Appendix A. Measures for Variables in the Analysis

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| Dependent Variables  Number of cumulative confirmed cases per 100 people   * The number of cumulative COVID-19 confirmed cases per total population × 100   Number of cumulative deaths per 100 people   * The number of cumulative COVID-19 deaths per total population × 100   *Source: COVID-19 Data Repository by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins Coronavirus Resource Center (CRC) (*[*https://github.com/CSSEGISandData/COVID-19*](https://github.com/CSSEGISandData/COVID-19)*);World Development Indicators (WDI) (*[*https://databank.worldbank.org/source/world-development-indicators*](https://databank.worldbank.org/source/world-development-indicators)*)*  Independent Variables  Autocracy   * This study used the AUTOC (Institutionalized Autocracy) measurements from the Polity IV dataset version 2018A; the level of autocracy was constructed as an additive eleven-point scale from 0 (less autocratic) to 10 (more autocratic). * The definition of autocracy in the Polity IV dataset is operationally based on the presence of a distinctive set of political characteristics encompassing competitiveness of executive recruitment, openness of executive recruitment, constraints on the chief executive; and competitiveness of participation (Marshall et al., 2019)   *Source: Center for Systemic Peace (*[*https://www.systemicpeace.org/polityproject.htm*](https://www.systemicpeace.org/polityproject.htm)*l)*  Government effectiveness   * Indicates the effectiveness of a government. This continuous variable ranges from -2.5 (less effective) to 2.5 (more effective). Government effectiveness data from 2020 is used. * The index is a subjective measure assessing the overall effectiveness of government, which relies on data collected from various respondents through surveys (e.g., elites, analysts, firms, or public sector agencies). It measures the perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressure, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies (Kaufmann et al., 2008).   *Source: Worldwide Governance Indicators (*[*https://info.worldbank.org/governance/wgi/*](https://info.worldbank.org/governance/wgi/)*)*  East Asia   * The measure indicated 1 for East Asia and 0 for otherwise. In our sample, there are 11 East Asian countries out of total 111 countries, including Burma, China, Indonesia, Japan, South Korea, Malaysia, Mongolia, Philippines, Singapore, Thailand, and Vietnam; The remaining countries are 100 countries including Angola, Argentina, Armenia, Australia, Austria, Azerbaijan, Bahrain, Bangladesh, Belarus, Belgium, Bolivia, Botswana, Brazil, Bulgaria, Burkina Faso, Cameroon, Canada, Chile, Colombia, Congo, Costa Rica, Cote d'Ivoire, Croatia, Cyprus, Czech Republic, Denmark, Dominican Republic, Ecuador, El Salvador, Estonia, Finland, France, Gambia, Germany, Ghana, Greece, Guatemala, Guinea, Guinea-Bissau, Guyana, Haiti, Honduras, Hungary, India, Iran, Ireland, Israel, Italy, Jamaica, Jordan, Kazakhstan, Kenya, Kuwait, Latvia, Lebanon, Lithuania, Luxembourg, Madagascar, Malawi, Mali, Mexico, Moldova, Morocco, Mozambique, Namibia, Netherlands, New Zealand, Nicaragua, Niger, Norway, Pakistan, Panama, Papua New Guinea, Paraguay, Peru, Poland, Portugal, Russia, Senegal, Serbia, Sierra Leone, Slovakia, Slovenia, South Africa, Spain, Sri Lanka, Sudan, Suriname, Sweden, Switzerland, Tanzania, Togo, Tunisia, Turkey, Uganda, Ukraine, United Kingdom, United States, Uruguay, and Zambia.   Government health expenditure   * The measure indicating domestic general government health expenditure (% of current health expenditure); the current health expenditure refers to a share of current health expenditures funded from domestic public sources for health. Domestic public sources include domestic revenue as internal transfers and grants, transfers, and subsidies to voluntary health insurance provided by the World Development Indicator (WDI). Our analysis uses domestic general government health expenditure in 2019.   *Source: World Development Indicator (*<https://data.worldbank.org/indicator/SH.XPD.GHED.CH.ZS>)  GDP per capita   * The measure indicating GDP per capita based on purchasing power parity (PPP) in constant 2017 international $. It represents the gross domestic product converted to international dollars using purchasing power parity rates. This analysis uses GDP per capita in 2019.   *Source: World Development Indicator*(<https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.KD>)  Tax revenue   * The measure indicating total tax revenue (% of GDP). This paper uses total tax revenue (% of GDP) in 2015. Total tax revenue is equal to the sum of the sub-components of tax revenue.   *Source: International Centre for Tax and Development / UNU-WIDER*  (<https://www.wider.unu.edu/project/government-revenue-dataset>)  Geographical region indicator   * Northern Hemisphere   + The Northern Hemisphere is indicated as 1 for countries whose capital is located further north than 23.5° north latitude and 0 for others. The number of countries in the Northern Hemisphere is 54 out of 111 countries, including Armenia, Austria, Azerbaijan, Bahrain, Bangladesh, Belarus, Belgium, Bulgaria, Canada, China, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, India, Iran, Ireland, Israel, Italy, Japan, Jordan, Kazakhstan, Kuwait, Latvia, Lebanon, Lithuania, Luxembourg, Moldova, Mongolia, Morocco, Netherlands, Norway, Pakistan, Poland, Portugal, Russia, Serbia, Slovakia, Slovenia, South Korea, Spain, Sweden, Switzerland, Tunisia, Turkey, Ukraine, United Kingdom, and United States. * Southern Hemisphere   + The Southern Hemisphere is indicated as 1 for countries whose capital is located further south than 23.5° south latitude and 0 for others. The number of countries in the Southern Hemisphere is 5 out of 111 countries, including Argentina, Australia, New Zealand, South Africa, and Uruguay. * Tropical area   + The tropical area is represented as 1 for countries around the Equator, from 23.5° north to 23.5° south latitude, and 0 for others. The number of countries in the tropical rainforest is 52 out of 111 countries, including Angola, Bolivia, Botswana, Brazil, Burkina Faso, Burma, Cameroon, Chile, Colombia, Congo, Costa Rica, Cote d'Ivoire, Dominican Republic, Ecuador, El Salvador, Gambia, Ghana, Guatemala, Guinea, Guinea-Bissau, Guyana, Haiti, Honduras, Indonesia, Jamaica, Kenya, Madagascar, Malawi, Malaysia, Mali, Mexico, Mozambique, Namibia, Nicaragua, Niger, Panama, Papua New Guinea, Paraguay, Peru, Philippines, Senegal, Sierra Leone, Singapore, Sri Lanka, Sudan, Suriname, Tanzania, Thailand, Togo, Uganda, Vietnam, and Zambia.   *Source: Supplementary data of Acemoglu et al. (2019) (*[*https://doi.org/10.1086/700936*](https://doi.org/10.1086/700936)) |

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| Appendix B1. Regression analysis results with autocracy (180 days after the first confirmed case) | | |
|  | (1)  Cumulative COVID-19  Confirmed Cases | (2)  Cumulative COVID-19 Deaths |
| East Asia (=1) | -0.822\*\*\* | -0.680\*\*\* |
|  | (0.187) | (0.160) |
| Autocracy index | 0.242 | -0.174 |
|  | (0.192) | (0.109) |
| East Asia (=1) × Autocracy index | -0.289 | 0.097 |
|  | (0.244) | (0.176) |
| Government health expenditure | 0.188 | 0.150 |
|  | (0.157) | (0.140) |
| GDP per capita | 0.428\*\*\* | 0.201\* |
|  | (0.132) | (0.115) |
| Tax revenue† | -0.307 | 0.017 |
|  | (0.196) | (0.219) |
| Northern Hemisphere (=1) | -0.217 | -0.057 |
|  | (0.431) | (0.380) |
| Southern Hemisphere (=1) | 0.374 | -0.265 |
|  | (0.693) | (0.497) |
| Constant | 0.178 | 0.096 |
|  | (0.253) | (0.232) |
| R-squared | 0.263 | 0.180 |
| N | 96 | 96 |
| Notes: †Tax revenue (% of GDP) in 2019 is used; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1; Robust standard errors in parentheses; All continuous variables are standardized; Column 1 for the number of cumulative COVID-19 confirmed cases per 100 people; Column 2 for the number of cumulative COVID-19 deaths per 100 people; | | |

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| Appendix B2. Regression analysis results with government effectiveness (180 days after the first confirmed case) | | |
|  | (1)  Cumulative COVID-19  Confirmed Cases | (2)  Cumulative COVID-19 Deaths |
| East Asia (=1) | -0.714\*\*\* | -0.542\*\*\* |
|  | (0.216) | (0.188) |
| Government effectiveness | -0.220 | -0.115 |
|  | (0.207) | (0.211) |
| East Asia (=1) × Government effectiveness | -0.137 | -0.340\* |
|  | (0.193) | (0.174) |
| Government health expenditure | 0.238 | 0.137 |
|  | (0.152) | (0.138) |
| GDP per capita | 0.565\*\*\* | 0.354\* |
|  | (0.167) | (0.206) |
| Tax revenue† | -0.429 | 0.167 |
|  | (0.275) | (0.184) |
| Northern hemisphere (=1) | 0.037 | -0.324 |
|  | (0.411) | (0.323) |
| Southern hemisphere (=1) | 0.499 | -0.357 |
|  | (0.651) | (0.493) |
| Constant | 0.038 | 0.227 |
|  | (0.232) | (0.219) |
| R-squared | 0.243 | 0.175 |
| N | 96 | 96 |
| Notes: †Tax revenue (% of GDP) in 2019 is used; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1; Robust standard errors in parentheses; All continuous variables are standardized; Column 1 for the number of cumulative COVID-19 confirmed cases per 100 people; Column 2 for the number of cumulative COVID-19 deaths per 100 people; | | |

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| Appendix B3. Regression analysis results with autocracy and government effectiveness (180 days after the first confirmed case) | | |
|  | (1)  Cumulative COVID-19  Confirmed Cases | (2)  Cumulative COVID-19 Deaths |
| East Asia (=1) | -0.704\*\*\* | -0.540\*\*\* |
|  | (0.206) | (0.191) |
| Autocracy index | 0.233 | -0.182 |
|  | (0.201) | (0.112) |
| Government effectiveness | -0.158 | -0.164 |
|  | (0.214) | (0.210) |
| East Asia (=1) × Autocracy index | -0.250 | 0.147 |
|  | (0.236) | (0.158) |
| East Asia (=1) × Government effectiveness | -0.192 | -0.284\* |
|  | (0.204) | (0.169) |
| Government health expenditure | 0.203 | 0.164 |
|  | (0.159) | (0.141) |
| GDP per capita | 0.564\*\*\* | 0.357\* |
|  | (0.163) | (0.207) |
| Tax revenue† | -0.276 | 0.048 |
|  | (0.215) | (0.233) |
| Northern hemisphere (=1) | -0.251 | -0.107 |
|  | (0.450) | (0.402) |
| Southern hemisphere (=1) | 0.378 | -0.267 |
|  | (0.679) | (0.489) |
| Constant | 0.188 | 0.114 |
|  | (0.266) | (0.243) |
| R-squared | 0.271 | 0.193 |
| N | 96 | 96 |
| Notes: †Tax revenue (% of GDP) in 2019 is used; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1; Robust standard errors in parentheses; All continuous variables are standardized; Column 1 for the number of cumulative COVID-19 confirmed cases per 100 people; Column 2 for the number of cumulative COVID-19 deaths per 100 people; | | |

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| Appendix C1. The frequency and percentage of the corresponding value in autocracy by East Asian countries and non-East Asian countries | | | | |
| **The level of autocracy**  (from 0 to 10) | **East Asia** | | **Non-East Asian countries** | |
| 0 | 7 | (63.64) | 64 | (64) |
| 1 |  |  | 20 | (20) |
| 2 |  |  | 1 | (1) |
| 3 | 1 | (9.09) | 1 | (1) |
| 4 | 1 | (9.09) | 4 | (4) |
| 5 |  |  | 3 | (3) |
| 6 |  |  | 2 | (2) |
| 7 | 2 | (18.18) | 4 | (4) |
| 8 |  |  |  |  |
| 9 |  |  |  |  |
| 10 |  |  | 1 | (1) |
| Total (111) | 11 |  | 100 |  |
| Note: the percentage in parentheses; autocracy index is an ordinal variable and indicates that the less autocratic regime is close to 0 and the more autocratic regime is close to 10. | | | | |

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| Appendix C2. The frequency and percentage of the corresponding value ranges in government effectiveness by East Asian countries and non-East Asian countries | | | | |
| **Government effectiveness**  (from -2.5 to 2.5) | **East Asia** | | **Non-East Asian countries** | |
| -2.5 to -2 |  |  | 1 | (1) |
| -2 to -1.5 |  |  | 1 | (1) |
| -1.5 to -1 | 1 | (9.09) | 7 | (7) |
| -1 to -0.5 |  |  | 24 | (24) |
| -0.5 to 0 | 1 | (9.09) | 22 | (22) |
| 0 to 0.5 | 4 | (36.36) | 14 | (14) |
| 0.5 to 1 | 1 | (9.09) | 9 | (9) |
| 1 to 1.5 | 2 | (18.18) | 11 | (11) |
| 1.5 to 2 | 1 | (9.09) | 10 | (10) |
| 2 to 2.5 | 1 | (9.09) | 1 | (1) |
| Total (111) | 11 |  | 100 |  |
| Note: the percentage in parentheses; government effectiveness score is a continuous variable and indicates; the less effective government is close to -2.5 and the more effective government is close to 2.5; According to government effectiveness indexes, the East Asian countries ranked from less effective to more effective are listed in ascending order as follows: Burma (-1.02), Mongolia (-0.37), Philippines (0.10), Vietnam (0.23), Thailand (0.23), Indonesia (0.35), China (0.68), Malaysia (1.06), South Korea (1.41), Japan (1.58), and Singapore (2.32). | | | | |