Research Note

The effect of economic sanctions on ethnic violence of target states: A panel data analysis☆

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A B S T R A C T

Economic sanctions have become a popular tool of statecraft in international politics. This paper makes an attempt to investigate the effect of economic sanctions on ethnic violence by using a sample of 46 target states over the period 1984–2008. Our results indicate that the imposition of economic sanctions has a deleterious influence on ethnic violence. Moreover, an interesting by-product finding of this paper is that we find a U-shaped relationship between income and ethnic violence, which shed new light on the income-ethnic violence nexus.

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1. Introduction

Economic sanctions were considered as one of the most important tools of statecraft in international politics, and they are designed to alter certain of the target nation's policies and behaviors by inflicting economic damage. Recently, a large body of literature studies the influence of economic sanctions on the target state's public health, foreign aid, as well as social economics and politics. For instance, Peksen and Drury (2010) found that economic sanctions have a detrimental impact on the level of democracy. Neuenkirch and Neumeier (2015) showed that both the imposition of UN and US sanctions have a significant negative impact on the target state's economic growth. More recently, Neuenkirch and Neumeier (2016) documented that US sanctions are adversely affecting those living in poverty, and Afesorgbor and Mahadevan (2016) also found the imposition of sanctions have a deleterious impact on income inequality in the target countries.

In this paper, we are mainly searching for the links between economic sanctions and ethnic violence. Ethnic violence refers to violence expressly motivated by ethnic conflict and ethnic hatred, and it is usually related to political violence. There is already ample evidence on the determinants of civil conflict and instability (e.g., Bezemer & Jong-A-Pin, 2013; Collier, 2001; Elbadawi & Sambanis, 2000). Here we present theoretical reasoning about why and how economic sanctions may affect the target state's ethnic violence. The first is that numerous studies have shown that economic sanctions would lead to a significant decline in GDP per capita (Neuenkirch & Neumeier, 2015), a slump in exports and imports, and a contraction of international capital flows (Hufbauer, Schott, Elliott, & Oegg, 2007), as well as high inflation (Heine-Ellison, 2001) and income inequality (Afesorgbor & Mahadevan, 2016), which increase the probability of violence. In addition, more

recent study by Peksen (2016) found economic sanctions play an inadvertent role in the poor treatment of ethnic groups by contracting the economy, and creating incentives for the target government to employ ethnic-based discriminatory policies, and these imply that economic coercion may lead to more discriminatory policies against ethnic groups. For example, international sanctions against the apartheid regime in South Africa had an adverse effect on the economic well-being of the black population in the 1990s, and the economic burden of sanctions on the South African economy also coupled with systematic government discrimination against the black population leading to a big decline in black employment and income (Lowenberg & Kaempfer, 1998). This would, in turn, increase the probability of ethnic violence. Hence, we have grounds to expect that economic sanctions have impact on the target states' ethnic violence.

To the best of our knowledge, there is no literature directly assessing the impact of economic sanctions on the target states' ethnic violence. Using parametric and semi-parametric panel data regression approaches, our results indicate, first, that the imposition of economic sanctions exacerbates ethnic violence in the target states. Second, the results show a robust U-shaped relationship between income and ethnic violence.

2. Method and data

To explore how economic sanctions affect the ethnic violence of target states, we apply a panel data model with both country and time specific fixed effects, the time-period fixed effects are included to account for any global trends and economic events.[1] The basic econometric model has the following form

$$y_{it} = \alpha_0 + \alpha_1 Esanction_{it} + \alpha_2 x_{it} + \mu_i + \lambda_t + \varepsilon_{it} \qquad (1)$$

where y_{it} is the dependent variable measuring ethnic violence for country i at time t, while x_{it} captures the vector of controlling variables outlined below. α_0 is a constant term, μ_i is a country-specific effect that accounts for individual heterogeneity due to unobserved time-invariant factors, λ_t is a time-fixed effect, and ε_{it} is the error term. The coefficient of interest throughout the paper is α_1, which measures the effect of economic sanctions on ethnic violence.

We create a panel dataset from 1984 to 2008 for 46 countries,[2] and the choice of sample selected for this study is mainly dictated by the availability of reliable data. To measure ethnic violence, consistent with Bezemer and Jong-A-Pin (2013), we use the square root of the product of "ethnic tensions" and "internal conflicts" as our dependent variable, and the data of ethnic tensions and internal conflicts are both obtained from International Country Risk Guide (ICRG).[3] Data on economic sanctions come from Hufbauer et al. (2007), and these data represent the most widely used compilation of sanctions cases available. We utilize a dummy variable that equals 1 for years in which a country was subjected to economic sanctions, and 0 for otherwise.

In line with many empirical research literatures, we include a number of economic–political control variables into our model (1), which includes GDP per capita, economic growth, political terror, inflation rates, corruption, globalization and democracy. The political terror, which measures physical integrity rights violations on a five-point scale (1: lowest degree of violation; 5: highest degree of violation).[4] Democracy indicator used the "polity2" variable from the Polity IV project[5] (Marshall & Jaggers, 2002). To proxy globalization, we use the KOF globalization index (Dreher, 2006). The data of corruption are obtained from ICRG, and the rest of control variables are collected from World Bank Development Indicators.

3. Empirical results

Table 1 reports the main results.[6] Without any additional control variables, economic sanctions have a positive and statistically significant, at the 1% level, effect on ethnic violence, where on average, ethnic violence is greater by 0.66 points in countries and years in which economic sanctions were imposed (column (1)). Column (2) presents results of the association between economic sanctions and ethnic violence after controlling for main macroeconomic variable. Our key variable economic sanctions remain positive and significant related to at the 1% level, but the effect of income on ethnic violence is statistically insignificant. Then, in column (3), we add the square term of income into our model. What is interesting is that both the GDP per capita and its square term become significant at the 1% level (column (3)), suggesting there exists a U-shaped relationship between income and ethnic violence. Columns (4)–(9) further assess our main finding conditional on other control variables, and the results show that the signs and significance levels of economic sanctions remain intact when we control for a number of the economic–political control variables, and the magnitude of α_1 is within the range from 0.3985 to 0.6598. Following Bezemer and Jong-A-Pin (2013)'s study, in column (10) we add the interaction term $Globalization_{it} \times Democracy_{it}$ into model (1), and our main result remains intact, implying that economic sanctions exacerbate ethnic violence within

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[1] Most variables tend to increase and decrease together in different regions over time (along with the business cycle).

[2] The 46 nations including: Albania, Algeria, Argentina, Bolivia, Brazil, Cameroon, Chile, China, Colombia, Cote d'Ivoire, Cuba, Congo DR, Dominican Republic, Ecuador, Egypt, El Salvador, Ethiopia, Gambia, Guatemala, India, Indonesia, Iran, Jordan, Kenya, Malawi, Nicaragua, Niger, Nigeria, Pakistan, Panama, Paraguay, Peru, Sierra Leone, South Africa, Sudan, Suriname, Syria, Thailand, Togo, Tunisia, Turkey, Uganda, Uruguay, Vietnam, Zambia and Zimbabwe.

[3] Internal conflicts (scaled from 0 to 6) assess political violence and are based on the occurrence of civil war, the threat of a coup d'etat, the incidence of terrorist acts and the extent of civil disorder in a country. While ethnic tension (ranges from 0 to 12) is an assessment of the degree of tension within a country attributable to racial, nationality, or language divisions.

[4] Source: Political Terror Scale, http://www.politicalterrorscale.org/Data/.

[5] This variable ranges from 10 (very autocratic) to +10 (very democratic).

[6] The Hausman test result (P = 0.0000) implies the use of the fixed effects model.