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**APPENDIX A: Operationalization of neopatrimonialism**

 As noted in the text, we calculate neopatrimonialism using the following basic formula: NP = A \* D. In turn, ruler appropriation (A) consists of corruption and of obtaining the allegiance of different groups in society (cronyism and clientelism). For the V-Dem questions employed see Appendix Tables A.1 and A.2. Because of the centrality of corruption and because we see cronyism and clientelism as two sides of the same phenomenon, we calculate A = Corruption\*.5 + Cronyism\*.25 + Clientelism\*.25.[[1]](#footnote-1) In turn, ruler discretionality (D) consists of weak rule of law (WROL) and ineffective oversight of the executive (IO). We measure weak rule of law by weighting equally the three V-Dem questions listed in Appendix Table A.1. In turn, we use two equally weighted V-Dem questions to measure ineffective oversight of the executive. Thus, D = WROL\*.5 + IO\*.5 (Appendix Table A.1). The text of all the V-Dem questions employed can be found in Appendix Table A.2.

 Using our same basic formula, and to provide a robustness check, we measure A and D relying on alternative data sources from the International Country Risk Guide (ICRG) and the World Bank World Governance Indicators (WGI). Compared to V-Dem, the ICRG has a less transparent methodology regarding the use of country experts as well as a shorter time series. It also has a particular focus on foreign business and private sector risk. In turn, the WGI only begins in 1996, and has also been criticized for its private sector orientation (cf. Kurtz & Schrank 2007; 2007a). Nevertheless, model results with regard to the impact of higher levels of neopatrimonialism on poverty are robust to these different measurement sources (Appendix B, Tables B.15 through B.19). Question wording for all of these are provided in Appendix Tables A.3 and A.4 below.

 After completing our manuscript, we found a conceptualization of neopatrimonialism by Sigman & Lindberg (2017) which draws on 3 dimensions from Bratton and van de Walle (1997), clientelism, corruption and presidentialism, each measured with a different number of V-Dem questions and then each dimension is weighted equally to generate a summary measure of neopatrimonialism. They employ their measure to analyze the relationship between neopatrimonialism and democracy in Africa. Our measures coincide, but differ in certain respects. We exclude eight of the V-Dem questions they employ because we consider that they overlap too closely with issues regarding how power is accessed. These include questions that ask about the autonomy of electoral management bodies or vote buying, or that address state corruption in branches other than the executive, or do not address executive respect for the rule of law directly. And, we order and weight the 8 questions found in both measures based on our focus on measuring neopatrimonialism as the exercise of power.[[2]](#footnote-2)

**References**

Bratton, Michael and Nicolas van de Walle. 1997. *Democratic Experiments in Africa: Regime Transitions in Comparative Perspective.* Cambridge: Cambridge University Press.

Kurtz, Marcus J. & Schrank, Andrew. 2007. “Growth and Governance: Models, Measures and Mechanisms,” *Journal of Politics* 69 ,2 (May), 538-554.

Kurtz, Marcus J. & Schrank, Andrew. 2007a. “Growth and Governance: A Defense,” *Journal of Politics* 69, 2 (May), 563-569.

Sigman, Rachel and Staffan I. Lindberg. 2017. “Neopatrimonialism and Democracy: An Empirical Investigation of Africa’s Political Regimes.” Gothenburg, Sweden: Working Paper Series 2017:56, The Varieties of Democracy Institute, University of Gothenburg.

**Appendix Table A.1: Dimensions and indicators of neopatrimonialism and V-Dem questions**

NP = A\*D

Where A = Corruption\*.5 + Cronyism\*.25 + Clientelism\*.25 and

D = Weak rule of law (WROL)\*.5 + Ineffective oversight of the executive (IO)\*.5.

We measure weak rule of by weighting equally the three V-Dem questions listed in the table. In turn, we use two equally weighted V-Dem questions listed in the table to measure ineffective oversight of the executive.

|  |  |  |
| --- | --- | --- |
| **Dimension** | Indicators | V-Dem questions |
| **Ruler Appropriation (A)** | Corruption (.5) | v2exembez-executive embezzlement |
|  | Cronyism (.25) | v2exbribe- executive bribery |
|  | Clientelism (.25) | v2dlencmps- use of particularistic vs. public goods |
|  |  |  |
| **Ruler Discretionality (D)** | Weak rule of law (WROL) (.5) | v2juhccomp-compliance with high court (1/3) |
|  |  | v2jucomp-compliance with judiciary (1/3) |
|  |  | v2exrescon-executive respects constitution (1/3) |
|  | Ineffective oversight of the executive (IO) (.5) | v2lgotovst- executive oversight by other state agencies (1/2) |
|  |  | v2lginvstp-legislature investigates in practice (1/2) |

**Appendix Table A.2: Text of V-Dem questions employed for indicators of neopatrimonialism**

|  |  |  |  |
| --- | --- | --- | --- |
| Dimension | Sub-dimensions and indicators | V-Dem question | V-Dem question text (all have 5 point scale responses, rescaled if necessary so that higher scores are more neopatrimonial) |
| Ruler Appropriation (A) |  |  |  |
|  | Corruption | V2exembez | How often do members of the executive (the head of state, the head of government, and cabinet ministers), or their agents, steal, embezzle, or misappropriate public funds or other state resources for personal or family use? |
|  | Cronyism | V2exbribe | How routinely do members of the executive (the head of state, the head of government, and cabinet ministers), or their agents, grant favors in exchange for bribes, kickbacks, or other material inducements? |
|  | Clientelism (and possibly cronyism depending on social strata targeted) | V2dlencmps | Question: Considering the profile of social and infrastructural spending in the national budget, how “particularistic” or “public goods” are most expenditures?Clarification: Particularistic spending is narrowly targeted on a specific corporation, sector, social group, region, party, or set of constituents. Such spending may be referred to as “pork”, “clientelistic”, or “private goods.” Public-goods spending is intended to benefit all communities within a society, though it may be means-tested so as to target poor, needy, or otherwise underprivileged constituents. The key point is that all who satisfy the means-test are allowed to receive the benefit. Your answer should consider the entire budget of social and infrastructural spending. We are interested in the relative value of particularistic and public-goods spending, not the number of bills or programs that fall into either category. |
| Ruler Discretionality (D) |  |  |  |
|  | Weak rule of law (lack of respect for the constitution and the judiciary) - WROL | V2exrescon | Do members of the executive (the head of state, the head of government, and cabinet ministers) respect the constitution? |
|  |  | V2juhccomp | How often would you say the government complies with important decisions of the high court with which it disagrees? |
|  |  | V2jucomp | How often would you say the government complies with important decisions by other courts with which it disagrees? Clarification: We are looking for a summary judgment for the entire judiciary, excluding the high court. You should consider judges on both ordinary courts and specialized courts.  |
|  | Ineffective oversight of the executive by non-judicial state agencies or the legislature (IO) | v2lgotovst | If executive branch officials were engaged in unconstitutional, illegal or unethical activity, how likely is it that a body other than the legislature, such as a comptroller general, general prosecutor, or ombudsman, would question or investigate them and issue an unfavorable decision or report?  |
|  |  | v2lginvstp | If the executive were engaged in unconstitutional, illegal, or unethical activity, how likely is it that a legislative body (perhaps a whole chamber, perhaps a committee, whether aligned with government or opposition) would conduct an investigation that would result in a decision or report that is unfavorable to the executive? |

Source: Michael Coppedge, et al. 2017. “V-Dem Dataset v7.1” Varieties of Democracy (V-Dem) Project.

**Alternative measure of Neopatrimonialism relying mostly on ICRG measures.**

For this measure of neopatrimonialism, we minimize the use of V-Dem variables by employing International Country Risk Guide (ICRG) measures. Ruler Appropriation is composed of two operational indicators, each weighted 0.5: the ICRG measure of Corruption and the ICRG measure of Bureaucracy Quality. Ruler Discretionality is composed of two operational indicators: the ICRG measure of Law and Order weighted as 0.5 and our measure of ineffective oversight (V-Dem’s executive oversight variable and legislature investigates in practice measure each weighted as 0.5). The over-all correlation of this measure with our original measure of neopatrimonialism is 0.50. Emplying ICRG data enables us to have a longer time series compared to our other alternate measure that makes use of World Bank data.

**Appendix Table A.3: Alternative measure of neopatrimonialism: ICRG questions employed**

|  |  |  |  |
| --- | --- | --- | --- |
| Dimension | Sub-dimensions and indicators | ICRG questions | Text of question or description of measure |
| Ruler Appropriation (A) |  |  |  |
|  | Corruption Cronyism and Clientelism | ICRG Corruption measure (covers corruption, cronyism and partially clientelism), scale from 0 (high) to 6 (low) rescaled to 0 (low) to 1 (high)  | The most common form of corruption met directly by business is financial corruption in the form of **demands for special payments and bribes connected with import and export licenses, exchange controls, tax assessments, police protection, or loans**. Such corruption can make it difficult to conduct business effectively, and in some cases may force the withdrawal or withholding of an investment. Although our measure takes such corruption into account, it is more concerned with actual or potential corruption in the form of **excessive patronage, nepotism, job reservations, ‘favor-for-favors’, secret party funding, and suspiciously close ties between politics and business.** In our view these insidious sorts of corruption are potentially of much greater risk to foreign business in that they can lead to popular discontent, unrealistic and inefficient controls on the state economy, and encourage the development of the black market. |
|  | Cronyism | ICRG Bureaucracy Quality measure(covers cronyism and clientelism), scale from 0 (high quality) to 4 (low quality) rescaled to 0 (low) to 1 (high)  | **The institutional strength and quality** of the bureaucracy is another shock absorber that tends to minimize revisions of policy when governments change. Therefore, high points are given to countries where the bureaucracy has **the strength** and expertise to govern without drastic changes in policy or interruptions in government services. In these low-risk countries, the **bureaucracy tends to be somewhat autonomous from political pressure and to have an established mechanism for recruitment and training**. Countries that lack the cushioning effect of a strong bureaucracy receive low points because a change in government tends to be traumatic in terms of policy formulation and day-to-day administrative functions. |
|  |  |  |  |
| Ruler Discretionality (D) |  |  |  |
|  | Weak rule of law (lack of respect for the constitution and the judiciary) – WROL | ICRG Law and Order,Scale from 0 (low) to 6 (high), rescaled to 0 (high) to 1 (low) | “Law and Order” form a single component, but its two elements are assessed separately, with each element being scored from zero to three points. To assess the “Law” element, the strength and impartiality of the legal system are considered, while the “Order” element is an assessment of popular observance of the law. Thus, a country can enjoy a high rating – 3 – in terms of its judicial system, but a low rating – 1 – if it suffers from a very high crime rate if the law is routinely ignored without effective sanction (for example, widespread illegal strikes). |
|  |  |  |  |
|  |  |  |   |
|  | Ineffective oversight of the executive by non-judicial state agencies or the legislature (IO) | v2lgotovst | If executive branch officials were engaged in unconstitutional, illegal or unethical activity, how likely is it that a body other than the legislature, such as a comptroller general, general prosecutor, or ombudsman, would question or investigate them and issue an unfavorable decision or report?  |
|  |  | v2lginvstp | If the executive were engaged in unconstitutional, illegal, or unethical activity, how likely is it that a legislative body (perhaps a whole chamber, perhaps a committee, whether aligned with government or opposition) would conduct an investigation that would result in a decision or report that is unfavorable to the executive? |

Source: The PRS Group, International Country Risk Guide Methodology, accessed on-line at: <https://www.prsgroup.com/wp-content/uploads/2012/11/icrgmethodology.pdf> .

**Alternative measure of Neopatrimonialism relying in part on World Bank World Governance Indicators (WGI) and Linzer and Staton measure of latent judicial independence.**

Available from 1996 (WGI) through 2012 (Linzer & Staton). This measure of Neopatrimonialism replaces the corruption V-Dem indicator employed as part of Ruler Appropriation with the Control of Corruption indicator from the World Bank’s World Governance Indicators. And, it replaces the V-Dem weak rule of law V-Dem indicators as part of Ruler Discretionarily with the Rule of Law indicator from the World Bank’s World Governance Indicators and Linzer and Staton’s measure of latent judicial independence, with each of those two latter indicators receiving equal weight. The two neopatrimonial five-year moving average measures correlate with each other very highly (.94). Sources: World Bank’s World Governance Indicators (see <http://info.worldbank.org/governance/wgi/index.aspx#doc> ) and Linzer and Staton 2012.

**Appendix Table A.4: Alternative measure of neopatrimonialism (2): WGI and judicial independence questions employed**

|  |  |  |  |
| --- | --- | --- | --- |
| Dimension | Sub-dimensions and indicators | WGI or V-Dem question | Text of question or description of measure |
| Ruler Appropriation (A) |  |  |  |
|  | Corruption | WGI Control of Corruption measure (rescaled 0 to 1 with high control 0 and low control 1) | Captures perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests. Employs multiple sources, including expert and household survey measures. |
|  | Cronyism | V2exbribe | How routinely do members of the executive (the head of state, the head of government, and cabinet ministers), or their agents, grant favors in exchange for bribes, kickbacks, or other material inducements? |
|  | Clientelism (and possibly cronyism depending on social strata targeted) | V2dlencmps | Question: Considering the profile of social and infrastructural spending in the national budget, how “particularistic” or “public goods” are most expenditures?Clarification: Particularistic spending is narrowly targeted on a specific corporation, sector, social group, region, party, or set of constituents. Such spending may be referred to as “pork”, “clientelistic”, or “private goods.” Public-goods spending is intended to benefit all communities within a society, though it may be means-tested so as to target poor, needy, or otherwise underprivileged constituents. The key point is that all who satisfy the means-test are allowed to receive the benefit. Your answer should consider the entire budget of social and infrastructural spending. We are interested in the relative value of particularistic and public-goods spending, not the number of bills or programs that fall into either category. |
| Ruler Discretionality (D) |  |  |  |
|  | Weak rule of law (lack of respect for the constitution and the judiciary) - WROL | WGI Rule of Law measure(rescaled 0 high rule of law to 1 low rule of law) | Captures perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence. Employs multiple sources, including expert and household survey measures. |
|  |  | Linzer and Staton latent judicial independence measure | A measure of de facto judicial independence (free from undue external influence, especially from the government) and with expectation that decisions will be implemented properly, especially by sitting governments. Relies on variables drawn from up to 8 different sources (see Linzer and Staton 2015)., |
|  |  |  |   |
|  | Ineffective oversight of the executive by non-judicial state agencies or the legislature (IO) | v2lgotovst | If executive branch officials were engaged in unconstitutional, illegal or unethical activity, how likely is it that a body other than the legislature, such as a comptroller general, general prosecutor, or ombudsman, would question or investigate them and issue an unfavorable decision or report?  |
|  |  | v2lginvstp | If the executive were engaged in unconstitutional, illegal, or unethical activity, how likely is it that a legislative body (perhaps a whole chamber, perhaps a committee, whether aligned with government or opposition) would conduct an investigation that would result in a decision or report that is unfavorable to the executive? |

 The two neopatrimonial five-year moving average measures correlate with each other very highly (.94).

Sources:

Linzer, Drew A. and Jeffrey K. Staton. 2015. “A Global Measure of Judicial Independence, 1948-2012,” *Journal of Law and Courts* (Fall) 223-256.

World Bank. 2013. Worldwide Governance Indicators (WGI). [www.govindicators.org](http://www.govindicators.org).

**APPENDIX B. Supplementary Figures and Tables**

**Appendix B. Figure B.1.**

**Neopatrimonialism (V-Dem measure), 10 year moving average**

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**Appendix B. Figure B.2.**

**Neopatrimonialism (V-Dem measures), Dimensions A (Appropriation) and**

**D (Discretionality), 10 year moving average**

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**Appendix B. Figure B.3**

**Predicted Poverty Across Values of Cumulative Electoral Democracy**

**(based on Table 2, Model 1 of the article)**

Predicted percentage of population living in poverty in a country with no cumulative democracy is around 49% and declines to around 33% at the highest level of cumulative democracy.

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**Appendix B. Figure B.4**

**Predicted Poverty Across Values of Cumulative Electoral Democracy**

**(based on Table 2, Model 2 of the article)**

Predicted percentage of population living in poverty in a country with no cumulative democracy is around 48% and declines to around 37% at the highest level of cumulative democracy. Showing 95% confidence intervals (two-tailed).

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**Appendix B. Table B.1**

**Effect of Ruler Appropriation on Poverty**

|  |  |  |
| --- | --- | --- |
|  | Model 1 | Model 2 |
| Ruler Appropriation (10-year moving average) | 26.96\*\*\* | 24.79\*\*\* |
|  | (4.40) | (4.32) |
| Radical Left | -0.66 | -0.44 |
|  | (1.38) | (1.42) |
| Leftist Party Seat Share | -3.47 | -4.47+ |
|  | (2.37) | (2.50) |
| Cumulative Electoral Democracy | -0.13 | -0.09 |
|  | (0.11) | (0.10) |
| GDP per capita (logged) | -9.21\*\*\* | -9.33\*\*\* |
|  | (1.04) | (1.05) |
| Ethnic Diversity | 8.21\*\*\* | 7.09\*\*\* |
|  | (1.74) | (1.70) |
| Female Labor Force Participation | -0.01 | 0.00 |
|  | (0.01) | (0.01) |
| Natural Resource Rents (% GDP) | -0.01 | -0.01 |
|  | (0.08) | (0.09) |
| Inflation | -0.00 | -0.00 |
|  | (0.00) | (0.00) |
| Terms of Trade | -0.01 | -0.00 |
|  | (0.01) | (0.01) |
| Public Health Spending (% GDP) |  | -0.68\* |
|  |  | (0.30) |
| Public Education Spending (% GDP) |  | 0.30 |
|  |  | (0.31) |
| Average Years of Schooling (Population Age 15+) |  | -0.85 |
|  |  | (0.67) |
| Constant | 104.31\*\*\* | 111.52\*\*\* |
|  | (8.39) | (9.32) |
| *N* | 391 | 351 |
| *R*2 | 0.7621 | 0.7900 |
| ρ | 0.88 | 0.85 |
| Number of Countries | 18 | 19 |
| Average Number of Years per Country | 21.72 | 19.5 |

Prais-Winsten models. Standard errors in parentheses

+ *p* < 0.10, \* *p* < 0.05, \*\* *p* < 0.01, \*\*\* *p* < 0.001

**Appendix B. Table B.2**

**Effect of Ruler Discretionality on Poverty**

|  |  |  |
| --- | --- | --- |
|  | Model 1 | Model 2 |
| Ruler Discretionality (10-year Moving Average) | 13.40\*\* | 12.73\* |
|  | (4.99) | (5.05) |
| Radical Left | -0.48 | -0.24 |
|  | (1.41) | (1.42) |
| Leftist Party Seat Share | -2.60 | -3.47 |
|  | (2.46) | (2.58) |
| Cumulative Electoral Democracy | -0.28\*\* | -0.13 |
|  | (0.10) | (0.11) |
| GDP per capita (logged) | -10.45\*\*\* | -10.29\*\*\* |
|  | (1.13) | (1.15) |
| Ethnic Diversity | 8.69\*\*\* | 7.07\*\*\* |
|  | (1.76) | (1.89) |
| Female Labor Force Participation | -0.01 | -0.00 |
|  | (0.01) | (0.01) |
| Natural Resource Rents (% GDP) | -0.01 | -0.02 |
|  | (0.08) | (0.09) |
| Inflation | -0.00 | -0.00 |
|  | (0.00) | (0.00) |
| Terms of Trade | -0.01 | -0.00 |
|  | (0.01) | (0.01) |
| Public Health Spending (% GDP) |  | -0.89\*\* |
|  |  | (0.33) |
| Public Education Spending (% GDP) |  | 0.32 |
|  |  | (0.34) |
| Average Years of Schooling (Population Age 15+) |  | -1.88\*\* |
|  |  | (0.69) |
| Constant | 126.41\*\*\* | 135.37\*\*\* |
|  | (8.33) | (8.73) |
| *N* | 369 | 329 |
| *R*2 | 0.7255 | 0.7489 |
| ρ | 0.88 | 0.87 |
| Number of Countries | 18 | 18 |
| Average Number of Years per Country | 20.5 | 18.28 |

Prais-Winsten models. Standard errors in parentheses

+ *p* < 0.10, \* *p* < 0.05, \*\* *p* < 0.01, \*\*\* *p* < 0.001

**Appendix B. Table B.3**

**Effect of Cumulative Neopatrimonialism on Poverty**

|  |  |  |
| --- | --- | --- |
|  | Model 1 | Model 2 |
| Cumulative Neopatrimonialism | 0.55\*\*\* | 0.51\*\*\* |
|  | (0.06) | (0.05) |
| Radical Left | -0.27 | 0.15 |
|  | (1.42) | (1.52) |
| Leftist Party Seat Share | -3.04 | -4.28+ |
|  | (2.44) | (2.56) |
| Cumulative Electoral Democracy | -0.20\* | -0.14 |
|  | (0.09) | (0.09) |
| GDP per capita (logged) | -9.30\*\*\* | -8.90\*\*\* |
|  | (0.97) | (0.97) |
| Ethnic Diversity | 13.05\*\*\* | 11.48\*\*\* |
|  | (1.52) | (1.37) |
| Female Labor Force Participation | -0.02\*\* | -0.01\* |
|  | (0.01) | (0.01) |
| Natural Resource Rents (% GDP) | 0.04 | 0.11 |
|  | (0.08) | (0.10) |
| Inflation | -0.00 | -0.00 |
|  | (0.00) | (0.00) |
| Terms of Trade | -0.01 | -0.01 |
|  | (0.01) | (0.01) |
| Public Health Spending (% GDP) |  | -0.62\* |
|  |  | (0.30) |
| Public Education Spending (% GDP) |  | 0.59+ |
|  |  | (0.34) |
| Average Years of Schooling (Population Age 15+) |  | -1.50\*\* |
|  |  | (0.57) |
| Constant | 109.20\*\*\* | 115.97\*\*\* |
|  | (7.13) | (7.20) |
| *N* | 391 | 351 |
| *R*2 | 0.7722 | 0.8164 |
|  | 0.88 | 0.82 |
| Number of Countries | 18 | 18 |
| Average Number of Years per Country | 21.72 | 19.5 |

Prais-Winsten models. Standard errors in parentheses

+ *p* < 0.10, \* *p* < 0.05, \*\* *p* < 0.01, \*\*\* *p* < 0.001

**Appendix B. Table B.4**

**Effect of Cumulative Ruler Appropriation on Poverty**

|  |  |  |
| --- | --- | --- |
|  | Model 1 | Model 2 |
| Cumulative Ruler Appropriation | 0.52\*\*\* | 0.51\*\*\* |
|  | (0.06) | (0.04) |
| Radical Left | -0.65 | -0.29 |
|  | (1.36) | (1.46) |
| Leftist Party Seat Share | -3.72 | -5.24\* |
|  | (2.35) | (2.47) |
| Cumulative Electoral Democracy | -0.25\*\* | -0.14+ |
|  | (0.10) | (0.08) |
| GDP per capita (logged) | -9.36\*\*\* | -9.20\*\*\* |
|  | (1.00) | (0.95) |
| Ethnic Diversity | 8.94\*\*\* | 7.98\*\*\* |
|  | (1.86) | (1.42) |
| Female Labor Force Participation | -0.01 | -0.00 |
|  | (0.01) | (0.01) |
| Natural Resource Rents (% GDP) | 0.01 | 0.06 |
|  | (0.08) | (0.09) |
| Inflation | -0.00 | -0.00 |
|  | (0.00) | (0.00) |
| Terms of Trade | -0.01 | -0.01 |
|  | (0.01) | (0.01) |
| Public Health Spending (% GDP) |  | -0.48+ |
|  |  | (0.29) |
| Public Education Spending (% GDP) |  | 0.24 |
|  |  | (0.31) |
| Average Years of Schooling (Population Age 15+) |  | -1.42\*\* |
|  |  | (0.54) |
| Constant | 104.67\*\*\* | 111.57\*\*\* |
|  | (7.38) | (7.04) |
| *N* | 391 | 351 |
| *R*2 | 0.7675 | 0.8325 |
| ρ | 0.90 | 0.83 |
| Number of Countries | 18 | 18 |
| Average Number of Years per Country | 21.72 | 19.5 |

Prais-Winsten models. Standard errors in parentheses

+ *p* < 0.10, \* *p* < 0.05, \*\* *p* < 0.01, \*\*\* *p* < 0.001

**Appendix B. Table B.5**

**Effect of Cumulative Ruler Discretionality on Poverty**

|  |  |  |
| --- | --- | --- |
|  | Model 1 | Model 2 |
| Cumulative Ruler Discretionality | 0.54\*\*\* | 0.52\*\*\* |
|  | (0.07) | (0.06) |
| Radical Left | -0.47 | -0.09 |
|  | (1.44) | (1.51) |
| Leftist Party Seat Share | -2.66 | -3.88 |
|  | (2.48) | (2.58) |
| Cumulative Electoral Democracy | -0.26\*\* | -0.16+ |
|  | (0.09) | (0.09) |
| GDP per capita (logged) | -9.82\*\*\* | -9.28\*\*\* |
|  | (0.97) | (0.98) |
| Ethnic Diversity | 12.10\*\*\* | 10.40\*\*\* |
|  | (1.44) | (1.38) |
| Female Labor Force Participation | -0.03\*\*\* | -0.02\*\*\* |
|  | (0.01) | (0.01) |
| Natural Resource Rents (% GDP) | 0.06 | 0.12 |
|  | (0.08) | (0.10) |
| Inflation | -0.00 | -0.00 |
|  | (0.00) | (0.00) |
| Terms of Trade | -0.02+ | -0.02+ |
|  | (0.01) | (0.01) |
| Public Health Spending (% GDP) |  | -0.65\* |
|  |  | (0.30) |
| Public Education Spending (% GDP) |  | 0.60+ |
|  |  | (0.34) |
| Average Years of Schooling (Population Age 15+) |  | -2.06\*\*\* |
|  |  | (0.57) |
| Constant | 112.43\*\*\* | 120.48\*\*\* |
|  | (7.13) | (7.23) |
| *N* | 391 | 351 |
| *R*2 | 0.7721 | 0.8120 |
| ρ | 0.87 | 0.82 |
| Number of Countries | 18 | 18 |
| Average Number of Years per Country | 21.72 | 19.5 |

Prais-Winsten models. Standard errors in parentheses

+ *p* < 0.10, \* *p* < 0.05, \*\* *p* < 0.01, \*\*\* *p* < 0.001

**Appendix B. Table B.6**

**Effect of Neopatrimonialism on Poverty (5-Year Moving Average Models)**

|  |  |  |
| --- | --- | --- |
|  | Model 1 | Model 2 |
| Neopatrimonialism (5-year Moving Average) | 9.89\* | 7.51 |
|  | (5.02) | (4.75) |
| Radical Left | -0.23 | -0.01 |
|  | (1.36) | (1.38) |
| Leftist Party Seat Share | -2.78 | -3.28 |
|  | (2.39) | (2.53) |
| Cumulative Electoral Democracy | -0.37\*\*\* | -0.27\* |
|  | (0.11) | (0.12) |
| GDP per capita (logged) | -9.32\*\*\* | -9.13\*\*\* |
|  | (1.10) | (1.15) |
| Ethnic Diversity | 9.76\*\*\* | 8.20\*\*\* |
|  | (1.82) | (1.90) |
| Female Labor Force Participation | -0.01 | -0.01 |
|  | (0.01) | (0.01) |
| Natural Resource Rents (% GDP) | -0.02 | -0.03 |
|  | (0.08) | (0.09) |
| Inflation | -0.00 | -0.00 |
|  | (0.00) | (0.00) |
| Terms of Trade | -0.01 | -0.00 |
|  | (0.01) | (0.01) |
| Public Health Spending (% GDP) |  | -0.83\*\* |
|  |  | (0.31) |
| Public Education Spending (% GDP) |  | 0.31 |
|  |  | (0.31) |
| Average Years of Schooling (Population Age 15 +) |  | -1.67\* |
|  |  | (0.74) |
| Constant | 122.27\*\*\* | 131.40\*\*\* |
|  | (8.38) | (8.96) |
| *N* | 387 | 347 |
| *R*2 | 0.7214 | 0.7491 |
| ρ | 0.89 | 0.88 |
| Number of Countries | 18 | 18 |
| Average Number of Years per Country | 21.5 | 19.28 |

Prais-Winsten models. Standard errors in parentheses

+ *p* < 0.10, \* *p* < 0.05, \*\* *p* < 0.01, \*\*\* *p* < 0.001

**Appendix B. Table B.7**

**Effect of Ruler Appropriation on Poverty (5-Year Moving Average Models)**

|  |  |  |
| --- | --- | --- |
|  | Model 1 | Model 2 |
| Ruler Appropriation (5-year Moving Average) | 18.65\*\*\* | 16.92\*\*\* |
|  | (3.89) | (3.78) |
| Radical Left | -0.21 | -0.00 |
|  | (1.40) | (1.43) |
| Leftist Party Seat Share | -2.70 | -3.49 |
|  | (2.33) | (2.44) |
| Cumulative Electoral Democracy | -0.26\*\* | -0.20\* |
|  | (0.10) | (0.10) |
| GDP per capita (logged) | -9.24\*\*\* | -9.25\*\*\* |
|  | (1.07) | (1.09) |
| Ethnic Diversity | 8.55\*\*\* | 7.27\*\*\* |
|  | (1.69) | (1.68) |
| Female Labor Force Participation | -0.01 | -0.00 |
|  | (0.01) | (0.01) |
| Natural Resource Rents (% GDP) | -0.04 | -0.04 |
|  | (0.08) | (0.09) |
| Inflation | -0.00 | -0.00 |
|  | (0.00) | (0.00) |
| Terms of Trade | -0.01 | -0.00 |
|  | (0.01) | (0.01) |
| Public Health Spending (% GDP) |  | -0.74\* |
|  |  | (0.31) |
| Public Education Spending (% GDP) |  | 0.33 |
|  |  | (0.31) |
| Average Years of Schooling (Population Age 15+) |  | -1.12 |
|  |  | (0.70) |
| Constant | 112.24\*\*\* | 120.25\*\*\* |
|  | (8.37) | (9.14) |
| *N* | 391 | 351 |
| *R*2 | 0.7526 | 0.7805 |
|  | 0.88 | 0.86 |
| Number of Countries | 18 | 18 |
| Average Number of Years per Country | 21.72 | 19.5 |

Prais-Winsten models. Standard errors in parentheses

+ *p* < 0.10, \* *p* < 0.05, \*\* *p* < 0.01, \*\*\* *p* < 0.001

**Appendix B. Table B.8**

**Effect of Ruler Discretionality on Poverty (5-year Moving Average Models)**

|  |  |  |
| --- | --- | --- |
|  | Model 1 | Model 2 |
| Ruler Discretionality (5-year Moving Average) | 7.09 | 5.79 |
|  | (4.52) | (4.47) |
| Radical Left | -0.36 | -0.12 |
|  | (1.39) | (1.40) |
| Leftist Party Seat Share | -2.74 | -3.38 |
|  | (2.41) | (2.55) |
| Cumulative Electoral Democracy | -0.40\*\*\* | -0.26\* |
|  | (0.11) | (0.12) |
| GDP per capita (logged) | -9.49\*\*\* | -9.18\*\*\* |
|  | (1.11) | (1.17) |
| Ethnic Diversity | 9.61\*\*\* | 8.01\*\*\* |
|  | (1.77) | (1.93) |
| Female Labor Force Participation | -0.01+ | -0.01 |
|  | (0.01) | (0.01) |
| Natural Resource Rents (% GDP) | -0.02 | -0.02 |
|  | (0.08) | (0.09) |
| Inflation | -0.00 | -0.00 |
|  | (0.00) | (0.00) |
| Terms of Trade | -0.01 | -0.00 |
|  | (0.01) | (0.01) |
| Public Health Spending (% GDP) |  | -0.84\*\* |
|  |  | (0.32) |
| Public Education Spending (% GDP) |  | 0.33 |
|  |  | (0.31) |
| Average Years of Schooling (Population Age 15+) |  | -1.86\* |
|  |  | (0.72) |
| Constant | 123.93\*\*\* | 132.46\*\*\* |
|  | (8.46) | (8.95) |
| *N* | 387 | 347 |
| *R*2 | 0.7265 | 0.7499 |
|  | 0.89 | 0.88 |
| Number of Countries | 18 | 18 |
| Average Number of Years per Country | 21.5 | 19.28 |

Prais-Winsten models. Standard errors in parentheses

+ *p* < 0.10, \* *p* < 0.05, \*\* *p* < 0.01, \*\*\* *p* < 0.001

**Appendix B. Table B.9**

**Effect of Neopatrimonialism on Poverty (Left and Democracy Variables Separated)**

|  |  |  |
| --- | --- | --- |
|  | Model 1 | Model 2 |
| Neopatrimonialism (10-year Moving Average) | 15.53\*\* | 11.19\* |
|  | (5.04) | (5.25) |
| Radical Left | -0.29 |  |
|  | (1.39) |  |
| Leftist Party Seat Share | -3.59 |  |
|  | (2.59) |  |
| Cumulative Electoral Democracy |  | -0.18+ |
|  |  | (0.11) |
| GDP per capita (logged) | -10.64\*\*\* | -10.14\*\*\* |
|  | (1.07) | (1.13) |
| Ethnic Diversity | 7.57\*\*\* | 7.64\*\*\* |
|  | (1.86) | (1.97) |
| Female Labor Force Participation | -0.00 | -0.00 |
|  | (0.01) | (0.01) |
| Natural Resource Rents (% GDP) | -0.03 | -0.04 |
|  | (0.09) | (0.09) |
| Inflation | -0.00 | -0.00 |
|  | (0.00) | (0.00) |
| Terms of Trade | -0.00 | -0.00 |
|  | (0.01) | (0.01) |
| Public Health Spending (% GDP) | -0.91\*\* | -0.82\* |
|  | (0.33) | (0.33) |
| Public Education Spending (% GDP) | 0.25 | 0.18 |
|  | (0.33) | (0.34) |
| Average Years of Schooling (Population Age 15+) | -1.79\* | -1.48+ |
|  | (0.71) | (0.76) |
| Constant | 135.62\*\*\* | 135.36\*\*\* |
|  | (8.69) | (8.89) |
| *N* | 329 | 329 |
| ρ | 0.88 | 0.89 |
| *R*2 | 0.7464 | 0.7373 |
| Number of Countries | 18 | 18 |
| Average Number of Years per Country | 18.28 | 18.28 |

Prais-Winsten models. Standard errors in parentheses

+ *p* < 0.10, \* *p* < 0.05, \*\* *p* < 0.01, \*\*\* *p* < 0.001

**Appendix B. Table B.10**

**Effect of Neopatrimonialism on Poverty (OLS models with PCSE)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Model 1 | Model 2 | Model 3 | Model 4 |
| Neopatrimonialism (10-year moving average) | 29.26\*\*\* | 20.36\*\*\* | 26.72\*\*\* | 17.92\*\*\* |
|  | (2.92) | (3.13) | (3.24) | (2.80) |
| Radical Left | 0.24 | 2.29 | 0.93 |  |
|  | (1.84) | (1.80) | (1.53) |  |
| Leftist Party Seat Share | -6.83\*\* | -13.16\*\*\* | -14.95\*\*\* |  |
|  | (2.53) | (2.21) | (2.46) |  |
| Cumulative Electoral Democracy | -0.28\*\*\* | -0.33\*\*\* |  | -0.38\*\*\* |
|  | (0.06) | (0.09) |  | (0.09) |
| GDP per capita (logged) | -13.90\*\*\* | -12.19\*\*\* | -14.37\*\*\* | -12.25\*\*\* |
|  | (0.87) | (1.02) | (0.87) | (1.06) |
| Ethnic Diversity | 4.39\*\*\* | 2.29\*\* | 1.51\* | 2.71\*\*\* |
|  | (0.82) | (0.74) | (0.73) | (0.60) |
| Female Labor Force Participation | 0.01\*\*\* | 0.01\* | 0.02\*\*\* | 0.01\* |
|  | (0.00) | (0.00) | (0.00) | (0.00) |
| Natural Resource Rents (% GDP) | 0.37\*\*\* | 0.31\* | 0.23\* | 0.27+ |
|  | (0.11) | (0.12) | (0.10) | (0.14) |
| Inflation | -0.00+ | -0.00\* | -0.00+ | -0.00\* |
|  | (0.00) | (0.00) | (0.00) | (0.00) |
| Terms of Trade | -0.03\* | -0.01 | 0.00 | -0.02 |
|  | (0.01) | (0.01) | (0.01) | (0.01) |
| Public Health Spending (% GDP) |  | -1.96\*\*\* | -2.36\*\*\* | -1.54\*\*\* |
|  |  | (0.36) | (0.32) | (0.38) |
| Public Education Spending (% GDP) |  | 1.97\*\*\* | 1.82\*\*\* | 1.63\*\*\* |
|  |  | (0.44) | (0.43) | (0.48) |
| Average Years of Schooling (Population Age 15+) |  | -2.12\*\*\* | -1.91\*\*\* | -2.00\*\*\* |
|  |  | (0.43) | (0.38) | (0.43) |
| Constant | 155.36\*\*\* | 156.58\*\*\* | 162.74\*\*\* | 158.64\*\*\* |
|  | (7.22) | (6.42) | (6.23) | (6.41) |
| *N* | 369 | 329 | 329 | 329 |
| *R*2 | 0.8112 | 0.8362 | 0.8283 | 0.8284 |
| Number of Countries | 18 | 18 | 18 | 18 |
| Average Number of Years per Country | 20.5 | 18.28 | 18.28 | 18.28 |

Standard errors in parentheses

+ *p* < 0.10, \* *p* < 0.05, \*\* *p* < 0.01, \*\*\* *p* < 0.001

**Appendix B. Table B.11**

**Effect of Ruler Appropriation on Poverty (OLS models with PCSE)**

|  |  |  |
| --- | --- | --- |
|  | Model 1 | Model 2 |
| Ruler Appropriation (10-year Moving Average) | 34.87\*\*\* | 28.65\*\*\* |
|  | (1.74) | (2.50) |
| Radical Left | -1.91 | -0.42 |
|  | (1.62) | (1.63) |
| Leftist Party Seat Share | -10.02\*\*\* | -14.54\*\*\* |
|  | (2.20) | (2.09) |
| Cumulative Electoral Democracy | -0.06 | -0.18\* |
|  | (0.05) | (0.07) |
| GDP per capita (logged) | -12.28\*\*\* | -11.17\*\*\* |
|  | (0.74) | (0.78) |
| Ethnic Diversity | 4.56\*\*\* | 3.04\*\*\* |
|  | (0.60) | (0.57) |
| Female Labor Force Participation | 0.01\*\* | 0.01\*\* |
|  | (0.00) | (0.00) |
| Natural Resource Rents (% GDP) | 0.31\*\*\* | 0.30\*\* |
|  | (0.08) | (0.10) |
| Inflation | -0.00 | -0.00 |
|  | (0.00) | (0.00) |
| Terms of Trade | -0.01 | 0.00 |
|  | (0.01) | (0.01) |
| Public Health Spending (% GDP) |  | -1.18\*\*\* |
|  |  | (0.33) |
| Public Education Spending (% GDP) |  | 1.89\*\*\* |
|  |  | (0.39) |
| Average Years of Schooling (Population Age 15+) |  | -1.28\*\* |
|  |  | (0.42) |
| Constant | 124.34\*\*\* | 125.98\*\*\* |
|  | (6.79) | (6.63) |
| *N* | 391 | 351 |
| *R*2 | 0.8644 | 0.8715 |
| Number of Countries | 18 | 18 |
| Average Number of Years per Country | 21.72 | 19.5 |

Standard errors in parentheses

+ *p* < 0.10, \* *p* < 0.05, \*\* *p* < 0.01, \*\*\* *p* < 0.001

**Appendix B. Table B.12**

**Effect of Ruler Discretionality on Poverty (OLS models with PCSE)**

|  |  |  |
| --- | --- | --- |
|  | Model 1 | Model 2 |
| Ruler Discretionality (10-year Moving Average) | 25.18\*\*\* | 20.82\*\*\* |
|  | (3.18) | (2.98) |
| Radical Left | -0.84 | 1.39 |
|  | (2.03) | (1.78) |
| Leftist Party Seat Share | -4.77+ | -12.64\*\*\* |
|  | (2.67) | (2.18) |
| Cumulative Electoral Democracy | -0.21\*\* | -0.22\* |
|  | (0.07) | (0.10) |
| GDP per capita (logged) | -15.55\*\*\* | -13.16\*\*\* |
|  | (0.99) | (1.13) |
| Ethnic Diversity | 3.32\*\*\* | 1.16 |
|  | (0.97) | (0.92) |
| Female Labor Force Participation | 0.02\*\* | 0.01\*\* |
|  | (0.00) | (0.00) |
| Natural Resource Rents (% GDP) | 0.35\*\* | 0.29\* |
|  | (0.12) | (0.12) |
| Inflation | -0.00\* | -0.00\* |
|  | (0.00) | (0.00) |
| Terms of Trade | -0.03\* | -0.00 |
|  | (0.01) | (0.02) |
| Public Health Spending (% GDP) |  | -2.00\*\*\* |
|  |  | (0.38) |
| Public Education Spending (% GDP) |  | 2.04\*\*\* |
|  |  | (0.44) |
| Average Years of Schooling (Population Age 15+) |  | -2.63\*\*\* |
|  |  | (0.40) |
| Constant | 163.73\*\*\* | 161.07\*\*\* |
|  | (7.74) | (6.56) |
| *N* | 369 | 329 |
| *R*2 | 0.7953 | 0.8351 |
| Number of Countries | 18 | 18 |
| Average Number of Years per Country | 20.5 | 18.28 |

Standard errors in parentheses

+ *p* < 0.10, \* *p* < 0.05, \*\* *p* < 0.01, \*\*\* *p* < 0.001

**Appendix B. Table B.13**

**Variable Summary Statistics**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Variable | **N** | **Mean** | **Std. Deviation** | **Minimum** | **Maximum** |
| Poverty (interpolated) | 419 | 41.47 | 18.24 | 4.3 | 80.80 |
| Poverty (not interpolated) | 246 | 39.51 | 17.14 | 4.3 | 80.80 |
| Neopatrimonialism | 486 | 0.22 | 0.19 | 0.001 | 0.89 |
| Neopatrimonialism (5- year moving average) | 482 | 0.23 | 0.19 | 0.001 | 0.88 |
| Neopatrimonialism (10-year Moving Average) | 457 | 0.24 | 0.19 | .002 | .92 |
| Cumulative Neopatrimonialism since 1945 | 486 | 18.35 | 13.28 | 1.10 | 46.69 |
| Ruler Appropriation | 486 | 0.47 | 0.25 | .01 | 1 |
| Ruler Discretionality | 486 | 0.39 | 0.20 | .07 | .95 |
| Ruler Appropriation (10-year moving average) | 486 | 0.49 | 0.25 | .01 | 1 |
| Ruler Discretionality (10-year moving average) | 457 | 0.41 | 0.19 | .10 | .92 |
| Ruler Appropriation (5-year moving average) | 486 | 0.48 | 0.25 | .01 | 1 |
| Ruler Discretionality (5-year moving average) | 482 | 0.40 | 0.20 | .10 | .91 |
| Cumulative Ruler Appropriation | 486 | 34.35 | 15.57 | 7.81 | 65.06 |
| Cumulative Ruler Discretionality | 486 | 26.52 | 11.42 | 8.29 | 49.38 |
| Alternate Neopatrimonialism | 252 | 0.29 | 0.16 | 0.02 | 0.66 |
| Alternate Neopatrimonialism (5-year moving average) | 126 | 0.28 | 0.15 | 0.02 | 0.63 |
| Alternate Ruler Appropriation | 324 | 0.56 | 0.22 | 0.04 | 1 |
| Alternate Ruler Discretionality | 252 | 0.48 | 0.12 | 0.28 | 0.79 |
| Radical Left | 486 | 0.10 | 0.31 | 0 | 1 |
| Seat Share of Leftist Parties | 413 | 0.08 | 0.16 | 0 | 0.89 |
| Cumulative Electoral Democracy since 1945 | 486 | 28.95 | 9.79 | 12.00 | 60.00 |
| GDP per capita (logged) | 483 | 8.11 | 0.80 | 5.50 | 9.73 |
| Ethnic Diversity | 486 | 0.39 | 0.49 | 0 | 1 |
| Female Labor Force | 486 | 49.47 | 87.29 | 2.91 | 495.27 |
| Natural Resource Rents (% of GDP) | 466 | 4.31 | 4.94 | 0.06 | 26.95 |
| Inflation | 483 | 66.82 | 466.87 | -26.30 | 6261.24 |
| Terms of Trade | 486 | 113.27 | 41.66 | 50.98 | 321.94 |
| Average Years of Schooling (Age 15+) | 378 | 7.14 | 1.47 | 3.53 | 9.78 |
| Education Spending | 455 | 3.73 | 1.29 | 0.71 | 7.53 |
| Health Spending | 455 | 2.55 | 1.44 | 0.30 | 7.10 |

**Appendix B. Table B.14:**

**Effect of Neopatrimonialism on Poverty**

 **with Alternative A dimension**

**(subcomponents of corruption, cronyism and clientelism equally weighted)**

**10-year moving average**

**(Prais-Winsten Models)**

|  |  |  |
| --- | --- | --- |
|  | Model 1 | Model 2 |
| Neopatrimonialism 10-year Moving Average | 16.04\*\* | 12.54\* |
|  | (5.09) | (5.08) |
| Radical Left | -0.33 | -0.08 |
|  | (1.38) | (1.41) |
| Leftist Party Seat Share | -2.56 | -3.22 |
|  | (2.45) | (2.56) |
| Cumulative Electoral Democracy | -0.27\*\* | -0.17 |
|  | (0.10) | (0.11) |
| GDP per capita (logged) | -10.25\*\*\* | -10.17\*\*\* |
|  | (1.11) | (1.13) |
| Ethnic Diversity | 8.99\*\*\* | 7.44\*\*\* |
|  | (1.75) | (1.84) |
| Female Labor Force Participation | -0.01 | -0.00 |
|  | (0.01) | (0.01) |
| Natural Resource Rents (% of GDP) | -0.01 | -0.02 |
|  | (0.08) | (0.09) |
| Inflation | -0.00 | -0.00 |
|  | (0.00) | (0.00) |
| Terms of Trade | -0.01 | -0.00 |
|  | (0.01) | (0.01) |
| Public Health Spending (% of GDP) |  | -0.88\*\* |
|  |  | (0.33) |
| Public Education Spending (% of GDP) |  | 0.32 |
|  |  | (0.34) |
| Average Years of Schooling (Population Age 15+) |  | -1.61\* |
|  |  | (0.71) |
| Constant | 125.67\*\*\* | 135.45\*\*\* |
|  | (8.26) | (8.77) |
| *N* | 369 | 329 |
| *R*2 | 0.7261 | 0.7484 |
| ρ | 0.89 | 0.87 |
| Number of Countries | 18 | 18 |
| Average Number of Years per Country | 20.5 | 18.28 |

Standard errors in parentheses

+ *p* < 0.10, \* *p* < 0.05, \*\* *p* < 0.01, \*\*\* *p* < 0.001

**Appendix B. Table B.15:**

**Effect of Neopatrimonialism on Poverty**

**with Alternative Measure of Neopatrimonialism, (ICRG), 10-year moving average**

**(Prais-Winsten Models)**

|  |  |  |
| --- | --- | --- |
|  | Model 1 | Model 2 |
| Alternate Neopatrimonialism Measure (10-year moving average)[[3]](#footnote-3) | 29.64\*\*\* | 22.68\*\*\* |
|  | (7.50) | (6.88) |
| Radical Left | -0.65 | -0.11 |
|  | (1.58) | (1.52) |
| Leftist Party Seat Share | -1.24 | -2.75 |
|  | (2.60) | (2.63) |
| Cumulative Electoral Democracy | -0.46\*\*\* | -0.33\*\* |
|  | (0.09) | (0.11) |
| GDP per capita (logged) | -11.93\*\*\* | -11.03\*\*\* |
|  | (1.15) | (1.17) |
| Ethnic Diversity | 5.22\*\* | 4.08\* |
|  | (1.61) | (1.75) |
| Female Labor Force Participation | -0.01+ | -0.00 |
|  | (0.01) | (0.01) |
| Natural Resource Rents (% of GDP) | 0.12 | 0.13 |
|  | (0.09) | (0.10) |
| Inflation | -0.00 | -0.00 |
|  | (0.00) | (0.00) |
| Terms of Trade | -0.02+ | -0.01 |
|  | (0.01) | (0.01) |
| Public Health Spending (% of GDP) |  | -0.88\*\* |
|  |  | (0.29) |
| Public Education Spending (% of GDP) |  | 0.41 |
|  |  | (0.36) |
| Average Years of Schooling (Population Age 15+) |  | -2.40\*\*\* |
|  |  | (0.65) |
| Constant | 144.09\*\*\* | 152.16\*\*\* |
|  | (8.14) | (8.07) |
| *N* | 339 | 299 |
| *R*2 | 0.7941 | 0.8119 |
| ρ | 0.83 | 0.84 |
| Number of Countries | 18 | 18 |
| Average Number of Years per Country | 18.83 | 16.61 |

Standard errors in parentheses

+ = p < 0.10; \* = p < 0.05; \*\* = p < 0.01; \*\*\* = p < 0.001.

**Appendix B. Table B.16:**

**Effect of Neopatrimonialism on Poverty**

**with Alternative Measure of Neopatrimonialism (ICRG), Cumulative**

**(Prais-Winsten Models)**

|  |  |  |
| --- | --- | --- |
|  | Model 1 | Model 2 |
| Alternate Neopatrimonialism Measure (cumulative since 1984) | 1.86\*\*\* | 2.12\*\*\* |
|  | (0.28) | (0.26) |
| Radical Left | -0.53 | -0.12 |
|  | (1.44) | (1.49) |
| Leftist Party Seat Share | -2.01 | -3.09 |
|  | (2.52) | (2.67) |
| Cumulative Electoral Democracy | -0.62\*\*\* | -0.44\*\*\* |
|  | (0.09) | (0.09) |
| GDP per capita (logged) | -10.70\*\*\* | -10.29\*\*\* |
|  | (1.08) | (1.05) |
| Ethnic Diversity | 6.23\*\*\* | 3.34\*\* |
|  | (1.77) | (1.71) |
| Female Labor Force Participation | -0.02\*\* | -0.01\* |
|  | (0.01) | (0.01) |
| Natural Resource Rents (% of GDP) | 0.03 | 0.07 |
|  | (0.08) | (0.09) |
| Inflation | -0.00 | -0.00 |
|  | (0.00) | (0.00) |
| Terms of Trade | -0.02+ | -0.01 |
|  | (0.01) | (0.01) |
| Public Health Spending (% of GDP) |  | -0.77\* |
|  |  | (0.30) |
| Public Education Spending (% of GDP) |  | 0.32 |
|  |  | (0.32) |
| Average Years of Schooling (Population Age 15+) |  | -2.99\*\*\* |
|  |  | (0.56) |
| Constant | 136.75\*\*\* | 150.12\*\*\* |
|  | (7.58) | (7.37) |
| *N* | 391 | 351 |
| *R*2 | 0.7678 | 0.8102 |
| ρ | 0.87 | 0.83 |
| Number of Countries | 18 | 18 |
| Average Number of Years per Country | 21.72 | 19.5 |

Standard errors in parentheses

+ = p < 0.10; \* = p < 0.05; \*\* = p < 0.01; \*\*\* = p < 0.001.

**Appendix B. Table B. 17:**

**Effect of Neopatrimonialism on poverty,**

**with Alternative Measure of Neopatrimonialism (ICRG), 5-year Moving Avg.**

**(Prais-Winsten Models)**

|  |  |  |
| --- | --- | --- |
|  | Model 1 | Model 2 |
| Alternate Neopatrimonialism Measure (5-year moving average) | 18.44\*\* | 14.57\* |
|  | (6.88) | (6.48) |
| Radical Left | -0.41 | -0.03 |
|  | (1.46) | (1.45) |
| Leftist Party Seat Share | -2.53 | -3.51 |
|  | (2.51) | (2.62) |
| Cumulative Electoral Democracy | -0.47\*\*\* | -0.33\*\*\* |
|  | (0.10) | (0.11) |
| GDP per capita (logged) | -9.93\*\*\* | -9.44\*\*\* |
|  | (1.13) | (1.19) |
| Ethnic Diversity | 8.23\*\*\* | 6.61\*\*\* |
|  | (1.72) | (1.88) |
| Female Labor Force Participation | -0.01\*\* | -0.01 |
|  | (0.01) | (0.01) |
| Natural Resource Rents (% of GDP) | -0.01 | -0.00 |
|  | (0.09) | (0.10) |
| Inflation | -0.00 | -0.00 |
|  | (0.00) | (0.00) |
| Terms of Trade | -0.01 | -0.00 |
|  | (0.01) | (0.01) |
| Public Health Spending (% of GDP) |  | -0.86\*\*\* |
|  |  | (0.32) |
| Public Education Spending (% of GDP) |  | 0.47 |
|  |  | (0.33) |
| Average Years of Schooling (Population Age 15+) |  | -2.09\*\*\* |
|  |  | (0.65) |
| Constant | 128.18\*\*\* | 136.86\*\*\* |
|  | (8.20) | (8.45) |
| *N* | 387 | 347 |
| *R*2 | 0.7447 | 0.7661 |
| ρ | 0.86 | 0.85 |
| Number of Countries | 18 | 18 |
| Average Number of Years per Country | 21.5 | 19.28 |

Standard errors in parentheses

+ = p < 0.10; \* = p < 0.05; \*\* = p < 0.01; \*\*\* = p < 0.001.

**Appendix B. Table B.18:**

**Effect of Neopatrimonialism on Poverty,**

**with Alternative Measure of Neopatrimonialism (ICRG) 10-year Moving Avg.**

**(OLS with PCSE Models)**

|  |  |  |
| --- | --- | --- |
|  | Model 1 | Model 2 |
| Alternate Neopatrimonialism Measure (10-year Moving Average) | 53.91\*\*\* | 38.23\*\*\* |
|  | (3.98) | (3.80) |
| Radical Left | -2.93 | 0.98 |
|  | (2.04) | (1.88) |
| Leftist Party Seat Share | -3.89 | -9.49\*\*\* |
|  | (2.41) | (2.15) |
| Cumulative Electoral Democracy | -0.32\*\*\* | -0.38\*\*\* |
|  | (0.06) | (0.09) |
| GDP per capita (logged) | -18.86\*\*\* | -15.88\*\*\* |
|  | (0.91) | (1.12) |
| Ethnic Diversity | -1.69+ | -1.52 |
|  | (0.93) | (0.97) |
| Female Labor Force Participation | 0.01\* | 0.01\* |
|  | (0.00) | (0.00) |
| Natural Resource Rents (% of GDP) | 0.72\*\*\* | 0.66\*\*\* |
|  | (0.10) | (0.11) |
| Inflation | 0.00 | -0.00\* |
|  | (0.00) | (0.00) |
| Terms of Trade | -0.04\*\* | -0.02+ |
|  | (0.01) | (0.01) |
| Public Health Spending (% GDP) |  | -1.11\*\* |
|  |  | (0.34) |
| Public Education Spending (% of GDP) |  | 0.82\*\* |
|  |  | (0.31) |
| Average Years of Schooling (Population Age 15+) |  | -2.44\*\*\* |
|  |  | (0.35) |
| Constant | 192.50\*\*\* | 190.12\*\*\* |
|  | (6.87) | (6.85) |
| *N* | 339 | 299 |
| *R*2 | 0.8524 | 0.8728 |
| Number of Countries | 18 | 18 |
| Average Number of Years per Country | 18.83 | 16.61 |

Standard errors in parentheses

+ *p* < 0.10, \* *p* < 0.05, \*\* *p* < 0.01, \*\*\* *p* < 0.001

**Appendix B. Table B.19:**

**Effects of Neopatrimonialism on Poverty**

**with Alternative Measure of Neopatrimonialism (WGI)**

**(Model 1, Prais-Winsten and Model 2 OLS with PCSE)**

|  |  |  |
| --- | --- | --- |
|  | Model 1 | Model 2 |
| Alternate Neopatrimonialism Measure (5-year moving average)[[4]](#footnote-4) | 44.29\*\*\* | 50.63\*\*\* |
|  | (6.25) | (4.66) |
| Radical Left | -6.62\*\* | -8.29\*\*\* |
|  | (2.42) | (1.59) |
| Leftist Party Seat Share | -3.08 | -3.49\* |
|  | (2.67) | (1.44) |
| Cumulative Electoral Democracy | -0.56\*\*\* | -0.40\*\*\* |
|  | (0.08) | (0.05) |
| GDP per capita (logged) | -9.62\*\*\* | -11.72\*\*\* |
|  | (1.53) | (1.02) |
| Ethnic Diversity | 5.58\*\*\* | 4.29\*\*\* |
|  | (0.93) | (0.71) |
| Female Labor Force Participation | -0.01 | -0.00 |
|  | (0.01) | (0.00) |
| Natural Resource Rents (% of GDP) | 0.00 | -0.00 |
|  | (0.08) | (0.05) |
| Inflation | 0.07+ | -0.09 |
|  | (0.04) | (0.08) |
| Terms of Trade | -0.03\*\*\* | -0.03\*\*\* |
|  | (0.01) | (0.01) |
| Constant | 128.89\*\*\* | 140.41\*\*\* |
|  | (11.52) | (8.21) |
| *N* | 122 | 122 |
| *R*2 | 0.9420 | 0.9522 |
| ρ | 0.67 |  |
| Number of Countries | 18 | 18 |
| Average Number of Years per Country | 6.78 | 6.78 |

Standard errors in parentheses

+ = p < 0.10; \* = p < 0.05; \*\* = p < 0.01; \*\*\* = p < 0.001.

**Appendix B. Table B.20**

**Comparing Main Models without Neopatrimonialism (10 year moving average) and**

**Cumulative Electoral Democracy, respectively**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | *Model 1**No Dem.* | *Model 1**No NP* | *Model 2**No Dem* | *Model 2,**No NP* |
| *Neopatrimonialism (10-Year Moving Average)* | *20.26\*\*\** |  | *15.53\*\** |  |
|  | *(4.95)* |  | *(5.04)* |  |
| *Radical Left* | *-0.70* | *-0.20* | *-0.29* | *-0.02* |
|  | *(1.35)* | *(1.33)* | *(1.39)* | *(1.35)* |
| *Leftist Party Seat Share* | *-2.99* | *-2.35* | *-3.59* | *-2.68* |
|  | *(2.48)* | *(2.37)* | *(2.59)* | *(2.48)* |
| *Cumulative Electoral Democracy* |  | *-0.42\*\*\** |  | *-0.29\** |
|  |  | *(0.12)* |  | *(0.12)* |
| *GDP per capita (logged)* | *-11.19\*\*\** | *-9.15\*\*\** | *-10.64\*\*\** | *-9.05\*\*\** |
|  | *(1.00)* | *(1.13)* | *(1.07)* | *(1.17)* |
| *Ethnic Diversity* | *9.59\*\*\** | *10.30\*\*\** | *7.57\*\*\** | *8.60\*\*\** |
|  | *(1.91)* | *(2.07)* | *(1.86)* | *(2.11)* |
| *Female Labor Force Participation* | *-0.01* | *-0.02\** | *-0.00* | *-0.01* |
|  | *(0.01)* | *(0.01)* | *(0.01)* | *(0.01)* |
| *Natural Resource Rents (% of GDP)* | *-0.02* | *-0.02* | *-0.03* | *-0.03* |
|  | *(0.08)* | *(0.08)* | *(0.09)* | *(0.09)* |
| *Inflation* | *-0.00* | *-0.00* | *-0.00* | *-0.00* |
|  | *(0.00)* | *(0.00)* | *(0.00)* | *(0.00)* |
| *Terms of Trade* | *-0.01* | *-0.01* | *-0.00* | *-0.00* |
|  | *(0.01)* | *(0.01)* | *(0.01)* | *(0.01)* |
| *Public Health Spending (% of GDP)* |  |  | *-0.91\*\** | *-0.83\*\** |
|  |  |  | *(0.33)* | *(0.31)* |
| *Public Education Spending (% of GDP)* |  |  | *0.25* | *0.24* |
|  |  |  | *(0.33)* | *(0.31)* |
| *Avg. Years of Education (Population 15+)* |  |  | *-1.79\** | *-1.67\** |
|  |  |  | *(0.71)* | *(0.81)* |
| *Constant* | *124.62\*\*\** | *124.15\*\*\** | *135.62\*\*\** | *133.21\*\*\** |
|  | *(8.40)* | *(8.11)* | *(8.69)* | *(8.77)* |
| *N* | *369* | *391* | *329* | *351* |
| *R2* | *0.71* | *0..70* | *0.75* | *0.74* |
| *ρ* | *0.90* | *0.92* | *0.88* | *0.90* |
| *Number of Countries* | *18* | *18* | *18* | *18* |
| *Average Number of Years per Country* | *20.5* | *21.7* | *18.28* | *19.5* |

Standard errors in parentheses

+ *p* < 0.10, \* *p* < 0.05, \*\* *p* < 0.01, \*\*\* *p* < 0.001

**Appendix B. Table B.20:**

**Effects of Neopatrimonialism on Poverty, model results removing one country at a time.**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Dropped Country** | 1. **Prais model 10 yr ma no spending variables**
 | **Prais w/ spending variables** | **Prais 4/5 year ma no spending** | **Prais 4/5 year ma w/****spending** | **Cumulative NP** **No spending** | **Cumulative NP w/ spending** |
|  |  |  |  |  |  |  |
| **Argentina** | 1. 17.32\*\*\*
 | 12.995\*\*\* | 13.551\*\*\* | 9.558\*\* | 0.556\*\*\* | 0.530\*\*\* |
| **Bolivia** | 1. 15.54\*\*\*
 | 12.99\*\*\* | 9.786\*\* | 8.399\* | 0.563\*\*\* | 0.519\*\*\* |
| **Brazil** | 1. 17.86\*\*\*
 | 12.308\*\* | 11.349\*\* | 6.965 | 0.554\*\*\* | 0.490\*\*\* |
| **Chile** | 1. 16.53\*\*\*
 | 12.085\*\* | 11.531\*\* | 7.434 | 0.566\*\*\* | 0.531\*\*\* |
| **Colombia** | 1. 13.52\*\*\*
 | 10.059\*\* | 6.123 | 4.155 | 0.543\*\*\* | 0.496\*\*\* |
| **Costa Rica** | 1. 15.14\*\*\*
 | 11.555\*\* | 9.214\* | 6.506 | 0.545\*\*\* | 0.500\*\*\* |
| **Dominican Republic** | 1. 18.18\*\*\*
 | 15.314\*\*\* | 12.113\*\* | 10.367\*\* | 0.601\*\*\* | 0.556\*\*\* |
| **Ecuador** | 1. 16.91\*\*\*
 | 14.858\*\*\* | 9.629\* | 9.195\* | 0.578\*\*\* | 0.528\*\*\* |
| **El Salvador** | 1. 17.06\*\*\*
 | 14.112\*\*\* | 11.362\*\* | 9.416\*\* | 0.554\*\*\* | 0.503\*\*\* |
| **Guatemala** | 1. 15.60\*\*\*
 | 13.160\*\*\* | 9.666\*\* | 8.176\* | 0.538\*\*\* | 0.526\*\*\* |
| **Honduras** | 1. 11.76\*\*
 | 8.813\* | 6.169 | 4.028 | 0.560\*\*\* | 0.538\*\*\* |
| **Mexico** | 1. 18.19\*\*\*
 | 13.431\*\* | 11.549\*\* | 8.116\* | 0.527\*\*\* | 0.488\*\*\* |
| **Nicaragua** | 1. 19.86\*\*\*
 | 18.970\*\*\* | 11.601\*\* | 10.811\*\* | 0.533\*\*\* | 0.495\*\*\* |
| **Panama** | 1. 19.12\*\*\*
 | 14.209\*\*\* | 10.895\*\* | 8.191 | 0.549\*\*\* | 0.518\*\*\* |
| **Paraguay** | 1. 20.27\*\*\*
 | 17.382\*\*\* | 10.169\*\* | 8.492\* | 0.585\*\*\* | 0.523\*\*\* |
| **Peru** | 1. 16.75\*\*\*
 | 11.727\*\* | 13.665\*\* | 11.379\*\* | 0.552\*\*\* | 0.504\*\*\* |
| **Uruguay** | 1. 13.54\*\*\*
 | 9.358\* | 6.202 | 3.375 | 0.488\*\*\* | 0.438\*\*\* |
| **Venezuela** | 1. 16.66\*\*\*
 | 13.786\*\* | 7.850 | 6.549 | 0.595\*\*\* | 0.568\*\*\* |

\*p< 0.10, \*\*p<.05, \*\*\*p<.01

Note: 4/5 Year MA model w/o spending with all countries results coef:9.729\*, SE:4.989, p-value: 0.051

 4/5 Year MA model w/ spending with all countries results coef: 7.508, SE: 4.750, p-value 0.114

1. Model results regarding poverty are very similar if we weight the three equally (Appendix B Table B.14). [↑](#footnote-ref-1)
2. Our NP measure and their measure of neopatrimonialism (np4) for Latin America from 1945 to the present are highly correlated (.89). [↑](#footnote-ref-2)
3. For this measure of Neopatrimonialism, we minimize the use of V-Dem variables by employing International Country Risk Guide (ICRG) measures. This enables us to have a longer time series compared to our alternate measure that makes use of World Bank data. Ruler Appropriation is composed of two operational indicators, each weighted 0.5: the ICRG measure of Corruption and their measure of Bureaucratic Quality. Ruler Discretionality is composed of two operational indicators: the ICRG measure of Law and Order weighted as 0.5 and our measure of ineffective oversight (V-Dem’s executive oversight variable and legislature investigates in practice measure each weighted as 0.5). The over-all correlation of this measure with our original measure of neopatrimonialism is 0.50. [↑](#footnote-ref-3)
4. This measure of Neopatrimonialism replaces the corruption V-Dem indicator employed as part of Ruler Appropriation with the Control of Corruption indicator from the World Bank’s World Governance Indicators. And, it replaces the V-Dem weak rule of law V-Dem indicators as part of Ruler Discretionarily with the Rule of Law indicator from the World Bank’s World Governance Indicators and Linzer and Staton’s measure of latent judicial independence, with each of those two latter indicators receiving equal weight. The two neopatrimonial five-year moving average measures correlate with each other very highly (.94). [↑](#footnote-ref-4)