SPILLOVER EFFECTS OF THE U.S. AND THE WESTERN ECONOMIC SANCTIONS AGAINST RUSSIA ON OTHER TRANSITION COUNTRIES

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Introduction

- During last decades economic sanctions have become a powerful tool in accomplishing the objectives of foreign policy and national security.
- The general debate about the economic role of sanctions is still controversial and a number of studies emphasize their rather symbolic effect (Whang, 2011; Hufbauer et al., 2009).
- In about 65-95 percent of all cases the sanctions do not produce desired democratic outcomes in target countries (Pape, 1997; Pape, 1998; Hufbauer et al., 2009; Neuenkirch and Neumeier, 2016).

Introduction

Dual approach in measuring the impact of sanctions:

- Some studies evaluate the adverse economic effects on target countries (Hufbauer et al., 2009; Neuenkirch and Neumeier (2015); Dreger et al., 2016).
- Others seek an evidence of desired policy change (Eland 1995; Whang, 2011).

Introduction

Studies agree on the adverse economic impact of the Western sanctions against Russia, although the spread of quantitative estimates for the level of economic slowdown is large:

- A large volume of studies considers sanctions against Russia as a negative shock that would significantly contract the country's GDP in the short term (Gurvich and Prilepskiy, 2015).
- Tuzova and Qayum (2016) and the IMF (2015) economists reach agreement on more severe consequences of sanctions in the medium-term forecast.

Introduction

- Dreger et al. (2016) and Fedoseeva (2018) assert that, due to Russia's heavy dependence on the export of natural resources, the country's 2014 economic slowdown and depreciation of domestic currency is a result of a sharp decline in oil prices, and economic sanctions are an amplifying, but not a direct causal factor.
- A larger volume of literature estimates the direct impact of the Western sanctions on the Russian economy (Tuzova and Qayum, 2016; Gurvich and Prilepskiy, 2015).

Introduction

- This analysis focuses on the spillover effects of the Western sanctions against Russia on twenty-six transition economies which have strong economic, historic, geographic and cultural ties with the target state.
- The focal point is the medium-term impact of sanctions on imports from transition economies to Russia and direct investments from Russia to transition economies over the period from 2014 to 2018.
- This analysis uses two gravity models, which are applied to flows of bilateral trade and direct investment.

Country Coverage

Table 1. Transition economies included in the study

Former Soviet Union		Central & Eastern Europe	
Armenia	Latvia	Albania	Poland
Azerbaijan	Lithuania	Bulgaria	Romania
Belarus	Moldova	Croatia	Serbia
Estonia	Tajikistan	Czech Republic	Slovak Rep.
Georgia	Ukraine	Hungary	Slovenia
Kazakhstan	Uzbekistan	Montenegro	Bosnia and Herzegovina
Kyrgyzstan		North Macedonia	

Table 2. Descriptive statistics

Variable	Mean	S.D.	Min	Max	Source
Imp_{ijt}	1,748.76	2,693.71	2.54	13,316.01	WITS, WB
$Dirinv_{jit}$	936.44	1,076.77	4.0	3,960.0	CDIS, IMF
$SanctionsW_t$	14.134	1.924	11.110	17.138	Own comp.
$SanctionsUS_t$	1.928	0.517	1.548	2.863	Own comp.
GDP_{it}	75,502.01	102,459.9	3,920.176	543,108.3	UNCTAD
GDP_{jt}	1,390,401.8	21,081.08	1,366,031	1,424,278.2	UNCTAD
$Dist_{ij}$	1,699.358	628.485	676.89	2,992.61	Google Maps
Pop_{it}	10.002	11.313	0.628	44.883	UNCTAD
$Oilpr_t$	60.142	17.913	43.4	92.91	U.S. Energy Information Administration
$Gaspr_t$	1.84	0.426	1.4	2.62	
ER_{ijt}	24.201	26.814	.008	74.174	UNCTAD
CoC_{ijt}	2.079	1.289	.282	5.097	(WDI), WB
$Land_i$	0.5	0.502	0	1	World Pop. Review
$Cont_{ij}$	.346	0.478	0	1	The World Factbook, CIA
$Comlang_i$	.577	0.493	0	1	
FSU_{ij}	0.5	0.502	0	1	Gevorkyan A., 2018
WTO_{ijt}	.8	0.402	0	1	WTO
FTA_{ijt}	.4	0.492	0	1	WTO

Sanctions, variable calculation

$$S_t^r = \sum_{\tau=1}^{R} \sum_{i=1}^{I} \sum_{j=1}^{J} w_{ij}^r w_j^r w_\tau^r$$

- To compute the indicator of Western sanctions we build on the general framework proposed in Dreger et al. (2016)

$r = \{West, Russia\}; \{US, Russia\}$

r reflects two case scenarios: $\{West, Russia\}$ or $\{US, Russia\}$

w_{ij} is the weight of sanction i imposed by country j

$$w_{ij}^r = \left\{ \begin{array}{c} 1, \text{if against persons: blocking property/suspension of entry} \\ 1, \text{if diplomatic sanctions: expell of diplomats/suspension of voting rights} \\ 2, \text{if against entities: blocking property/suspension of entry} \\ 3, \text{if against industries: restricted access to capital market/exports} \end{array} \right\}$$

Sanctions, variable calculation

w_j is the weight of country j integration in the economy of the Russian Federation in 2009-2013:

$$w_j = \frac{\sum_{n=1}^{5} Export\ from\ Russia\ _{jn}}{\sum_{n=1}^{5} Total\ Export_n} + \frac{\sum_{n=1}^{5} Import\ to\ Russia\ _{jn}}{\sum_{n=1}^{5} Total\ Import_n}$$

$$S_t^r = \sum_{\tau=1}^{R} \sum_{i=1}^{I} \sum_{j=1}^{J} w_{ij}^r w_j^r w_\tau^r$$

n- period preceding sanctions corresponding with (2009-2013)

w_τ^r - is the weight of time the sanction have been imposed

Sanctions

Table 3. Estimates of annual sanctions

	West	U.S.
	multilateral	unilateral
2018	17.138	3.107
2017	14.510	2.354
2016	13.970	1. 813
2015	13.942	1.792
2014	11.110	1.792

Methodology

- The data analysis is conducted by using the Poisson pseudo-maximum likelihood (PPML) econometric technique described in Santos-Silva and Tenreyro (2006)
- PPML methodology allows for mitigation of heteroscedasticity issues
- Following Anderson and van Wincoop (2003) approach, we also introduce multilateral resistance terms (MRT)-exporter and importer fixed effects.

Methodology

- $$Dep_{ijt} = \alpha_0 + \alpha_1 Sanctions_t + \alpha_2 lnGDP_{it} + \alpha_3 lnGDP_{jt} + \alpha_4 lnDist_{ij} + \alpha_5 lnPop_{it} + \alpha_6 lnOilpr_t + \alpha_7 lnGaspr_t + \alpha_8 Erate_{ijt} + \alpha_9 Comlang_i + \alpha_{10} Cont_{ij} + \alpha_{11} Land_i + \alpha_{12} FSU_{ij} + \alpha_{13} FTA_{ijt} + \alpha_{14} WTO_{ijt} + \alpha_{15} CoC_{ijt} + \beta_1 I_{it} + \beta_2 E_{jt} + \varepsilon_{ijt}$$

Dep_{ijt} ➡ Imports from TE to Russia

➡ Direct investments from Russia to TE

Methodology

- $$Dep_{ijt} = \alpha_0 + \alpha_1 Sanctions_t + \alpha_2 lnGDP_{it} + \alpha_3 lnGDP_{jt} + \alpha_4 lnDist_{ij} + \alpha_5 lnPop_{it} + \alpha_6 lnOilpr_t + \alpha_7 lnGaspr_t + \alpha_8 Erate_{ijt} + \alpha_9 Comlang_i + \alpha_{10} Cont_{ij} + \alpha_{11} Land_i + \alpha_{12} FSU_{ij} + \alpha_{13} FTA_{ijt} + \alpha_{14} WTO_{ijt} + \alpha_{15} CoC_{ijt} + \beta_1 I_{it} + \beta_2 E_{jt} + \varepsilon_{ijt}$$

$Sanctions_t$

- Western sanctions against Russia
- U.S. sanctions against Russia

Table 4. Results

	Imports from transition economies to Russia	Imports from transition economies to Russia	Direct Investments from Russia to TE	Direct Investments from Russia to TE
Western sanctions (including U.S.) ($Sanctions_{jt}$)	-.163*** (.0171)		-.045** (.016)	
US sanctions ($Sanctions_{jt}$)		-1.758*** (.185)		-.483** (.169)
$lnGDP_{it}$	-.033 (.451)	-.033 (.451)	-.723 (.449)	-.723 (.449)
$lnGDP_{jt}$	30.489*** (4.397)	87.970*** (10.125)	11.651** (3.619)	27.441** (8.615)
$lnDist_{ij}$	-4.429** (1.590)	-4.429** (1.590)	-3.825** (1.289)	-3.825** (1.289)
$lnPop_{it}$	1.731 (2.291)	1.731 (2.291)	-.174 (1.408)	-.174 1.408
$lnOilpr_t$	-1.061* (.470)	-5.703*** (.738)	-1.540** (.584)	-2.816** (.855)
$lnGaspr_t$	.003 (.578)	4.480*** (.668)	1.403 (.732)	2.633** (.900)
$Erate_{ijt}$	-.012** (.005)	-.012** (.005)	.002 (.003)	.002 (.003)
$Comlang_i$	-.190 (2.959)	-.190 (2.959)	4.877* (1.949)	4.877** (1.949)
$Cont_{ij}$	-.834 (1.961)	-.834 (1.961)	-2.253 (1.347)	-2.253 (1.347)
$Land_i$	1.812 (4.470)	1.812 (4.470)	-3.007 (2.836)	-3.007 (2.836)
FSU_{ij}	-1.816 (1.256)	-1.816 (1.256)	1.679 (.909)	1.678 (.909)
Coc_{ijt}	-.048 (.032)	-.048 (.032)	.029 (.038)	.029 (.038)
FTA_{ijt}	.604*** (.079)	.604*** (.079)	-.517*** (.078)	-.517*** (.078)
WTO_{ijt}	-.314* (.157)	-.314* (.157)	.114 (.083)	.114 (.083)
Const.	-389.087*** (66.960)	-1184.851*** (146.346)	-118.241* (47.646)	-336.840** (118.210)
I_{it}	YES	YES	YES	YES
E_{jt}	YES	YES	YES	YES
# country pairs	26	26	26	26
Number of observations	130	130	130	130
Pseudo log-likelihood	-1573.071	-1573.286	-1172.295	-1172.295
RESET test p-values	0.8727	0.8727	0.1242	0.1242
R-squared	.994	.994	.990	.990

Note: robust standard errors in parenthesis; *, ** and * indicate significance at 0.05, 0.01 and 0.001, respectively.**

Table 4. Results (corresponding impact of sanctions)

	Imports from transition economies to Russia	Imports from transition economies to Russia	Direct Investments from Russia to TE	Direct Investments from Russia to TE
Western sanctions (including U.S.) ($Sanctions_{jt}$)	-.163*** (.0171)		-.045** (.016)	
U.S. sanctions ($Sanctions_{jt}$)		-1.758*** (.185)		-.483** (.169)

Results & Policy Implications

- Sanctions against a large open economy may have spillover effects on neighboring small open economies:
  - Sanctions against Russia resulted in reduction of imports from TE to Russia.
  - Sanctions against Russia resulted in reduction of direct investments from Russia to TE.

Results & Policy Implications

- A large economy which had deep economic integration with the target country prior to the sanctions could extend the adversity of economic impact by implementing more sanctions.
- We recommend to consider the level of spillover risks that the third economies may bear from sanctions and to implement the tools of mitigation simultaneous to imposing sanctions against a target country.

THANK YOU

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