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11 August 2009

Online at <https://mpra.ub.uni-muenchen.de/16747/>

MPRA Paper No. 16747, posted 11 Aug 2009 14:57 UTC

# Democracy and Trade: a Gentle Trade-off

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LAST REVISED: 11 AUGUST 2009

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\* All the views expressed in this paper belong to the author and do not represent those of the Central Bank of the Republic of Turkey, or its staff.

# Democracy and Trade: a Gentle Trade-off

M. ERAY YUCEL

## Abstract

Regime characteristics and their evolution have always been of interest of several disciplines. The difficulties that arise in measuring regime characteristics have been resolved to a large extent during the past three decades. In that, the POLITY IV project has generated a valuable source of knowledge where characteristics of world regimes from 1800 to 2007 were documented well. In this study, I elaborate the simple trade-weighted versions of the main indicators of POLITY IV for the year 2007. The results indicate that measurements of countries' regime characteristics may be open to some criticisms once trade linkages are considered.

**JEL Classification:** C0, F0, F50 and F59.

**Key Words:** Democracy, Autocracy, POLITY IV project, International trade, Trade-adjusted measures.

## 1. Introduction

Every country has certain characteristics of authority. Where some countries have well-developed democracies, some others possess more autocratic properties. Generally, a mature democracy is attached to “western” societies. The word western is/can be often changed by “developed”, “industrialized” and the like. Back of the coin includes “less democratic” countries and these are most of the time have the label “eastern”, “non-industrialized”, “less developed”, “developing”, etc.<sup>1</sup>

Immature and less-developed democracies have almost always been a concern and source of discomfort for the developed societies. Collective corrective action against anti-democratic developments mostly originates from the developed world. It is hard to recall an example of the opposite. In that, political/economic sanctions are not rare. The sanctions may be in the form of a general trade restriction (from a country X) or an individual country A may prefer to weaken/suspend its trade linkages with a country Y so as to force Y into a certain attitude, which is by definition desired by A and undesired by Y.<sup>2</sup> Note that, corrective actions should not always have an economic nature: in many cases an array of political threats can be more effective and even less costly.<sup>3</sup>

To me, the ‘no-sanction case’ is more interesting. What I primarily do is to construct (or to imagine) a world as follows:

[:] Each country has different regime characteristics. Some are more and some are less democratic. More democratic societies (countries) politely and continuously condemn those less democratic. However, in the absence of a large-scale social discontent, the relationship between the more democratic countries and less democratic ones does not come to a halt. This briefly underlines the assumption of ‘no sanctions’.

[:] Wage rates in less democratic countries are more favorable from an entrepreneurial perspective. That is, manufacturing in a less democratic, and consequently low-wage environment with possibly zero social security is “good”. Furthermore, a larger portion of the value chain for that good is operated/exploited in the developed world.

[:] A manufactured good of country X, in addition to the value due to devoted factors of production, includes the value of the regime characteristics in country X. Therefore, when goods are traded democracy (or anti-democracy) is also traded. In other words, each good/service has a virtual democracy (or autocracy) content.

[:] Based on the former statements, a country’s quality of democracy depends on who its trade partners are. This highlights a basic measurement problem: a country has a *de jure* level of democracy (measured by domestic socio-political traits as in POLITY IV) and a *de facto* level (measured by using international trade linkages among countries as in this paper). All in all, *de jure* levels of democracy may not be accurate enough and may need further elaboration (at least interpretation). In what follows, I call the *de jure* and *de facto* measures as “original” and “adjusted”, respectively.

More specifically, I argue that no country is exactly as democratic as its domestic climate implies. Countries with less democratic trade partners sacrifice part of their grades in Democracy-101. Still, this should not be interpreted as if there is a sharp trade-off between

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<sup>1</sup> Notice that the potential bias and overtone of the terminology, which is unavoidable in many cases. Refinements of the terminology have already been subject to different disciplines.

<sup>2</sup> One may argue that the initial distribution of power among countries determines the ultimate outcome in favor of those being more powerful. Hence, the sanction may not always be enforcing a generally accepted norm of behavior. The nature of the “certain attitude” mentioned above may then be ambiguous. For sake of simplicity we can assume that countries’ manifested and revealed policy preferences do coincide.

<sup>3</sup> This explains to a large extent the recently boosted interest of political science and international relations specialists in game theory.

the regime characteristics and trade. The question is not “to be democratic or to trade”; the trade-off is, rather, a gentle one.<sup>4</sup>

The remaining part of the paper presents a simple re-elaboration of the main indicators of the POLITY IV database.<sup>5</sup> In Section 2, I introduce the data sets and elaborate the computational details. Section 3 provides a brief discussion of findings.

## 2. Data and Analysis

### 2.1. Data

#### Polity Data

The POLITY IV project codes the authority characteristics of states in the world system for purposes of comparative, quantitative analysis.<sup>6</sup> *Polity* is maintained as the unit of analysis and it is defined as a ‘political or governmental organization; a society or institution with an organized government; state; body politic.’<sup>7</sup> See, Eckstein and Gurr (1975) and POLITY IV Dataset’s User Manual for further details.

The main indicators of the POLITY IV database that I consider in this study are as follows:

**DEMOC:** Measures the institutionalized democracy. Democracy is conceived as three essential, interdependent elements: (1) presence of institutions and procedures through which citizens can express effective preferences about alternative policies and leaders, (2) existence of institutionalized constraints on the exercise of power by the executive, (3) guarantee of civil liberties to all citizens in their daily lives and in acts of political participation. Other aspects of plural democracy (the rule of law, systems of checks and balances, freedom of the press, and so on) are taken as specific reflections of these general principles. Coded data on civil liberties are not included. The democracy indicator (DEMOC) is an additive eleven-point scale (0-10) where higher values indicate higher degree of democracy.

**AUTOC:** Measures the institutionalized autocracy. Note that “authoritarian regime” in Western political discourse is used as a pejorative term for diverse political systems that share the lack of regularized political competition and concern for political freedoms as a common characteristic. Here the more neutral term autocracy is used and it is defined as it operationally in terms of the presence of a distinctive set of political characteristics. In mature form, autocracies sharply restrict or suppress competitive political participation. Their chief

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<sup>4</sup> The idea of trade-adjusting the democracy scores was triggered by the literature on virtual water, which is not related to the current context at all. In the virtual water (also called embedded water, embodied water, hidden water) literature, virtual water is defined as the volume of freshwater used to produce the product, measured at the place where the product was actually produced and it is the sum of the water used in the various steps of the production chain. It is said to be virtual because once the production is complete, the real water used to produce a commodity/service is no longer actually contained in the product/service. The concept of virtual water helps us realize how much water is needed to produce different goods and services (see Hoekstra and Chapagain, 2007; Chenoweth, 2008 and <http://www.waterfootprint.org/?page=files/Publications>) In the context of this paper, water is replaced by democracy indicators. Regime/governance characteristics of a country are assumed to be embodied in the products of that country. Consequently, the trade-adjusted democracy scores were initiated.

<sup>5</sup> The reader, at the very beginning, should be warned that the material presented is not a full-fledged treatment of a well-defined topic from either of the perspective of a political scientist or of an economist. I rather try to provide a couple of pages to trigger a thought exercise.

<sup>6</sup> The original Polity conceptual scheme was formulated and the initial Polity I data collected under the direction of Ted Robert Gurr and informed by foundational, collaborative work with Harry Eckstein, *Patterns of Authority: A Structural Basis for Political Inquiry* (New York: John Wiley & Sons, 1975). The project has evolved through three earlier phases under the direction of Ted Gurr. The Polity III phase updated core Polity data through 1992 and was later updated through 1998 and released as the Polity98 version. The Polity IV combined format was instituted with the 2000 data update.

<sup>7</sup> Webster’s New World College Dictionary.

executives are chosen in a regularized process of selection within the political elite, and once in office they exercise power with few institutional constraints. The autocracy indicator (AUTOC) is also an eleven-point scale (0-10) where higher values indicate higher degree of autocracy.

**POLITY:** Measures the combined polity score: The POLITY score is computed by subtracting the AUTOC score from the DEMOC score; the resulting unified polity scale ranges from +10 (strongly democratic) to -10 (strongly autocratic).

In all three measures above the following exceptions are possible:

- [.] Cases of foreign “interruption” are treated as “system missing” and are marked “-66”
- [.] Cases of “interregnum,” or anarchy, are marked “-77”
- [.] Cases of “transition” are marked “-88”.

Note that the values of “-66”, “-77” and “-88” are not cardinal, i.e. they are not comparable with the values coming from the eleven point scales.

**POLITY2:** is a modified version of the POLITY variable added in order to facilitate the use of the POLITY regime measure in time-series analyses. It modifies the combined annual POLITY score by applying a simple treatment, or fix, to convert instances of standardized authority scores (i.e., -66, -77, and -88) to conventional polity scores (i.e., within the range, -10 to +10). For the rules of conversion see Polity IV Dataset’s User Manual (2009).

For convenience I maintained a simpler transition for DEMOC and AUTOC and generated **DEMOC2** and **AUTOC2** by replacing the values of “-66”, “-77” and “-88” with zero.

### **Trade Data**

Trade data employed were taken from the Direction of Trade Statistics Online, which is disseminated by the International Monetary Fund. Bilateral trade flows (here the exports, f.o.b.) among the sample countries are in million USD and data were taken for only 2007.<sup>8</sup> Despite its undesirable effects on computations, for simplicity the exports of country A to country B are treated as the imports of country B from country A. That is, the distinction between f.o.b. and c.i.f. measures has been neglected.

### **Availability of Data**

Based on the match of countries that are available in the POLITY IV and IMF-DOTS databases, 151 countries are included in the analysis. These countries are: Afghanistan, I.R. of; Albania; Algeria; Angola; Argentina; Armenia; Australia; Austria; Azerbaijan, Rep. of; Bahrain, Kingdom of; Bangladesh; Belarus; Belgium; Benin; Bolivia; Bosnia & Herzegovina; Brazil; Bulgaria; Burkina Faso; Burundi; Cambodia; Cameroon; Canada; Central African Rep.; Chad; Chile; China, P.R.: Mainland; Colombia; Comoros; Congo, Dem. Rep. of; Congo, Republic of; Costa Rica; Croatia; Cuba; S. Cyprus; Czech Republic; Denmark; Djibouti; Dominican Republic; Ecuador; Egypt; El Salvador; Equatorial Guinea; Estonia; Ethiopia; Fiji; Finland; France; Gabon; Gambia, The; Georgia; Germany; Ghana; Greece; Guatemala; Guinea; Guinea-Bissau; Guyana; Haiti; Honduras; Hungary; India; Indonesia, I.R. of; Iraq; Ireland; Israel; Italy; Jamaica; Japan; Jordan; Kazakhstan; Kenya; Korea; Kuwait; Kyrgyz Republic; Lao People’s Dem. Rep.; Latvia; Lebanon; Liberia; Libya; Lithuania; Macedonia, FYR; Madagascar; Malawi; Malaysia; Mali; Mauritania; Mauritius; Mexico; Moldova; Mongolia; Morocco; Mozambique; Myanmar; Nepal; Netherlands; New Zealand; Nicaragua; Niger; Nigeria; North Korea; Norway; Oman; Pakistan; Panama; Papua New Guinea; Paraguay; Peru; Philippines; Poland; Portugal; Qatar; Romania; Russia; Rwanda; Saudi Arabia; Senegal; Serbia, Republic of; Sierra Leone; Singapore; Slovak Republic;

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<sup>8</sup> One may extend the current analysis by further including the previous years. Such an analysis might provide more dynamic insights. In this study the temporal dimension has been omitted.

Slovenia; Solomon Islands; Somalia; South Africa; Spain; Sri Lanka; Sudan; Sweden; Switzerland; Syrian Arab Republic; Tanzania; Thailand; Togo; Trinidad and Tobago; Tunisia; Turkey; Turkmenistan; Uganda; Ukraine; United Arab Emirates; United Kingdom; United States; Uruguay; Uzbekistan; Venezuela, Rep. Bol.; Vietnam; Yemen; Republic of; Zambia; Zimbabwe.

## 2.2. Analysis

As mentioned earlier, the analysis presented in this study involves a straightforward re-computation of the main indicators of the POLITY IV database, namely DEMOC2, AUTOC2 and POLITY2 described in the previous subsection. Suppose that the original variable that is subject to modification is named  $E$ . In addition, let's name the trade variable employed in re-computation as  $R$ . Then the modified (or adjusted) value  $E^*$ , for country  $i$ , is obtained as follows:

$$E^{i*} = \lambda E_{trade}^i + (1 - \lambda) E_{domestic}^i \quad (1)$$

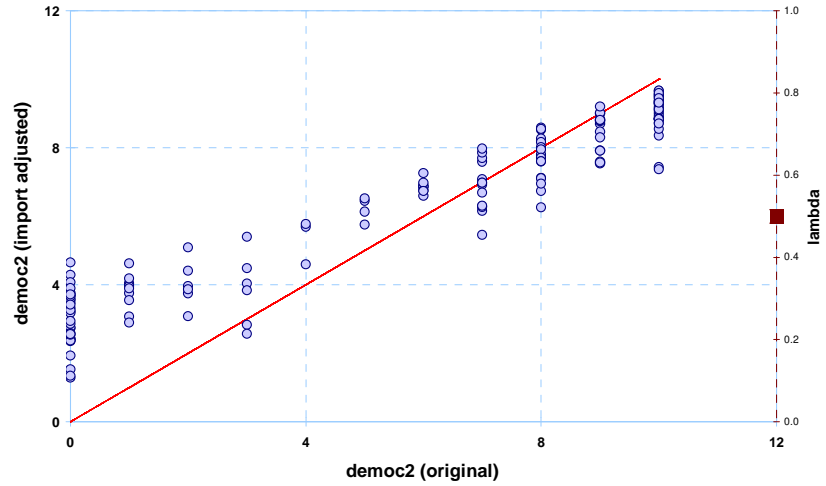
$$E_{trade}^i = \frac{\sum_{j \neq i} R^{ij} E^j}{\sum_{j \neq i} R^{ij}} \quad (2)$$

Here, (1)  $\lambda$  is the adjustment parameter (or the split parameter) that determines the relative importance of the domestic (original) polity variables and the trade adjustment and (2)  $j$  spans the trade partners of country  $i$ . Equations 1 and 2 facilitate a simple weighted-averaging of  $E$  over the weights based on  $R$ . Value of  $\lambda$  was set to 0.5 arbitrarily. This tells that half of the adjusted democracy score comes from the original assessment in the POLITY IV database while the other half originates from international trade linkages. Other choices of  $\lambda$  are also possible.

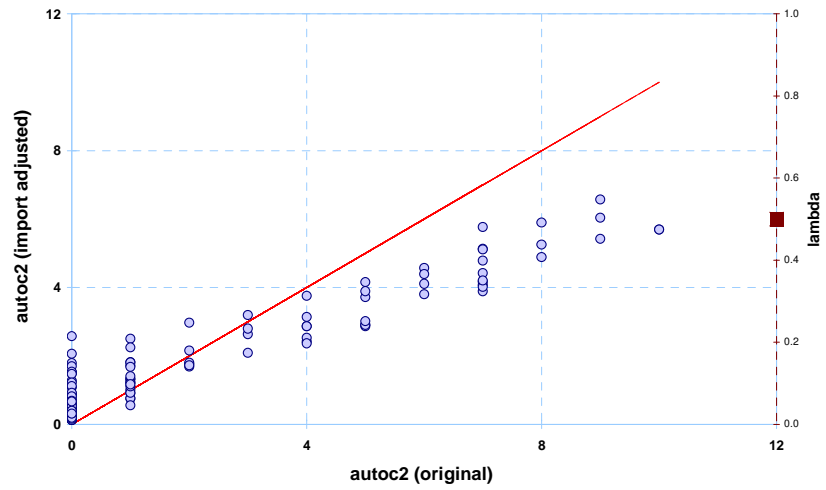
While performing the computations,  $E$  was chosen one at a time as DEMOC2, AUTOC2 or POLITY2. For  $R$ , bilateral imports, bilateral trade balances (with reversed sign) and bilateral trade volumes were considered. So nine separate computations were made for each sample country. Figures 1-3 and A1-A9 display the original and adjusted polity variables. A brief discussion of these is provided in the last section.

**Figure 1. Import-adjusted Polity IV Variables against Original Values**

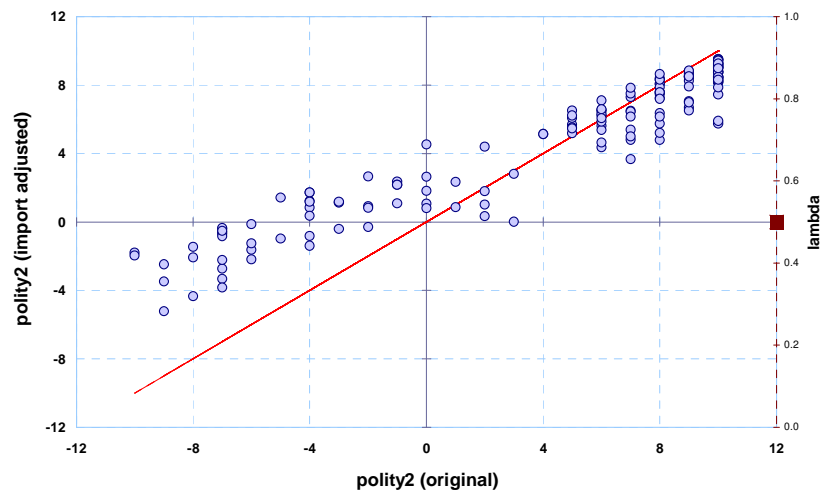
**Panel 1**



**Panel 2**



**Panel 3**

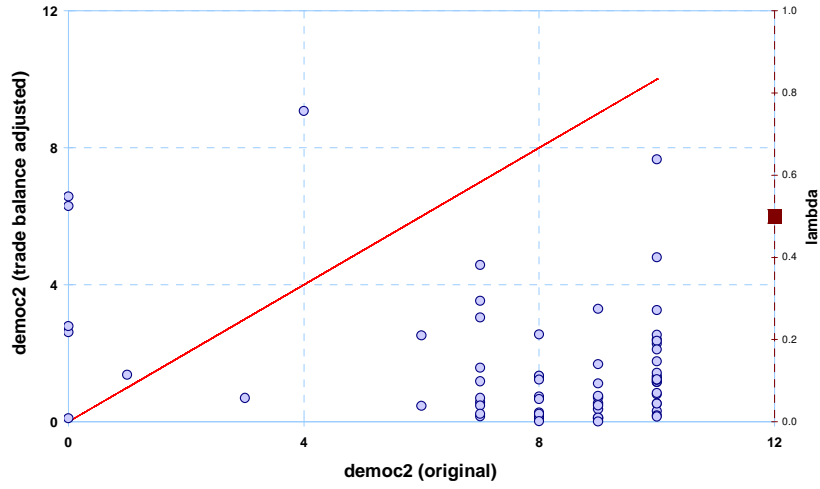


Notes: (1) The red line is the 45-degree line. (2) Values of lambda are given on the secondary (right) axis.

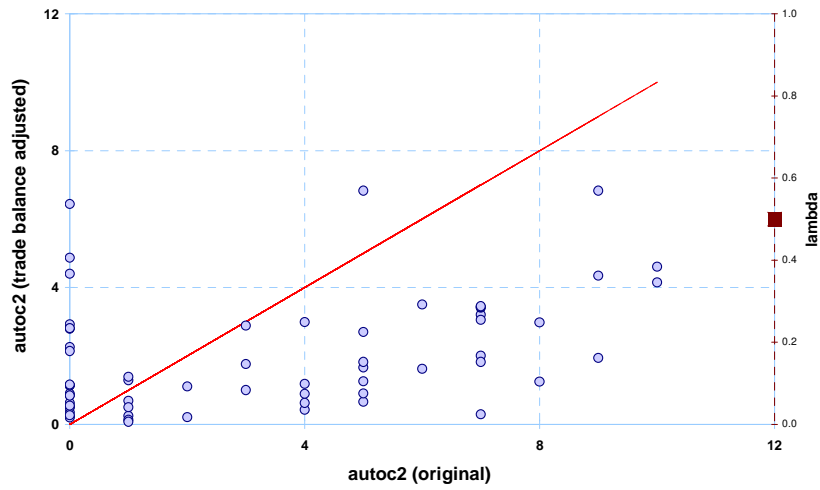


**Figure 2. Trade Balance-adjusted Polity IV Variables against Original Values**

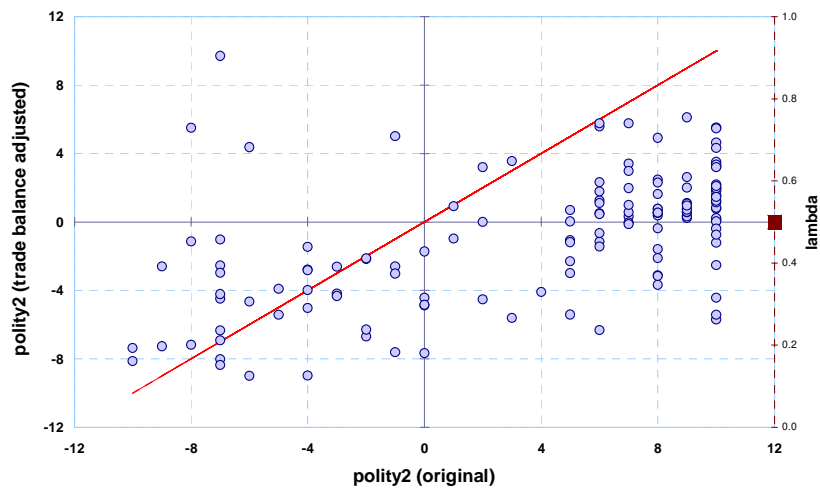
**Panel 1**



**Panel 2**



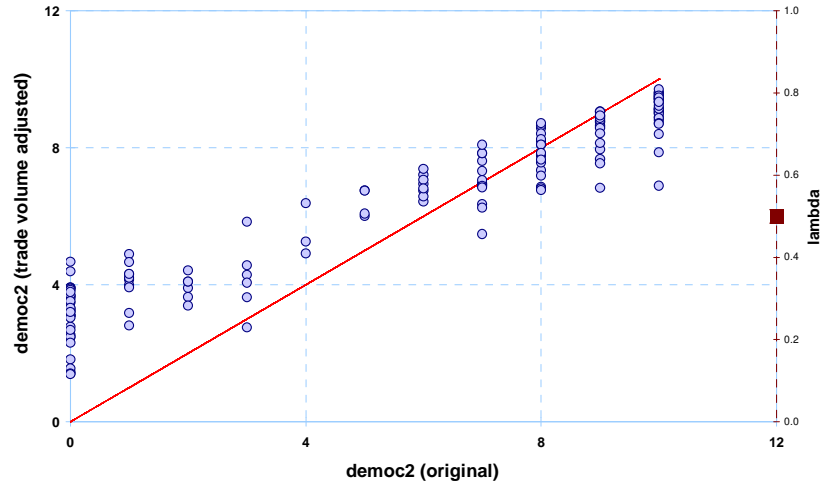
**Panel 3**



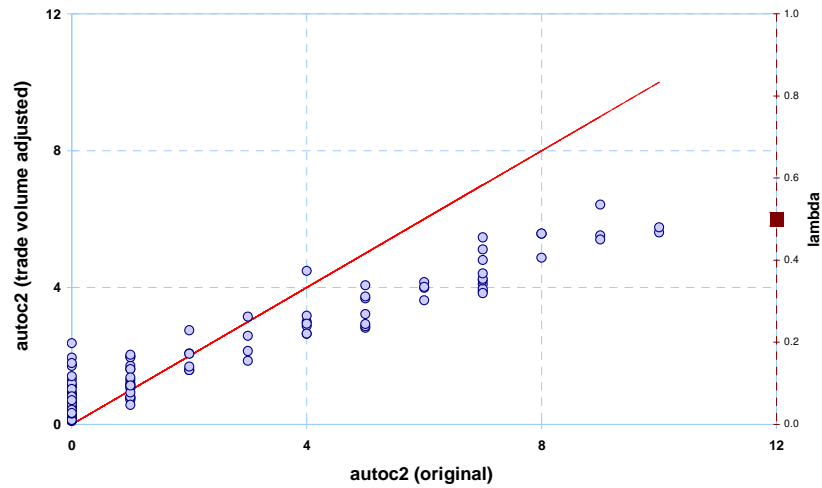
Notes: (1) The red line is the 45-degree line. (2) Values of lambda are given on the secondary (right) axis.

**Figure 3. Trade Volume-adjusted Polity IV Variables against Original Values**

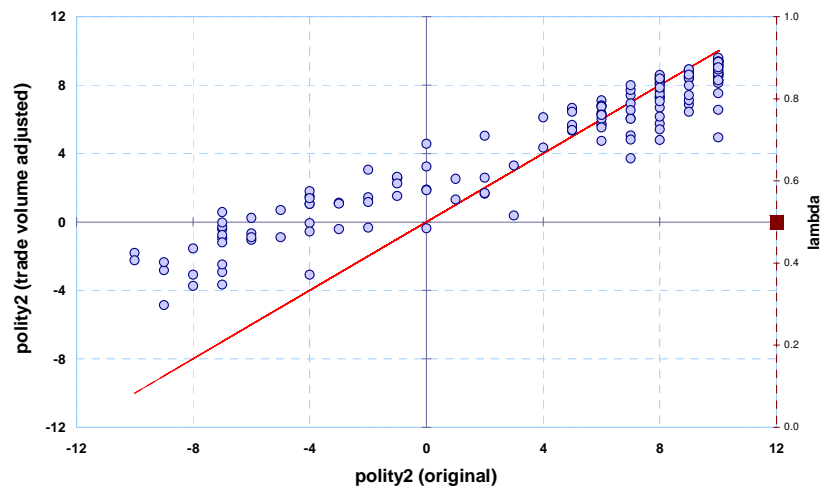
**Panel 1**



**Panel 2**



**Panel 3**



Notes: (1) The red line is the 45-degree line. (2) Values of lambda are given on the secondary (right) axis.

### 3. Discussion

Using Equations 1 and 2, the adjusted versions of DEMOC2, AUTOC2 and POLITY2 are obtained. Figure 1 through 3 plots these adjusted values against the originals. The adjusting variable seems to have mattered in outcomes. In that, Figure 1 and Figure 3 resemble each other a lot. These two figures directly reflect what Equations 1 and 2 suggest: countries with higher DEMOC2 scores lose part of their scores. The same is valid for the AUTOC2 scores. Countries with lower scores seem to have gained some additional points. The POLITY2 (DEMOC minus AUTOC) scores also show a similar pattern of change after trade adjustment.

The resemblance of Figure 1 and Figure 3 is not accidental, indeed. Owing to the general similarity between the import volume and trade volume data, adjustment results do not differ much. When we use the (minus) bilateral trade balances to adjust the democracy, autocracy and polity scores display (Figure 2) a similar pattern to those of Figure 1 and Figure 3. Nevertheless, the spread of scatter points is more apparent in this case. It should be noted that the reason for using the arithmetic inverse of the trade balance is nothing but the assumption that countries import anti-democracy.

As indicated earlier, the procedure employed just provides a simple adjustment of the original POLITY IV scores. Owing to the imposed functional form (a convex combination of original domestic scores and trade-affected scores) nothing in Figure 1 through 3 is surprising.

In Appendix A, a full graphical transcript of computational results is provided. From Figure A1 to A9, an ordered list of original POLITY IV scores and adjusted ones are displayed as radar graphs. The interested reader can identify the countries corresponding to certain scores, hence.

One may be curious whether it is possible to obtain a set of generally consistent adjusted scores, i.e. a set of adjusted scores that produces itself again and again after any number of successive adjustments. Mathematically this is nothing but a fixed point of our variables, and it is invariant between countries. A simple iteration (with 20 steps) of Equation 1 and Equation 2 (with  $\lambda$  being 0.5) provides us with the fixed values of DEMOC2, AUTOC2 and POLITY2 as 7.53, 3.77 and 6.25, respectively. Note that their respective sample averages are 5.52, 1.79 and 3.73. The fixed points can be interpreted as global polity scores, i.e. measures of how democratic or how autocratic the world is, on average.<sup>9</sup>

#### §

This paper seems to be quite poor in terms of conclusions. However, it may be useful to point at what not to conclude out of the material presented: First, the method and results do not aim at and do not present a serious critique of the POLITY IV indicators or of their underlying methodology. The results should be read as a slightly different alternative of the original POLITY IV variables. Second, naïve readings of results, i.e. lessons to avoid or restrict free trade for sake of higher polity grades, must be avoided. Third, no statistical importance should be attached to the presented results; they merely reflect a straightforward arithmetic with an arbitrarily chosen value of  $\lambda$ .

What is basically missing, among others, in the current study is the dimension of time. Indeed, a time series treatment of the same spirit might yield interesting results.

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<sup>9</sup> The spreadsheet that includes the steps of iteration is available from author upon request.

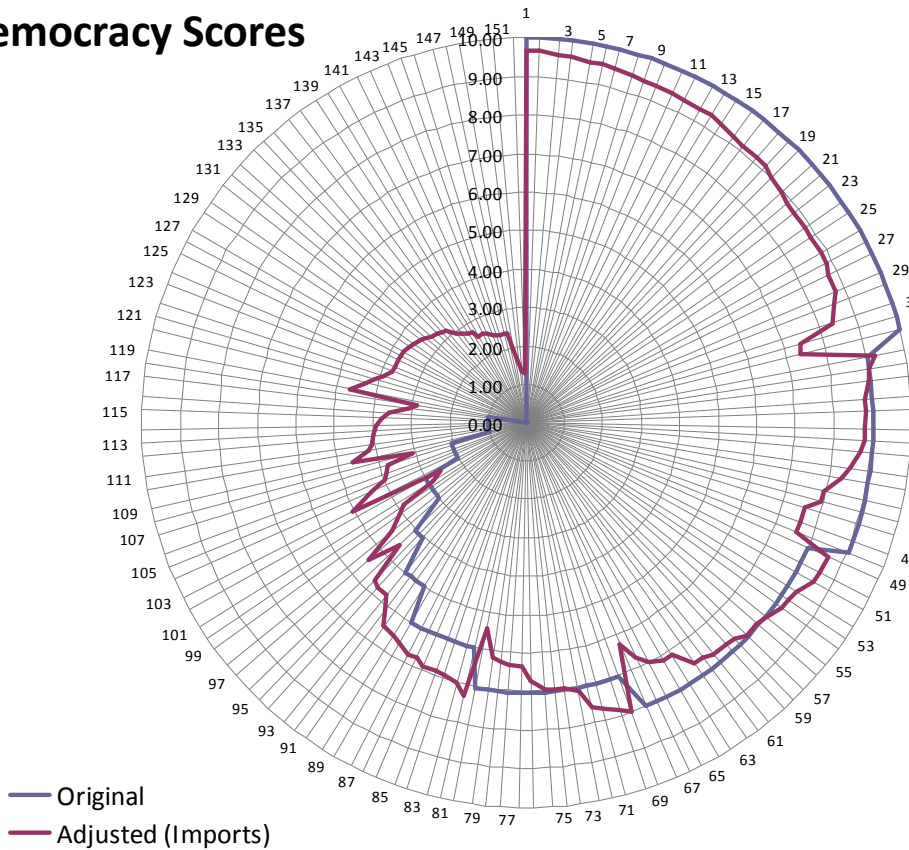
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## APPENDIX A

Figure A1. Import-adjusted Democracy (DEMOC2) Scores

### Democracy Scores

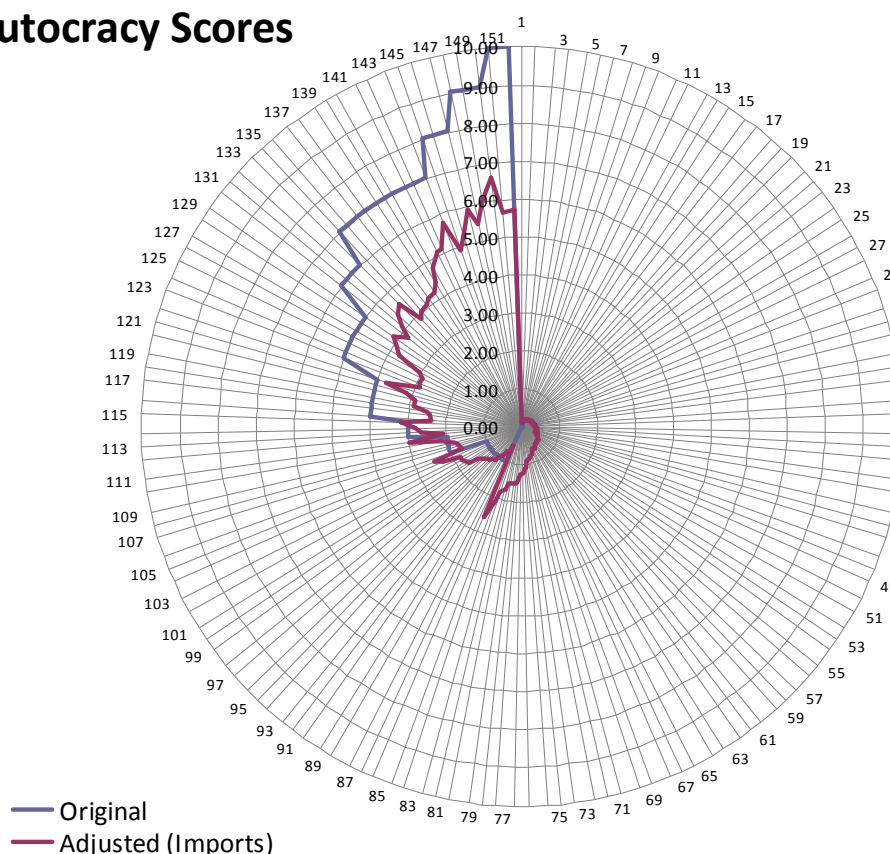


Note: Countries are simultaneously sorted in (1) descending order of original scores, (2) descending order of trade contribution to adjusted score.

(1:NORWAY), (2:AUSTRIA), (3:SWEDEN), (4:SLOVENIA), (5:IRELAND), (6:DENMARK), (7:CANADA), (8:SWITZERLAND), (9:POLAND), (10:SLOVAK REPUBLIC), (11:PORTUGAL), (12:UNITED KINGDOM), (13:HUNGARY), (14:GERMANY), (15:COSTA RICA), (16:ISRAEL), (17:FINLAND), (18:SPAIN), (19:LITHUANIA), (20:GREECE), (21:ITALY), (22:CYPRUS, SOUTH), (23:NEW ZEALAND), (24:NETHERLANDS), (25:PAPUA NEW GUINEA), (26:TRINIDAD AND TOBAGO), (27:CHILE), (28:MAURITIUS), (29:URUGUAY), (30:UNITED STATES), (31:AUSTRALIA), (32:JAPAN), (33:MONGOLIA), (34:SERBIA, REPUBLIC OF), (35:MACEDONIA, FYR), (36:ALBANIA), (37:JAMAICA), (38:ROMANIA), (39:FRANCE), (40:CROATIA), (41:BULGARIA), (42:NICARAGUA), (43:PERU), (44:PANAMA), (45:SOUTH AFRICA), (46:INDIA), (47:SOLOMON ISLANDS), (48:COMOROS), (49:CZECH REPUBLIC), (50:MEXICO), (51:BELGIUM), (52:DOMINICAN REPUBLIC), (53:BOLIVIA), (54:GUATEMALA), (55:LATVIA), (56:ARGENTINA), (57:PARAGUAY), (58:MOLDOVA), (59:BRAZIL), (60:SENEGAL), (61:TURKEY), (62:SIERRA LEONE), (63:GHANA), (64:LEBANON), (65:PHILIPPINES), (66:KOREA), (67:INDONESIA), (68:HONDURAS), (69:ESTONIA), (70:EL SALVADOR), (71:COLOMBIA), (72:NEPAL), (73:UKRAINE), (74:NIGER), (75:GEORGIA), (76:LIBERIA), (77:SRI LANKA), (78:KENYA), (79:MADAGASCAR), (80:BURUNDI), (81:BENIN), (82:HAITI), (83:MOZAMBIQUE), (84:GUYANA), (85:GUINEA-BISSAU), (86:MALAWI), (87:MALI), (88:RUSSIA), (89:CONGO, DEM. REP. OF), (90:VENEZUELA, REP. BOL.), (91:ECUADOR), (92:ZAMBIA), (93:ARMENIA), (94:NIGERIA), (95:MAURITANIA), (96:MALAYSIA), (97:ALGERIA), (98:TANZANIA), (99:DJIBOUTI), (100:ETHIOPIA), (101:CAMBODIA), (102:KYRGYZ REPUBLIC), (103:ANGOLA), (104:BURKINA FASO), (105:SINGAPORE), (106:THAILAND), (107:JORDAN), (108:PAKISTAN), (109:TUNISIA), (110:ZIMBABWE), (111:CENTRAL AFRICAN REP.), (112:EGYPT), (113:GUINEA), (114:UGANDA), (115:CAMEROON), (116:CHAD), (117:TOGO), (118:YEMEN, EPUBLIC OF), (119:BOSNIA & HERZEGOVINA), (120:EQUATORIAL GUINEA), (121:GABON), (122:QATAR), (123:CONGO, REPUBLIC OF), (124:SAUDI ARABIA), (125:CHINA,P.R.: MAINLAND), (126:LIBYA), (127:MOROCCO), (128:KUWAIT), (129:AZERBAIJAN, REP. OF), (130:BELARUS), (131:UNITED ARAB EMIRATES), (132:CUBA), (133:RWANDA), (134:FIJI), (135:OMAN), (136:UZBEKISTAN), (137:KAZAKHSTAN), (138:IRAN, I.R. OF), (139:GAMBIA, THE), (140:IRAQ), (141:VIETNAM), (142:TURKMENISTAN), (143:BAHRAIN, KINGDOM OF), (144:AFGHANISTAN, I.R. OF), (145:BANGLADESH), (146:SYRIAN ARAB REPUBLIC), (147:SUDAN), (148:SOMALIA), (149:MYANMAR), (150:NORTH KOREA), (151:LAO PEOPLE S DEM.REP)

Figure A2. Import-adjusted Autocracy (AUTOC2) Scores

## Autocracy Scores

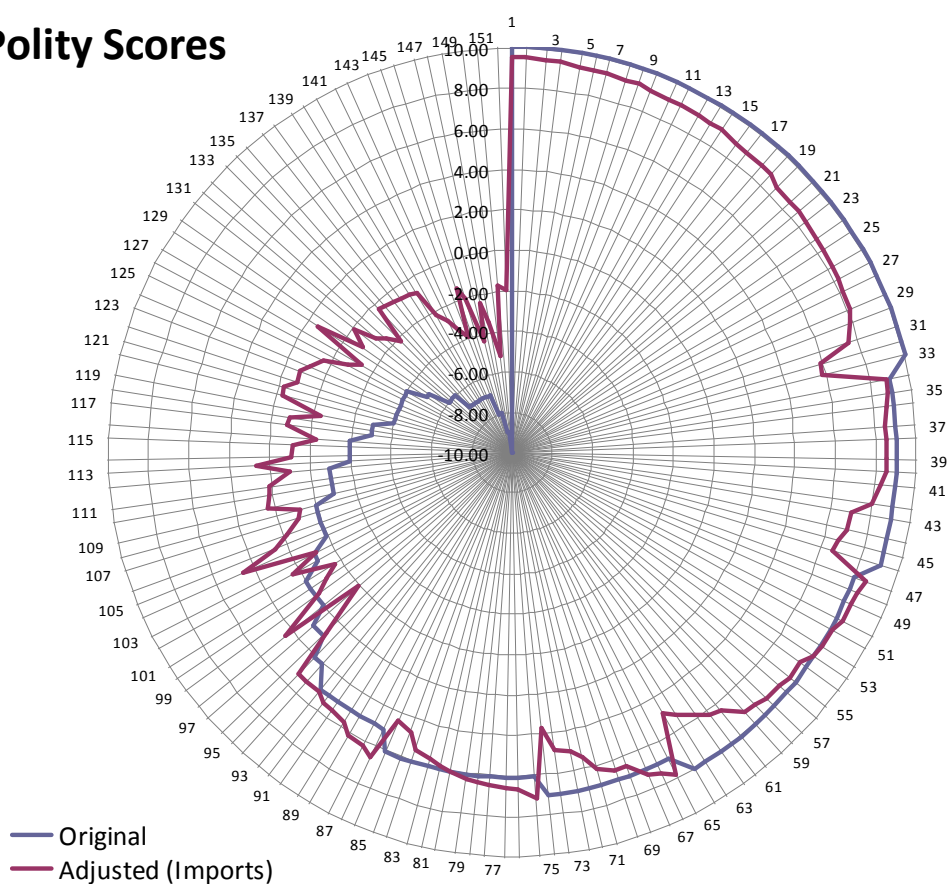


Note: Countries are simultaneously sorted in (1) ascending order of original scores, (2) ascending order of trade contribution to adjusted score.

(1:SLOVENIA), (2:BOSNIA & HERZEGOVINA), (3:AUSTRIA), (4:BOLIVIA), (5:HONDURAS), (6:NORWAY), (7:SLOVAK REPUBLIC), (8:SWEDEN), (9:MACEDONIA, FYR), (10:CZECH REPUBLIC), (11:JAMAICA), (12:ALBANIA), (13:SWITZERLAND), (14:DOMINICAN REPUBLIC), (15:COSTA RICA), (16:EL SALVADOR), (17:NICARAGUA), (18:BELGIUM), (19:MEXICO), (20:DENMARK), (21:IRELAND), (22:POLAND), (23:BULGARIA), (24:PORTUGAL), (25:CANADA), (26:GUATEMALA), (27:GERMANY), (28:CROATIA), (29:HUNGARY), (30:COLOMBIA), (31:FRANCE), (32:VENEZUELA, REP. BOL.), (33:ROMANIA), (34:MALAWI), (35:UNITED KINGDOM), (36:MOLDOVA), (37:LITHUANIA), (38:TRINIDAD AND TOBAGO), (39:ARGENTINA), (40:PARAGUAY), (41:ISRAEL), (42:ECUADOR), (43:FINLAND), (44:SPAIN), (45:GUINEA-BISSAU), (46:MOZAMBIQUE), (47:URUGUAY), (48:PERU), (49:CYPRUS, SOUTH), (50:MALI), (51:LATVIA), (52:CHILE), (53:ITALY), (54:GREECE), (55:SENEGAL), (56:BRAZIL), (57:NETHERLANDS), (58:MAURITANIA), (59:MAURITIUS), (60:ARMENIA), (61:AFGHANISTAN, I.R. OF), (62:PAPUA NEW GUINEA), (63:NIGERIA), (64:NEW ZEALAND), (65:ZAMBIA), (66:GUYANA), (67:UNITED STATES), (68:GHANA), (69:UKRAINE), (70:COMOROS), (71:PANAMA), (72:AUSTRALIA), (73:SOUTH AFRICA), (74:INDIA), (75:SOMALIA), (76:PHILIPPINES), (77:MADAGASCAR), (78:MONGOLIA), (79:INDONESIA), (80:KENYA), (81:IRAQ), (82:KOREA), (83:JAPAN), (84:BENIN), (85:PAKISTAN), (86:KYRGYZ REPUBLIC), (87:SERBIA, REPUBLIC OF), (88:ESTONIA), (89:HAITI), (90:CONGO, DEM. REP. OF), (91:NIGER), (92:ALGERIA), (93:SIERRA LEONE), (94:TURKEY), (95:RUSSIA), (96:NEPAL), (97:GEORGIA), (98:LIBERIA), (99:SOLOMON ISLANDS), (100:SRI LANKA), (101:LEBANON), (102:MALAYSIA), (103:BURUNDI), (104:DJIBOUTI), (105:CAMBODIA), (106:CENTRAL AFRICAN REP.), (107:UGANDA), (108:BURKINA FASO), (109:GUINEA), (110:TANZANIA), (111:ETHIOPIA), (112:RWANDA), (113:CHAD), (114:THAILAND), (115:YEMEN, REPUBLIC F), (116:GABON), (117:ANGOLA), (118:CONGO, REPUBLIC OF), (119:EGYPT), (120:FIJI), (121:SINGAPORE), (122:SUDAN), (123:EQUATORIAL GUINEA), (124:TUNISIA), (125:CAMEROON), (126:ZIMBABWE), (127:GAMBIA, THE), (128:TOGO), (129:JORDAN), (130:MOROCCO), (131:KAZAKHSTAN), (132:IRAN, I.R. OF), (133:BANGLADESH), (134:BELARUS), (135:CUBA), (136:CHINA, P.R.: MAINLAND), (137:AZERBAIJAN, REP. OF), (138:LIBYA), (139:KUWAIT), (140:VIETNAM), (141:SYRIAN ARAB REPUBLIC), (142:LAO PEOPLE S DEM.REP), (143:BAHRAIN, KINGDOM OF), (144:UNITED ARAB EMIRATES), (145:OMAN), (146:MYANMAR), (147:UZBEKISTAN), (148:TURKMENISTAN), (149:NORTH KOREA), (150:QATAR), (151:SAUDI ARABIA)

Figure A3. Import-adjusted Polity (POLITY2) Scores

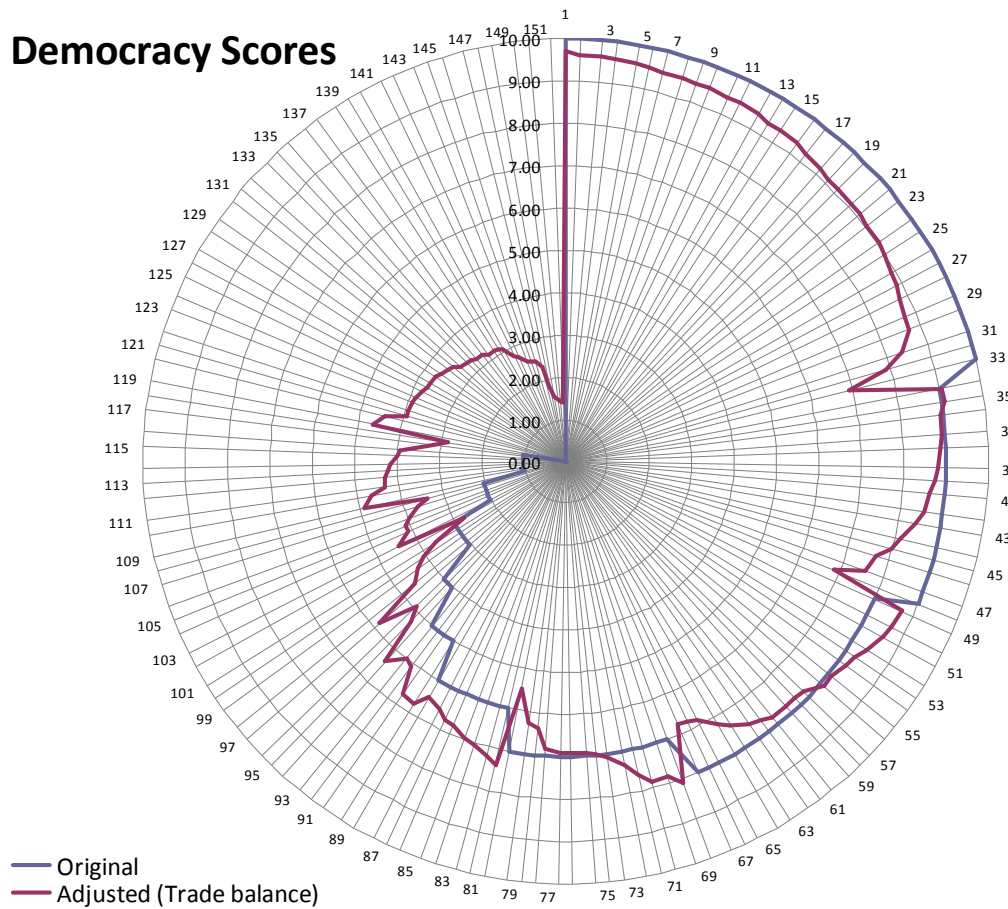
## Polity Scores



Note: Countries are simultaneously sorted in (1) descending order of original scores, (2) descending order of trade contribution to adjusted score.

- (1:AUSTRIA), (2:NORWAY), (3:SLOVENIA), (4:SWEDEN), (5:DENMARK), (6:IRELAND), (7:SWITZERLAND), (8:SLOVAK REPUBLIC), (9:CANADA), (10:POLAND), (11:PORTUGAL), (12:COSTA RICA), (13:GERMANY), (14:HUNGARY), (15:UNITED KINGDOM), (16:ISRAEL), (17:FINLAND), (18:LITHUANIA), (19:SPAIN), (20:GREECE), (21:TRINIDAD AND TOBAGO), (22:CYPRUS, SOUTH), (23:ITALY), (24:CHILE), (25:URUGUAY), (26:NETHERLANDS), (27:PAPUA NEW GUINEA), (28:NEW ZEALAND), (29:MAURITIUS), (30:UNITED STATES), (31:AUSTRALIA), (32:MONGOLIA), (33:JAPAN), (34:MACEDONIA, FYR), (35:ALBANIA), (36:JAMAICA), (37:FRANCE), (38:ROMANIA), (39:CROATIA), (40:BULGARIA), (41:NICARAGUA), (42:PERU), (43:PANAMA), (44:SOUTH AFRICA), (45:COMOROS), (46:INDIA), (47:SERBIA, REPUBLIC OF), (48:CZECH REPUBLIC), (49:MEXICO), (50:BELGIUM), (51:DOMINICAN REPUBLIC), (52:BOLIVIA), (53:GUATEMALA), (54:ARGENTINA), (55:PARAGUAY), (56:LATVIA), (57:MOLDOVA), (58:BRAZIL), (59:SENEGAL), (60:GHANA), (61:SOLOMON ISLANDS), (62:PHILIPPINES), (63:KOREA), (64:INDONESIA), (65:HONDURAS), (66:EL SALVADOR), (67:COLOMBIA), (68:SIERRA LEONE), (69:TURKEY), (70:UKRAINE), (71:LEBANON), (72:MADAGASCAR), (73:KENYA), (74:BENIN), (75:ESTONIA), (76:MOZAMBIQUE), (77:MALAWI), (78:GUINEA-BISSAU), (79:MALI), (80:GUYANA), (81:NIGER), (82:NEPAL), (83:GEORGIA), (84:LIBERIA), (85:SRI LANKA), (86:BURUNDI), (87:HAITI), (88:VENEZUELA, REP. BOL.), (89:ECUADOR), (90:CONGO, DEM. REP. OF), (91:RUSSIA), (92:ZAMBIA), (93:ARMENIA), (94:NIGERIA), (95:MAURITANIA), (96:MALAYSIA), (97:KYRGYZ REPUBLIC), (98:ALGERIA), (99:DJIBOUTI), (100:PAKISTAN), (101:CAMBODIA), (102:TANZANIA), (103:ETHIOPIA), (104:BOSNIA & HERZEGOVINA), (105:BURKINA FASO), (106:AFGHANISTAN, I.R. OF), (107:IRAQ), (108:SOMALIA), (109:CENTRAL AFRICAN REP.), (110:UGANDA), (111:GUINEA), (112:THAILAND), (113:ANGOLA), (114:CHAD), (115:SINGAPORE), (116:YEMEN, REPUBLIC OF), (117:RWANDA), (118:EGYPT), (119:JORDAN), (120:TUNISIA), (121:GABON), (122:CONGO, REPUBLIC OF), (123:ZIMBABWE), (124:CAMEROON), (125:FIJI), (126:TOGO), (127:SUDAN), (128:EQUATORIAL GUINEA), (129:GAMBIA, THE), (130:MOROCCO), (131:KAZAKHSTAN), (132:IRAN, I.R. OF), (133:BANGLADESH), (134:CHINA,P.R.: MAINLAND), (135:BELARUS), (136:LIBYA), (137:AZERBAIJAN, REP. OF), (138:CUBA), (139:KUWAIT), (140:VIETNAM), (141:SYRIAN ARAB REPUBLIC), (142:BAHRAIN, KINGDOM OF), (143:LAO PEOPLE S DEM.REP), (144:UNITED ARAB EMIRATES), (145:OMAN), (146:MYANMAR), (147:UZBEKISTAN), (148:TURKMENISTAN), (149:NORTH KOREA), (150:QATAR), (151:SAUDI ARABIA)

**Figure A4. Trade Balance-adjusted Democracy (DEMOC2) Scores**



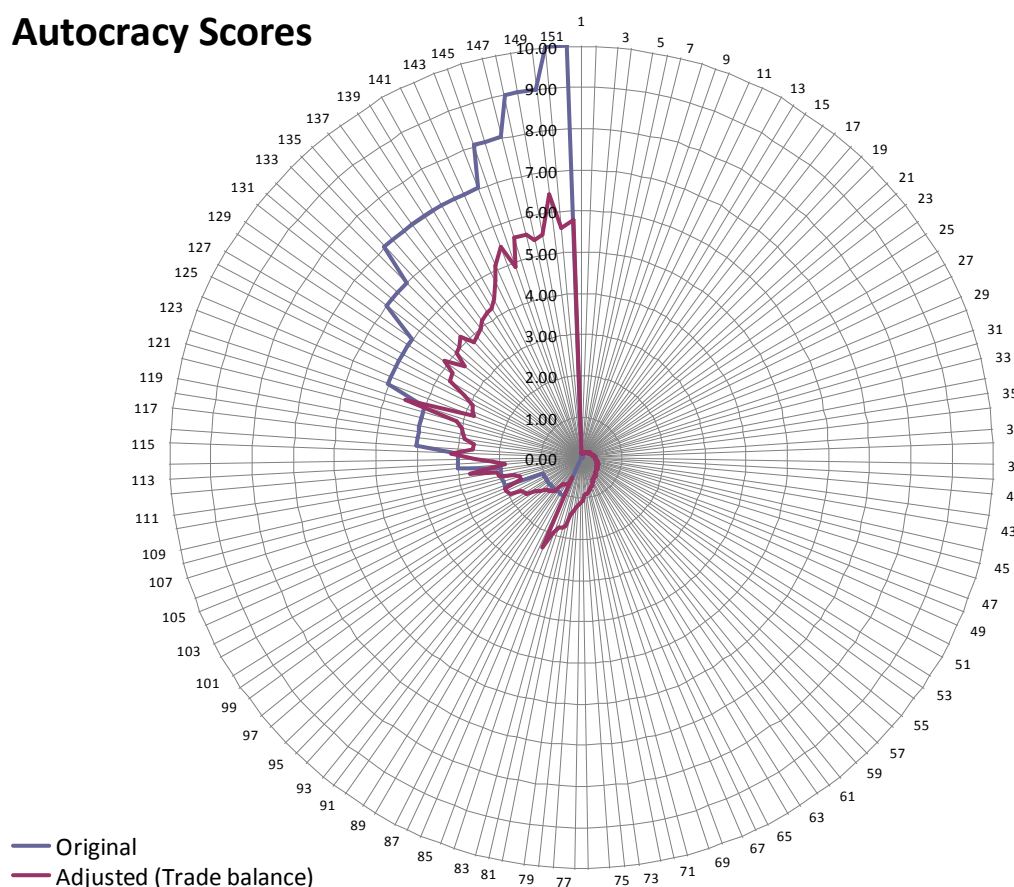
Note: Countries are simultaneously sorted in (1) descending order of original scores, (2) descending order of trade contribution to adjusted score.

- (1:NORWAY), (2:CANADA), (3:AUSTRIA), (4:DENMARK), (5:IRELAND), (6:SWEDEN), (7:SLOVENIA), (8:SLOVAK REPUBLIC), (9:TRINIDAD AND TOBAGO), (10:POLAND), (11:SWITZERLAND), (12:HUNGARY), (13:PORTUGAL), (14:UNITED KINGDOM), (15:ISRAEL), (16:GERMANY), (17:SPAIN), (18:NETHERLANDS), (19:PAPUA NEW GUINEA), (20:FINLAND), (21:GREECE), (22:ITALY), (23:LITHUANIA), (24:COSTA RICA), (25:MAURITIUS), (26:CYPRUS, SOUTH), (27:NEW ZEALAND), (28:CHILE), (29:UNITED STATES), (30:URUGUAY), (31:AUSTRALIA), (32:JAPAN), (33:MONGOLIA), (34:ALBANIA), (35:MACEDONIA, FYR), (36:SERBIA, REPUBLIC OF), (37:JAMAICA), (38:ROMANIA), (39:FRANCE), (40:BULGARIA), (41:CROATIA), (42:NICARAGUA), (43:PERU), (44:SOUTH AFRICA), (45:PANAMA), (46:COMOROS), (47:INDIA), (48:SOLOMON ISLANDS), (49:MEXICO), (50:CZECH REPUBLIC), (51:BELGIUM), (52:DOMINICAN REPUBLIC), (53:GUATEMALA), (54:BOLIVIA), (55:PARAGUAY), (56:LATVIA), (57:SIERRA LEONE), (58:MOLDOVA), (59:BRAZIL), (60:ARGENTINA), (61:TURKEY), (62:SENEGAL), (63:GHANA), (64:PHILIPPINES), (65:INDONESIA), (66:KOREA), (67:LEBANON), (68:HONDURAS), (69:ESTONIA), (70:EL SALVADOR), (71:COLOMBIA), (72:NEPAL), (73:NIGER), (74:GEORGIA), (75:LIBERIA), (76:MADAGASCAR), (77:SRI LANKA), (78:UKRAINE), (79:BURUNDI), (80:KENYA), (81:BENIN), (82:HAITI), (83:GUYANA), (84:MOZAMBIQUE), (85:GUINEA-BISSAU), (86:RUSSIA), (87:MALAWI), (88:MALI), (89:CONGO, DEM. REP. OF), (90:ECUADOR), (91:VENEZUELA, REP. BOL.), (92:ZAMBIA), (93:ARMENIA), (94:NIGERIA), (95:MAURITANIA), (96:MALAYSIA), (97:ALGERIA), (98:TANZANIA), (99:CAMBODIA), (100:ETHIOPIA), (101:DJIBOUTI), (102:KYRGYZ REPUBLIC), (103:ANGOLA), (104:THAILAND), (105:SINGAPORE), (106:BURKINA FASO), (107:JORDAN), (108:PAKISTAN), (109:CHAD), (110:TUNISIA), (111:ZIMBABWE), (112:CAMEROON), (113:GUINEA), (114:CENTRAL AFRICAN REP.), (115:EGYPT), (116:UGANDA), (117:TOGO), (118:YEMEN, REPUBLIC OF), (119:BOSNIA & HERZEGOVINA), (120:LIBYA), (121:CHINA,P.R.: MAINLAND), (122:EQUATORIAL GUINEA), (123:IRAQ), (124:MOROCCO), (125:QATAR), (126:GABON), (127:FUJI), (128:AZERBAIJAN, REP. OF), (129:BELARUS), (130:SAUDI ARABIA), (131:KUWAIT), (132:UNITED ARAB EMIRATES), (133:BANGLADESH), (134:CUBA), (135:RWANDA), (136:VIETNAM), (137:CONGO, REPUBLIC OF), (138:KAZAKHSTAN), (139:IRAN, I.R. OF), (140:UZBEKISTAN), (141:GAMBIA, HE), (142:TURKMENISTAN), (143:BAHRAIN, KINGDOM OF), (144:OMAN), (145:AFGHANISTAN, I.R. OF), (146:SYRIAN ARAB EPUBLIC), (147:MYANMAR), (148:NORTH KOREA), (149:LAO PEOPLE S DEM.REP), (150:SOMALIA), (151:SUDAN)



**Figure A5. Trade Balance-adjusted Autocracy (AUTOC2) Scores**

## Autocracy Scores

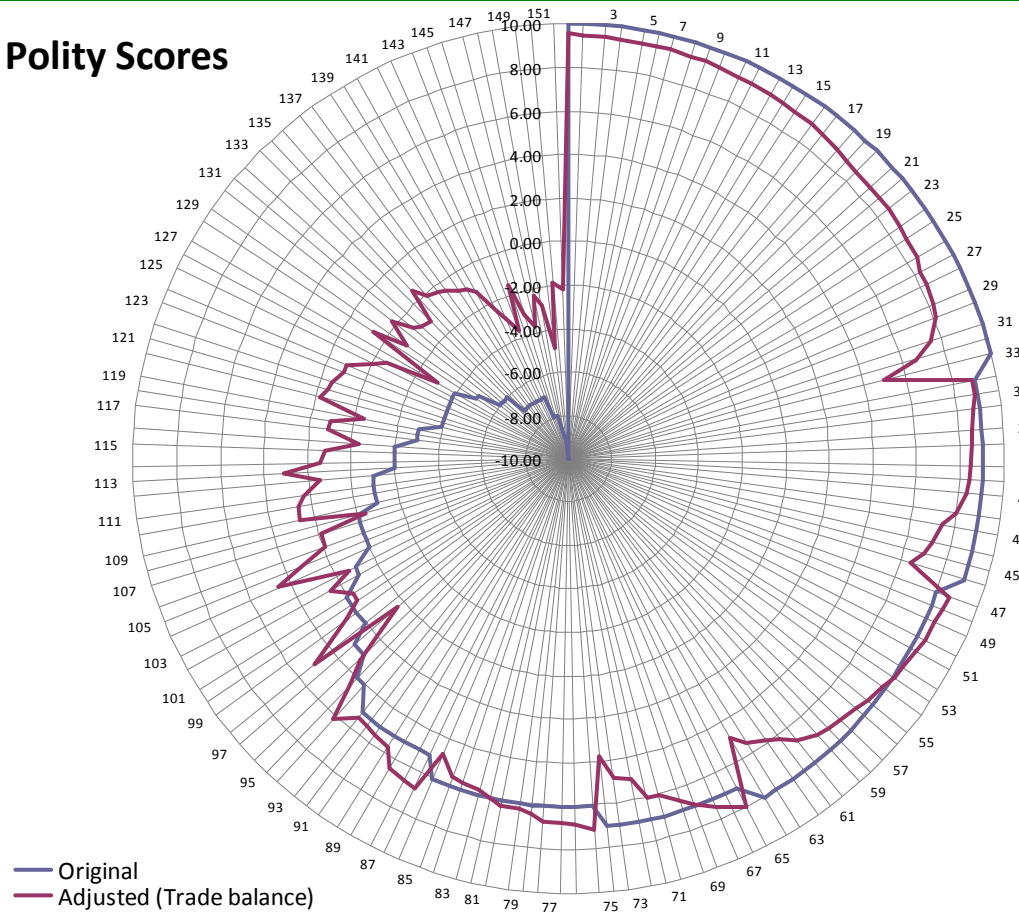


Note: Countries are simultaneously sorted in (1) ascending order of original scores, (2) ascending order of trade contribution to adjusted score.

(1:BOLIVIA), (2:HONDURAS), (3:BOSNIA & HERZEGOVINA), (4:NORWAY), (5:SLOVAK REPUBLIC), (6:TRINIDAD AND TOBAGO), (7:MEXICO), (8:MACEDONIA, FYR), (9:GUINEA-BISSAU), (10:SLOVENIA), (11:CZECH REPUBLIC), (12:EL SALVADOR), (13:AUSTRIA), (14:DOMINICAN REPUBLIC), (15:NICARAGUA), (16:ALBANIA), (17:IRELAND), (18:BELGIUM), (19:JAMAICA), (20:CANADA), (21:DENMARK), (22:SWEDEN), (23:POLAND), (24:COLOMBIA), (25:ECUADOR), (26:GUATEMALA), (27:HUNGARY), (28:SWITZERLAND), (29:PORTUGAL), (30:PARAGUAY), (31:BULGARIA), (32:NIGERIA), (33:CROATIA), (34:ROMANIA), (35:ISRAEL), (36:GERMANY), (37:UNITED KINGDOM), (38:FRANCE), (39:VENEZUELA, REP. BOL.), (40:SPAIN), (41:MOZAMBIQUE), (42:NETHERLANDS), (43:MOLDOVA), (44:LITHUANIA), (45:FINLAND), (46:MALAWI), (47:CYPRUS, SOUTH), (48:LATVIA), (49:COSTA RICA), (50:URUGUAY), (51:ITALY), (52:MAURITIUS), (53:PERU), (54:GREECE), (55:GUYANA), (56:PAPUA NEW GUINEA), (57:ARGENTINA), (58:ARMENIA), (59:BRAZIL), (60:SENEGAL), (61:CHILE), (62:MALI), (63:AFGHANISTAN, I.R. OF), (64:UNITED STATES), (65:NEW ZEALAND), (66:IRAQ), (67:GHANA), (68:ZAMBIA), (69:SOUTH AFRICA), (70:COMOROS), (71:UKRAINE), (72:PANAMA), (73:MADAGASCAR), (74:AUSTRALIA), (75:MAURITANIA), (76:PHILIPPINES), (77:INDONESIA), (78:INDIA), (79:KENYA), (80:JAPAN), (81:KOREA), (82:PAKISTAN), (83:BENIN), (84:SOMALIA), (85:MONGOLIA), (86:KYRGYZ REPUBLIC), (87:SERBIA, REPUBLIC OF), (88:HAITI), (89:ESTONIA), (90:ALGERIA), (91:NIGER), (92:SIERRA LEONE), (93:NEPAL), (94:CONGO, DEM. REP. OF), (95:TURKEY), (96:RUSSIA), (97:LIBERIA), (98:GEORGIA), (99:SRI LANKA), (100:MALAYSIA), (101:BURUNDI), (102:CAMBODIA), (103:LEBANON), (104:DJIBOUTI), (105:SOLOMON ISLANDS), (106:GUINEA), (107:CENTRAL AFRICAN REP.), (108:UGANDA), (109:TANZANIA), (110:BURKINA FASO), (111:ETHIOPIA), (112:CHAD), (113:RWANDA), (114:THAILAND), (115:YEMEN, REPUBLIC OF), (116:FIJI), (117:GABON), (118:EGYPT), (119:SINGAPORE), (120:ANGOLA), (121:CONGO, REPUBLIC OF), (122:SUDAN), (123:CAMEROON), (124:TUNISIA), (125:ZIMBABWE), (126:EQUATORIAL GUINEA), (127:GAMBIA, THE), (128:TOGO), (129:JORDAN), (130:MOROCCO), (131:BANGLADESH), (132:KAZAKHSTAN), (133:IRAN, I.R. OF), (134:LIBYA), (135:BELARUS), (136:CHINA, P.R.: MAINLAND), (137:AZERBAIJAN, REP. OF), (138:CUBA), (139:KUWAIT), (140:VIETNAM), (141:SYRIAN ARAB REPUBLIC), (142:LAO PEOPLE S DEM.REP), (143:BAHRAIN, KINGDOM OF), (144:UNITED ARAB EMIRATES), (145:MYANMAR), (146:OMAN), (147:UZBEKISTAN), (148:TURKMENISTAN), (149:NORTH KOREA), (150:QATAR), (151:SAUDI ARABIA)

**Figure A6. Trade Balance-adjusted Polity (POLITY2) Scores**

## Polity Scores

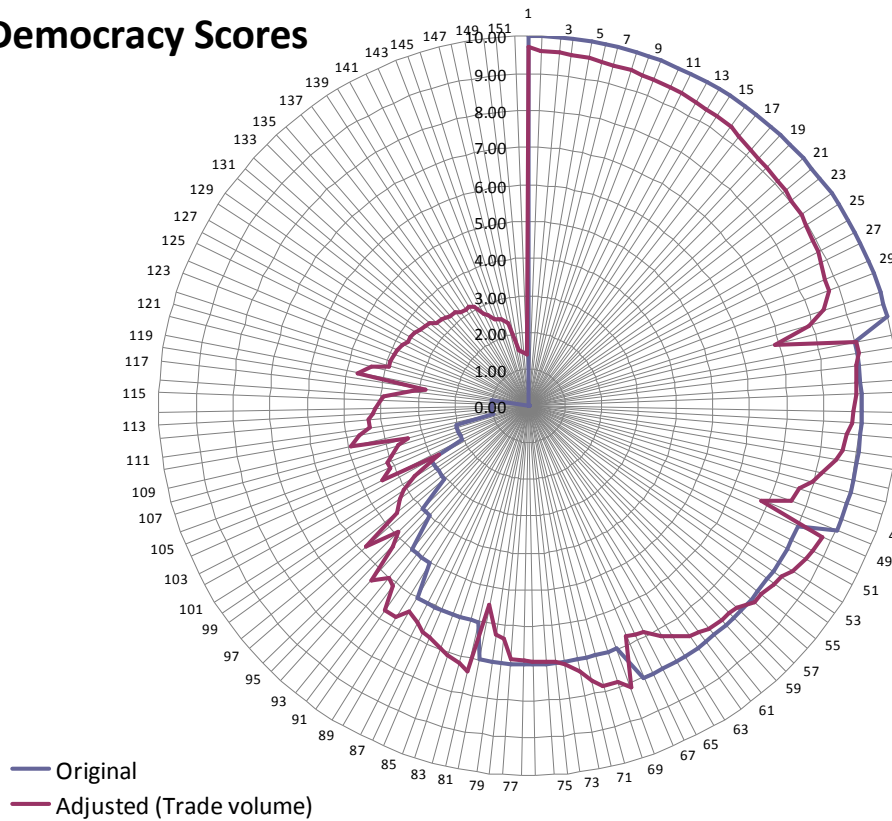


Note: Countries are simultaneously sorted in (1) descending order of original scores, (2) descending order of trade contribution to adjusted score.

(1:NORWAY), (2:AUSTRIA), (3:CANADA), (4:DENMARK), (5:IRELAND), (6:SLOVAK REPUBLIC), (7:SLOVENIA), (8:TRINIDAD AND TOBAGO), (9:SWEDEN), (10:POLAND), (11:HUNGARY), (12:SWITZERLAND), (13:PORTUGAL), (14:ISRAEL), (15:GERMANY), (16:UNITED KINGDOM), (17:SPAIN), (18:NETHERLANDS), (19:FINLAND), (20:PAPUA NEW GUINEA), (21:LITHUANIA), (22:ITALY), (23:GREECE), (24:COSTA RICA), (25:MAURITIUS), (26:CYPRUS, SOUTH), (27:URUGUAY), (28:NEW ZEALAND), (29:CHILE), (30:UNITED STATES), (31:AUSTRALIA), (32:JAPAN), (33:MONGOLIA), (34:MACEDONIA, FYR), (35:ALBANIA), (36:JAMAICA), (37:ROMANIA), (38:BULGARIA), (39:FRANCE), (40:NICARAGUA), (41:CROATIA), (42:PERU), (43:SOUTH AFRICA), (44:PANAMA), (45:COMOROS), (46:INDIA), (47:MEXICO), (48:CZECH REPUBLIC), (49:BELGIUM), (50:SERBIA, REPUBLIC OF), (51:DOMINICAN REPUBLIC), (52:BOLIVIA), (53:GUATEMALA), (54:PARAGUAY), (55:LATVIA), (56:MOLDOVA), (57:ARGENTINA), (58:BRAZIL), (59:SENEGAL), (60:GHANA), (61:PHILIPPINES), (62:INDONESIA), (63:KOREA), (64:SOLOMON ISLANDS), (65:HONDURAS), (66:EL SALVADOR), (67:COLOMBIA), (68:SIERRA LEONE), (69:TURKEY), (70:MADAGASCAR), (71:UKRAINE), (72:KENYA), (73:LEBANON), (74:BENIN), (75:ESTONIA), (76:GUINEA-BISSAU), (77:GUYANA), (78:MOZAMBIQUE), (79:MALAWI), (80:NEPAL), (81:NIGER), (82:MALI), (83:LIBERIA), (84:GEORGIA), (85:SRI LANKA), (86:BURUNDI), (87:HAITI), (88:ECUADOR), (89:VENEZUELA, REP. BOL.), (90:RUSSIA), (91:ARMENIA), (92:ZAMBIA), (93:CONGO, DEM. REP. OF), (94:NIGERIA), (95:MAURITANIA), (96:MALAYSIA), (97:KYRGYZ REPUBLIC), (98:ALGERIA), (99:CAMBODIA), (100:PAKISTAN), (101:DJIBOUTI), (102:TANZANIA), (103:ETHIOPIA), (104:BOSNIA & HERZEGOVINA), (105:IRAQ), (106:AFGHANISTAN, I.R. OF), (107:BURKINA FASO), (108:SOMALIA), (109:GUINEA), (110:CENTRAL AFRICAN REP.), (111:UGANDA), (112:THAILAND), (113:CHAD), (114:ANGOLA), (115:SINGAPORE), (116:YEMEN, REPUBLIC OF), (117:EGYPT), (118:RWANDA), (119:JORDAN), (120:TUNISIA), (121:CAMEROON), (122:ZIMBABWE), (123:GABON), (124:FUJI), (125:CONGO, REPUBLIC OF), (126:TOGO), (127:SUDAN), (128:EQUATORIAL GUINEA), (129:GAMBIA, THE), (130:MOROCCO), (131:BANGLADESH), (132:KAZAKHSTAN), (133:IRAN, I.R. OF), (134:LIBYA), (135:CHINA, P.R.: MAINLAND), (136:BELARUS), (137:AZERBAIJAN, REP. OF), (138:KUWAIT), (139:CUBA), (140:VIETNAM), (141:SYRIAN ARAB REPUBLIC), (142:BAHRAIN, KINGDOM OF), (143:LAO PEOPLE S DEM.REP), (144:UNITED ARAB EMIRATES), (145:OMAN), (146:MYANMAR), (147:UZBEKISTAN), (148:TURKMENISTAN), (149:NORTH KOREA), (150:QATAR), (151:SAUDI ARABIA)

**Figure A7. Trade Volume-adjusted Democracy (DEMOC2) Scores**

## Democracy Scores

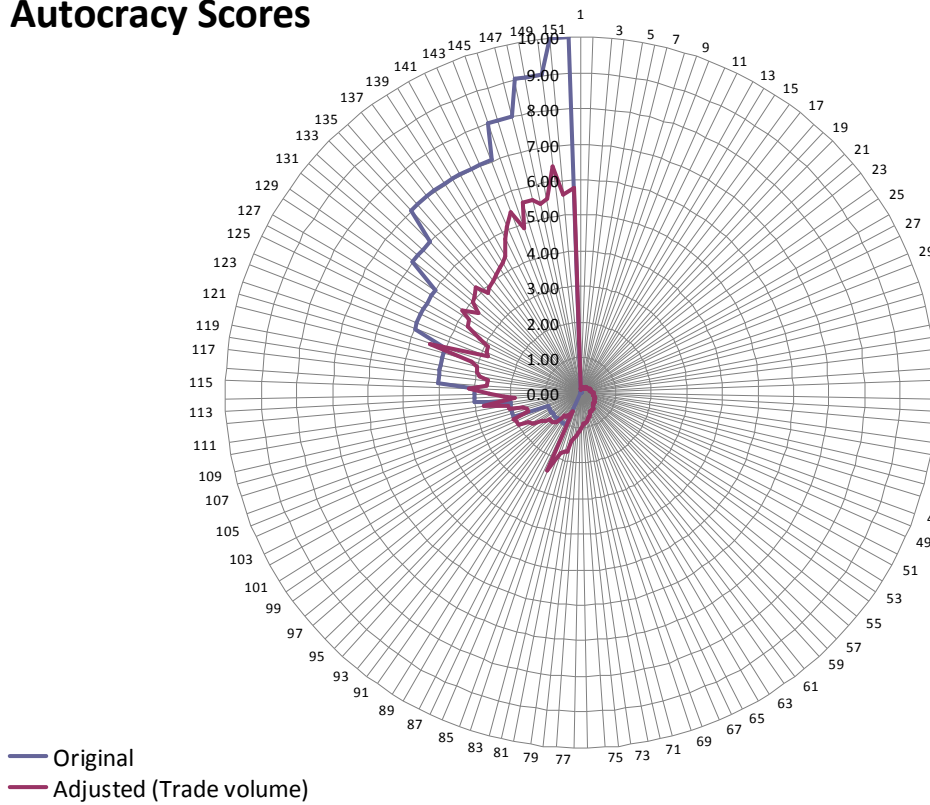


Note: Countries are simultaneously sorted in (1) descending order of original scores, (2) descending order of trade contribution to adjusted score.

(1:NORWAY), (2:CANADA), (3:AUSTRIA), (4:DENMARK), (5:IRELAND), (6:SWEDEN), (7:SLOVENIA), (8:SLOVAK REPUBLIC), (9:TRINIDAD AND TOBAGO), (10:POLAND), (11:SWITZERLAND), (12:HUNGARY), (13:PORTUGAL), (14:UNITED KINGDOM), (15:ISRAEL), (16:GERMANY), (17:SPAIN), (18:NETHERLANDS), (19:PAPUA NEW GUINEA), (20:FINLAND), (21:GREECE), (22:ITALY), (23:LITHUANIA), (24:COSTA RICA), (25:MAURITIUS), (26:CYPRUS, SOUTH), (27:NEW ZEALAND), (28:CHILE), (29:UNITED STATES), (30:URUGUAY), (31:AUSTRALIA), (32:JAPAN), (33:MONGOLIA), (34:ALBANIA), (35:MACEDONIA, FYR), (36:SERBIA, REPUBLIC OF), (37:JAMAICA), (38:ROMANIA), (39:FRANCE), (40:BULGARIA), (41:CROATIA), (42:NICARAGUA), (43:PERU), (44:SOUTH AFRICA), (45:PANAMA), (46:COMOROS), (47:INDIA), (48:SOLOMON ISLANDS), (49:MEXICO), (50:CZECH REPUBLIC), (51:BELGIUM), (52:DOMINICAN REPUBLIC), (53:GUATEMALA), (54:BOLIVIA), (55:PARAGUAY), (56:LATVIA), (57:SIERRA LEONE), (58:MOLDOVA), (59:BRAZIL), (60:ARGENTINA), (61:TURKEY), (62:SENEGAL), (63:GHANA), (64:PHILIPPINES), (65:INDONESIA), (66:KOREA), (67:LEBANON), (68:HONDURAS), (69:ESTONIA), (70:EL SALVADOR), (71:COLOMBIA), (72:NEPAL), (73:NIGER), (74:GEORGIA), (75:LIBERIA), (76:MADAGASCAR), (77:SRI LANKA), (78:UKRAINE), (79:BURUNDI), (80:KENYA), (81:BENIN), (82:HAITI), (83:GUYANA), (84:MOZAMBIQUE), (85:GUINEA-BISSAU), (86:RUSSIA), (87:MALAWI), (88:MALI), (89:CONGO, DEM. REP. OF), (90:ECUADOR), (91:VENEZUELA, REP. BOL.), (92:ZAMBIA), (93:ARMENIA), (94:NIGERIA), (95:MAURITANIA), (96:MALAYSIA), (97:ALGERIA), (98:TANZANIA), (99:CAMBODIA), (100:ETHIOPIA), (101:DJIBOUTI), (102:KYRGYZ REPUBLIC), (103:ANGOLA), (104:THAILAND), (105:SINGAPORE), (106:BURKINA FASO), (107:JORDAN), (108:PAKISTAN), (109:CHAD), (110:TUNISIA), (111:ZIMBABWE), (112:CAMEROON), (113:GUINEA), (114:CENTRAL AFRICAN REP.), (115:EGYPT), (116:UGANDA), (117:TOGO), (118:YEMEN, REPUBLIC OF), (119:BOSNIA & HERZEGOVINA), (120:LIBYA), (121:CHINA,P.R.: MAINLAND), (122:EQUATORIAL GUINEA), (123:IRAQ), (124:MOROCCO), (125:QATAR), (126:GABON), (127:FIJI), (128:AZERBAIJAN, REP. OF), (129:BELARUS), (130:SAUDI ARABIA), (131:KUWAIT), (132:UNITED ARAB EMIRATES), (133:BANGLADESH), (134:CUBA), (135:RWANDA), (136:VIETNAM), (137:CONGO, REPUBLIC OF), (138:KAZAKHSTAN), (139:IRAN, I.R. OF), (140:UZBEKISTAN), (141:GAMBIA, THE), (142:TURKMENISTAN), (143:BAHRAIN, KINGDOM OF), (144:OMAN), (145:AFGHANISTAN, I.R. OF), (146:SYRIAN ARAB REPUBLIC), (147:MYANMAR), (148:NORTH KOREA), (149:LAO PEOPLE S DEM.REP), (150:SOMALIA), (151:SUDAN)

**Figure A8. Trade Volume-adjusted Autocracy (AUTOC2) Scores**

## Autocracy Scores

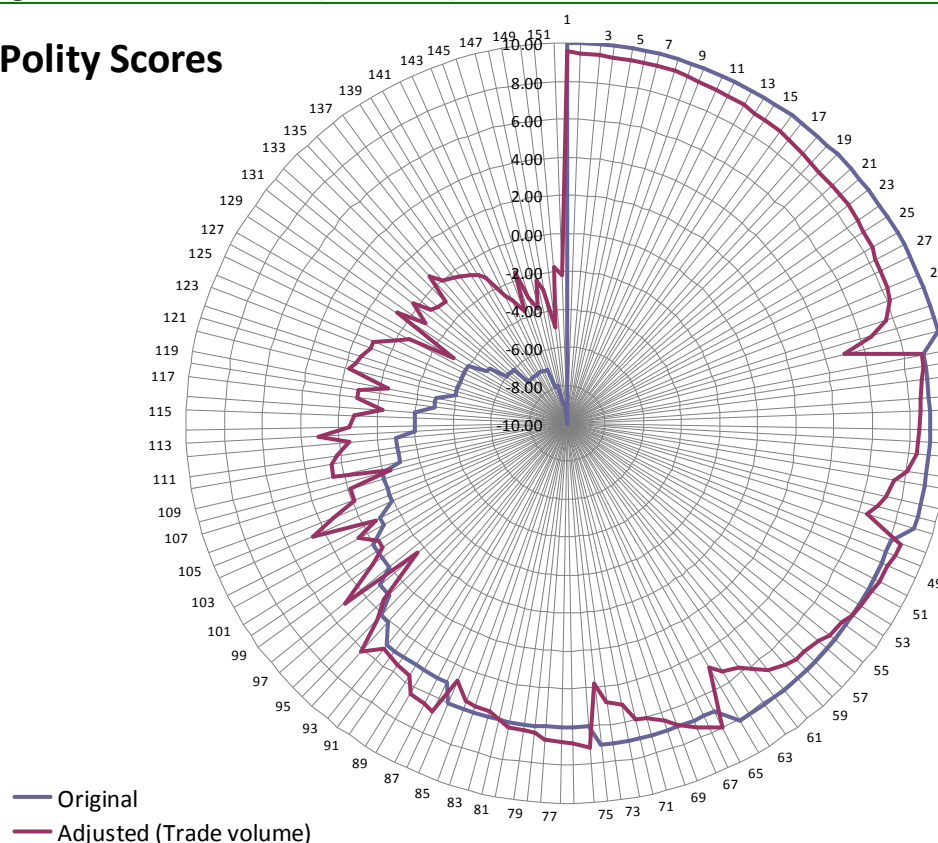


Note: Countries are simultaneously sorted in (1) ascending order of original scores, (2) ascending order of trade contribution to adjusted score.

(1:BOLIVIA), (2:HONDURAS), (3:BOSNIA & HERZEGOVINA), (4:NORWAY), (5:SLOVAK REPUBLIC), (6:TRINIDAD AND TOBAGO), (7:MEXICO), (8:MACEDONIA, FYR), (9:GUINEA-BISSAU), (10:SLOVENIA), (11:CZECH REPUBLIC), (12:EL SALVADOR), (13:AUSTRIA), (14:DOMINICAN REPUBLIC), (15:NICARAGUA), (16:ALBANIA), (17:IRELAND), (18:BELGIUM), (19:JAMAICA), (20:CANADA), (21:DENMARK), (22:SWEDEN), (23:POLAND), (24:COLOMBIA), (25:ECUADOR), (26:GUATEMALA), (27:HUNGARY), (28:SWITZERLAND), (29:PORTUGAL), (30:PARAGUAY), (31:BULGARIA), (32:NIGERIA), (33:CROATIA), (34:ROMANIA), (35:ISRAEL), (36:GERMANY), (37:UNITED KINGDOM), (38:FRANCE), (39:VENEZUELA, REP. BOL.), (40:SPAIN), (41:MOZAMBIQUE), (42:NETHERLANDS), (43:MOLDOVA), (44:LITHUANIA), (45:FINLAND), (46:MALAWI), (47:CYPRUS, SOUTH), (48:LATVIA), (49:COSTA RICA), (50:URUGUAY), (51:ITALY), (52:MAURITIUS), (53:PERU), (54:GREECE), (55:GUYANA), (56:PAPUA NEW GUINEA), (57:ARGENTINA), (58:ARMENIA), (59:BRAZIL), (60:SENEGAL), (61:CHILE), (62:MALI), (63:AFGHANISTAN, I.R. OF), (64:UNITED STATES), (65:NEW ZEALAND), (66:IRAQ), (67:GHANA), (68:ZAMBIA), (69:SOUTH AFRICA), (70:COMOROS), (71:UKRAINE), (72:PANAMA), (73:MADAGASCAR), (74:AUSTRALIA), (75:MAURITANIA), (76:PHILIPPINES), (77:INDONESIA), (78:INDIA), (79:KENYA), (80:JAPAN), (81:KOREA), (82:PAKISTAN), (83:BENIN), (84:SOMALIA), (85:MONGOLIA), (86:KYRGYZ REPUBLIC), (87:SERBIA, REPUBLIC OF), (88:HAITI), (89:ESTONIA), (90:ALGERIA), (91:NIGER), (92:SIERRA LEONE), (93:NEPAL), (94:CONGO, DEM. REP. OF), (95:TURKEY), (96:RUSSIA), (97:LIBERIA), (98:GEORGIA), (99:SRI LANKA), (100:MALAYSIA), (101:BURUNDI), (102:CAMBODIA), (103:LEBANON), (104:DJIBOUTI), (105:SOLOMON ISLANDS), (106:GUINEA), (107:CENTRAL AFRICAN REP.), (108:UGANDA), (109:TANZANIA), (110:BURKINA FASO), (111:ETHIOPIA), (112:CHAD), (113:RWANDA), (114:THAILAND), (115:YEMEN, REPUBLIC OF), (116:FIJI), (117:GABON), (118:EGYPT), (119:SINGAPORE), (120:ANGOLA), (121:CONGO, REPUBLIC OF), (122:SUDAN), (123:CAMEROON), (124:TUNISIA), (125:ZIMBABWE), (126:EQUATORIAL GUINEA), (127:GAMBIA, THE), (128:TOGO), (129:JORDAN), (130:MOROCCO), (131:BANGLADESH), (132:KAZAKHSTAN), (133:IRAN, I.R. OF), (134:LIBYA), (135:BELARUS), (136:CHINA,P.R.: MAINLAND), (137:AZERBAIJAN, REP. OF), (138:CUBA), (139:KUWAIT), (140:VIETNAM), (141:SYRIAN ARAB EPUBLIC), (142:LAO PEOPLE S DEM.REP), (143:BAHRAIN, KINGDOM OF), (144:UNITED ARAB EMIRATES), (145:MYANMAR), (146:OMAN), (147:UZBEKISTAN), (148:TURKMENISTAN), (149:NORTH KOREA), (150:QATAR), (151:SAUDI ARABIA)

**Figure A9. Trade Volume-adjusted Polity (POLITY2) Scores**

## Polity Scores



Note: Countries are simultaneously sorted in (1) descending order of original scores, (2) descending order of trade contribution to adjusted score.

(1:NORWAY), (2:AUSTRIA), (3:CANADA), (4:DENMARK), (5:IRELAND), (6:SLOVAK REPUBLIC), (7:SLOVENIA), (8:TRINIDAD AND TOBAGO), (9:SWEDEN), (10:POLAND), (11:HUNGARY), (12:SWITZERLAND), (13:PORTUGAL), (14:ISRAEL), (15:GERMANY), (16:UNITED KINGDOM), (17:SPAIN), (18:NETHERLANDS), (19:FINLAND), (20:PAPUA NEW GUINEA), (21:LITHUANIA), (22:ITALY), (23:GREECE), (24:COSTA RICA), (25:MAURITIUS), (26:CYPRUS, SOUTH), (27:URUGUAY), (28:NEW ZEALAND), (29:CHILE), (30:UNITED STATES), (31:AUSTRALIA), (32:JAPAN), (33:MONGOLIA), (34:MACEDONIA, FYR), (35:ALBANIA), (36:JAMAICA), (37:ROMANIA), (38:BULGARIA), (39:FRANCE), (40:NICARAGUA), (41:CROATIA), (42:PERU), (43:SOUTH AFRICA), (44:PANAMA), (45:COMOROS), (46:INDIA), (47:MEXICO), (48:CZECH REPUBLIC), (49:BELGIUM), (50:SERBIA, REPUBLIC OF), (51:DOMINICAN REPUBLIC), (52:BOLIVIA), (53:GUATEMALA), (54:PARAGUAY), (55:LATVIA), (56:MOLDOVA), (57:ARGENTINA), (58:BRAZIL), (59:SENEGAL), (60:GHANA), (61:PHILIPPINES), (62:INDONESIA), (63:KOREA), (64:SOLOMON ISLANDS), (65:HONDURAS), (66:EL SALVADOR), (67:COLOMBIA), (68:SIERRA LEONE), (69:TURKEY), (70:MADAGASCAR), (71:UKRAINE), (72:KENYA), (73:LEBANON), (74:BENIN), (75:ESTONIA), (76:GUINEA-BISSAU), (77:GUYANA), (78:MOZAMBIQUE), (79:MALAWI), (80:NEPAL), (81:NIGER), (82:MALI), (83:LIBERIA), (84:GEORGIA), (85:SRI LANKA), (86:BURUNDI), (87:HAITI), (88:ECUADOR), (89:VENEZUELA, REP. BOL.), (90:RUSSIA), (91:ARMENIA), (92:ZAMBIA), (93:CONGO, DEM. REP. OF), (94:NIGERIA), (95:MAURITANIA), (96:MALAYSIA), (97:KYRGYZ REPUBLIC), (98:ALGERIA), (99:CAMBODIA), (100:PAKISTAN), (101:DJIBOUTI), (102:TANZANIA), (103:ETHIOPIA), (104:BOSNIA & HERZEGOVINA), (105:IRAQ), (106:AFGHANISTAN, I.R. OF), (107:BURKINA FASO), (108:SOMALIA), (109:GUINEA), (110:CENTRAL AFRICAN REP.), (111:UGANDA), (112:THAILAND), (113:CHAD), (114:ANGOLA), (115:SINGAPORE), (116:YEMEN, REPUBLIC OF), (117:EGYPT), (118:RWANDA), (119:JORDAN), (120:TUNISIA), (121:CAMEROON), (122:ZIMBABWE), (123:GABON), (124:FUJI), (125:CONGO, REPUBLIC OF), (126:TOGO), (127:SUDAN), (128:EQUATORIAL GUINEA), (129:GAMBIA, THE), (130:MOROCCO), (131:BANGLADESH), (132:KAZAKHSTAN), (133:IRAN, I.R. OF), (134:LIBYA), (135:CHINA,P.R.: MAINLAND), (136:BELARUS), (137:AZERBAIJAN, REP. OF), (138:KUWAIT), (139:CUBA), (140:VIETNAM), (141:SYRIAN ARAB REPUBLIC), (142:BAHRAIN, KINGDOM OF), (143:LAO PEOPLE S DEM.REP), (144:UNITED ARAB EMIRATES), (145:OMAN), (146:MYANMAR), (147:UZBEKISTAN), (148:TURKMENISTAN), (149:NORTH KOREA), (150:QATAR), (151:SAUDI ARABIA)