

Comments on “Friendly fire: the trade impact of the Russia sanctions and counter-sanctions”

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In 2013, Ukraine was politically divided between signing an Association Agreement with the European Union (EU), which would strengthen ties with the EU, or acceding to the Eurasian Customs Union, which would lead to stronger economic integration with the Russian Federation (Russia) and other former members of the Soviet Union. The ruling government’s decision against further integration with the EU fueled a protest movement, the “Maidan Revolution”, which ultimately led to its downfall. Political tension grew as the EU and the United States (US) backed the revolution while Russia supported government sympathizers.

In February of 2014, amidst the tension, separatists and armed men seized key government buildings in the Crimea Peninsula and on March 16, 2014, a referendum was held to annex Crimea into Russia. In response to the perceived violation of international law, 37 countries – including all EU countries, the US and Japan – imposed sanctions on Russian. These measures were initially restricted to travel bans and asset freezes, but they were subsequently intensified to the point of prohibiting major Russian financial institutions and companies from accessing EU and US financial markets. Russia retaliated in August by imposing an embargo on certain food and agricultural products and raw materials from the European Union, the United States, Canada, Australia and Norway.

In this paper, Crozet and Hinz use monthly trade data to analyze the impact of sanctions on trade between Russia and the west. In particular, they analyze the evolution of trade from January 2012 until December 2015 between all 37 sanctioning countries, Russia, and the 40 other largest exporters in the world. The approach relies exclusively on a fixed effects estimation. In particular, building on an Armington-type-gravity structure, they estimate the following equation,

$$x_{odt} = \exp(\psi_{ot} + \theta_{dt} + \phi_{odm}) + \mu_{odt}, \quad (1)$$

where x_{odt} represents bilateral trade flows between origin o and destination d , ψ_{ot} and θ_{dt} respectively represent origin- and destination-time fixed effects, and ϕ_{odm} represents an origin-destination-month fixed effect to capture seasonally varying bilateral trade frictions. The main idea is to use Equation (1) to obtain the “predicted” evolution of trade among country pairs, which can then be compared with the actual one to assess the loss of trade induced by the sanctions.

The main findings are as follows. First, the total lost trade between December 2013 and December 2015 amounts to US\$ 96 billion. Of this total, about 55% (US\$ 53 billion) is borne by Russia, which amounts to 15 % of Russia’s predicted exports in a scenario without sanctions. The rest is borne by Western countries. The authors also use granular product-level data to show that proportional fall in trade is especially severe for embargoed goods. Since these goods are a small share of overall trade, however, they make up only 12.7% of the total loss of trade by Western countries. The bulk of the loss therefore happens in non-embargoed products, and can be the result of sanctions only indirectly.

But what are these indirect effects of sanctions? To address this question, the authors resort to product- and firm-level data. They don’t find trade in consumer or luxury goods to be especially

¹ European Central Bank, CREI, and Barcelona GSE. The views expressed are my own and do not reflect those of the ECB.

affected, which they interpret as evidence that consumer boycotts are not a big driver of the disruption in trade. They do find that sectors that rely more on trade finance, measured as the share of trade that is paid through letters of credit, suffer disproportionately from the fall in trade. Their favored interpretation is that sanctions and heightened political tensions raised the perceived risk of doing business with Russia and thus the cost of trade finance instruments.

I enjoyed reading and discussing the paper, which deals with an important and timely topic. I found the main results convincing, moreover, although I am not specialist in empirical trade. Precisely as a non-specialist, I want to focus on a few general questions and comments regarding the methodology used and the interpretation of the results.

First, I found the main body of the paper lacking in a more detailed methodological discussion. In particular, to estimate the effects of sanctions, the authors mention the importance of taking into account general equilibrium effects. But all they say about this presumably significant point is “*in order to account for explicit changes to countries’ production and expenditure, we follow Anderson et al. (2015) and account for changes to product and expenditure Y_{ot} and X_{dt} by what they coin the adjustment of factory-gate prices.*” But all discussion is relegated to the Appendix! For a journal like *Economic Policy*, it would have been useful for the reader to have a short, accessible discussion of this methodological point in the main body of the text.

Second, I am not exactly sure how to interpret the paper’s headline result that US\$ 96 billion of trade were lost due to sanctions between December 2013 and December 2015. As I mentioned earlier, this number comes from comparing actual trade with that predicted by the model in Equation (1). But how can we rule out the possibility that the fixed effects are themselves affected by the imposition of sanctions? Consider, for instance, that the imposition of sanctions creates economic uncertainty in Russia and leads to a *generalized* decline in the country’s demand for imports. This will be captured through a lower estimated coefficient for θ_{dt} , i.e., as a fall in the model’s *predicted* volume of trade: thus, it will not be attributed to the sanctions. In fact, this is consistent with Figure 1, which shows that predicted trade flows appear to fall significantly after the third wave of sanctions. In light of this concern, how should we interpret the paper’s main result? Is it a lower bound for the effects of sanctions?

Third, as I mentioned earlier, the paper finds that trade falls not only for embargoed but also for non-embargoed goods. In fact, these appear to make up the bulk of the trade lost due to the sanctions. The authors attribute these losses to trade credit. In particular, they identify three types of financing terms for international trade contracts: “cash-in-advance” (the importer pays before the arrival of the good and bears the risk); “open account” (the importer pays after the arrival and the exporter bears the risk) and; “letters of credit” (a bank intermediary secures the payment on behalf of the importer confirming that the exporter meets the requirements specified in the contract). The paper then shows that the fall in trade is stronger for those sectors that rely more heavily on letters of credit. But the “open account” category also appears to entail trade credit. Why isn’t it taken into account?

In a related vein, perhaps the use of letters of credit does not just capture trade credit but a more general dependence on external finance. The published version of the paper now addresses this concern by running a “race” between the use of letters of credit and the indicator of financial dependence proposed by Rajan and Zingales (1998) and expanded by Braun (2005). The key takeaway is that products associated with higher financial dependence do not exhibit a stronger decrease in trade than other products. Moreover, the inclusion of financial dependence as an explanatory variable has little impact on the estimated coefficients on the share of letter

of credit use by product. In my view, this new exercise strengthens the authors' interpretation that trade credit is somehow linked to the fall in trade.

Overall, Crozet and Hinz have written a very interesting paper, which provides a thorough analysis of the effects of trade sanctions mutually imposed by Russia and the west. Ultimately, they make a convincing case that these sanctions had a significant effect on trade, and that this effect appears to have been linked to trade credit. Perhaps a suggestion for future research is to complement the analysis with a simple model of trade credit that can be used to further refine the empirical inquiry (e.g. Which types of firms/sectors should be more effected by a disruption in trade credit? What type of trade credit should be most affected by the sanctions?). Given the amount of firm-level data that the authors have access to, this seems like a promising avenue going forward.