Celeste Beesley and Scott Cooper

Brigham Young University

Micro-Foundations of the Commercial Peace:

The Effect of Net Exports on Ukrainian Attitudes Towards War with Russia

Journal of Peace Research

2022

Codebook for

* KIIS data, Beesley & Cooper, JPR.dta
* Pew data, Beesley & Cooper, JPR.dta

Contact

* celeste\_beesley@byu.edu
* scott\_cooper@byu.edu

**Province-level variables (same in both datasets)**

dist\_border100

Label: Distance to Russian Border (province)

Distance from provincial administrative center to closest Russian border (an arc from Russia-Belarus-Ukraine tripoint to eastern coast of Sea of Azov to Kerch Strait) in units of 100 km. Russian border does not include Kaliningrad or Crimea. Calculated by authors using ArcGIS Desktop 10.7, “Ukraine topographic administrative map with regional borders.mxd”

eunetexportsgrp\_pct

Label: % Net Exports to EU (province)

Calculated as province’s 2013 exports to EU minus imports from EU, total divided by gross regional product, multiplied by 100 (State Statistics Service of Ukraine 2015, Tables 24.6, 24.7, 24.12, and 24.13).

GRP

Label: GRP 2013 (millions hryvnia)

Province’s Gross Regional Product or total production from State Statistics Service of Ukraine 2015, Table 11.1.

GRPUSDth

Label: GRP 2013 ($ thousands)

Province’s Gross Regional Product (GRP) converted to US dollars using World Development Indicators, 2013 exchange rate (World Bank n.d.). Used as denominator in several other variables.

idp2015

Label: # Internally Displaced Persons (province)

Number of registered, internally displaced persons per province as of December 2015 (Ministry of Social Policy of Ukraine 2016, 30).

ILOunemprate1570

Label: Unemployment Rate, Age 15-70 (province)

Province’s unemployment rate in 2014 (State Statistics Service of Ukraine 2015, Table 4.5).

militarylosses2015

Label: # Soldiers Killed 2014 (province)

Number of Ukrainian soldiers killed by province, as of 28 January 2015 (Slovo I Dilo 2015).

natgasthusdgrp\_pct

Label: % Natural Gas Usage per GRP (province)

Reported total natural gas usage in 2013 (State Statistics Service of Ukraine 2014b) multiplied by price of natural gas (unpublished data from Derzhanalitinform, personal correspondence with Oleksander Shetakov, 17 Feb 2021), divided by regional GRP.

netexportsgrp\_pct

Label: % Net Exports to World (province)

Calculated as province’s 2013 total exports minus total imports, total divided by gross regional product, multiplied by 100 (State Statistics Service of Ukraine 2015, Tables 24.6, 24.7, 24.12, and 24.13).

newoblast

Label: Oblast number (group variable)

Assigned number of province (oblast).

oblastname

Label: oblast name

Name of province (oblast)

russexportsgrp\_pct

Label: % Exports to Russia (province)

Province’s exports to Russia in 2013 divided by gross regional product, multiplied by 100 (State Statistics Service of Ukraine 2015, Tables 24.6 and 24.12).

russimportsgrp\_pct

Label: % Imports from Russia, without Gas Adjustment (province)

Province’s reported imports from Russia in 2013 divided by gross regional product, multiplied by 100 (State Statistics Service of Ukraine 2015, Tables 24.7 and 24.13).

russimportsw92gasgrp\_pct

Label: % Imports from Russia (province)

Calculated by authors: % Imports from Russia without Gas Adjustment plus 0.926 times % Natural Gas Usage per GRP (because Ukraine imported 92.6% of its imported natural gas from Russia in 2013). Rivne and Cherkassy not adjusted because their import data already includes natural gas.

russnetexportsgrp\_pct

Label: % Net Exports to Russia, without Gas Adjustment (province)

Calculated as % Exports to Russia minus % Imports from Russia, without Gas Adjustment.

russnetexportsw92gasgrp\_pct (primary independent variable)

Label: % Net Exports to Russia (province)

Calculated as % Exports to Russia minus % Imports from Russia. Rivne and Cherkassy not adjusted because their import data already includes natural gas.

russnetexportsw92gas4all\_pct

Label: % Net Exports to Russia, with Gas Adjustment for All Regions (province)

Calculated as % Net Exports to Russia, but Rivne and Cherkassy also adjusted by subtracting 0.926 times their reported natural gas for energy purposes, which is calculated as the difference between their total natural gas usage and reported non-energy usage (State Statistics Service of Ukraine 2014b).

russtradew92gasgrp\_pct

Label: Total Russia Trade per GRP (province)

Province’s % Exports to Russia plus % Imports from Russia, divided by regional GRP.

totgoventpctreg\_100

Label: State & Government Firms out of Total Firms (province)

Number of registered entities in each province that are “government” or “state-owned” enterprises divided by the total number of registered entities, multiplied by 100 (State Statistics Service of Ukraine 2014a, Table 12.3).

Ukrainian

Label: % Ukrainian (province)

Percentage of the province’s population that identified as native Ukrainian-speaking in the 2001 Ukrainian census (State Statistics Service of Ukraine 2018).

**KIIS dataset**

Kiev International Institute of Sociology, 6-17 December 2014. 3035 respondents from all 25 Ukraine-controlled provinces. Weighted by age group and gender. Random sampling of 200 survey points and random address selection within the survey points to produce a sample that is representative not only of the adult population of Ukraine, but also for separate macro-regions of Ukraine (East, West, Southeast and Center).

bothnation

Label: Both Ukrainian & Russian nationality

Question: How do you describe your nationality?

10 choices + “Other.” True only if respondent volunteered “both Ukrainian and Russian.” True 3.6%, False 96.1%, missing 0.3%

donbas

Label: Donetsk or Luhansk (province dummy)

True for respondents from Donetsk or Luhansk province. True 14.5%, False 85.5%.

econstatus2

Label: Higher economic status

Question: Which choice represents the financial situation of your family?

5 choices. 5-point scale from “we can afford all we want” (5) to “we don’t have enough money to eat” (1). Mean 2.2, Std dev 0.7, missing 3.5%

employed

Label: Occupation: Employed

Question: What is the basis of your family’s occupation?

10 choices + “Other.” True if respondent chose anything other than homemaker, pensioner, student, unemployed, or other. True 36.7%, False 62.9%, missing 0.4%

female

Label: Female

Recorded by observation. True 61.9%, False 38.1%

# labelpos1

# Label position for margins plots.

# nationality

# Label: nationality (1=Ukr, 2=Both, 3=Russ, 4=other)

Question: How do you describe your nationality?

# 10 choices + “Other.” 1 if respondent chose “Ukrainian.” 2 if respondent chose “Ukrainian and Russian.” 3 if respondent chose “Russian.” 4 if respondent chose any other nationality (e.g., Hungarian, Bulgarian, etc.) or “Other.”

nationality\_3or4

Label: Nationality=Russian or Other

Question: How do you describe your nationality?

10 choices + “Other.” True if respondent chose anything except Ukrainian or Both—i.e., True for Russians and all others. True 9.2%, False 90.5%, missing 0.3%

othernation

Label: Neither Ukrainian nor Russian

Question: How do you describe your nationality?

10 choices + “Other.” True if respondent chose anything except Ukrainian, Russian, or both Russian and Ukrainian. True 2.5%, False 97.2%, missing 0.3%

pensioner

Label: Occupation: Pensioner

Question: What is the basis of your family’s occupation?

10 choices + “Other.” True if respondent chose “living on a pension.” True 38.2%, False 61.4%, missing 0.4%

# provavgwf

# Label: Average Worthfighting Score (province)

# Average value of dependent variable among all respondents in the province.

rural

Label: Rural

Place of interview. True for interviews conducted in a village, False otherwise. True 33.2%, False 66.8%

russiahappening

Label: Believe Russia involved in war

Question: What is happening in your opinion is . . .

5 choices. True if respondent chose “civil war driven by Russia,” “war between Russia and Ukraine,” or “geopolitical war between Russia and US.” False for “civil war driven by Kiev” or “local conflict between Ukraine and illegal forces.” True 73%, False 14.9%, missing 12.1%

separatistterr

Label: Interview in Separatist Territory

Question: Under whose control is the territory in which you live?

Only asked in Donetsk and Luhansk. 2 choices. True if respondent chose “DPR or LPR.” True 1.9%, False 98.1%.

ukrlang

Label: Ukrainian language preferred

Question: Which language did respondent prefer to speak during interview—Russian or Ukrainian?

True for interview in Ukrainian. True 52.9%, False 47.1%

# ukrnation

Label: Ukrainian nationality

Question: How do you describe your nationality?

10 choices + “Other.” True if respondent chose Ukrainian (but not Ukrainian and Russian). True 86.9%, False 12.8%, missing 0.3%

univplus

Label: University education

Question: What is your level of education?

8 choices. True if respondent chose “partial higher education” or “complete higher education.” True 30%, False 69.7%, missing 0.3%

weight

Label: survey weight (age and gender)

Survey weight assigned by KIIS according to age and gender.

worthfighting (dependent variable)

# Label: Worthfighting (dichotomous)

# Question: Does it make sense to fight a war in the Donbas?

# 5 choices. True if respondent chose any of the Yes options. True 62.3%, False 28.5%, missing 9.2%.

# Yes, because the Donbas is a territory of Ukraine, where Ukrainian citizens live.

# Yes, because, if they take the Donbas, Russia will not stop there and will come further.

# Yes, because Ukraine needs the resources of that region.

# No, because the majority of people living there want to separate from Ukraine and our soldiers shouldn’t die senselessly.

# No, because conflict should be managed exclusively by means of negotiations.

# worthfighting\_no5

# Label: Worthfighting, category 5 dropped

# Question: Does it make sense to fight a war in the Donbas?

# Same as worthfighting except set to missing if respondent chose “Yes, because Ukraine needs the resources of that region.” True 58.1%, False 28.5%, missing 13.5%.

**Pew dataset**

Pew Research Center, Global Attitudes Survey, 14-30 April 2015. 2071 respondents from 23 provinces. No surveys in Donetsk or Luhansk for security reasons. Weighted by gender, age, and urbanity within region and by region.

above3Khryv

Label: Income above 3000 hryvnia

Question: What is your household’s monthly income in hryvnia?

15 categories. True for those who chose any of the 6 categories above 3000, False otherwise. True 47.2%, False 45.8%, missing 7%

age

Label: Age

Question: How old were you at your last birthday?

Min 18, Max 89, Mean 46.3, Std dev 17.2

female

Label: Female

Recorded by observation. True 58.5%, False 41.5%

# labelpos1

# Label position for margins plots.

nat1

Label: Ukrainian nationality

Question: Which nationality group do you belong to?

11 choices. True for respondents who chose Ukrainian. True 92%, False 8%

nat2

Label: Russian nationality

Question: Which nationality group do you belong to?

11 choices. True for respondents who chose Russian. True 7%, False 93%

nat3

Label: Neither Ukrainian nor Russian

Question: Which nationality group do you belong to?

11 choices. True for respondents who chose something other than Ukrainian or Russian (e.g., Polish, Hungarian, etc.). True 1.2%, False 98.8%

notukrnat

Label: Nationality=Russian or Other

Question: Which nationality group do you belong to?

11 choices. True for anyone who chose something other than Ukrainian. True 8%, False 92%.

provavgsec

Label: Average Secede Score (province)

# Average value of dependent variable among all respondents in the province.

rural

Label: Rural

Place of interview. True for interviews conducted in village, False otherwise. True 32.8%, False 67.2%

Russiathreat

Label: Believe Russia a threat

Question: In your opinion, how much of a military threat, if at all, is Russia to its neighboring countries, aside from Ukraine?

3 choices. 3-point scale: major threat (3), minor threat (2), not a threat (1). Major 43.8%, Minor 34.4%, Not 14.6%, missing 7.2%

secede (dependent variable)

Label: Secede (dichotomous)

Question: In your opinion, should Ukraine remain one, united country or should regions that want to leave be allowed to secede?

True if respondents chose “allowed to secede.” False if respondents chose “remain united.” Missing if respondents chose “don’t know” or refused to answer. True 12.3%, False 81.2%, missing 6.6%.

ukrspeakhome

Label: Ukrainian language at home

Question: What languages do you usually speak at home?

True for those who chose Ukrainian first. True 58.1%, False 41.9%

weight

Label: Survey weight

Survey weight assigned by Pew according to gender, age, and urbanity within region and by region.

working  
Label: Currently working

Question: Which of the following best describes your current employment situation?

7 categories. True for those who chose “paid work.” False for those who are unemployed, in education, apprenticed, disabled, retired, or in housework. True 41.7%, False 58.1%, missing 0.2%

yrseduc

Label: Education (years)

Question: How many years of schooling or education have you attended?

Min 2, Max 25, Mean 12.7, Std dev 2.4

References

International Monetary Fund (2019) *Reassessing the role of state-owned enterprises in Central, Eastern, and Southeastern Europe*. European Department no. 19/11. Washington, DC: International Monetary Fund.

Ministry of Social Policy of Ukraine (2016) National monitoring system of the situation with internally displaced persons. March-June. [*https://www.iom.org.ua/sites/default/files/ iom\_nms\_cumulative\_report\_eng.pdf*](https://www.iom.org.ua/sites/default/files/%20iom_nms_cumulative_report_eng.pdf) (accessed 16 February 2021).

Slovo I Dilo [Word and Deed] (2015) Losses of law enforcement agencies in the conflict in eastern Ukraine. 28 January. [*https://www.slovoidilo.ua/articles/7184/2015-01-28/poteri-silovyh-struktur-v-konflikte-na-vostoke-ukrainy-v-dinamike.html*](https://www.slovoidilo.ua/articles/7184/2015-01-28/poteri-silovyh-struktur-v-konflikte-na-vostoke-ukrainy-v-dinamike.html) (accessed 16 February 2021).

State Statistics Service of Ukraine (2014a) Regions of Ukraine*.* [*https://ukrstat.org/en/druk/publicat/kat\_e/publ2\_e.htm*](https://ukrstat.org/en/druk/publicat/kat_e/publ2_e.htm) (accessed 10 December 2017).

\_\_\_\_\_\_\_\_ (2014b) Statistical bulletin: Balances and usage of energy materials and petroleum products for 2013. Expenditure of energy materials and oil refining products by area of consumption in 2013: Total used and amount for non-energy purposes. <http://www.ukrstat.gov.ua/druk/publicat/kat_u/publmat_en_u.htm> (accessed 6 April 2022).

\_\_\_\_\_\_\_\_ (2015) Regions of Ukraine. [*https://ukrstat.org/en/druk/*](https://ukrstat.org/en/druk/)*publicat/kat\_e/publ2\_e.htm* (accessed 16 February 2021).

\_\_\_\_\_\_\_\_ (2018) Databank: 2001 Census. Table 19A050501\_02: Distribution of the population of Ukraine`s regions by native language. [*http://ukrcensus.gov.ua/eng/*](http://ukrcensus.gov.ua/eng/) (accessed 24 August 2018).

World Bank (N.d.) World Development Indicators. DataBank. Official exchange rate (LCU per US$, period average). [*https://data.worldbank.org/indicator/PA.NUS.FCRF?locations=UA&page=1*](https://data.worldbank.org/indicator/PA.NUS.FCRF?locations=UA&page=1)(accessed 6 April 2022).