# Soft Power, Sanctions and Exports: Checking the BS in BDS Andrew K. Rose\*

25 March 2016

Comments Welcome

#### **Abstract**

I examine the trade effect of soft power, global influence considered to be admirable by other countries. I use a standard gravity model of bilateral exports, a panel of data from 1998 through 2013, and an annual survey conducted for the BBC by GlobeScan which asks people in up to 46 countries about whether each of up to 17 countries were perceived to have "a mainly positive or negative influence in the world." Holding other things constant, a country's exports are significantly higher if it is perceived by the importer to be exerting more positive global influence. This effect does not vary much across time, but does across countries. In particular, the exports of Israel and North Korea are more, and the United States and Russia are less affected by soft power. This stands in comparison to the non-effect of sanctions on trade. Succinctly, even if the S in BDS is BS, the B is not.

**Keywords**: empirical, panel, model, data, gravity, positive, negative, net, world, global, BBC, influence.

JEL Classification Codes: F14, F59

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Boycott (Merriam-Webster):

to refuse to buy, use, or participate in (something) as a way of protesting; to stop using the goods or services of (a company, country, etc.) until changes are made.<sup>1</sup>

Sanction (Merriam-Webster):

an action that is taken or an order that is given to force a country to obey international laws by limiting or stopping trade with that country, by not allowing economic aid for that country, etc.<sup>2</sup>

## 1. Introduction

One of the objectives of this paper is to examine the effect of "soft power" on exports. In particular, I show that a country sells more exports to other countries which perceive it to be a force for good, holding other factors constant. Symmetrically, I show that a country seen to be mostly a negative influence in the world sells fewer exports to its detractors, *ceteris paribus*. This can be interpreted as a quantification of the commercial effects of soft power, the power to co-opt, first discussed by Nye (1990). The positive effect of soft power on exports can be compared with the more negative results I find with respect to sanctions; in common with the literature (e.g., Hufbauer et al, 2008) I find little persuasive evidence that sanctions affect trade. That is, soft power trumps hard power, at least in this limited context; trade sanctions do not have a predictably large effect on trade although admirable behavior does. This matters because sanctions are often used as a policy mechanism to influence the behavior of foreign countries, but soft power is not. Their prevalence stands in direct contrast to their efficacy.

A prominent current example of sanctions is the "Boycotts, Divestment and Sanctions" (BDS) campaign being used currently by Palestinians against Israel.<sup>3</sup> What about boycotts; do they affect trade? Here the literature is of little value, since boycott effects have not been much examined; Heilmann (2015) is a recent exception to the rule. Boycotts are often used against industries, firms or people rather than countries. National boycotts are uncommon and even then, are often linked to sports. Examples of significant economic boycotts do exist, and include those of South Africa during

apartheid and of Israel by the Arab League. It seems reasonable to suppose that soft power affects exports because it reflects a public desire to purchase more/fewer goods from countries seen to be a force for good/evil. In this sense, the effectiveness of soft power indicates that national preferences have a commercial effect, even if soft power is not formally organized. I interpret this as evidence of the power of boycott, the decision by the citizens and businesses of one country to shun the products of another. One of the objectives of this paper is to compare the export effects of soft power (boycotts) and hard power (sanctions). A related objective is to examine if the effect of soft power varies across countries; I have a special interest in Israel, given the ongoing BDS campaign.

I use a panel of recent data and a plain-vanilla gravity model of trade to show that countries seen to be exerting a positive influence on the world tend to export more to their admirers, holding a host of other factors constant. Consistent with this, I also find that countries viewed more negatively sell fewer exports to their detractors, and each net swing from negative to positive views tends to boost trade. These positive results stand in stark contrast to the non-effect that I find sanctions have on trade.

## 2. Methodology and Data

I am interested in the question of whether countries with more soft power achieve any tangible commercial benefit; I do this in the context of international trade. This seems natural since the question is intrinsically international in scope.

I use a standard gravity model of international trade to account for other influences on bilateral exports besides soft power. In particular, I pursue "theory-consistent estimation" of the gravity equation, closely following the suggestions in the recent survey by Head and Mayer (2014). I focus on their "LSDV" (Least Squares with time-varying country Dummy Variables) technique which they show works well in many situations. In particular, I estimate:

$$\begin{split} &\ln(X_{ijt}) = \gamma \ln(BS_{ijt}) + \beta_1 \ln(D_{ij}) + \beta_2 Lang_{ij} + \beta_3 RTA_{ijt} + \beta_4 Cont_{ij} + \beta_5 CU_{ijt} \\ &+ \beta_6 Colony_{ii} + \{\lambda_{it}\} + \{\psi_{it}\} + \epsilon_{iit} \end{split} \tag{1}$$

where i and j denote countries, t denotes time, and the variables are defined as:

- X<sub>ijt</sub> denotes the nominal value of bilateral exports from i to j at time t, measured as the average of FOB exports from i to j and CIF imports into j from i,
- BS<sub>ijt</sub> denotes either soft power (the perception at time t in country j of i's global influence, which I
  interpret as a measure of boycott) or hard power (a sanction formally imposed at time t by country j
  against country i or vice versa),
- D is the distance between i and j,
- Lang is a binary variable which is unity if i and j have a common language,
- RTA is unity if i and j belong to the same regional trade agreement and 0 otherwise,
- Cont is unity if i and j share a land border and 0 otherwise,
- CU is unity if i and j use the same currency at time t and 0 otherwise,
- Colony is unity if i colonized j or vice versa and 0 otherwise,
- β is a vector of nuisance coefficients,
- $\{\lambda_{it}\}\$  is a complete set of time-varying exporter dummy variables,
- $\{\psi_{it}\}\$  is a complete set of time-varying importer dummy variables,
- ε<sub>ii</sub> represents the myriad other influences on exports, assumed to be well behaved.

The coefficient of interest to me is  $\gamma$ , which I interpret as the effect of soft/hard power – boycotts and sanctions – on bilateral exports, *ceteris paribus*. I estimate this equation with least squares, using robust standard errors.

# The Data Set

The data set is taken from Rose (2015); it relies on trade data drawn from the *Direction of Trade* data set assembled by the International Monetary Fund. The data set covers bilateral trade between

over 200 IMF country codes between 1948 and 2013. Bilateral trade on FOB exports and CIF imports is recorded in U.S. dollars. To this, I add a number of other variables that are necessary to estimate the gravity model. I exploit the CIA's *World Factbook* for a number of country-specific variables. These include: latitude and longitude, physically contiguity, language, colonial history, and date of independence. I obtain data from the World Trade Organization to create an indicator of regional trade agreements, and include: EEC/EC/EU; US-Israel FTA; NAFTA; CARICOM; PATCRA; ANZCERTA; CACM, Mercosur, COMESA, and more. I add information on whether the pair of countries was involved in a currency union; Glick and Rose (2015) provide more detail.

Most of the econometric work is done by the country-year fixed effects (one set each for the exporter and importer), which control a host of other influences on bilateral exports. Anything that is specific to a country for any given year – the size of its economy, its military, or the nature of its population or culture, for either the exporter or the importer – is accounted for by the time-varying national fixed effects.

## Measuring BS

Sanctions data is straightforward. I use the data set developed by Morgan, Bapat, Krustev and Kobayashi, and used in e.g., Bapat et al (2013).<sup>4</sup> This gives me a dummy variable which is one if an importer imposes a sanction on the exporter during a given year or an exporter imposes a sanction on the importer during a given year, and zero otherwise. The data set also provides more granular detail on whether the sanctions were actually imposed or merely threatened; I use this distinction in my empirical work below. I also distinguish below between economic sanctions (that are typically traderelated) and all sanctions.

Data on boycotts is much more difficult to obtain. To repeat: many commercial boycotts involve individual industries, products or companies; many national boycotts are related to sports.<sup>5</sup> While some

boycotts are official in nature, many are not.<sup>6</sup> While not strictly necessary, for the purpose of this paper I will use a measure of soft power, perceptions of mainly positive/negative influence in the world. This indicates the willingness of a country's agents to boycott the products of another country, albeit informally. My default measure of soft power is developed for the BBC World Service through its partnership with the international polling firm GlobeScan, which

"... conducts news agenda-driven polling questions twice a year to representative samples of adults in over 20 countries, interviewing nearly 50,000 people in the process. Recent polls have addressed issues such as the public's views on the free market economic system, the war in Afghanistan ... and the influence of different countries around the world."

The BBC and GlobeScan work with the Program on International Policy Attitudes (PIPA) at the University of Maryland.<sup>8</sup> Survey results are freely available online, along with the associated methodological details. Participants in a large number of countries (33 in 2006) are asked about their views about a smaller number of countries (8 in 2006, as well as "Europe"). The precise question wording in English is:

"Please tell if you think each of the following are having a mainly positive or mainly negative influence in the world: READ AND ROTATE

a) China

01 Mainly positive 02 Mainly negative

VOLUNTEERED DO NOT READ 03 Depends 04 Neither, no difference 99 DK/NA

- b) Britain
- c) Russia
- d) France
- e) The United States
- f) Europe
- g) India
- h) Japan

These surveys have been conducted annually since 2006. Participants in a total of forty-six countries have been asked about the influence of a total of seventeen countries over the years; both sets are listed in an appendix, along with the number of observations available. All in, there are a total

of 2730 observations, with two variables concerning the global influence of one country as perceived by others: the percentages answering "mainly positive" and "mainly negative" (these do not usually sum to 100%). I construct a third variable by subtracting the negative from the positive perceptions; the difference is a measure of net perceived influence. In my statistical work, I use the (natural) logarithms of positive and negative separately in equation (1); I also divide net perceptions by 100.9

I consider the BBC/GlobeScan measure to be a manifestation of "soft power", although again, this interpretation is not strictly necessary for this study. Soft power is a term first used by Joseph Nye (1990) that describes the ability of a country to attract or persuade others to do what it wants rather than by means of force or coercion; Nye (2004) provides more detail. Whereas hard power—the ability to coerce—grows out of a country's military or economic might, soft power arises from the attractiveness of a country's culture, political ideals, and policies; it is by no means under strict government control. Nye considers hard power to stem from a country's population, resources, economic and military strength and the like. By way of contrast "Soft power is ... the ability to attract, [since] attraction often leads to acquiescence ... soft power uses a different type of currency (not force, not money) to engender cooperation — an attraction to shared values ..." (Nye, 2004, pp 6-7). Nye thinks of this as "...the ability of a country to structure a situation so that other countries develop preferences ... consistent with their own." The BBC/GlobeScan measure seems like a good way to measure the manifestation of soft power, since it asks implicitly about the attractiveness of a country.

The BBC/GlobeScan measure is certainly not a perfect indicator of soft power.<sup>11</sup> For one thing, it does not distinguish explicitly between hard (military) and soft power.<sup>12</sup> There are also more technical problems with the variable. Most importantly, the data coverage is limited in span. This is not a balanced panel; different countries are asked each year about the influence of different countries (with a number of common threads). It is clear that larger and richer countries are both disproportionately surveyed and asked about; Albanians have never been surveyed, nor has Albania's influence.<sup>13</sup> For all

these reasons, there may be no link at all in the data between exports and the BBC/GlobeScan measure, especially since other determinants are well-handled by the gravity equation. To the best of my knowledge, no one in the literature has suggested that soft power is linked to any direct pecuniary gain.

Figure 1 provides some concrete examples for some countries that will turn out to be of particular interest below. Consider the top-left graph in Figure 1. This graphs positive views of other countries concerning American global influence in 2007 (on the y-axis) against positive views towards the United States in 2013 (on the x-axis). There are big differences across countries; in 2013, only 17% of Russians considered American influence mainly positive, in contrast to 69% of Kenyans. Interestingly, there are also (smaller) changes over time for a given dyad (a 45° line is included in the graph). For instance, Mexican perceptions of America's influence rose from being 12% mainly positive in 2007 to 41% in 2013, while French perceptions rose from 24% to 52% over the same period of time, and Brazilian from 29% to 59%. The analogous data for mainly negative views of the United States are portrayed in the top-right graph. Here too, there is considerable dispersion across both countries and time. The two figures in the bottom part of the figure are analogous, but present data of the perceived (mainly positive/negative) global influences towards Russia. Figure 2 is an analogue that portrays perceptions of Israel and North Korea. Compared with the United States (and, less so, Russia), attitudes are less positive towards the pariah countries of Israel and North Korea; this hostility is also expressed in a number of highly negative attitudes.

#### 3. Results

# **Soft Power and Boycotts**

I begin by examining the effect of soft power on exports. I present estimates of equation (1) in Table 1. There are three columns of results tabulated, one for each of the measures of perceived influence (log positive, log negative, and net).

I am most interested in the estimates of γ, the relevance of perceived world influence – soft power – on exports. The gravity model also estimates a number of other nuisance parameters, simply to hold constant other factors that drive exports. All influences of either the exporter or the importer in a given year (such as its output, population, armed forces, and cultural, political or geographic features) are accounted for by the time-varying exporter and importer fixed effects. In addition, the model includes a number of dyadic features that have been found in the literature to affect exports, as surveyed by Head and Mayer (2014). These include both physical and cultural distance, the former modeled through log distance and a dummy variable for a common land border, the latter through dummies for common language and colonial relationship. I also include two policy controls, for joint membership in a regional trade agreement, and the use of a common currency. Although the  $\{\beta\}$ coefficients are strictly speaking, nuisance parameters, it is still reassuring that they seem sensible in statistical and economic magnitude. Distance reduces trade with the traditional coefficient of approximately unity, while two countries that share a common language, regional trade agreement, or colonial relationship experience substantially more trade (the effects of land or monetary borders are insignificant in this sample of countries). This is a heavily parameterized statistical model with fewer than nine observations per parameter. All these controls manifestly result in an equation that fits the data well; the R<sup>2</sup> exceeds .8 in this panel, while the RMSE is less than 1.1 (the standard deviation of log exports ≈ 2.6). This gives me confidence in the underlying econometric framework.

What is the additional effect on exports of additional (mainly positive) global influence of the exporter as perceived by the importer? The coefficient is tabulated in the top-left cell of Table 1. The estimate is an economically large elasticity of .5; a one percent (not one percentage point!) increase in

the exporter's positive world influence, as perceived by the importer, is associated with a .5 percent increase in bilateral exports. This effect is statistically large; the robust t-ratio exceeds six and thus is different from zero at all reasonable confidence levels. The results from the other measures of world influence are consistent. An exporter perceived to be exerting more of a negative influence experiences exports that are lower by an economically and statistically significant amount. The coefficient estimates of positive and negative influences have different signs but also different magnitudes; the effect of positive perceived influence is almost twice as big as the effect of negative influence. The perceived net effect is also positive, and statistically large. Succinctly, soft power has a big effect on exports; importers seem to express their preferences with their wallets by purchasing more/less from countries of which they approve/disapprove. This is a manifestation of preferences similar to that of a formally organized boycott, though the latter discourages doing business with those one disapproves of, without explicitly encouraging business with the admired.

## Time Effects

Do these effects vary over time? Table 2 provides some exploration of the hypothesis that the  $\gamma$  coefficients (tabulated at the top of Table 1) vary by year. I do this by simply adding an interaction between the measure of soft power (log positive/log negative/net) and the individual years to equation (1). I do this year by year in the middle part of Table 2, always including the combined effect, which is tabulated at the top of Table 2 for convenience. Thus each of the year coefficients in the middle part of the table represent the deviation for that year from the sample-average effect; the log positive effect for 2006 is .50-.27=.23, which is insignificantly different from the sample average positive effect of soft power (of .5) at all reasonable confidence intervals. Indeed, almost none of the coefficients are significantly different from zero; of the 24 coefficients tabulated, five are different from zero at the 5% level, and none at the 1% level. At the bottom of Table 2 I simultaneously include all the interactions and provide a F-test for their joint significance. Two of the three tests indicate that there are no

significant year interactions; that for net effects (which is responsible for three of the five significant year-specific interactions) is significantly different from zero at the .003 level. This is apparent in the table; the commercial effects of soft power seem to be growing over time. While the effects seem to be economically large, they are imprecisely estimated. I note this effect for future research but act conservatively here and try not to over-interpret results based on a limited span of countries and (especially) time.

## **Country Effects**

Does the effect of soft power on exports vary by country? I examine this question in Table 3. As in Table 2, I always include the effect of soft power on exports pooled across all countries; this effect is tabulated in the top row of the table.

I first include a separate effect for each country added individually; these results are tabulated in the main body of Table 3. Each coefficient represents the marginal effect of soft power on exports for a specific country, after taking into account the combined effect on all countries (tabulated at the top). Thus, for instance, the American effect of positive perceived influence is -.46, an effect that is economically and statistically significant and essentially wipes out any effect of soft power on American exports (since .50-.46=.04, an economically and statistically insignificant effect). The American effect is large for all three measures of soft power, but this is the exception rather than the rule; the majority of the country-effects are economically and statistically small. However, there are manifestly some substantial country effects. This is clearly confirmed by the F-tests presented at the bottom of Table 3, which reject the hypothesis that the country-specific shocks are jointly insignificant.

Four countries have dramatically different effects of soft power on exports. The United States and Russia experience much smaller effects of soft power on exports, while Israel and North Korea have much larger effects. Table 4 presents these results when these four countries are given separate effects

above and beyond the joint combined effect of soft power on exports. Once these four countries are accounted for, there is little strong evidence of further country heterogeneity; this hypothesis is confirmed in the F-tests tabulated in the second-last row which test the relevance of adding additional effects for Pakistan (which has significant effects in Table 3), Iran, Germany and Canada. And the effects of these countries cannot be further combined; the bottom row of Table 4 overwhelmingly rejects the hypothesis that the two positive (Israel and North Korea) and negative (US and Russia) effects can be combined.

Figure 3 provides visual evidence of the effect of perceived influence on (log) exports. First, I regress log exports on the regressors of equation (1), omitting only the effect of influence. Next, I regress influence on the same set of regressors, using the log of positive perceived influence as the measure of soft power. I then plot the influence residual (on the y-axis) against the export residual (on the x-axis). There are four different scatter-plots, one for each of the United States, Russia, Israel and North Korea; I also include the corresponding least squares fitted line. The effect of influence is visible, though not overwhelming; the effect does not appear to be driven by outliers. The scales are the same for all four countries; the effect of soft power on exports clearly varies across the four countries. Figures 4 and 5 are analogous, but portray the other two measures of soft power, log negative perceived influence and net perceived influence.

I conclude that there is strong evidence that soft power – which I informally interpret as evidence that national preferences matter even if not formally organized as a boycott – matter for exports. The effect of soft power is large and intuitive for most countries. It is particularly small for the United States and Russia, and especially large for Israel and North Korea. Explaining these divergences across countries is an interesting topic for future research.

## **Hard Power and Sanctions**

I now examine the effect of hard power on exports by exploring sanctions. I proceed symmetrically, substituting sanctions in place of perceived influence in estimates of equation (1). In doing so, it is important to recognize that I am examining only a small part of hard power, since I ignore military power, security alliances and the like.

My main results are presented in Table 5, which is similar to the results of Table 1 but with (three measures of) sanctions substituted in place of (three measures of) soft power. I use the Morgan et al database for my measure of sanctions. This allows me to use three different measures of economic hard power: sanctions, threatened sanctions, and economic sanctions. Since my soft power database extend for eight years (2006-2013), I also use the eight most recent years of sanctions data available (1998-2005); I use data for all countries possible.

The results on sanctions stand in sharp contrast to those on soft power. Even though there is considerably more data available, the effects of sanctions is statistically and economically insignificant. This is true for all three measures of sanctions; each is included individually in the three different columns of Table 5. When the measures are combined together, there are still no indications that the effects of sanctions are significant; Table 6 includes combinations of the three different measures of sanctions and provides F-tests for their joint significance. The results are consistent with those of Table 5; sanctions seem to have little effect on exports. This non-result stands in stark contrast to the positive effects of Tables 1-4.

## 4. Conclusion

To summarize, in this paper I have found that soft power – and the potential effect of boycotts – seems to have an economically and statistically large effect on exports. There is no convincing evidence

that hard power – that is, actual or threatened sanctions – have any systematic effect. Succinctly, even if the S in BDS is BS, the B is not.

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**Table 1: Effect of Soft Power on log Exports** 

|                     | Log Positive | Log Negative | Net (÷100) |
|---------------------|--------------|--------------|------------|
| Global Influence,   | .50**        | 28**         | .80**      |
| BBC/GlobeScan       | (.07)        | (.05)        | (.12)      |
| Log                 | 90**         | 93**         | 91**       |
| Distance            | (.04)        | (.04)        | (.04)      |
| Common              | .48**        | .51**        | .49**      |
| Language            | (80.)        | (80.)        | (80.)      |
| Regional Trade      | .34**        | .37**        | .36**      |
| Agreement           | (.07)        | (.07)        | (.07)      |
| Land                | 04           | 03           | 04         |
| Border              | (.14)        | (.15)        | (.15)      |
| Currency            | 18           | 13           | 21         |
| Union               | (.13)        | (.13)        | (.13)      |
| Colonial            | .52**        | .54**        | .50**      |
| Relationship        | (80.)        | (80.)        | (80.)      |
| Exp./Imp. x Year FE | 310          | 310          | 310        |
| Observations        | 2664         | 2665         | 2665       |
| R <sup>2</sup>      | .86          | .86          | .86        |
| RMSE                | 1.05         | 1.07         | 1.06       |

Least squares estimation: regressand is log exports. Coefficients on regressors (by row); robust standard errors recorded parenthetically. BBC/WorldScan question: "Please tell me if you think each of the following are having a mainly positive or mainly negative influence in the world ..." Coefficients significantly different from zero at .05 (.01) significance level marked by one (two) asterisk(s).

**Table 2: Effect of Soft Power: Time Effects** 

| Default                   | Log Positive | Log Negative | Net (÷100) |
|---------------------------|--------------|--------------|------------|
| Log                       | .50**        | 28**         | .80**      |
| Exports $1 \rightarrow 2$ | (.07)        | (.05)        | (.12)      |

## Addition of Year-Specific Slopes One by One: marginal effect

| 2006 | 27    | .40*  | 81*   |
|------|-------|-------|-------|
|      | (.25) | (.16) | (.33) |
| 2007 | 31    | .19   | 58    |
|      | (.20) | (.16) | (.31) |
| 2008 | 31    | .18   | 54    |
|      | (.21) | (.16) | (.32) |
| 2009 | 15    | .07   | 26    |
|      | (.19) | (.14) | (.30) |
| 2010 | 20    | 02    | 09    |
|      | (.18) | (.14) | (.30) |
| 2011 | .26   | 04    | .21   |
|      | (.23) | (.15) | (.36) |
| 2012 | .37   | 33    | .91*  |
|      | (.24) | (.16) | (.39) |
| 2013 | .40*  | 22    | .80*  |
|      | (.19) | (.15) | (.33) |

# Addition of Year-Specific Slopes Simultaneously: F-test for joint significance

| F-test    | 1.9   | 1.9   | 3.1**  |
|-----------|-------|-------|--------|
| (p-value) | (.06) | (.06) | (.003) |

Least squares estimation: regressand is log exports. Coefficients on regressors (by row); robust standard errors recorded parenthetically. BBC/WorldScan question: "Please tell me if you think each of the following are having a mainly positive or mainly negative influence in the world ..." Coefficients significantly different from zero at .05 (.01) significance level marked by one (two) asterisk(s).

**Table 3: Effect of Soft Power: Country Effects** 

| Default       | Log Positive | Log Negative | Net (÷100) |
|---------------|--------------|--------------|------------|
| Log           | .50**        | 28**         | .80**      |
| Exports 1 → 2 | (.07)        | (.05)        | (.12)      |

Addition of Country-Specific Slopes One by One: marginal effect

| US        | 46**   | .44**   | -1.00** |
|-----------|--------|---------|---------|
|           | (.11)  | (.10)   | (.18)   |
| UK        | 06     | .07     | 27      |
|           | (.09)  | (.07)   | (.16)   |
| France    | .16    | .04     | .01     |
|           | (.10)  | (80.)   | (.19)   |
| Germany   | .12    | .08     | 07      |
|           | (.12)  | (.10)   | (.23)   |
| Canada    | 21     | .11     | 45      |
|           | (.14)  | (.07)   | (.24)   |
| Japan     | .12    | .11     | 08      |
|           | (.16)  | (.09)   | (.20)   |
| S Africa  | .09    | 35*     | .79*    |
|           | (.18)  | (.16)   | (.33)   |
| Brazil    | .07    | 09      | .36     |
|           | (.16)  | (.09)   | (.32)   |
| Venezuela | 60     | 1.29*   | -4.19*  |
|           | (1.04) | (.62)   | (1.69)  |
| Iran      | 41     | 16      | 30      |
|           | (.22)  | (.36)   | (.55)   |
| Israel    | .30**  | -1.00** | 1.53**  |
|           | (.11)  | (.22)   | (.29)   |
| India     | .01    | .15     | .08     |
|           | (.14)  | (.13)   | (.30)   |
| S Korea   | .14    | .11     | .23     |
|           | (.20)  | (.20)   | (.41)   |
| Pakistan  | 45**   | .52**   | -1.08** |
|           | (.13)  | (.19)   | (.30)   |
| Russia    | 83**   | 1.33**  | -2.80** |
|           | (.24)  | (.21)   | (.41)   |
| China     | 05     | .14     | 36      |
|           | (.12)  | (.10)   | (.19)   |
| N Korea   | 1.78** | -2.90** | 4.89**  |
|           | (.27)  | (.36)   | (.58)   |

# Addition of Country-Specific Slopes Simultaneously: F-test for joint significance

| F-test    | 6.0** | 10.1** | 12.6** |
|-----------|-------|--------|--------|
| (p-value) | (.00) | (.00)  | (.00)  |

Least squares estimation: regressand is log exports. Coefficients on regressors (by row); robust standard errors recorded parenthetically. BBC/WorldScan question: "Please tell me if you think each of the following are having a mainly positive or mainly negative influence in the world ..." Coefficients significantly different from zero at .05 (.01) significance level marked by one (two) asterisk(s).

**Table 4: Effect of Soft Power: Selected Countries** 

Country-Specific Slopes included Simultaneously

| Default | Log Positive | Log Negative | Net (÷100) |
|---------|--------------|--------------|------------|
| All     | .31**        | 22**         | .58**      |
|         | (.09)        | (.05)        | (.13)      |
| US      | 31**         | .35**        | 69**       |
|         | (.11)        | (.09)        | (.17)      |
| Israel  | .39**        | -1.05**      | 1.59**     |
|         | (.12)        | (.21)        | (.28)      |
| Russia  | 64**         | 1.13**       | -2.30**    |
|         | (.23)        | (.21)        | (.41)      |
| N Korea | 1.77**       | -2.84**      | 4.73**     |
|         | (.27)        | (.36)        | (.58)      |

Add Pakistan, Iran, Germany and Canada (least, most popular countries), test for relevance

| F-test    | 3.0*  | 1.3   | 2.6*  |
|-----------|-------|-------|-------|
| (p-value) | (.02) | (.28) | (.03) |

Combine US and Russia, Israel and N Korea, test hypothesis of coefficient equality

| F-test    | 13.** | 16.** | 21.** |
|-----------|-------|-------|-------|
| (p-value) | (.00) | (.00) | (.00) |

Coefficients on regressors named in column header; robust standard errors recorded parenthetically. Coefficients significantly different from zero at .05 (.01) significance level marked by one (two) asterisk(s). Regressors included but not recorded: log distance; dummy variables for currency union, common language, land border, RTA, colonial relationship, importer x year fixed effects, exporter x year fixed effects.

**Table 5: Effect of Soft Power on log Exports** 

|                     | Sanction | Sanction Threat | Economic Sanction |
|---------------------|----------|-----------------|-------------------|
| Sanction            | .10      | .04             | .05               |
| Effect              | (.09)    | (80.)           | (.09)             |
| Log                 | -1.09**  | -1.09**         | -1.09**           |
| Distance            | (.04)    | (.04)           | (.04)             |
| Common              | .63**    | .63**           | .63**             |
| Language            | (.06)    | (.06)           | (.06)             |
| Regional Trade      | .42**    | .42**           | .42**             |
| Agreement           | (.07)    | (.07)           | (.07)             |
| Land                | .28**    | .29**           | .29**             |
| Border              | (.11)    | (.11)           | (.11)             |
| Currency            | 48**     | 48**            | 48**              |
| Union               | (.10)    | (.10)           | (.10)             |
| Colonial            | .75**    | .75**           | .75**             |
| Relationship        | (.07)    | (.07)           | (.07)             |
| Exp./Imp. x Year FE | 540      | 555             | 540               |
| Observations        | 5949     | 5964            | 5949              |
| R <sup>2</sup>      | .85      | .85             | .85               |
| RMSE                | 1.16     | 1.16            | 1.16              |

Least squares estimation: regressand is log exports. Coefficients on regressors (by row); robust standard errors recorded parenthetically. Coefficients significantly different from zero at .05 (.01) significance level marked by one (two) asterisk(s).

**Table 6: Effect of Sanctions on Exports** 

| Sanctions | Threats | Economic Sanctions | Joint F-Test (p-value) |
|-----------|---------|--------------------|------------------------|
| .10       |         |                    |                        |
| (.09)     |         |                    |                        |
|           | .04     |                    |                        |
|           | (.08)   |                    |                        |
|           |         | .05                |                        |
|           |         | (.09)              |                        |
| .11       | .05     |                    | .8                     |
| (.10)     | (.08)   |                    | (.47)                  |
| .28       |         | 22                 | .9                     |
| (.22)     |         | (.21)              | (.42)                  |
| .29       | .05     | 22                 | .7                     |
| (.22)     | (.09)   | (.22)              | (.57)                  |

Coefficients on regressors named in column header; robust standard errors recorded parenthetically. Coefficients significantly different from zero at .05 (.01) significance level marked by one (two) asterisk(s). Regressors included but not recorded: log distance; dummy variables for currency union, common language, land border, RTA, colonial relationship, importer x year fixed effects, exporter x year fixed effects.

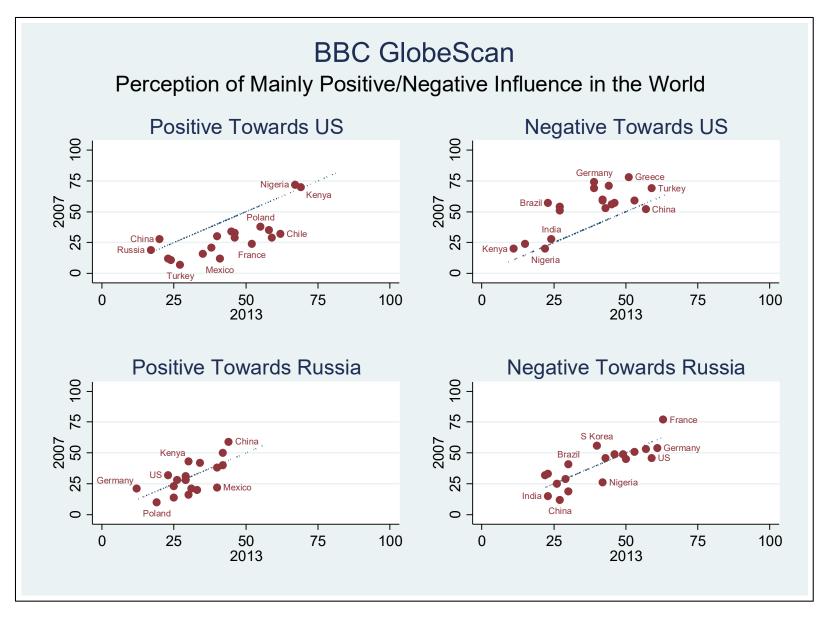


Figure 1

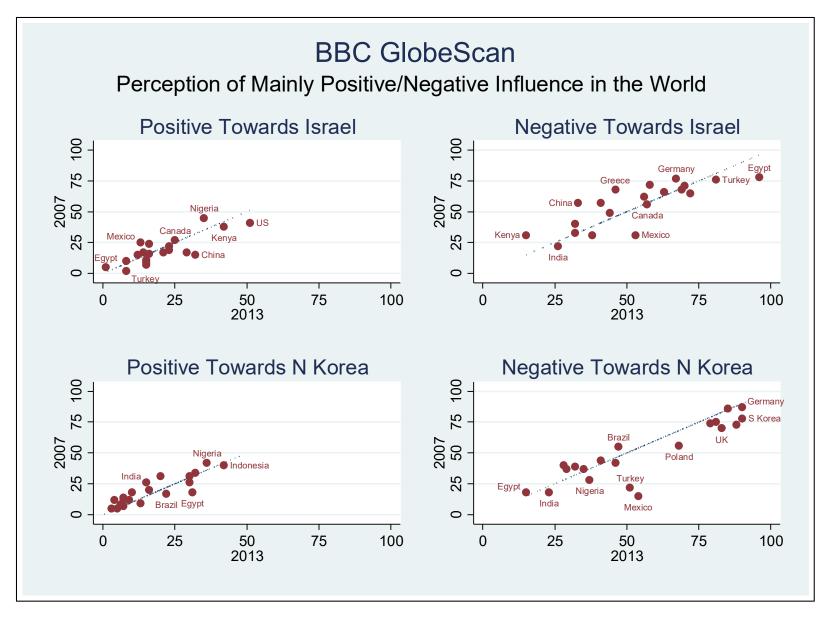


Figure 2

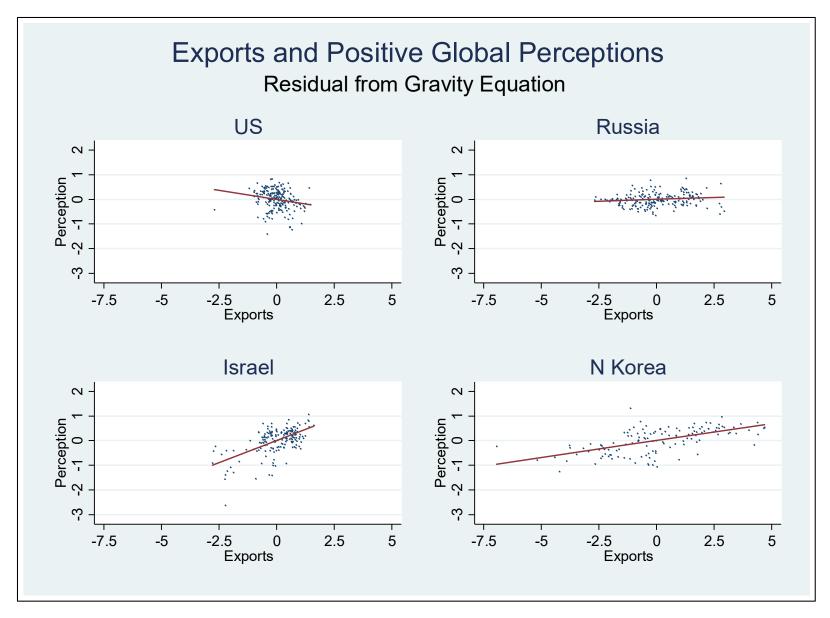


Figure 3

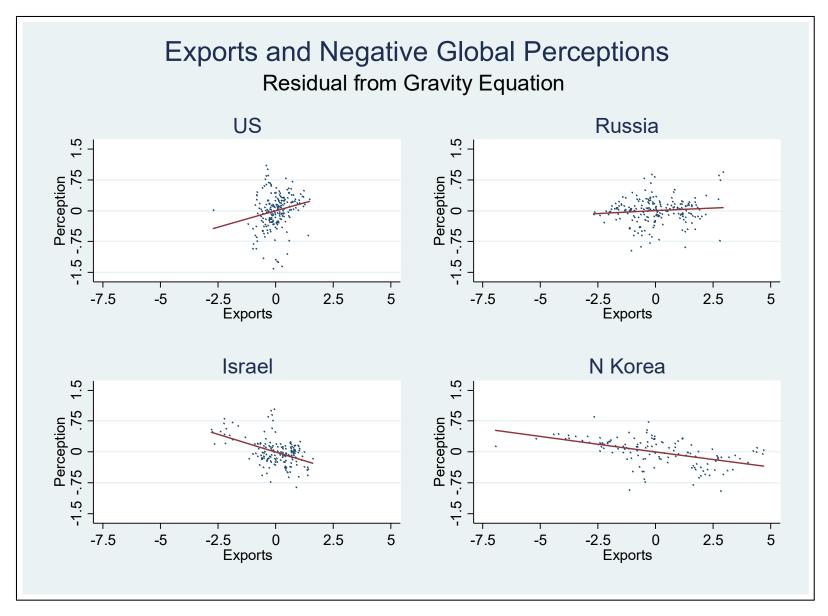


Figure 4

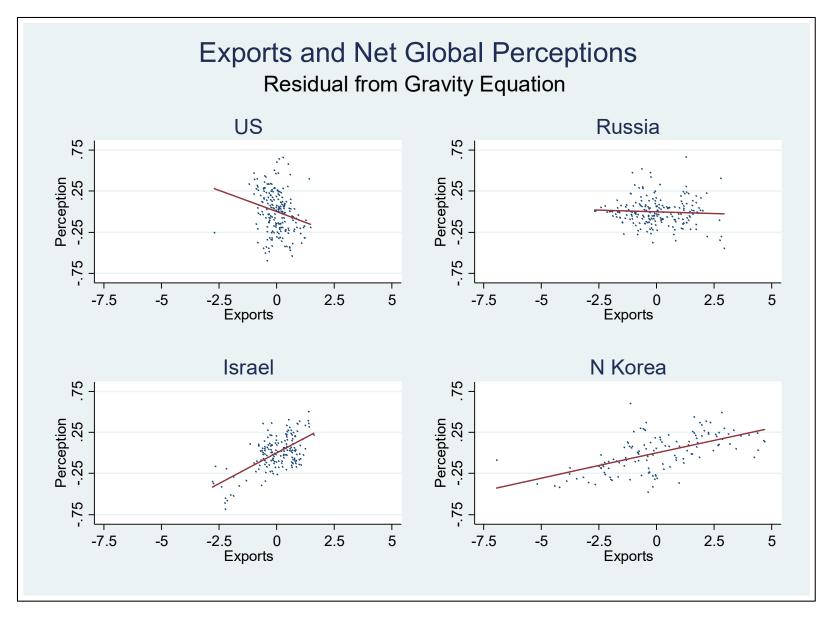


Figure 5

# **Appendix: Years and Countries in Sample**

# **Years** (number of observations in parentheses)

| 2006 (256) | 2008 (325) | 2010 (420) | 2012 (340) |
|------------|------------|------------|------------|
| 2007 (291) | 2009 (291) | 2011 (419) | 2013 (388) |

# **Countries whose Influence was Asked About** (number of observations in parentheses)

|              |               | •              | · · · · · · · · · · · · · · · · · · · | ·              |
|--------------|---------------|----------------|---------------------------------------|----------------|
| Brazil (144) | Germany (142) | Japan (175)    | S Africa (120)                        | Venezuela (27) |
| Canada (116) | India (200)   | N Korea (176)  | S Korea (97)                          |                |
| China (201)  | Iran (208)    | Pakistan (145) | UK (201)                              |                |
| France (201) | Israel (175)  | Russia (201)   | USA (201)                             |                |

# **Countries Surveyed** (number of observations)

| Afghanistan (8) | Finland (8)     | Israel (11)      | Poland (35)      | Thailand (16) |
|-----------------|-----------------|------------------|------------------|---------------|
| Argentina (31)  | France (102)    | Italy (78)       | Portugal (55)    | Turkey (94)   |
| Australia (109) | Germany (104)   | Japan (86)       | Russia (102)     | UAE (23)      |
| Azerbaijan (16) | Ghana (99)      | Kenya (95)       | S Africa (23)    | UK (101)      |
| Brazil (90)     | Greece (27)     | Lebanon (23)     | Saudi Arabia (8) | USA (101)     |
| Canada (105)    | Hungary (11)    | Mexico (110)     | S Korea (91)     | Zimbabwe (8)  |
| Chile (102)     | India (102)     | Nigeria (110)    | Sri Lanka (8)    |               |
| China (102)     | Indonesia (110) | Pakistan (60)    | Senegal (8)      |               |
| DR Congo (8)    | Iran (7)        | Peru (48)        | Spain (99)       |               |
| Egypt (102)     | Iraq (8)        | Philippines (78) | Tanzania (8)     |               |

# GDP and GDP per capita Comparison between Countries inside and outside BBC/GlobeScan Survey

|                     | Influence Ever Asked About |                | Countries Ever Surveyed |                |
|---------------------|----------------------------|----------------|-------------------------|----------------|
|                     | GDP                        | GDP per capita | GDP                     | GDP per capita |
| Average, Included   | \$2.7 billion              | \$19,766       | \$1.2 billion           | 15,071         |
| Average, Others     | \$.1 billion               | \$11,905       | \$.1 billion            | 11,766         |
| t-test for equality | 490                        | 95             | 290                     | 61             |
| p-value (t=0)       | .00**                      | .00**          | .00**                   | .00**          |

GDP and GDP per capita from Penn World Table.

#### **Endnotes**

<sup>1</sup> <a href="http://www.merriam-webster.com/dictionary/boycott">http://www.merriam-webster.com/dictionary/boycott</a> .

<sup>6</sup> In the case of the United States, to quote Wikipedia (<a href="https://en.wikipedia.org/wiki/Boycott">https://en.wikipedia.org/wiki/Boycott</a>):" Boycotts are legal under common law. The right to engage in commerce, social intercourse, and friendship includes the implied right not to engage in commerce, social intercourse, and friendship. Since a boycott is voluntary and nonviolent, the law cannot stop it. Opponents of boycotts historically have the choice of suffering under it, yielding to its demands, or attempting to suppress it through extralegal means, such as force and coercion.

In the United States, the antiboycott provisions of the Export Administration Regulations (EAR) apply to all "U.S. persons", defined to include individuals and companies located in the United States and their foreign affiliates. The antiboycott provisions are intended to prevent United States citizens and companies being used as instrumentalities of a foreign government's foreign policy. The EAR forbids participation in or material support of boycotts initiated by foreign governments, for example, the Arab League boycott of Israel. ... the EAR only applies to *foreign government initiated* boycotts..."

For an interesting related analysis of an informal boycott of French products in America because of the 2003 Iraq war, see Pandya and Venkatesan (2016).

<sup>7</sup> http://www.globescan.com/clients/case-studies/bbc-world-service.html .

<sup>&</sup>lt;sup>2</sup> http://www.merriam-webster.com/dictionary/sanction.

<sup>&</sup>lt;sup>3</sup> http://www.bdsmovement.net/.

<sup>&</sup>lt;sup>4</sup> Available online at <a href="https://www.unc.edu/~bapat/TIES.htm">https://www.unc.edu/~bapat/TIES.htm</a> .

<sup>&</sup>lt;sup>5</sup> https://en.wikipedia.org/wiki/Boycott .

<sup>&</sup>lt;sup>8</sup> The Program on International Policy Attitudes (PIPA) is a joint program of the Center on Policy Attitudes and the Center for International and Security Studies at the University of Maryland (http://www.globescan.com/news\_archives/bbc06-3/); more details are available at http://www.pipa.org/.

<sup>&</sup>lt;sup>9</sup> Since two of the positive observations are zero, there are only 2728 observations on log positive.

<sup>&</sup>lt;sup>10</sup> Nye (1990, p 168).

<sup>&</sup>lt;sup>11</sup> Disdier and Mayer use an alternative indicator from Eurobarometer; it measures opinions from citizens of EU member countries concerning potential entrants from Central and Eastern Europe. Guiso, Sapienza and Zingales (2009) study the effects of trust on trade and other phenomena using different Eurobarometer data.

<sup>&</sup>lt;sup>12</sup> It is possible to overstate the importance of this critique. Most countries on the list are not known for hard power, and those that are (e.g., the United States) are not at the top of the list; survey participants do not begin by answering about countries known for hard power. Further, it is hard to understand why hard power might result in higher exports. This is especially true since the country-year fixed effects should account for hard power.

<sup>&</sup>lt;sup>13</sup> The fact that larger and richer countries enter the sample has its advantages; this panel of data only has a small number of missing/zero trade values (less than 3% of the sample), thereby essentially eliminating the general issue raised by Santos Silva and Tenreyro (2006) and the need for Poisson pseudo maximum likelihood estimation with a large number of fixed effects.

<sup>&</sup>lt;sup>14</sup> Sensitivity analysis, including the use of instrumental variables and dyadic fixed effects, is available in my (2016) *Economics & Politics* paper.

<sup>&</sup>lt;sup>15</sup> If one interacts the measure of soft power with a simple linear time trend, the associated coefficient is statistically significant and indeed knocks out the soft power level effect from the regression.

 $<sup>^{\</sup>rm 16}\,$  I choose these four countries because they are the least and most popular countries.