to a larger resistance strategy, and they should be multifaced, combining diverse kinds like military and financial. Travel and trade sanctions are more likely to fail (Kim, 2009). Also, the more cost sanctions bring to the target, the more likely they will be effective. They should terminate the supply of raw materials and products and ensure that third parties will not seize the opportunity to create new trading partnerships [32].

The objectives that economic sanctions aim to accomplish also impact their success. Firstly, goals must be achievable and reasonable. Economic sanctions, which aim to improve human rights conditions, change the ruling regime, and combat terrorism in the target country, are less likely to be effective, whereas sanctions that intend to strengthen democracy or end an armed conflict tend to bring positive results [33].

Another factor influencing the outcome of the sanctions is the traits of the target [34]. Countries with well-allocated resources are more likely to comply with demands. The political situation in the target country also influences results. Economic sanctions imposed on countries with solid democracies tend to be effective. Also, countries with a high level of political volatility tend to comply. Well-globalized countries with diversified trade and economic relations easily evade the cost of economic sanctions, resulting in their inefficiency.

Based on the reviewed literature, I have concluded two hypotheses. Firstly, traits of target states like the level of democracy and economic conditions are going to have a positive relation with the success of sanctions. This assumption was made due to the literature's focus on regime conditions and economic diversification and the importance of the sanctioned government. Secondly, sanctions that are more comprehensive and restrict more areas of relations are going to lead to the success of sanctions.

Methodology

In pursuit of an effective analysis of the factors of the target states that influence the success

of economic sanctions, the research used regression analysis. The regression analysis can take various forms and is used to find a relation between predictor and outcome. Using, this method, the researcher analyzed 451 cases of sanctions. The Global Sanctions Database provides over 1500 cases of sanctions with their evaluations [35]. The outcome variable for the regression was based on the evaluation given in the database. Success can take 5 values: failed, negotiation settlement, partial success, total success, and ongoing. All of the cases with ongoing economic sanctions were removed. Moreover, the cases with two or more missing predictor values were also removed leaving 451 cases for the analysis. The year of sanction imposition differed across the cases, beginning with 1960 until 2019.

Besides benefits, regression analysis displays the risk of failing its assumptions like linearity, heteroskedasticity, etc. However, since the outcome variable is ordinal, the assumptions differed, because it was chosen to pursue ordinal logit regression. One of the main assumptions of ordinal logit regression is the proportional odds assumption, which turned out to be violated. Therefore, it was chosen to continue the test using multinomial logistic regression.

Prediction variables for regression analysis were based on the literature. The literature explains that there are various conditions related to the target state that might affect the outcome. The prediction variables can be looked at as three categories - descriptive, responsive, and quantitative. Descriptive variables are used to describe the sanctioned state in the year when sanctions were imposed. The level of democracy and the size of the economy are two of the key factors that can be quantified and have an effect on the success of the economic sanctions. Responsive variables refer to the ways that the target state responds to the sanctions. The literature explains that sanctioned governments might increase military spending and try to find alternative trading partners to mitigate the effect of economic sanctions. Finally, the quantitative variable counts aspects of relations that were restricted by sanctions.

Descriptive predictors that are quantified in appropriate databases include the electoral democracy index and GDP. To measure the democratic condition in the sanctioned

country at the moment of economic sanctions, the electoral democracy index by the V-Dem (2023) was used. The index can take values from 0 to 1 and evaluate the freedom and fairness of the elections, which is one of the main conditions for a state to be called democratic. To capture the gross domestic product in the target states in the year of economic sanctions, the research referred to the World Bank and Countryeconomy (n.d.) databases [36].

Out of all of the possible ways that the target state can respond to the economic sanction, data can be found on the military expenditure and the number of exported and imported goods. As the literature suggests, the effects of economic sanctions are expected to be prompt, taking approximately 3 years to be felt fully. For calculating military spending, the expenditure percentage of GDP by the World Bank (2022) was used. The researcher calculated the average change of the military expenditure % in the three years from the sanctions and used the number to build data for regression. A similar technique was used to express changes in trade.

The World Trade Organization provides database exploring the value of merchandise imports and exports each year (WTO Stats, n.d.). To find the value of trade, the researcher summed the value of imports and exports; after that, the average change in three years was calculated [37].

A quantitative predictor of sanction coverage was taken from the Global Database on Economic Sanctions. In the database, there are 6 possible aspects of the relationships that can be sanctioned. For each case, the researcher counted the number of aspects restricted and indicated that number in the database for regression.

Data Analysis

Before beginning the data analysis, it is necessary to test regression assumptions important for multinomial logistic regression. Unlike the ordinal logit model chosen initially, the multinomial regression does not assume proportional odds. The chosen method has two main assumptions that require testing: multicollinearity and Independence of Irrelevant Alternatives (IIA). The multicollinearity test displayed that no multicollinearity was found between the variables with all VIF values being less than 10. However, to ensure a smooth regression analysis, it is also important that independent variables are not correlated [38].

The correlation test showed that there is a significant positive correlation between variables TRADE and GDP (see output in Appendix, table 1). This means that the target states with larger economies are more likely to have a greater average increase in trade value over the three years after the economic sanctions. Despite bringing interesting insights about the response to economic sanctions, such a high correlation could create issues in data, meaning that one of the variables has to be omitted. After running a multinomial model both without GDP and TRADE, it was decided to pursue the analyses without TRADE, as this would bring more significance to the data.

The second important assumption is tested after running the regression model, using the Hausman-McFadden test. The test resulted in a high P-value (p-value = 1), meaning that no evidence to reject the Null Hypothesis, implying that the IIA is held for the model.

In addition to assumptions, pseudo R squared tests like McFadden's R squared test, Cox and Snell's R squared test, and Nagelkerke's R squared tests are used to evaluate the model fit to the data. Results of 0.19, 0.36, and 0.39 were given respectively. Such indicators displayed the good fit of the model.

Regression Output

The reference value for the test was "0" (failed) (see full output in Appendix, Table 3). The test explores each variable's likelihood compared to the reference outcome. 5 comparisons are statistically significant, while 2 are borderline significant. Firstly, a significant Intercept of category 2 (partial success) with a constant of -1.03593317 suggests that while all predictor values are held constant at zero, log odds of being in the partial success category are lower than in the failed category. For category 1 (negotiation settlement) Electoral democracy and changes in military expenditure are significant. Higher levels of electoral democracy significantly decrease the likelihood of negotiation settlement occurring compared to sanction failure. A similar relation can be observed with higher changes in military expenditure over the three years. In category two, which compares log odds of partial success to failed cases, only SANCOV is borderline significant, meaning that higher sanction coverage might increase the likelihood of partial success compared to failure but the model lacks evidence. Finally, in the third

category, comparing total success to failure, MILEXP and SANCOV are significant, while ELEDEM is borderline significant. A higher increase in the average military expenditure over the three years after the economic sanctions significantly decreases the likelihood of total success compared to failure. A similar comparison is suggested by higher levels of democracy; however, the results are not fully significant. On the other hand, if the sanctions cover many aspects of the relationship, they are more likely to be successful rather than fail.

Discussion

The results of multinomial regression help us to explore new insights between the relations of various factors related to the target states and the success of sanctions. Also, the results bring an opportunity to test the hypothesized relations. Firstly, the size of the economy does not influence the outcome of the sanctions. However, the trait of target like democracy level was significant or borderline significant in cases of the probability of negotiation settlement and total success occurring compared to failure. Such results do not support the hypotheses. The democratic states are usually sanctioned by opposing autocracies. In the international system, democratic states are often cooperating either economically or politically. This allows Democratic states to avoid the sanctions opposed by autocracies. Another hypothesis on the positive relationship between sanction coverage and success was partially supported. This finding supports the implementation of comprehensive sanctions rather than targeted ones.

Moreover, apart from testing proposed hypotheses, the test brought interesting insights into the relations between target conditions and the outcome of economic sanctions. Firstly, the correlation test displayed that the states with larger GDPs are more likely to increase trade. When a state with a large economy is sanctioned, third-party states might seek the opportunity to establish trade relations and help the target country avoid restrictions [39]. Such a situation would be beneficial for both third-party states that will have the opportunity to trade merchandise with large economies and the target states that will be able to obtain restricted goods.

Another significant insight emerges from the analysis of changes in military spending.

The existing literature does not explicitly link increased military expenditure with the effectiveness of economic sanctions, suggesting instead that governments may increase military spending to maintain power or prepare for potential conflict. However, in both scenarios, target states demonstrate strong resistance to sanctions, signaling their readiness to confront conflicts and political instability induced by such measures [40]. This aspect may be crucial in understanding the relationship between rising military expenditure and the effectiveness of economic sanctions. The pronounced opposition displayed by target countries is likely to prompt them to seek ways to mitigate the impact of sanctions, thereby reducing the likelihood of compliance.

Conclusion

The main limitations occurring during the research process were related to the lack and quality of data and variables. Firstly, the data for variable MILEXP was missing for 64 cases. Moreover, due to the large timeframe of the cases of economic sanctions, it was complicated to implement some databases that could be helpful. Also, some of the variables that could possibly be included, for example, illicit trade, are not present in the quantitative form, making it impossible to be included for comprehensive analysis. This once again confirms the complicated nature of the economic sanctions and their success, highlighting the impossibility of quantifying and analyzing all influencing aspects. For such reasons, it is important to point out that it is impossible to formulate the ideal formula for successful economic sanctions, however, it is still important to continue researching influencing factors.

To enhance the field, future researchers should focus on how other important factors of economic sanctions like sender characteristics and types of sanctions influence the outcome. Only after having a comprehensive overview of all of the influencing factors of economic sanctions, we can speculate on the ideal conditions for ensuring their success. Moreover, the findings of the research can be useful for policymakers, suggesting them to focus on the target traits like democracy level, and come up with a comprehensive response mechanism for increased military expenditure.

To sum up, the research aimed to explore the relationship between traits and responses of target states and the success of economic sanctions. Literature pointed out that the democracy level and economic conditions of sanctioned states influence the outcomes of the economic sanctions. Also, there are various ways target governments can respond to economic sanctions, like trying to diversify trade to mitigate the damages or increase defense spending to express opposition. Based on the literature, two hypotheses were built; first stating that target traits like economic conditions and democracy level are going to have a positive relationship with success, and second, suggesting that the more

comprehensive a sanction is more likely it is going to be successful. The empirical analysis was made based on the Global Sanctions Database which introduces a comprehensive overview of sanctions occurring from 1960 to 2023. The research uses multinomial logistic regression, analyzing 451 cases of economic sanctions. The findings of the tests partially disapproved of the first hypothesis, which can be caused by the nature of sender states. The second hypothesis was partially supported. Moreover, the test explored an interesting relationship between the size of GDP and an increase in the average trade value, and an increase in military expenditure and the probability of a successful outcome.

Bibliography:

1. Abuseridze, G., & Agapova, O. (2022, October). The effect of sanctions against the background of the Russian occupation of Ukraine. In Conference on Integrated Computer Technologies in Mechanical Engineering–Synergetic Engineering (pp. 475–481). Cham: Springer Nature Switzerland.
2. Abuseridze, G., Agapova, O., & Petrova, M. (2024). WTO and the future of global business tourism: Trends and challenges. Shifts in Knowledge Sharing and Creativity for Business Tourism, 264–280.
3. Abuseridze, G., Agapova, O., & Tumalavicius, V. (2023, December). The Kremlin’s Secret Weapon: How Russian Private Military Companies Are Expanding Moscow’s Influence Abroad. In Conference on Integrated Computer Technologies in Mechanical Engineering–Synergetic Engineering (pp. 64–77). Cham: Springer Nature Switzerland.
4. Agapova, O., Abuseridze, G., Andrii, S., & Grasis, J. (2024). Building resilience of Ukrainian universities in the face of military intervention: exploring forms and implication. Environment. Technology. Resources.
5. Abuseridze, G. (2021). The Role of the WTO in the Development of International Trade: History, Problems and Perspectives of International Trade Law. Doctoral Thesis. Available at: https://dspace.rsu.lv/jspui/bitstream/123456789/6755/1/2021-15_Abuseridze-Giga_DT_IPD-1641.pdf (Accessed: August, 2024). DOI: https://doi.org/10.25143/prom-rsu_2021-15_dt.
6. Abuseridze, G. (2020). Political Stability and Trade Agreements. Bulletin of the Georgian National Academy of Science. 14 (4), 139–140.
7. Anguelov, N. (2015). Economic Sanctions: An Overview. In: Economic Sanctions vs. Soft Power. *Palgrave Macmillan*. https://doi.org/10.1057/9781137523761_2.
8. Blad, J. (2019). Economic Sanctions and Repression The effect of economic sanctions on repression conditional on levels of democracy. *Uppsala University*. <https://www.divaportal.org/smash/get/diva2:1277611/FULLTEXT01.pdf>.
9. Biersteker, T., & van Bergeijk, P. (2015). How and when do sanctions work? The evidence. *ISSReport*, 25. https://repub.eur.nl/pub/79414/On-target-Biersteker_Bergeijk-pp17-28.pdf.
10. Caetano, J., Galego, A., & Caleiro, A. (2023). On the Determinants of Sanctions Effectiveness: An Empirical Analysis by Using Duration Models. *Economies*, 11 (5), 136. <https://doi.org/10.3390/economies11050136>.
11. Countryeconomy. (n.d.). GDP – Gross Domestic Product. *countryeconomy.com*. <https://countryeconomy.com/search?search=GDP>.
12. Felbermayr, G., Kirilakha, A., Syropoulos, C., Yalcin, E., & Yotov, Y.V. (2020). The Global Sanctions Data Base. *European Economic Review*, 129. https://ideas.repec.org/p/ris/drxlwp/2020_002.html.
13. Filipenko, A., Bazhenova, O., & Stakanov, R. (2020). Economic sanctions: theory, policy, mechanisms. *Baltic Journal of Economic Studies*, 6 (2), 69–80. <https://doi.org/10.30525/2256-0742/2020-6-2-69-80>.
14. Forrer, J. (2017). Economic Sanctions: Sharpening a Vital Foreign Policy Tool. *The Atlantic Council of the United States*. https://www.atlanticcouncil.org/wpcontent/uploads/2017/06/Economic_Sanctions_web_0614.pdf.

15. Gosnell, R. (2018). Economic Sanctions: A political, economic, and normative analysis. *International Relations and Diplomacy*, 6 (3). <https://doi.org/10.17265/2328-2134/2018.03.002>.
16. Gutmann, J., Neuenkirch, M., & Neumeier, F. (2023). The Impact of Economic Sanctions on Target Countries: A Review of the Empirical Evidence. *Policy Debate of the Hour*, 24. <https://www.cesifo.org/DocDL/forum-2023-3-guttmann-neuenkirch-neumeier-sanctionsmay.pdf>.
17. Halcoussis, D., Kaempfer, W. H., & Lowenberg, A. D. (2021). Research Handbook on Economic Sanctions. *Edward Elgar Publishing*, 152–166. https://doi.org/10.4337/9781839102721_18.
18. Kaempfer, W.H., & Lowenberg, A.D. (1988). The Theory of International Economic Sanctions: A Public Choice Approach. *The American Economic Review*, 78 (4), 786793. <https://www.jstor.org/stable/1811175>.
19. Kim, H.-M. (2009). Determinants of the Success of Economic Sanctions: An Empirical Analysis. *Journal of International and Area Studies*, 16 (1), 27–51. <http://www.jstor.org/stable/43107182>.
20. Kirilakha, A., Felbermayr, G., Syropoulos, C., Yalcin, E., & Yotov, Y.V. (2021). The Global Sanctions Data Base: An Update that Includes the Years of the Trump Presidency. *The Research Handbook on Economic Sanctions*. https://ideas.repec.org/p/ris/drxlwp/2021_010.html.
21. Konyukhovskiy, P.V., & Holodkova, V.V. (2017). Application of Game Theory in the Analysis of Economic and Political Interaction at the International Level. *Contributions to Game Theory and Management*, 10, 143–161. <https://gametheory.spbu.ru/article/download/13257/9114>.
22. Lipsky, J. (2023). By the numbers: The global economy in 2023. *Atlantic Council*. <https://www.atlanticcouncil.org/blogs/new-atlanticist/by-the-numbers-the-global-economyin-2023/>.
23. Macrotrends. (2024). World GDP 1960-2024. *macrotrends.net*. <https://www.macrotrends.net/global-metrics/countries/WLD/world/gdp-gross-domestic-product>.
24. Mallory, K. (2021). North Korean sanction evasion techniques. *RAND corporation*. https://www.rand.org/content/dam/rand/pubs/research_reports/RRA1500/RRA1537-1/RAND_RRA1537-1.pdf.
25. Malloy, M.P., Carter, B.E., Wing, A.K., & Oliver, C.T. (1990). Effects and Effectiveness of Economic Sanctions. *Proceedings of the Annual Meeting (American Society of International Law)*, 84, 203–213. <http://www.jstor.org/stable/25658538>.
26. Masters, J. (2019). What are economic sanctions? *Council on Foreign Relations*. <https://www.cfr.org/background/what-are-economic-sanctions>.
27. McGowan, S. (2018). Economic Sanctions as Tools of Economic Imperialism. *University of Central Oklahoma*. <https://hdl.handle.net/11244/325081>.
28. Metych, M. (2023). Economic sanctions. *Encyclopedia Britannica*. <https://www.britannica.com/topic/economic-sanctions>.
29. Pala, T. (2021). The Effectiveness of Economic Sanctions: A Literature Review. *NISPAcee Journal of Public Administration and Policy*, 14 (1), 239–259. <https://doi.org/10.2478/nispa-2021-0009>.
30. Radcliffe, B. (2022). How Economic Sanctions Work. *Investopedia*. <https://www.investopedia.com/articles/economics/10/economic-sanctions.asp>.
31. Rich, P.B. (1990). Sanctions and Negotiations for Political Change in South Africa. *African Affairs*, 89 (356), 451–455. <http://www.jstor.org/stable/722379>.
32. Rodriguez, F.R. (2023). The human consequences of economic sanctions. *Center for Economic and Policy Research*. <https://cepr.net/report/the-human-consequences-of-economic-sanctions/>.
33. Sedliar Y.O. (2017). The economic sanctions as the instrument of foreign policy. *Actual problems of international relations*, 132. <http://apir.iir.edu.ua/index.php/apmv/article/download/3171/2846>.
34. Smeets, M. (2018). Can Economic Sanctions be Effective? *WTO Working Papers*. <https://doi.org/10.30875/0b967ac6-en>.
35. Syropoulos, C., Felbermayr, G., Kirilakha, A., Yalcin, E., & Yotov, Y.V. (2023). The global sanctions data base—Release 3: COVID-19, Russia, and multilateral sanctions. *Review of International Economics*, 32 (1), 12–48. <https://doi.org/10.1111/roie.12691>.
36. Tsebelis, G. (1990). Are Sanctions Effective? A Game-Theoretic Analysis. *The Journal of Conflict Resolution*, 34 (1). <https://www.jstor.org/stable/174132>.
37. V-Dem. (2023). Electoral Democracy Index. *Our World in Data*. <https://ourworldindata.org/grapher/electoral-democracy-index>.
38. WorldBank. (2022). Military expenditure (% of GDP) – World. *data.worldbank.org*. <https://data.worldbank.org/indicator/MS.MIL.XPND.GD.ZS?locations=1W>.

- 39.WTO Stats. (n.d.). Merchandise exports by product group – annual (Million US dollar). stats.wto.org.
<https://stats.wto.org/>.
- 40.WTO Stats. (n.d.). Merchandise imports by product group – annual (Million US dollar). stats.wto.org.
<https://stats.wto.org/>.

Теодор Гіоргобіані. Динаміка економічних санкцій: аналіз цілей та відповідей на них

У сучасному світі економічні санкції стали одним із найпопулярніших політичних інструментів заохочення держав до виконання міжнародних норм. Цей інструмент зазвичай критикують і часто називають неефективним. Існують різні чинники, що впливають на успіх економічних санкцій. Важливо проаналізувати риси та способи відповіді держав – санкційних цілей, щоб мати повне розуміння умов, за яких санкції досягають запланованих цілей. У статті розглядаються такі ознаки, як демократичний рівень і розмір економіки; механізми реагування, як-от збільшення військових витрат і диверсифікація торгівлі; і характеристики санкцій, наприклад, скільки аспектів він обмежує. Щоб перевірити це, у дослідженні використано багатоміальний логістичний регресійний аналіз із залученням 451 випадку. Результати продемонстрували різноманітне уявлення про фактори впливу, як-от вищий рівень демократії, що веде до збільшення ймовірності провалу, ширше охоплення санкцій, що обумовлює ескалацію ймовірності успіху, та збільшення військових витрат, що значно впливає на провал санкцій.

Ключові слова: економічні санкції, держава – санкційна ціль, ефективність санкцій, багатоміальна логістична регресія.