**Pandemic Polity-Building:**

**How Covid-19 Shaped the European Union**

|  |  |
| --- | --- |
| **Zbigniew Truchlewski**  University of Amsterdam | **Ioana-Elena Oana**  European University Institute |
| **Alexandru D. Moise**  European University Institute | **Hanspeter Kriesi**  European University Institute |

**This Version: October 1st, 2023**

**ONLINE BOOK APPENDIX**

# Appendix: Chapter 11.

**Table A11.1:** Random Effects Satisfaction with EU Handling of COVID

|  |  |
| --- | --- |
|  | |
|  | *Dependent variable:* |
|  |  |
|  | Satisfaction with EU handling of COVID |
|  | |
| Age | -0.112\*\*\* |
|  | (0.007) |
|  |  |
| Female | 0.032\*\*\* |
|  | (0.003) |
|  |  |
| Ideology - Left | 0.011\*\*\* |
|  | (0.004) |
|  |  |
| Ideology - Neither | 0.001 |
|  | (0.004) |
|  |  |
| Voter - Incumbent | 0.015\*\*\* |
|  | (0.003) |
|  |  |
| Voter - None | 0.005 |
|  | (0.004) |
|  |  |
| Satisf. Life | 0.121\*\*\* |
|  | (0.007) |
|  |  |
| Interp. Trust | 0.028\*\*\* |
|  | (0.003) |
|  |  |
| Covid-Fear | 0.058\*\*\* |
|  | (0.005) |
|  |  |
| Covid-Hope | 0.064\*\*\* |
|  | (0.006) |
|  |  |
| Covid-Anger | -0.028\*\*\* |
|  | (0.005) |
|  |  |
| Conspiracy | -0.050\*\*\* |
|  | (0.005) |
|  |  |
| Covid Sat. Gov. | 0.153\*\*\* |
|  | (0.006) |
|  |  |
| GOV-ECO Too Much | -0.020\*\*\* |
|  | (0.004) |
|  |  |
| GOV-ECO Too Little | -0.030\*\*\* |
|  | (0.003) |
|  |  |
| GOV-ECO DK | -0.012\* |
|  | (0.007) |
|  |  |
| GOV-HLT Too Much | -0.023\*\*\* |
|  | (0.004) |
|  |  |
| GOV-HLT Too Little | -0.013\*\*\* |
|  | (0.003) |
|  |  |
| GOV-HLT DK | -0.009 |
|  | (0.010) |
|  |  |
| Constant | 0.300\*\*\* |
|  | (0.009) |
|  |  |
|  | |
| Observations | 24,516 |
| R2 | 0.199 |
| Adjusted R2 | 0.199 |
| F Statistic | 4,553.518\*\*\* |
|  | |
| *Note:* | \*p<0.01\*\*p<0.05\*\*\*p<0.01 |

**Table A11.2:** Satisfaction with EU by policy

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | | | | |
|  | *Dependent variable:* | | | |
|  |  | | | |
|  | Vaccination | Economy | Borders | Medical Equip. |
|  | (1) | (2) | (3) | (4) |
|  | | | | |
| Sat.GoV-Health | 0.241\*\*\* | 0.146\*\*\* | 0.274\*\*\* | 0.235\*\*\* |
|  | (0.017) | (0.015) | (0.017) | (0.016) |
|  |  |  |  |  |
| Sat.Gov-Econ | 0.167\*\*\* | 0.266\*\*\* | 0.167\*\*\* | 0.185\*\*\* |
|  | (0.018) | (0.016) | (0.018) | (0.017) |
|  |  |  |  |  |
| Voter-Incumbent | -0.001 | -0.011 | -0.011 | -0.005 |
|  | (0.009) | (0.008) | (0.009) | (0.009) |
|  |  |  |  |  |
| Voter-None | -0.057\*\*\* | -0.060\*\*\* | -0.038\*\*\* | -0.047\*\*\* |
|  | (0.008) | (0.007) | (0.008) | (0.008) |
|  |  |  |  |  |
| Incumbent-HU/PL | -0.286\*\*\* | -0.287\*\*\* | -0.234\*\*\* | -0.247\*\*\* |
|  | (0.017) | (0.016) | (0.018) | (0.017) |
|  |  |  |  |  |
| Ideology - Left | 0.047\*\*\* | 0.065\*\*\* | 0.053\*\*\* | 0.033\*\*\* |
|  | (0.008) | (0.007) | (0.008) | (0.008) |
|  |  |  |  |  |
| Ideology - Neither | 0.021\*\*\* | 0.038\*\*\* | 0.028\*\*\* | 0.027\*\*\* |
|  | (0.008) | (0.007) | (0.008) | (0.008) |
|  |  |  |  |  |
| Vaccinated | 0.115\*\*\* | 0.048\*\*\* | 0.045\*\*\* | 0.054\*\*\* |
|  | (0.009) | (0.008) | (0.009) | (0.009) |
|  |  |  |  |  |
| CovImpact-Health | 0.038\*\*\* | 0.033\*\*\* | 0.058\*\*\* | 0.037\*\*\* |
|  | (0.011) | (0.010) | (0.011) | (0.010) |
|  |  |  |  |  |
| CovImpact-Financial | 0.015 | 0.025\*\* | 0.010 | 0.002 |
|  | (0.012) | (0.010) | (0.012) | (0.011) |
|  |  |  |  |  |
| MS No control | 0.102\*\*\* | 0.100\*\*\* | 0.082\*\*\* | 0.074\*\*\* |
|  | (0.011) | (0.010) | (0.011) | (0.011) |
|  |  |  |  |  |
| Identity - EU | 0.042\*\*\* | 0.048\*\*\* | 0.048\*\*\* | 0.035\*\*\* |
|  | (0.007) | (0.007) | (0.008) | (0.007) |
|  |  |  |  |  |
| Identity - Neither | -0.071\*\*\* | -0.060\*\*\* | -0.030\*\* | -0.045\*\*\* |
|  | (0.014) | (0.013) | (0.014) | (0.014) |
|  |  |  |  |  |
| Age | -0.001 | 0.011 | -0.047\*\*\* | -0.057\*\*\* |
|  | (0.015) | (0.014) | (0.016) | (0.015) |
|  |  |  |  |  |
| Income-Diff | -0.023\* | -0.062\*\*\* | -0.031\*\*\* | -0.046\*\*\* |
|  | (0.012) | (0.011) | (0.012) | (0.011) |
|  |  |  |  |  |
| Interested in Pol. | 0.024\* | 0.030\*\*\* | -0.003 | 0.011 |
|  | (0.012) | (0.011) | (0.012) | (0.012) |
|  |  |  |  |  |
| Female | -0.007 | -0.009 | 0.010 | 0.001 |
|  | (0.006) | (0.006) | (0.006) | (0.006) |
|  |  |  |  |  |
| Education-Low | -0.002 | -0.010 | 0.010 | -0.005 |
|  | (0.008) | (0.007) | (0.008) | (0.008) |
|  |  |  |  |  |
| Education-High | 0.001 | -0.003 | 0.009 | -0.010 |
|  | (0.007) | (0.006) | (0.007) | (0.007) |
|  |  |  |  |  |
| CountryGermany | -0.114\*\*\* | -0.035\*\*\* | 0.041\*\*\* | -0.015 |
|  | (0.012) | (0.011) | (0.013) | (0.012) |
|  |  |  |  |  |
| CountryHungary | 0.183\*\*\* | 0.147\*\*\* | 0.237\*\*\* | 0.156\*\*\* |
|  | (0.013) | (0.012) | (0.013) | (0.012) |
|  |  |  |  |  |
| CountryItaly | 0.034\*\*\* | 0.038\*\*\* | 0.054\*\*\* | 0.054\*\*\* |
|  | (0.012) | (0.011) | (0.012) | (0.012) |
|  |  |  |  |  |
| CountryNetherlands | 0.028\*\* | 0.013 | 0.093\*\*\* | 0.044\*\*\* |
|  | (0.013) | (0.011) | (0.013) | (0.012) |
|  |  |  |  |  |
| CountryPoland | 0.221\*\*\* | 0.145\*\*\* | 0.283\*\*\* | 0.209\*\*\* |
|  | (0.013) | (0.012) | (0.013) | (0.012) |
|  |  |  |  |  |
| CountrySpain | 0.111\*\*\* | 0.074\*\*\* | 0.103\*\*\* | 0.047\*\*\* |
|  | (0.012) | (0.011) | (0.013) | (0.012) |
|  |  |  |  |  |
| CountrySweden | 0.040\*\*\* | -0.073\*\*\* | 0.051\*\*\* | -0.018 |
|  | (0.013) | (0.012) | (0.013) | (0.013) |
|  |  |  |  |  |
| Constant | 0.085\*\*\* | 0.168\*\*\* | 0.029 | 0.184\*\*\* |
|  | (0.019) | (0.017) | (0.019) | (0.018) |
|  |  |  |  |  |
|  | | | | |
| Observations | 6,589 | 6,517 | 6,801 | 6,504 |
| R2 | 0.310 | 0.319 | 0.266 | 0.270 |
| Adjusted R2 | 0.308 | 0.317 | 0.263 | 0.267 |
| Residual Std. Error | 0.244 (df = 6562) | 0.218 (df = 6490) | 0.251 (df = 6774) | 0.233 (df = 6477) |
| F Statistic | 113.553\*\*\* (df = 26; 6562) | 117.145\*\*\* (df = 26; 6490) | 94.464\*\*\* (df = 26; 6774) | 92.110\*\*\* (df = 26; 6477) |
|  | | | | |
| *Note:* | \*p<0.01\*\*p<0.05\*\*\*p<0.01 | | | |

**Table A11.3:** Model for Empathy

|  |  |
| --- | --- |
|  | |
|  | *Dependent variable:* |
|  |  |
|  | Empathy |
|  | |
| Voter-Incumbent | 0.046\*\*\* |
|  | (0.009) |
|  |  |
| Voter-None | -0.012 |
|  | (0.009) |
|  |  |
| Incumbent-HU/PL | -0.131\*\*\* |
|  | (0.019) |
|  |  |
| Ideology - Left | 0.058\*\*\* |
|  | (0.009) |
|  |  |
| Ideology - Neither | 0.019\*\* |
|  | (0.009) |
|  |  |
| Identity - EU | 0.089\*\*\* |
|  | (0.008) |
|  |  |
| Identity - Neither | -0.071\*\*\* |
|  | (0.015) |
|  |  |
| Vaccinated | 0.089\*\*\* |
|  | (0.010) |
|  |  |
| CovImpact-Health | 0.144\*\*\* |
|  | (0.012) |
|  |  |
| CovImpact-Financial | 0.056\*\*\* |
|  | (0.012) |
|  |  |
| MS No control | 0.142\*\*\* |
|  | (0.012) |
|  |  |
| MS Mismanaged | -0.120\*\*\* |
|  | (0.014) |
|  |  |
| Age | 0.123\*\*\* |
|  | (0.016) |
|  |  |
| Income - Diff | -0.061\*\*\* |
|  | (0.013) |
|  |  |
| Pol. Interest | 0.085\*\*\* |
|  | (0.013) |
|  |  |
| Female | -0.007 |
|  | (0.007) |
|  |  |
| Low Ed. | -0.008 |
|  | (0.009) |
|  |  |
| High Ed | -0.009 |
|  | (0.008) |
|  |  |
| CountryGermany | -0.068\*\*\* |
|  | (0.013) |
|  |  |
| CountryHungary | 0.038\*\*\* |
|  | (0.014) |
|  |  |
| CountryItaly | 0.096\*\*\* |
|  | (0.013) |
|  |  |
| CountryNetherlands | -0.016 |
|  | (0.014) |
|  |  |
| CountryPoland | 0.114\*\*\* |
|  | (0.014) |
|  |  |
| CountrySpain | 0.051\*\*\* |
|  | (0.013) |
|  |  |
| CountrySweden | -0.115\*\*\* |
|  | (0.014) |
|  |  |
| Constant | 0.124\*\*\* |
|  | (0.022) |
|  |  |
|  | |
| Observations | 6,581 |
| R2 | 0.211 |
| Adjusted R2 | 0.208 |
| Residual Std. Error | 0.264 (df = 6555) |
| F Statistic | 70.133\*\*\* (df = 25; 6555) |
|  | |
| *Note:* | \*p<0.01\*\*p<0.05\*\*\*p<0.01 |

**Table A11.4:** Models for Recovery Fund Support

|  |  |  |
| --- | --- | --- |
|  | | |
|  | *Dependent variable:* | |
|  |  | |
|  | Support, Recovery Fund Permanent | |
|  | (1) | (2) |
|  | | |
| Voter-Incumbent | 0.027\*\*\* | 0.025\*\*\* |
|  | (0.009) | (0.009) |
|  |  |  |
| Voter-None | -0.021\*\* | -0.036\*\*\* |
|  | (0.008) | (0.009) |
|  |  |  |
| Incumbent-HU/PL | -0.081\*\*\* | -0.185\*\*\* |
|  | (0.018) | (0.018) |
|  |  |  |
| Ideology - Left | 0.064\*\*\* | 0.089\*\*\* |
|  | (0.008) | (0.008) |
|  |  |  |
| Ideology - Neither | 0.030\*\*\* | 0.040\*\*\* |
|  | (0.008) | (0.008) |
|  |  |  |
| Identity - EU | 0.063\*\*\* | 0.092\*\*\* |
|  | (0.008) | (0.008) |
|  |  |  |
| Identity - Neither | 0.027\* | 0.012 |
|  | (0.015) | (0.015) |
|  |  |  |
| Vaccinated | 0.042\*\*\* | 0.076\*\*\* |
|  | (0.010) | (0.010) |
|  |  |  |
| CovImpact-Health | 0.051\*\*\* | 0.087\*\*\* |
|  | (0.011) | (0.011) |
|  |  |  |
| CovImpact-Financial | -0.006 | 0.011 |
|  | (0.012) | (0.012) |
|  |  |  |
| Empathy | 0.190\*\*\* |  |
|  | (0.013) |  |
|  |  |  |
| MS No control | 0.051\*\*\* | 0.088\*\*\* |
|  | (0.011) | (0.012) |
|  |  |  |
| MS Mismanaged | -0.024\* | -0.049\*\*\* |
|  | (0.014) | (0.014) |
|  |  |  |
| Sat.EU-Health | 0.121\*\*\* |  |
|  | (0.019) |  |
|  |  |  |
| Sat.EU-Econ | 0.163\*\*\* |  |
|  | (0.020) |  |
|  |  |  |
| Sat.Gov-Health | 0.073\*\*\* | 0.155\*\*\* |
|  | (0.018) | (0.017) |
|  |  |  |
| Sat.Gov-Econ | 0.033\* | 0.134\*\*\* |
|  | (0.019) | (0.018) |
|  |  |  |
| Age | -0.053\*\*\* | -0.016 |
|  | (0.016) | (0.016) |
|  |  |  |
| Income - Diff | 0.009 | -0.011 |
|  | (0.012) | (0.012) |
|  |  |  |
| Pol. Interest | 0.003 | 0.024\* |
|  | (0.012) | (0.013) |
|  |  |  |
| Female | -0.006 | -0.009 |
|  | (0.006) | (0.006) |
|  |  |  |
| Low Ed. | -0.002 | -0.008 |
|  | (0.008) | (0.008) |
|  |  |  |
| High Ed | -0.008 | -0.011 |
|  | (0.007) | (0.007) |
|  |  |  |
| CountryGermany | -0.013 | -0.033\*\* |
|  | (0.013) | (0.013) |
|  |  |  |
| CountryHungary | 0.102\*\*\* | 0.155\*\*\* |
|  | (0.014) | (0.014) |
|  |  |  |
| CountryItaly | 0.022\* | 0.044\*\*\* |
|  | (0.012) | (0.013) |
|  |  |  |
| CountryNetherlands | 0.027\*\* | 0.031\*\* |
|  | (0.013) | (0.013) |
|  |  |  |
| CountryPoland | 0.051\*\*\* | 0.116\*\*\* |
|  | (0.014) | (0.014) |
|  |  |  |
| CountrySpain | 0.117\*\*\* | 0.140\*\*\* |
|  | (0.013) | (0.013) |
|  |  |  |
| CountrySweden | -0.086\*\*\* | -0.122\*\*\* |
|  | (0.013) | (0.013) |
|  |  |  |
| Constant | 0.143\*\*\* | 0.183\*\*\* |
|  | (0.021) | (0.022) |
|  |  |  |
|  | | |
| Observations | 6,348 | 6,738 |
| R2 | 0.329 | 0.253 |
| Adjusted R2 | 0.326 | 0.250 |
| Residual Std. Error | 0.243 (df = 6317) | 0.257 (df = 6710) |
| F Statistic | 103.452\*\*\* (df = 30; 6317) | 84.020\*\*\* (df = 27; 6710) |
|  | | |
| *Note:* | \*p<0.01\*\*p<0.05\*\*\*p<0.01 | |

**Figure A11.1:** Encoding of theoretical assumptionsA diagram of a graph

Description automatically generated

Note: *Ideol –* Ideology; *Demog –* Demographics (Age, Gender, Income, etc); *SatGov –* Satisfaction with national government policy; *Vote –* voting for incumbents, opposition, or note; *CovImp –* the health and financial impact of COVID on individuals; *MsCntr* – whether individuals perceive member states to be responsible for the pandemic; *SatEU –* satisfaction with EU COVID policy; *EUID –* European Identity; *Empat –* Empathy to other EU citizens; *Solid –* support for solidaristic policy.

*Figure A11.1* shows the DAG encoding the relationships between the most important variables in our analysis. Each node represents a variable (or set of variables), and each arrow represents our causal assumption about the relationships between variables. The blue nodes represent our three mechanisms, while the red node represents our outcome, support for solidaristic policy. Following our theoretical section, we model satisfaction with the EU as determined by national policy (satisfaction with government handling of COVID), cues from elites (voting and ideology) and the independent impact of COVID on individuals (CovImp). We also expect EU identity to impact satisfaction with the EU. Identity is more heavily entrenched and therefore comes first in the causal chain. Identity is primarily considered to be shaped by ideology and demographic characteristics. Identity in turn affects empathy since it determines the width of the circle of the in-group. Empathy is further determined by two important factors, the personal impact of COVID and whether individuals believe that member states were responsible for COVID.

The DAG presents several important insights which guide the approach to analysis. Since satisfaction with the national government is partially an outcome of voting, the effect of voting needs to be estimated without the inclusion of satisfaction with government policy. Likewise, the effects of identity needs to be estimated without including its descendants, satisfaction and empathy. In the main Figures in the text we present models including all factors for simplicity of presentation, and we discuss the effects of individual variables estimated correctly.

**Figure A11.2:** Satisfaction with EU COVID Policy, by Country and Round

A graph with colorful dots

Description automatically generated with medium confidence

**Figure A11.3:** Satisfaction with National Government Handling of COVID

A grid of lines on a black background

Description automatically generated

**Figure A11.4:** View of EU improved and EU integration

A grid of white lines

Description automatically generated