

Syropoulos, Constantinos; Yotov, Yoto

Article

Reflections on the impact of economic sanctions

EconPol Forum

Provided in Cooperation with:

Ifo Institute – Leibniz Institute for Economic Research at the University of Munich

Suggested Citation: Syropoulos, Constantinos; Yotov, Yoto (2023) : Reflections on the impact of economic sanctions, EconPol Forum, ISSN 2752-1184, CESifo GmbH, Munich, Vol. 24, Iss. 3, pp. 10-14

This Version is available at:

<https://hdl.handle.net/10419/272172>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.

Constantinos Syropoulos and Yoto V. Yotov

Reflections on the Impact of Economic Sanctions

KEY MESSAGES

- **As exemplified by the 2022 and ongoing sanctions on Russia, economic sanctions are more popular than ever in policy circles and an active topic of research**
- **Sanctions aim to achieve political objectives. Nonetheless, despite evidence that their rate of success may be increasing, most sanctions fail to achieve their intended goals**
- **The effects on sanctioned states are strong and adverse. However, the severity of these effects is mitigated by the possible diversion of economic activity toward third countries**
- **Normally, sanctioning states do not suffer large losses. But the sanctions on Russia indicate that these nations may suffer significant losses too**
- **The effects of economic sanctions on third countries, which are transmitted through general equilibrium and extraterritorial channels, may also be extensive and may entail losses or gains**

The popularity of economic sanctions is higher than ever. Figure 1, which depicts the evolution of existing and new sanction cases in the world between 1950 and mid-2022 and is based on the latest edition of the Global Sanctions Database (GSDB; Syropoulos et al. 2022), confirms this point. The observed surge in 2022 has largely been due to the sanctions on Russia. Although these sanctions are still evolving across various dimensions, their stringency is increasing over time. At the end of February 2023, the European Union adopted its 10th package of sanctions "... against Russia and those that support it in its illegal aggression against Ukraine" (European Commission 2023).



Constantinos Syropoulos

is the Trustee Professor of International Economics at the School of Economics, LeBow College of Business, Drexel University (Philadelphia, USA), and a CESifo Research Network Fellow.



Yoto V. Yotov

is a Professor at the School of Economics of the LeBow College of Business at Drexel University (Philadelphia, USA) and a Research Professor at the Center for International Economics of the ifo Institute.

The new package comprised multiple new measures, including an extended list of sanctioned individuals and entities, additional export and import bans, newly imposed financial restrictions, and new enforcement and anti-circumvention measures.

The evolution, coverage, and possible assessments of the EU sanctions on Russia illustrate the complexity of the problems that arise in connection with the rationale(s), implementation, and effects of sanctions on all sides. They also underscore the need for academics and policymakers to address such questions as: Why are sanctions imposed? What explains their increasing popularity? What is the impact of sanctions? Do sanctions work? How could their effectiveness and efficiency be improved? The objective of this note is to shed some light on a subset of these questions. More specifically, we discuss the political and economic effects of sanctions. Based on various contributions to the literature, we also attempt to draw some policy implications and conclusions related to the determinants of sanctions' effectiveness and success.

THE POLITICAL IMPACT OF SANCTIONS

The primary reason for imposing sanctions on a country is "... to persuade that country to change its policies or to address potential violations of international norms and conventions" (Morgan et al. 2023, 3). In short, the desired/intended effect of sanctions is a policy change or a political outcome.¹ The salient political objectives of sanctions during the period 1950-2022 are captured in Figure 2, which also is constructed from the GSDB. The top panel of this figure depicts the evolution of the number of sanctions in levels, while the bottom panel displays the same relationship in percentage shares.

Based on Figure 2, we may draw the following conclusions on the intended political outcomes of economic sanctions. First, the relatively small fraction of objectives under the category "Other" suggests that the main political objectives of sanctions could be classified in the following eight distinct groups: to prevent wars, end wars, promote democracy, support human rights, fight terrorism,

¹ As discussed in Morgan et al. (2023, 14), however, it is also possible that "... senders may issue 'fake' sanctions based on political pronouncements aiming to camouflage their economic motives. Thus, the imposition of sanctions may be intended to provide gains for the sender rather than to fulfill the declared political objectives of sanctioning. This story is also consistent with the notion that sanctions may be issued to serve the interests of specific interest groups (Kaempfer and Lowenberg 2007)."

destabilize regimes, resolve territorial conflicts, and trigger policy changes.²

Second, Figure 2 unveils a decrease in the number of sanctions (upper panel) and, especially, in the fraction of sanctions aiming to “Destabilize Regime” and resolve “Territorial Conflict” (lower panel). Among other things, the fall in the number of sanctions aiming to destabilize regimes may be explained by the relatively low rate of sanction success. The decrease in the number of sanctions associated with territorial conflicts may be driven by the fact that, often, such conflicts result in interstate wars, which cause the sanction objective to become “End War” (witness, e.g., the ongoing war between Russia and Ukraine). Third, in addition to the rise in sanctions aiming to end wars, Figure 2 identifies a significant increase in the number and fraction of sanctions aiming to improve “Human Rights”, fight “Terrorism”, and promote “Democracy.”

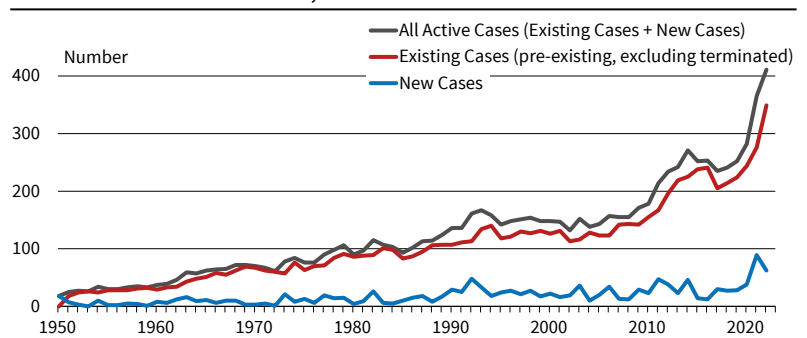
Understandably, the political science literature focused primarily on the political impact and political success of sanctions. Assessments in this literature of whether sanctions work has evolved over time. Early work consisted mostly of case studies (e.g., Galtung 1967; Doxey 1972) and concluded that sanctions do not work. More systematic assessments of the effectiveness of sanctions (e.g., Hufbauer et al. 1990) established that about one-third of all sanctions achieved their political objectives. However, in more recent work, Kirilakha et al. (2021) and Morgan et al. (2023) have documented an increase in the number and proportion of successful sanctions. One possible explanation for these findings may be that, due to learning effects, policymakers may become more efficient over time in administering sanctions, with the US being a prominent example (Early 2021). Another possible explanation—with stark policy implications—may be that the more recent economic sanctions have become “smarter” and more targeted, e.g., toward specific individuals, companies, and sectors (Cortright and Lopez 2002; Bapat et al. 2013).

Despite the observed increase in the rate of sanction success—to about 50 percent in recent years (Kirilakha et al. 2021)—this rate remains relatively low, especially when considering the ever-increasing popularity of sanctions. What is more, there is no consensus among academics and policymakers on the key factors affecting the probability of sanction success (e.g., Bapat et al. 2013; Demena et al. 2021). The low rate of sanction success poses important challenges related to the design, implementation, and appropriate use of economic sanctions. What is especially puzzling about this low success rate is that often the economic costs of sanctions for sanctioning nations,

² We do note (from the bottom panel of Figure 2) that, while still relatively small, the fraction of “Other” sanctions has increased since the early 2000s. This finding could be driven by several factors, including the two deep recessions during this period, as well as various geoeconomic/geopolitical changes. An implication of this observation is that the diversity of political outcomes due to sanctions may rise, thereby increasing the complexity of analyses aiming to assess their impact and effectiveness.

Figure 1

Evolution of Economic Sanctions, 1950–mid 2022



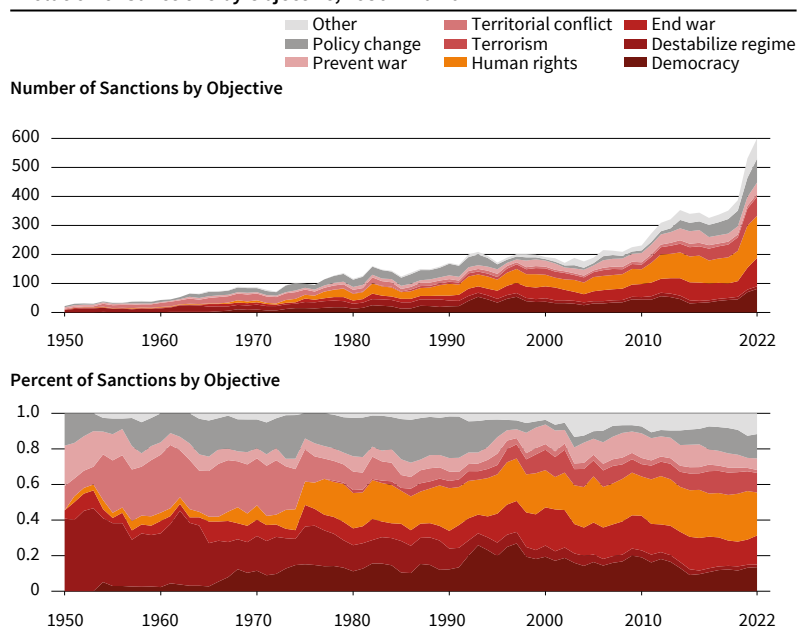
Note: This figure, which appears as panel (a) of Figure 1 in Syropoulos et al. (2022), illustrates the number of all active sanctions (black line), all pre-existing (excluding terminated) sanctions (red line), and newly imposed sanctions (blue line) in each year between 1950 and mid-2022.

Source: Syropoulos et al. (2022).

© ifo Institute

Figure 2

Evolution of Sanctions by Objective, 1950–mid 2022



Note: This figure is from Morgan et al. (2023), where it appears as Figure 3. The figure depicts the evolution of sanctions depending on their objective over the period between 1950 and mid-2022. The top panel presents the evolution of the number of sanctions in levels, while the bottom panel displays the same relationship as percentage shares. Some sanction cases include more than one objective. We refer the reader to Felbermayr et al. (2020a) and Syropoulos et al. (2022) for definitions and examples for the various sanction objectives.

Source: Morgan et al. (2023).

© ifo Institute

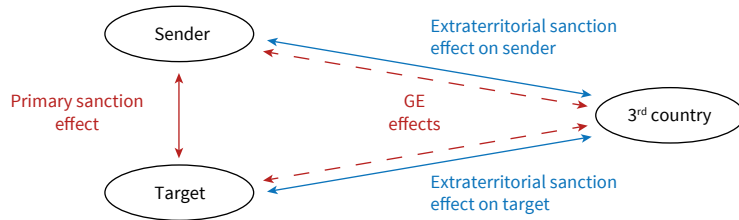
third countries and (especially) for sanctioned states are extensive.

THE ECONOMIC IMPACT OF SANCTIONS

Although, as noted earlier, the literature has not identified a specific set of factors that guarantee sanction success, it does suggest that “*ceteris paribus*” larger economic costs for a target state are associated with increased compliance and likelihood of success. It is also commonly accepted in the literature that the effects of sanctions extend beyond the target states. To analyze the main effects of sanctions on different economic agents, in what follows, we rely on Figure 3 to represent the possible interactions among three distinct agents: (i) the “Sender(s)” of the sanction,

Figure 3

The Impact of Economic Sanctions



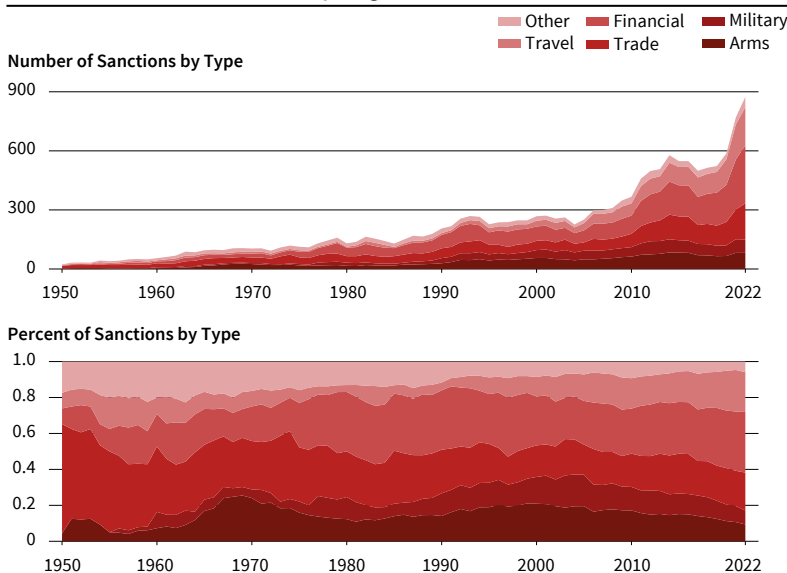
Note: This figure depicts the main actors and main effects (including transmission channels) of economic sanctions. It distinguishes between three agents: (i) the "Sender" of the sanction, (ii) the "Target", and (iii) a "Third country" representing the rest of the world. The figure captures the two main relationships between the three agents: (i) the "Primary Sanction Effect" on the target, the sender, and the relationship between them (captured by the solid red arrow); and (ii) the effects of sanctions on third countries, which we classify as direct "Extraterritorial" effects (captured by the blue arrows) and indirect "General Equilibrium" effects (captured by the dashed red arrows). All arrows in the figure point in both directions to reflect the possibility of retaliatory sanction responses in the case of the primary sanction effects, and reciprocal actions and impact across all possible sanction effects.

Source: Authors' presentation.

© ifo Institute

Figure 4

Evolution of Economic Sanctions by Targeted Impact



This figure is from Morgan et al. (2023), where it appears as Figure 2. The figure displays the evolution of sanctions depending on their type over the period between 1950 and mid-2022. The top panel depicts the evolution of the number of sanctions in levels, while the bottom panel presents the same relationship in percentage shares. Some sanction cases may include more than one type of sanction. We refer the reader to Felbermayr et al. (2020a) and Syropoulos et al. (2022) for definitions and examples for the alternative types of sanctions.

Source: Morgan et al. (2023).

© ifo Institute

which could be a single country (e.g., the US), an organization (e.g., the EU or the UN), or many different countries that do not formally coordinate their actions (e.g., senders of the ongoing sanctions on Russia); (ii) the "Target" of the sanction, which is usually a single country (e.g., Russia or Iran) but could also be a group of countries (e.g., the League of Arab States); and (iii) a "Third country" representing the rest of the world (ROW). In most cases, especially when bilateral sanctions are imposed, ROW is a large region consisting of a heterogeneous set of countries, which may be "friends" or "enemies" to either the sender or the target. As discussed below, the size of the countries that are not part of a sanction episode and their relationship with the sanctioned and sanctioning sides play a key role in the determination of the effectiveness of sanctions.

Figure 3 also captures the two main relationships among the three agents: (i) the "Primary Sanction Ef-

fect" on the target and the sender (captured by the solid red arrow); and (ii) the effects of sanctions on third countries, which we classify as direct "Extraterritorial Sanction Effects" (captured by the blue arrows) and the indirect "General Equilibrium Effects" (captured by the dashed red arrows). All arrows in Figure 3 point in both directions to capture the possibility of retaliatory sanctions in the case of the primary sanction effects, reciprocal actions, and the impact associated with all possible sanction effects. To characterize the economic effects of sanctions, we next consider their impact on each of the three agents.

The Effects of Sanctions on Targets and Senders

A natural starting point in analyses of the impact of sanctions on senders and targets is to identify the key economic areas and activities that are affected by sanctions. This is not a difficult task because almost all sanctions in official documents are classified in five groups/categories that include: trade sanctions, financial sanctions, travel sanctions, sanctions on arms, and sanctions on military assistance. These five sanction categories and their evolution over time (in levels and in shares) are depicted in Figure 4, which once again is based on the GSDB.

Two notable patterns may be discerned in this figure: (i) the gradually increasing use of financial and travel sanctions, and (ii) the decreasing frequency of trade sanctions. The explanation for these findings may be that the gradual move toward smart sanctions (e.g., financial and travel sanctions), which target specific individuals and entities, usually aim to avoid or minimize collateral damage. Even within trade sanctions, there has been a notable departure from complete embargoes toward more targeted, partial sanctions, which focus on specific sectors.

Most of the empirical literature has focused on the impact of sanctions on targeted states, and the consensus among analysts is that the economic harm on these countries has been multi-dimensional and significant. Included in this harm are the effects on: individuals and firms (e.g., Ahn and Ludema 2021; Miromanova 2021); specific sectors (e.g., Larch et al. 2021 and 2022); aggregate trade (e.g., Hufbauer et al. 2007; Felbermayr et al. 2020b); foreign direct investment (Yang et al. 2004; Mirkina 2021); growth (e.g., Neuenkirch and Neumeier 2015; Kwon et al. 2022a); poverty (e.g., Neuenkirch and Neumeier 2016); and political stability (e.g., Peksen 2021). These and many other studies reveal that sanctions have been an impactful policy tool in the sense of inflicting economic pain on targets. As can be expected, the impact of sanctions on targeted nations is stronger when more countries participate in the group of senders. Thus, unsurprisingly, the most devastating sanctions have been those imposed by the United Nations (witness, e.g., the sanctions on Iraq for its 1990 invasion of Kuwait).

But while the main negative economic impact of sanctions is borne by target states, the senders of sanctions can be affected too. Historically, the effects of sanctions on sanctioning states have not attracted much attention in the literature, and when they did, the consensus was that these effects were relatively small and relatively short-lived (Bayard et al. 1983; Farmer 2002). Possible explanations for these conclusions include: (i) the disproportionately large size of senders relative to targets, (ii) the weak economic ties among the two sides, and (iii) the fact that the senders may select their preferred sanction(s) from a menu of policy options with a view toward minimizing the negative effects on their own economies. The recent sanctions on Russia offer an additional observation regarding this type of selection: some countries that could have incurred (significant) economic costs from the imposition of sanctions chose not to participate.

Recent studies (e.g., Felbermayr et al. 2020a; Besedeš et al. 2021; Crozet et al. 2021) use new methods and better data to search for more rigorous evidence that sanctions may indeed affect sender states. However, these studies, too, confirm the general conclusion that the effects of sanctions on senders are relatively small. The sanctions on Russia due to its invasion of Ukraine, though, may be a prominent counter example; that is, large and powerful senders, such as the EU and the UK, may suffer significant losses from their punitive actions, too. Simon Jenkins emphasized in *The Guardian* that "... [t]he EU should forget about sanctions—they're doing more harm than good," e.g., because "[s]ix million households in Britain face the possibility of morning and evening blackouts this winter to maintain sanctions against Russia, as do consumers across Europe" (Jenkins 2022). Policy analysts and the economic agents themselves quickly recognized the difficulties encountered in adjusting to the impact of the sanctions on Russia. To be sure, the notion that sanctions (like the ones on Russia) also affect sanctioning states adversely may contain valuable lessons on the design and implementation of economic sanctions. It surely points to the need for additional analysis and better frameworks to capture such effects.

The Effects of Sanctions on Third Countries

In addition to hurting targets and senders, sanctions may also affect third countries. As shown in Figure 3, to understand these effects it helps to distinguish between "general equilibrium" (GE) sanction effects and "extraterritorial" sanction effects on the countries in the rest of the world. The GE effects on third countries are usually positive because sanctions normally divert economic activity (e.g., trade, FDI, etc.) from senders and targets to the rest of the world (Haidar 2017; Felbermayr et al. 2020a; Besedeš et al. 2021). As a possible illustration, one could consider the re-

cent trade diversion of Russia's oil and natural gas exports from the EU to China and India. For example, as reported by Al Jazeera, "Russian oil sales to India surged more than 22-fold [in 2022] as European buyers turned to other markets following the conflict in Ukraine" (Al Jazeera 2023). Meanwhile, according to Reuters, "Russia more than doubled its rail exports of liquefied petroleum gas to China in 2022 as part of the Kremlin's drive to diversify its energy export sales" (Reuters 2023).

Importantly, the GE effects of sanctions on third countries tend to be small (e.g., because these effects are distributed among different countries that are not directly involved in the imposition of a sanction).³ However, when taken together, the cumulative GE effect may be significant. It is the GE sanction effects that often are considered as an important reason for why sanctions "do not work" (e.g., as in the case of Russia's oil trade). The diversion of trade due to the GE sanction effects is also key reason of why senders attempt to influence third countries' policy actions directly, thus giving rise to the so-called "extraterritorial" sanction effects. We turn to these effects next.

Morgan et al. (2023, 15) characterize as extraterritorial "penalties on individuals, companies, organizations, and other entities from non-sanctioned countries due to their engagement in activities (e.g., trade, investment, other business activities, etc.) with a sanctioned state." The effects of such sanctions have been the object of intense debate (and often resentment) among representatives of potential senders. Still, the extraterritorial sanction effects are poorly understood and rarely quantified. Most existing studies provide descriptive and qualitative evidence for the presence of such effects (e.g., Gordon 2016; Han 2021). Kwon et al. (2022b) is a recent attempt aiming to estimate more systematically the extraterritorial effects of trade sanctions. Their findings suggest that these effects could be strongly negative for target states, but relatively small for third countries. The policy implication may be that, by increasing the cost on target states, extraterritorial sanctions may improve the likelihood of sanction success.

POLICY CONCLUSION

Despite their popularity among policymakers, and the significant economic harm sanctions inflict on targeted states, most sanctions, including the recent sanctions on Russia, fail to achieve their political objectives. One of the factors contributing to this "ineffectiveness" may be that often sanctions are not comprehensive in terms of the composition of senders (e.g., many countries did not sanction Russia for its

³ Due to the size of the Russian economy, and especially its energy sector, the GE effects on the countries that maintained or even increased their trade with Russia may also be significant. Usually, targeted states are relatively small. Nevertheless, the sanctions on Russia constitute an important precedent that should inform future sanctions.

invasion of Ukraine) or in terms of the coverage of sectors (e.g., a year after the start of the war in Ukraine, the EU continues to import oil from Russia). The idea that sanctions are costly to senders and third countries may also challenge, if not circumvent, potential agreements among allies. Still, the emergence of suggestive evidence for an increasing rate of sanction success together with the absence of more attractive policy alternatives indicate that economic sanctions will likely remain popular in the foreseeable future.

REFERENCES

- Al Jazeera News (2023), "Russia Says Oil Sales to India Soared 22-fold Last Year", <https://www.aljazeera.com/news/2023/3/28/russia-says-oil-sales-to-india-soared-22-fold-last-year>.
- Ahn, D. P. and R. D. Ludema (2020), "The Sword and the Shield: The Economics of Targeted Sanctions", *European Economic Review* 130, 103587.
- Bapat, N. A., T. Heinrich, Y. Kobayashi and T. C. Morgan (2013), "Determinants of Sanctions Effectiveness: Sensitivity Analysis Using New Data", *International Interactions* 39, 79-98.
- Bayard, T. O., J. Pelzman and J. Perez-Lopez (1983), "Stakes and Risks in Economic Sanctions", *World Economy* 6, 73-87.
- Besedeš, T., S. Goldbach and V. Nitsch (2017), "You're Banned! The Effect of Sanctions on German Cross-Border Financial Flows", *Economic Policy* 32, 263-318.
- Besedeš, T., S. Goldbach and V. Nitsch (2021), "Cheap Talk? Financial Sanctions and Non-Financial Firms", *European Economic Review* 134, 103688.
- Cortright, D. and G. A. Lopez (eds., 2002), *Smart Sanctions: Targeting Economic Statecraft*, Rowman and Littlefield, Lanham et al.
- Crozet, M., J. Hinz, A. Stammann and J. Wanner (2021), "Worth the Pain? Firms' Exporting Behaviour to Countries under Sanctions", *European Economic Review* 134, 103683.
- Demena, B. A., A. S. Reta, G. B. Jativa, P. B. Kimararungu and P. A. G. van Bergeijk (2021), "Publication Bias of Economic Sanctions Research: A Meta-Analysis of the Impact of Trade Linkage, Duration and Prior Relations on Sanctions Success", in P. A. G. van Bergeijk, ed., *Research Handbook on Economic Sanctions*, Edward Elgar Publishing, Cheltenham, 125-150.
- Doxey, M. (1972), "International Sanctions: A Framework for Analysis with Special Reference to the UN and Southern Africa", *International Organization* 26, 527-550.
- Early, B. R. (2021), "Making Sanctions Work: Promoting Compliance, Punishing Violations, and Discouraging Sanctions Busting", in P. A. G. van Bergeijk, ed., *Research Handbook on Economic Sanctions*, Edward Elgar Publishing, Cheltenham, 167-186.
- European Commission (2023), "EU Agrees 10th Package of Sanctions against Russia", https://ec.europa.eu/commission/presscorner/detail/en/ip_23_1185, 25 February.
- Farmer, R. D. (2002), "Costs of Economic Sanctions to the Sender", *World Economy* 23, 93-117.
- Felbermayr, G., A. Kirilakha, C. Syropoulos, E. Yalcin and Y. V. Yotov (2020a), "The Global Sanctions Data Base", *European Economic Review* 135, 103561.
- Felbermayr, G., C. Syropoulos, E. Yalcin and Y. V. Yotov (2020b), "On the Heterogeneous Effects of Sanctions on Trade and Welfare: Evidence from the Sanctions on Iran and a New Database", *School of Economics Working Paper Series* 2020-4, Drexel University.
- Galtung, J. (1967), "On the Effects of International Economic Sanctions: With Examples from the Case of Rhodesia", *World Politics* 19, 378-416.
- Gordon, J. (2016), "Extraterritoriality: Issues of Overbreadth and the Chilling Effect of Sanctions in the Cases of Cuba and Iran", *Harvard International Law Journal* January 57.
- Han, B. (2021), "Secondary Sanctions Mechanism Revisited: The Case of US Sanctions against North Korea", in P. A. G. van Bergeijk, ed., *Research Handbook on Economic Sanctions*, Edward Elgar Publishing, Cheltenham, 223-237.
- Hufbauer, G. C., J. J. Schott and K. A. Elliott (1990), *Economic Sanctions Reconsidered: History and Current Policy*, 2nd Edition, Peterson Institute, Washington DC.
- Hufbauer, G. C., J. J. Schott, K. A. Elliott and B. Oegg (2007), *Economic Sanctions Reconsidered: History and Current Policy*, 3rd Edition, Institute for International Economics, Washington DC.
- Jenkins, S. (2022), "The EU Should Forget about Sanctions – They're Doing More Harm Than Good", <https://www.theguardian.com/commentis-free/2022/may/30/eu-forget-sanctions-russia-ukraine-food-energy-prices>, The Guardian.
- Kaempfer, W. H. and A. D. Lowenberg (2007), "The Political Economy of Economic Sanctions", in T. Sandler and K. Hartley, eds., *Handbook of Defense Economics*, Elsevier, Amsterdam, 867-911.
- Kirilakha, A., G. J. Felbermayr, C. Syropoulos, E. Yalcin and Y. V. Yotov (2021), "The Global Sanctions Data Base (GSDB): An Update That Includes the Years of the Trump Presidency", in P. A. G. van Bergeijk, ed., *Research Handbook on Economic Sanctions*, Edward Elgar Publishing, Cheltenham, 62-106.
- Kwon, O., C. Syropoulos and Y. V. Yotov (2022a), *Do Sanctions Affect Growth*, Manuscript, School of Economics, Drexel University.
- Kwon, O., C. Syropoulos and Y. V. Yotov (2022b), "The Extraterritorial Effects of Sanctions", 2022b, *School of Economics Working Paper Series* 2022-3, Drexel University.
- Larch, M., J. Luckstead and Y. V. Yotov (2021), "Economic Sanctions and Agricultural Trade", *School of Economics Working Paper Series* 2021-16, Drexel University.
- Larch, M., S. Shikher, C. Syropoulos and Y. V. Yotov (2022), "Quantifying the Impact of Economic Sanctions on International Trade in the Energy and Mining Sectors", *Economic Inquiry* 60, 1038-1063.
- Mirkinia, I. (2021), "FDI and Sanctions", in P. A. G. van Bergeijk, ed., *Research Handbook on Economic Sanctions*, Edward Elgar Publishing, Cheltenham, 369-387.
- Miromanova, A. (2021), "Quantifying the Trade Reducing Effect of Embargoes: Firm Level Evidence from Russia", *Technical Report*, Working Paper.
- Morgan, T. C., C. Syropoulos and Y. V. Yotov (2023), "Economic Sanctions: Evolution, Consequences, and Challenges", *Journal of Economic Perspectives* 37, 3-30.
- Neuenkirch, M. and F. Neumeier (2015), "The Impact of UN and US Economic Sanctions on GDP Growth", *European Journal of Political Economy* 40, 110-125.
- Neuenkirch, M. and F. Neumeier (2016), "The Impact of US Sanctions on Poverty", *Journal of Development Economics* 121, 110-119.
- Peksen, D. (2021), "Economic Sanctions and Political Stability and Violence in Target Countries", in P. A. G. van Bergeijk, ed., *Research Handbook on Economic Sanctions*, Edward Elgar Publishing, Cheltenham, 187-201.
- Reuters (2023), "China's 2022 Trade with Russia Hit Record \$190 Bln - Customs", <https://www.reuters.com/world/china-customs-says-trade-with-russia-hit-new-high-2022-2023-01-13/>.
- Syropoulos, C., G. Felbermayr, A. Kirilakha, E. Yalcin and Y. V. Yotov (2022), "The Global Sanctions Data Base - Release 3: COVID-19, Russia, and Multilateral Sanctions", *School of Economics Working Paper Series* 2022-11, Drexel University.
- Wrede, I. (2022), "Can the EU Do without Metals from China?", <https://www.dw.com/en/the-eus-risky-dependency-on-critical-chinese-metals/a-61462687>, DW.
- Yang, J., H. Askari, J. Forrer and H. Teegen (2004), "US Economic Sanctions against China: Who Gets Hurt?", *World Economy* 27, 1047-1081.