Disrupting Global Value Chains

“Friendly fire” and Unintentional Consequences of the Sanctions on the Russian Federation

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Foreword by Judith Levy
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Economic sanctions are a tantalizing tool with which to counter aggression and punish hostile action, as they allow a moral stand to be taken without the immediate risk of direct military confrontation. But a corollary to almost every tenet of international relations is the tendency of well-intended actions to have unintended consequences. Sanctions have the potential to be severely disruptive – indeed, the creation of a motivating problem is largely their purpose. Yet as this report demonstrates, sanctions can create as many problems as they solve.

Substantial literature exists investigating the variety of unintended consequences of sanctions for target countries – consequences that range from the disproportionate and counterproductive punishment of large civilian populations, to the intensifying of local violence, and the wholesale erosion of political rights. This report is unique as it stakes out new territory. It examines the follow-on effects of sanctions imposed by the US and the EU on the Russian Federation in response to its violation of Ukrainian territorial sovereignty in 2014 – but rather than focus on effects within the target country, it looks at two countries that for the most part are not participating in the sanctions: Israel and Switzerland.

Israel elected to abstain from participating in the sanctions regime against Russian aggression in Ukraine on the grounds that diplomatic efforts to resolve the crisis had not yet been exhausted.

One might initially presume that non-sanctioning countries are bound to benefit from any sanctions regime, as they have a narrower field of competition for the targeted country’s trade. But according to the data compiled and analyzed in this study, the reality is counterintuitive: in terms of exports, both Israel and Switzerland have been harmed, not boosted, by the sanctions imposed on Russia.

The reason for this is that sanctions interfere with global value chains, and that interference hinders trade even among non-participating countries. Sanctions thus have a multi-level “friendly fire” effect: they harm participating countries through loss of trade, and they harm non-participating countries through their interdependency on the same financial mechanisms and relationships that bind the participating countries to the target.
This study is extremely valuable because it highlights a little-recognized danger inherent in economic sanctions. The world is now profoundly interconnected, more so than ever before. The global value chains that link nations underpin global security.

Sanctions may well be justified in the instance of the Russian intervention in Ukraine – but in addition to their unintended consequences of driving Russia and China closer together, encouraging Russia to further intensify its economic relationship with Iran, and potentially nudging Europe towards Russia rather than away from it, the deleterious effect of inhibiting trade with non-sanctioning economies must be acknowledged and taken into serious consideration.

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Economic sanctions have been imposed on the Russian Federation by the United States, the European Union, and a number of Western countries following Russia's violation of the territorial integrity of Ukraine in 2014. While targeted sanctions is a reasonable response to Russian aggression, the unintentional harmful effects of sanction policies are worth examining.

A previous study by Crozet and Hinz has shown that 91 percent of the trade loss caused by the sanctions is incurred through non-embargoed products, which points to widespread unintended consequences of the sanction policies. Since the sanctions disrupt global value chains and limit financial transactions, they cause greater losses than intended. In this study, we look at two (largely) non-sanctioning Western economies, Israel and Switzerland.

Two hypotheses are tested: (i) Israel and Switzerland benefit from not enforcing sanctions as they attain exclusivity in trading with Russia. (ii) Israel and Switzerland suffer from the sanctions as global value chains are disrupted, making it difficult to trade with Russia. By studying trade data between 2014 and 2016, we show that the first hypothesis has some merit for total trade volumes (exports + imports), but should be rejected for exports. Thus, the data mainly supports the second hypothesis.

The average export volume to Russia from April 2014 to December 2016 compared to the pre-sanction base was 70 percent on average for the four sanctioning economies (U.S., Japan, Germany and UK). The corresponding level for Switzerland was 74 percent and for Israel 75 percent. The export loss of Israel during the period amounts to 680 million USD while that of Switzerland, due to an overall higher level of exports to Russia, amounts to 2.38 billion USD. This confirms hypothesis (ii) and shows that the friendly fire effect of the sanctions also hurts third-parties.

In the long run, countries that are part of the same global value chains are much less likely to enter into wars and conflicts with one another. Sanction policies which, through unintended consequences, exclude Russia from trade with Western economies reduce peaceful interdependence and eventually undermine long-term security.
The Russian Federation violated the territorial integrity of Ukraine in early 2014 by annexing Crimea and launching a covert military operation on Ukraine through Russia-backed separatist militias. The United States and the United Kingdom in particular were obliged to act. In 1994, Ukraine had signed the Budapest Memorandum which stated that the country would surrender its nuclear weapons to Russia. The United States and the United Kingdom, who pushed for nuclear disarmament, gave security assurances regarding Ukraine’s territorial integrity in return for surrendering its nuclear arsenal.¹

Instead of a military response, Western powers initiated sanctions on individuals, companies and entities designated as part of the Russian ruling elite in March and April of 2014. The participating nations included the United States, the European Union member states, Albania, Australia, Canada, Iceland, Japan, Liechtenstein, Moldova, Montenegro, Norway, and Ukraine.² Economic sanctions usually aim at either signalling dissatisfaction of particular policies, constraining the sanctioned nation or its leaders from further action, or to act as a coercive measure towards a government to reverse its actions. There is an extensive research literature on the outcome of economic sanctions, with different claims over their results.

The Oxford Reference overview article on economic sanctions states that:

“There is considerable disagreement over their effectiveness. Critics point out that they are easily evaded and often inflict more pain on those they are designed to help than on the governments they are meant to influence. They can also harm the country that imposes sanctions, through the loss of export markets or raw material supplies. In addition the target country may impose retaliatory sanctions.”³

While economic sanctions can be useful policy tools, and allow leaders to demonstrate (to other nations and to the public in their own countries) a willingness to act, some empirical studies have pointed to negative unintentional effects of sanctions. For example, Peksen and Drury have used a time-series cross-national dataset of sanctions over the period 1972 to 2000. Their findings “(…) show that both the immediate and longer-term effects of economic sanctions significantly reduce the level of democratic freedoms in the target. The findings also demonstrate that comprehensive economic sanctions have greater negative impact than limited sanctions. These findings suggest that sanctions can create negative externalities by reducing the political rights and civil liberties in the targeted state.”⁴

¹ Pifer, (2014).
³ Oxford Reference.
Others have pointed out that the policy design of sanctions matters for their end results. Hultman and Peksen, for example, compiled data on battle-related violence in all the internal armed conflicts in Africa during the period 1989 to 2005, and examined the relation to data on economic sanctions and arms embargoes. Their data “(...) indicate that threats of economic sanction and arms embargo are likely to increase the intensity of conflict violence. Similarly, imposed economic sanctions are likely to contribute to the escalation of conflict violence. Imposed arms embargoes, on the other hand, are likely to reduce conflict violence.”5 Awareness of these limitations explain why sanctions imposed on Russia have been rolled out gradually. This has provided room for negotiation and ensured that Russia is not completely cornered. The first round was aimed at sending a signal to Russia. Following the downing of the Malaysian civilian airline flight MH17 and the Russian military presence in the Donbas region of Ukraine, sanctions were amplified. The repertoire of sanctions as of December 2014 amounted to:

- Freezing of assets and travel bans for 132 individuals and 28 companies designated as belonging to the Russian ruling elite.
- Suspension of development loans by the EBRD.
- Ban on Russia’s largest public banks, three defence companies and three energy companies on acquisition of bonds and equity with a maturity period over 30 days.
- Ban on loans to Russia’s five largest public banks.
- Embargo on military equipment trade.
- Ban on exports of dual-use items, meaning anything civilian that can be used to produce military equipment.
- Ban on exports of particular energy-related services and equipment.6

A new round of sanctions is expected to enter into force throughout 2018.7 The report on oligarchs and parastatal entities of the Russian Federation stipulated in section 241 of The Countering America’s Adversaries Through Sanctions was released on January 29.8 It is, therefore, relevant to study the outcome of the sanction policies so far, in order to gain knowledge about how a strengthening of the sanctions may affect the involved parties as well as third-party nations.

8 Countering America’s Adversaries Through Sanctions, Section 241; Gaouette, (2018).
Targeted Sanctions

The aim of the sanctions is to target certain individuals and companies in Russia, rather than the country as such. According to a policy paper by Hufbauer and Oegg at the Peterson Institute for International Economics, there has been a widely held concern within the International Community whether economic sanctions is an effective instrument given the high civilian costs but poor track record of achieving foreign policy objectives. By fine-tuning sanctions to only target political elites or societal strata responsible for the targeted country’s undesired behaviour, collateral damage on the civilian population can be reduced and minimized. This form of sanction is called targeted sanction or smart sanction. The measures are comprised of asset freezes, travel bans and arms embargoes.9

Targeted sanctions have proven a useful instrument of international relations especially against adversaries where there are bilateral trade agreements. Russia is a case where the advantages were in favour of the sanctioning countries. In 2012, only 2.3 percent of the exports from the 37 sanctioning nations was Russia-bound, while Russian exports to these nations accounted for 63.8 percent of the total Russian exports.10

Unsurprisingly, Russia retaliated by launching counter-sanctions through an embargo on a number of food and agricultural products. Over the course of the sanctions, the blacklist of individuals targeted has grown. So have also the justifications behind the sanctions. Russia is now also targeted for accusations of meddling in the US Presidential election, as outlined in detail in a report by the National Intelligence Council in January 2017.11 One concern raised by the conclusions of a report from the Centre for European Policy Studies is that the sanctions actually facilitate what they are designed to combat.12 The report states: “(...) it seems that the ‘unfair’ western sanctions have had the perverse effect of increasing Putin’s popularity – from the beginning of the Ukraine crisis in November 2013 to the present, his ratings have risen from an ever-low to an ever-high point.”13

10 Crozet & Hinz, (2016).
13 Ibid. p. 9.
“Friendly Fire” Effect

However, events did not materialize according to theory. The inherent complexity of the world economy made up of global value chains have resulted in significant unintended consequences of the sanctions. This trend was first analysed by Crozet and Hinz in the paper *Friendly Fire: The Trade Impact of the Russia Sanctions and Counter-Sanctions* (2016). The authors study monthly trade data from 78 countries, as well as firm-level data, to assess the impact of the targeted sanctions. From early 2014 until the end of 2015, the authors find that the sanctions have led to a trade loss of 114 billion USD, out of which 44 billion USD are borne by sanctioning Western countries. Out of the loss borne by the sanctioning countries, 90 percent is incurred by EU member states. In particularly Germany is strongly affected, while the United States, which has been the main diplomatic force pushing for the sanctions, bears a small share of the cost. In percentage terms, Germany bears almost 40 percent of the Western trade loss, compared with merely 0.6 percent incurred in the United States.\textsuperscript{14}

Crozet and Hinz explain that this so-called “friendly fire” effect is largely due to the Western sanctions rather than the Russian counter-sanctions:

“Importantly, products that are targeted by the Russian embargo account for a small fraction of their total loss: 9% only. This provides evidence for the notion that most of the impact of the diplomatic conflict on Western exports can be considered as friendly fire.”

The reason for this is that the sanctions, while in theory targeted, have a broad impact on trade. The authors write in the abstract:

“We find that the bulk of the impact in Western countries stems from own measures—financial sanctions disrupting trade finance—and not Russian retaliation, an effect we coin ‘friendly fire’.” Additionally, they find that 91 per cent of the loss of trade is incurred through non-embargoed products. Thus, the sanctions result in massive friendly fire effects.\textsuperscript{15}

\textsuperscript{14} Crozet & Hinz, (2017).

\textsuperscript{15} Ibid, p. 4, 1.
As communications have improved rapidly in the last two decades, the global economy is increasingly organized into global value chains. This means that the production of a particular good is now dispersed across a number of interconnected geographical locations. The same trend is also evident for services, which is sometimes described as the glue keeping the value chains together at each production site. The main driver of globalization and the rise of global value chains is the decrease in shipping costs through advances in transportation technology, and the decreasing coordination costs made possible through ICT development. Policy papers by the OECD have suggested that participation in global value chains, apart from fostering efficiency, also channel ideas internationally and can serve as a vehicle to promote responsible business.

Additionally, the UN has also highlighted the role of value chains for conflict prevention in the extractives sector. Russia’s participation in global value chains is primarily in terms of the so-called forward participation (domestic value added sent abroad). The reason is that many other countries are dependent on Russian intermediaries for their own exports.

As much as 38 percent of Russia’s global value chain participation is forward, while the backward participation (foreign value added of exports) accounts for approximately 14 percent. This is indicative of Russia’s vast exports of natural resources such as minerals and gas. The global value chain participation rate of Russia has grown rapidly, by 14 percent per annum in 1995-2011, compared to 8 percent for developed economies. By 2011, the total global value chain participation rate of Russia stood at just below 52 percent, which is above the developed economy average of 48 percent. The strong forward participation in global value chains means that Russia’s export partners are suffering to a great extent from the exclusion of Russia. This is relevant, not least since, as shown above, the main economic effect of the sanctions has been a reduction of trade in non-sanctioned goods. Excluding Russia from participation in global value chains can, in the long run, reduce global security by making the country less dependent on peaceful international exchange.

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Methodology

It has been established that the friendly fire effect of the sanction policies impacts non-sanctioned goods. The question is, does it also affect Western countries not part of the sanctions?

To answer this question, the Russian trade relations with Israel and Switzerland are examined in this paper. Israel and Switzerland have, largely, been neutral with regards to Russian sanctions. The two countries can be regarded as largely non-sanctioning, as they have only implemented a limited array of policies for adaptation to the sanctions introduced by other Western countries. Based on the empirical data reviewed for this report, there are two hypotheses which are tested:

(i) Israel and Switzerland benefit from not enforcing sanctions as they attain exclusivity in trading with Russia.

(ii) Israel and Switzerland suffer from the sanctions as global value chains are disrupted, making it difficult to trade with Russia.

The methodology for this study is comprised of analysing monthly trade volumes to and from Russia with the four largest sanctioning nations (Germany, the United States, United Kingdom, and Japan) and comparing it to Russian trade with Switzerland and Israel. Data on trade volumes were compiled from the UN Comtrade Database, and were based on trade with goods (scant data exists on trade of services with Russia). The period chosen is January 2014 to December 2016. The pre-sanction three first months of 2014 are used as an average trade level representative of the period before the sanctions.

This average is used to calculate relative levels of trade during the subsequent months. The same data is also gathered for each country for trade with the entire world. The trade volume change with Russia is normalized to the trade volume change in international trade for each respective country. Trade volumes over the period, after normalization, are compared with a scenario in which trade levels had remained on January-March 2014 levels in order to assess the trade loss resulting from the sanctions. This analysis is performed both for exports and for total trade (exports + imports).

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20 To make sure not to be exploited as a conduit for circumvention, Switzerland imposed its own restrictions on Russian banks, requiring them approval for issuing long-term financial instruments. By large, Switzerland has been walking a tightrope throughout the sanctions on Russia by mirroring some sanctions made by the EU and the U.S. without formally joining the sanctions. Largely, Switzerland can be viewed as a non-sanctioning country. 


21 For example, 70 percent corresponds to 70 percent of the trade level of the average of January-March 2014.
Graphs 1 and 2 show the total trade change with Russia prior to and after normalization with respect to changes in total global trade. As can be seen, the relative change in trade volumes for the four largest sanctioning economies follows a quite similar trend. This is true both before and after normalization to international trade fluctuations of each individual country. The similar trends of how these four countries are affected reflects that the change is most likely driven by the sanctions, rather than other factors. The non-sanctioning economies of Switzerland and Israel follow a different trend, with higher trade volumes than the non-sanctioning economies. The data indicates that Israel might have reaped some benefits as Russia has sought to diversify its trade partners in response to the sanctions. The slight decline of Switzerland also needs to be viewed in light of the Swiss mirroring strategy regarding some limited parts of the Western sanctions.

Graph 1. Total trade volume with Russia, illustrated as share of pre-sanctions level
Graph 2. Total trade volume with Russia, normalized to change in global trade, illustrated as share of pre-sanctions level
Graph 3. Exports to Russia, illustrated as share of pre-sanctions level
Graph 4. Exports to Russia, normalized to change in global trade, illustrated as share of pre-sanctions level
Graphs 3 and 4 show the corresponding export values. Again, the four sanctioning economies follow a very similar trend. For exports, also Switzerland and Israel follow a largely similar trend. In theory, one might expect the two non-sanctioning countries to have increased their exports to Russia significantly, as the option of Russia to import from other Western economies has been severely limited. Since Israel and Switzerland have relatively small economies as compared to the entire Western world, such an increase could have been very substantial.

Instead, we find that export levels of the two countries have in fact fallen. The reduction is similar, if not quite as high, as the four largest sanctioning economies. As shown in chart 2, the average export volume to Russia from April 2014 to December 2016 compared to the pre-sanction base was 70 percent on average for the four sanctioning economies (US, Japan, Germany and UK). The corresponding level for Switzerland was 74 percent and for Israel 75 percent. Thus, the two (largely) non-sanctioning Western economies did not increase their exports to Russia, as one might have expected from hypothesis (i). Instead, in accordance with hypothesis (ii), their export volumes to Russia fell almost at the same magnitude of the four largest sanctioning economies.
Friendly Fire Losses

The export loss for Israel and Switzerland is calculated by comparing to a situation in which the export volumes would have remained on the same level as the average of the first three months of 2014. This is likely an underestimation, since exports to Russia could have risen with time if global trade would not have been disrupted. The trade level is inflation adjusted to the average inflation rate of the USD during the period February 2014 to December 2016. The export loss of Israel during the period amounts to 680 million USD while that of Switzerland, due to an overall higher level of exports to Russia, amounts to 2.38 billion USD.

These losses likely arise due to several mechanisms: financial transactions with Russia are impaired by the sanctions; Israeli and Swiss firms work closely with other Western firms or constitute branches of firms in other Western countries, and thus are indirectly affected by the sanctions; Israeli and Swiss firms not restricted by the sanctions in practice might choose not to export to Russia in order to protect their reputations in relation to other Western firms, as well as Western consumers. These mechanisms all relate to the fact that firms in Israel and Switzerland typically are part of the same value chains, and uses the same financial services, as the rest of the Western world.
This study sheds light on the friendly fire effect of sanctions even on (largely) non-sanctioning economies. In a simple economic model, one might expect that exports from Israel and Switzerland would have increased, potentially by several hundred percent, as Russia’s ability to import from other Western economies was limited by the sanctions.

Instead, the exports of these two economies fell almost as much as the four largest sanctioning economies. This supports the notion that sanctions, which in theory are targeted, in fact have a wide-ranging unintentional effects. The mechanism through which Israel and Switzerland are hindered by the sanctions is due to the interdependence caused by global value chains.

The sanctions disrupt global value chains, and thus affect non-sanctioned goods as well as (largely) non-sanctioning countries. In the long run, global value chains are of importance not only for economic development but also for global security. The more countries are integrated in global value chains, the more they have to loose from being excluded from trade or by hurting their trading partners.
Thus, global value chains are strong forces for global security. As the 19th-century economist Otto T. Mallery wrote: “If goods don’t cross borders, soldiers will.”22 This is, of course, even more relevant in the modern global economy in which global value chains create substantial interdependency between nations.

Sanction policies which exclude Russia from trade with Western economies through unintended consequences reduce peaceful interdependence, and thus undermine long-term security. The current targeted sanctions on Russia are merited by the country’s violation of the territorial integrity of Ukraine, among other forms of misconduct.

However, the unintended consequence of significantly reducing trade with non-sanctioned goods, and with (largely) non-sanctioning economies, means that the Russian economy as a whole is excluded from peaceful partnership with the Western world. With regard to both economic and global security concerns, it can be questioned whether this is a desirable outcome.

“If goods don’t cross borders, soldiers will.”

- O. T. Mallery

References


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