Efficiency of government policy during the COVID-19 pandemic

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Abstract

Using data envelopment analysis and stochastic frontier models, we introduce a new country-month index of efficiency of government policy in dealing with the COVID-19 pandemic. Our indices cover the period May 2020 to March 2021 for 81 countries. Our framework assumes that governments impose stringent policies with the ultimate goal of saving lives. We use policies listed in the Oxford COVID-19 Containment and Health Index as government policy input and a deaths-based measure as the output. Importantly, we estimate our output to account for country-month variations in the quality of death reporting. Based on their average efficiency, the top 5 countries are Taiwan, Japan, Estonia, Finland and New Zealand. We also examine the correlates of our new indices and find that important and positive ones are institutions, democratic principles, political stability, high public spending in health, female participation in the workplace, and economic equality. Within the efficient jurisdictions, the most efficient ones are those with cultural characteristics of low power distance and high patience. The new index and its correlates produce several avenues for future research.

1. Introduction

Governments worldwide have taken a wide range of measures to protect their citizens from COVID-19. The Oxford COVID-19 Government Response Tracker (OxCGRT) by Hale et al. (2021) provides comprehensive information on these policies, including information on containment and closure (e.g., movement restrictions and school closure), income support to citizens, and health system policies (e.g., provision of tests, investment in health care, and vaccination). The variability in these policies is significant both across countries and months since the eruption of the pandemic. Specifically, the cross-country mean of the general OxCGRT index, taking values from 0 to 100 (100 = strictest) ranges from 19 points to 89 points.

Even though the OxCGRT indices record policy stringency across countries and months, they do not readily reflect government efficiency in protecting their citizens from COVID-19. Other performance indices, such as the one from the Lowy Institute, measures performance from equally weighted averages of measures including information from confirmed cases, deaths, and COVID tests, thus not combining these with policy stringency.

In this paper, we examine to what extent the different policy approaches were successful in protecting citizens in different countries. We do so by providing a new government policy efficiency index, which measures government efficiency in minimizing COVID-related deaths, assuming that death prevention is the ultimate reason for which governments take stringent measures. To this end, our study has two key objectives. First, we provide a new database that includes country rankings on the effectiveness of containment, closure, and health system policies in limiting COVID-related deaths. Second, we analyze the determinants (correlates) of the efficiency indices and show which country characteristics relate to improved government policy efficiency.

Our empirical analysis on the construction of the government efficiency indices resorts to frontier-based methods, namely data envelopment analysis (DEA) and stochastic frontier approach (SFA). These methods are ideal to measure a government's ability to limit the pandemic's effects (the output) using a set of government policies (the inputs). For the DEA-based analysis, we use the models of Simar and Wilson (1999; 2000; 2007). We favor this approach because it introduces a stochastic element in the deterministic DEA methods, as well as allowing to consistently study the determinants of government efficiency. For the SF-based analysis, we resort to the model of Greene (2005) because it allows including country and month fixed effects and simultaneously studying the determinants of government efficiency. We more eclectically view the indices obtained from the two approaches as complementary (rather than competing).

We examine government policy efficiency in containing specific adverse effects of COVID-19 (primarily preventing deaths) and not general government efficiency across other societal or economic dimensions. To this end, the OxCGRT index reflecting containment, closure, and health system policies serves as the sole input in government efforts to contain COVID-related deaths. In turn, these deaths serve as the sole output, as they represent the ultimate goal of governments' policy actions to protect their citizens from COVID-related dying.

The precise measure of deaths to be used as the output variable is an important choice. This is mainly because the reporting of deaths varies by country-time given across country differences in reporting but also within-country time variation in the reporting methods. This reflects measurement error in the outcome variable, which is clearly important in DEA estimations (albeit less of a problem given the stochastic nature of the Simar and Wilson DEA model). To create a level playing field between countries and within countries across months, we first estimate a model of the daily new deaths (weekly smoothed) on their daily lag and country × month fixed effects.

The predicted values from this regression (inverted to show better outcomes from fewer deaths) serve as our output variable.

Our empirical analysis covers 81 countries and produces a strongly balanced panel of 891 country-month efficiency estimates. Our results show that based on the average efficiencies by continent, Oceania has been the most efficient, followed by Europe (especially Northern Europe), Africa, Asia, North America, and South America. From a country perspective, the top 5 ranked countries are Taiwan, Japan, Estonia, Finland and New Zealand, whilst the bottom 5 were Chile, India, Myanmar, Dominican Republic and Jamaica.

Using hundreds of country-specific variables to examine correlates of government policy efficiency, we show that countries with high efficiency scores are generally those with quality institutions, democratic principles, political stability and rule of law, and protection of property rights. Interestingly, high public spending on health (as a share of GDP) is a strong positive correlate of government policy efficiency, while the opposite holds for high private spending on health. Moreover, there is a negative correlation between measures of economic inequality and government policy efficiency. A quite interesting finding is that within the group of countries sharing quality and democratic institutions, the most efficient ones are those with low power distance and high patience. This reflects an important role for these cultural elements in nurturing the effectiveness of government policy.

Our analysis naturally relates to a recent strand of literature in operations research, aiming to identify the effects of the COVID-19 pandemic. More closely related to our research are the few studies measuring elements of the effectiveness of government interventions. Ghasemi et al. (2020) are the first to use early data on the pandemic from 19 countries and a DEA approach to evaluate government performance. However, as data on actual policies were not available yet, the authors are using population and population density as inputs. Breitenbach et al. (2020) use a similar

approach for 31 countries to examine government efficiency in the first 100 days of the pandemic (inputs are number of days to lockdown, number of doctors and tests, and healthcare spending). Haug et al. (2020) assess the effectiveness of non-pharmaceutical interventions (policies) to mitigate the spread of SARS-CoV-2 (effectiveness of each policy to produce less infections).

Additionally, our analysis relates to studies examining the business effects of the pandemic. Nikolopoulos et al. (2021) use forecasting techniques to inform government policy on the course of the pandemic. Several studies analyze how to contain disruptions in supply-chains during the pandemic (e.g., Bajeva et al., 2020; Ivanov, 2020; Ivanov and Dolgui, 2020; Queiroz et al., 2020).

Our paper proceeds as follows. Section 2 discusses the data and models used to estimate government policy efficiency. Section 3 reports the results and discusses the correlates of government policy efficiency. Section 4 concludes. An online appendix provides variable definitions and reports all the country-month government policy efficiency estimates.

2. Data and models

2.1. Data sources and variables

Data related to Covid-19 mortality figures are from 'Our World in Data', downloaded from their GitHub repository[1] and cover from April 1, 2020 to March 18, 2021. We match these data with the Oxford Covid-19 'Containment and Health Index', which is a reduced version of the 'Government Response Tracker' index (excluding the economic policies dimensions). The 'Containment and Health Index' comprises of an equally weighted composite index structured in two dimensions: *containment and closure policies* and *health system policies*. These two dimensions capture policies and restrictions such as school, workplace, and public transport closure; cancellation of

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[1] The GitHub repository contains the most up to date figures. Link to repository: https://github.com/owid/covid-19-data/tree/master/public/data.

public events and restrictions on gatherings; internal movement and international transport for the first dimension; public campaigns, testing, vaccination or facial covering policies; contact tracing, emergency investments in healthcare and vaccines; and policies on protection of the elderly. The index is defined in the range [0, 100], such that the larger the value the more stringent the policies.[2]

Including all countries is impossible because many countries (especially small and remote ones) have not faced a substantial Covid-19 outbreak, or they lack data on testing. For instance, Jamison et al. (2020) rank 35 countries from all continents (excluding Africa) having 85% of all cases as of 16th April 2020. The Lowy Institute ranks 98 countries on its 'Covid Performance Index' on the basis of data availability on cases, deaths, and testing (Lowy Institute, 2021). In its 'Resilience Ranking', Bloomberg ranks 53 countries with a GDP of more than $200 billion prior to the pandemic (Chang and Hong, 2021). Understandably, there is always an arbitrary element on which countries to include. We find the methodology of the Lowy Institute convincing and start from 98 countries. However, we further drop 17 countries for which we find a negative relation between the Containment and Health Index and Covid-19 mortality figures one month onward, which is completely counterintuitive. This leaves our final sample with 81 countries across the globe: 31 in Europe, 24 in Asia, 10 in North America, 5 in South America, 9 in Africa and 2 in Oceania. We list the countries in the Appendix.

Even for these 81 countries there is substantial heterogeneity in death reporting across countries and time, and we need to create a level playing field. First, we calculate 7-day rolling averages to avoid the well-known differences in reporting in different weekdays. Second and most important, we transform the daily mortality figures for each country in a panel setting based on an

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[2] Data for all versions of the index are available from: https://www.bsg.ox.ac.uk/research/research-projects/covid-19-government-response-tracker#data. Methodological information is at: https://github.com/OxCGRT/covid-policy-tracker/blob/master/documentation/index_methodology.md. The components of the index are available at: https://github.com/OxCGRT/covid-policy-tracker/blob/master/documentation/codebook.md.

AR(1) process, saturated by month, country, and month × country fixed effects (FE). This regression is:

$$Daily\ \widehat{deaths\ per\ million}_{it} = \beta_1 Daily\ deaths\ per\ million_{it-1} + \beta_2 FE_{it}, \qquad (1)$$

where i denotes country and t demotes day. We estimate equation 1 using daily data over 01/01/2020 – 17/03/2021. The month × country fixed effects capture all month-varying country characteristics that affect deaths reporting, leaving the fitted values of equation 1 to denote a level field across countries and month.

The predicted mortality rate from equation 1 is the output of our frontier efficiency models and the containment and health index (Hale et al., 2021) is the input.[3] The underlying intuition is that governments take necessary actions through the form of curfews and policies designed to diminish the cases and, as a result, the number of deaths (normalized per million citizens). As our output is naturally considered to be something to minimize – often referred to as 'bad' output – we rescale it as the distance from the maximum-attained output in the sample. In addition, to account for nonlinearity in the growth in deaths, we take the natural logarithm of the rescaled output and add a constant c = 1 to account for countries that have zero total deaths per million on any given month.

We convert the input and output to monthly variables by taking their monthly averages. As COVID-related deaths emerge on average 18-19 days after symptom onset, and symptom onset takes on average 5-6 days after exposition to the virus, we lag our input by one month to allow policy to take effect.[4] Table 1, panel A, reports summary statistics for the input/output and Figure

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[3] These fixed effects naturally also encompass information on COVID-related policy. This is why we use the prediction from equation (1) as our output variable and not the residuals. From the fitted value, we extract the policy-related part in the frontier efficiency analysis.

[4] For instance, according to the re-opening plan of the UK government, 5-weeks' windows are left between different structural changes in the Covid-19 restrictions in place, so that the effects of each set of changes is reflected on the figures (Cabinet Office, 2021).

1 reports country-month means by continent of the predicted total monthly deaths and the mean Containment and Health Index in the preceding month.

[Insert Table 1 and Figure 1 about here]

2.2. Frontier models

To construct the efficiency indicator, we use two types frontier models: a DEA-based model (see Cook and Seiford, 2009; Cooper et al., 2011 for a thirty-year review of the literature) and an SF-based model (Aigner et al., 1977; Meeusen and Van Den Broeck, 1977). DEA models assume the set of decision-making units to be homogeneous, implying that all units have access to and possibly use equally their inputs and outputs, i.e. no structural reasons as to why they may not do so (Li et al., 2016). The input and output used in our study are consistent with this assumption. Moreover, the government "production function" has an unknown shape and this makes DEA preferable to the parametric frontier methods which impose functional forms (even if these forms are flexible).

We use the input-oriented constant returns to scale DEA model (Charnes et al., 1978) because governments decide on the input.[5] Let there be $i = 1, \dots, n$ countries, benchmarked on one non-negative input x_i and one non-negative output y_i, reflecting a production set Ψ of physical attainable points (x, y). Define the Farrell input measure of efficiency for a given point (x_i, y_i) as $\theta_i = \min\{\theta | \theta_{x_i} \in X(y_i)\}$, where θ is the multiplier shrinking the input of a country i being evaluated if y_i was produced efficiently. The time dimension is treated as cross-sectional, essentially benchmarking all countries with themselves and their counterparts across the entirety of our panel to obtain comparable results.

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[5] Constant returns to scale seem appropriate because of the observation in the data that policy stringency almost linearly decreases our rescaled measure of deaths (with super lax countries facing very high number of rescaled deaths and super stringent countries facing almost zero rescaled deaths). If we allow for variable returns to scale, we obtain measures that are 95% correlated or more.

As explained by Daraio and Simar (2007), given that efficiency is measured relative to an estimate of the frontier, the estimates of θ_i, i.e. $\hat{\theta}_i$, are subject to uncertainty due to sampling variation. Put simply, a data generating process $\mathcal{P}$ generates a random sample $\mathcal{X} = \{(x_i, y_i)|i = 1, \ldots, n\}$; thus $\hat{\theta}_i$ depends on $\mathcal{P}$, which is unknown. Simar and Wilson (1998) introduced the use of bootstrap in nonparametric envelopment estimators based on the idea that we can use a reasonable estimator $\hat{\mathcal{P}}$ to mimic $\mathcal{P}$ and evaluate bias-corrected estimators of θ_i.

As a starting point, we make no assumption and use a naïve estimator of $\mathcal{P}$, the empirical distribution of which is smoothed through a kernel density estimate and the bandwidth of which is chosen through cross-validation (Simar and Wilson, 2000). However, as the bootstrap procedure may not provide a consistent approximation of the desired sampling distribution (Simar and Wilson, 1999), at a second stage we complement it with environmental (exogenous) variables $\mathbf{Z}$, which we discuss in Section 4. This is the two-stage procedure proposed by Simar and Wilson (2007). Thus, for every different proxy in $\mathbf{Z}$ we obtain an alternative $\hat{\theta}_i$. The reported government policy efficiency is the one obtained from the first-stage estimation process. It should be noted, however, that when we use the principal components of $\mathbf{Z}$ to avoid multicollinearity in the estimation process and use all variables of interest to estimate $\hat{\theta}_i$, the correlation between the naïve estimation and that one conditional on all $\mathbf{Z}$ is nearly 1 (approx. 0.999).

In turn, our SF model is the 'true-fixed-effects' model of Greene (2005). This is optimal in our case because it allows disentangling time-varying inefficiency from unit-specific time-invariant unobserved heterogeneity, which might be important to further control for important country characteristics correlated with the efficiency scores, while also allowing to study the determinants of government efficiency. The two sets of estimators may be similar from a conceptual viewpoint, but in order to make them more comparable in terms of their scales, first,

we standardize them using z-scores; then, we create a probability score using the normal cumulative density function ($\mu=0$, $\sigma=1$) to smooth and contain them in the [0,1] space, representing the percentage of an infinitely large population of which an evaluated country would be better (Gaganis et al., 2021).

3. Efficiency scores and correlates

We report all country-month efficiency scores in Appendix Table A2. Despite the largely different assumptions of the DEA and SF models, we find a strong Spearman correlation between the two that equals 0.66. As expected, we observe substantial variability across countries and through time. Figure 2 provides a boxplot of country-specific mean efficiency scores, focusing on our preferred DEA method. Taiwan, Japan, Estonia, Finland, and New Zealand are the five most efficient countries, with Estonia and New Zealand shaping the monthly frontier. In contrast, Chile, India, Myanmar, Dominican Republic, and Jamaica are the five worst performing countries.

[Insert Figures 2 & 3 about here]

Moreover, Figure 3 reports continent-month means of the efficiency scores. Despite starting with low scores, the Oceanian countries have become largely efficient from July 2020 onward, despite this being wintertime for them. The European countries display the highest seasonality in their scores as well as considerable cross-country variability, with the northern countries being in general more efficient. In Africa and Asia there is considerable cross-country variability but substantially less seasonality. Finally, North American and South American countries are on average the least efficient.

In what follows, we delve deeper in the cross-country differences and provide a first account for the correlates of the efficiency estimates. We note upfront that we do not aim to show causal effects as this is extremely hard with cross-sectional data of 70 to 80 countries (most of the

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country-specific correlates of government efficiency are observed annually so that we cannot use the time dimension of our efficiency scores). Thus, aiming to identify causal effects with 60-70 degrees of freedom is not fruitful. However, correlations are still important to highlight the characteristics of the good performers and understand the mechanics of government efficiency in dealing with the pandemic. In a nutshell, this section aims to trigger new discussion and new research on these important issues.

We analyze bivariate regressions between our two main efficiency scores and literally more than 1500 variables. We obtain most of these variables from the QoG Database, which collects and combines macro data from several open source databases. Importantly, this database includes information for economic, political, institutional, and societal characteristics. We augment this information with variables reflecting historical, cultural, biological, and behavioral country-specific characteristics from several sources. Thus, we have a complete picture of all country-specific traits that might relate with government efficiency. We formally define all variables in the Appendix and provide summary statistics in Table 1.

We provide our most interesting, statistically significant, and intuitive results in Table 2. We focus on the DEA-based efficiency index, but results are qualitatively similar when using the SF-based index. We first show high correlations between our index and several government effectiveness indices from the World Bank, the ICRG, and the Heritage Foundation. Using the World Bank measure, for a standard deviation higher government effectiveness (equal to 0.895), the government policy efficiency is higher by 0.06 points or 13% compared to its mean value (equal to 0.467). These results provide validation of our index because general government effectiveness must be a decisive factor in government efficiency to prevent COVID-related deaths. We also show that freedom from corruption positively relates to government policy efficiency. Consistent with

these findings, all indices reflecting protection of property rights and law enforcement are also highly statistically significant (these indices positively correlate with government effectiveness).

[Insert Table 2 about here]

Next, we look at political variables. Political stability is one of the strongest correlates of government policy efficiency: one standard deviation higher value on the World Bank measure (equal to 0.87) is associated with higher government policy efficiency by 0.09 points or 19% compared to its mean value. We find equivalent negative effects using the fragility index from the Fund for Peace or the conflict index from the Vision of Humanity. Several other indicators reflecting terrorism, incoming immigrants, etc., are associated with lower government policy efficiency.

An interesting discussion that emerged with the pandemic is whether democracies are effective in protecting their citizens. One hypothesis is that countries like China are more effective in taking the necessary measures to contain the pandemic because they are readier to limit citizens' freedom and human rights (e.g., Mérieau, 2020; Beauchamp, 2020). We find no support for this hypothesis; in fact, the most effective governments are on average those of democratic countries and this is prevalent in both measures of egalitarian and liberal democracy (V-Dem), measures of constitutional democracy (Polity IV), and perception-based measures (Fraser Institute).

Another intense debate is whether health-care spending matters, with most academic studies demonstrating that it does (e.g., Kontis et al., 2020). Consistent with these studies, we find that higher healthcare spending as a share of GDP, positively associates with government policy efficiency. However, in a very interesting finding, this correlation is entirely driven by government spending, implying that countries with large private healthcare systems (as a share of total healthcare expenditure) have been (on average) ineffective.

Another very interesting finding relates to female participation in the workforce and economic inequality. We find that higher female labor force participation is one of the strongest correlates of government policy efficiency. Future research should analyze whether this result is related to more inclusive institutions on female empowerment or to the biological perseverance of females to COVID-19. Even more interestingly, countries with higher income inequality (as reflected by either top income shares or uneven economic development) have lower government policy efficiency.

Quite notably, we look at the role of culture (using several indicators from several sources). We first document that countries with higher distance to regional frontiers (those away from largely distinct cultures) are the most efficient. We also find significant coefficients (at the 5% level) for the cultural characteristics of low power distance (the extent to which the less powerful members of institutions and organizations within a country expect and accept that power is distributed unequally) and high patience (willingness to wait).

The most important characteristic of these cultural variables is that they seem to explain variation in government policy efficiency within generally efficient and democratic countries. Specifically, we find a negative interaction term between power distance and any index of democracy, showing significant variation in government efficiency within democracies and according to the cultural element of power distance. Even more so, we find that in democratic societies characterized by higher patience, government policy efficiency is higher. In our sample, western-type countries like New Zealand and most Scandinavian countries share high government policy efficiency and patience, and the same holds for countries like Taiwan. All in all, the cultural elements of power distance and patience seem to be important distinguishing elements of government policy efficiency among countries with quality and democratic institutions.

4. Conclusions

We develop the first government policy performance index during the pandemic by comparing the policy stringency in each country and every month to the average estimated deaths in each country on the next month. We base our analysis on DEA and SF techniques, the two models yielding similar results. We have a slight preference on the DEA model because the form of the government production function is unknown and we use a DEA model that overcomes problems with the nonstochastic nature of simple DEA (models by Simar and Wilson). Our country-month indices cover 81 countries from May 2020 to March 2021.

We also provide a starting point to identify correlates of efficiency. We show that countries with strong democratic institutions, rile of law, protection of property rights and political stability are on average more efficient. Two very interesting findings are that efficient countries rely more on public healthcare spending and have low levels of economic inequality. Within the democratic countries, the most efficient ones are those characterized by cultural elements such as low power distance and high patience. These results corroborate the finding that among the most efficient countries are Taiwan, Estonia, Finland, and New Zealand.

Our analysis opens important pathways for future research. First, future analysis can show the robustness of our results to several other OR techniques, such as different DEA or multicriteria models. Second and most important, our efficiency indicator can be used as the outcome or explanatory variable in models aiming to examine the sources of inefficiency (e.g., using detailed health-spending data, regional income inequality data, etc.) or models aiming to identify the effects of inefficiency on economic and societal outcomes.

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Table 1. Summary Statistics

Variable	Obs.	Mean	Std. Dev.	Min	Max
Panel A. Government efficiency and components					
Monthly deaths (per million, smooth, estimates)	891	50.29	85.66	0.00	628.35
Log distance to max monthly deaths (per million, smooth, estimates)	891	7.34	0.30	1.00	7.44
Health and containment index (Lag 1)	891	60.45	11.54	27.75	88.57
Government efficiency score (SW estimates)	891	0.46	0.11	0.06	0.97
Normalised government efficiency score (SW estimates)	891	0.47	0.27	0.00	1.00
Government efficiency score (SF estimates)	891	0.72	0.21	0.00	1.00
Normalised government efficiency score (SF estimates)	891	0.52	0.30	0.00	0.90
Panel B. Second stage analysis					
Government effectiveness					
Government effectiveness (World Bank)	863	0.52	0.90	-1.85	2.23
Quality of governance (ICRG)	852	0.62	0.20	0.28	0.97
Government integrity (Heritage Foundation)	863	51.64	20.90	12.20	95.70
Regulatory quality (World Bank)	863	0.56	0.89	-2.28	2.13
Corruption perceptions (Transparency International)	863	51.94	19.71	17.00	89.00
Corruption (World Bank)	863	0.35	1.03	-1.59	2.24
Property rights and law enforcement					
Property rights (Heritage Foundation)	863	63.97	18.72	5.20	98.40
Property rights (Ease of Doing Business)	852	-0.03	0.16	-1.00	0.00
Rule of law (World Bank)	863	0.46	0.93	-1.79	2.05
Contract enforcement (Ease of Doing Business)	863	60.26	13.00	22.21	84.53
Political stability and conflict					
Political stability (World Bank)	863	0.13	0.87	-2.43	1.62
Fragile state (Fund for Peace)	841	54.22	23.63	16.90	99.91
Conflict (Vision of Humanity)	852	1.59	0.58	1.00	3.49
Employment and inequality					
Labor force participation (World Bank)	852	71.72	8.21	48.58	88.35
Female labor force participation (World Bank)	852	61.68	14.30	22.16	85.77
Women business and the law index (World Bank)	852	80.04	18.48	26.90	100.00
Top 10% income share (World Inequality Database)	830	0.43	0.09	0.25	0.65
Uneven economic development (Fund for Peace)	841	4.37	2.04	0.70	9.05

Democracy and Freedom					
Egalitarian democracy (V-dem)	863	0.69	0.20	0.17	0.96
Liberal democracy (V-dem)	863	0.73	0.23	0.09	0.97
Democracy (Polity V)	841	5.98	5.92	-10.00	10.00
Freedom (Fraser Institute)	863	7.29	0.71	4.60	8.70
Population and culture					
Population (mil.) (World Bank)	852	57.50	159.00	0.34	1350.00
Log distance to regional frontier in 1500CE (Ashraf and Galor, 2011)	869	7.19	1.64	0.00	9.29
Power distance index (Hofstede)	704	54.27	20.64	11.40	104.00
Patience (GPS)	715	0.25	0.42	-0.43	1.07
Health Care					
Total health care spending	841	7.09	2.62	2.28	17.00
Government health care spending (World Bank)	841	4.33	2.29	0.38	9.27
Private health care spending (World Bank)	841	38.67	16.43	11.96	77.91

Table 2. Correlates of government policy efficiency

Government effectiveness		Property rights and law enforcement	
Government effectiveness (World Bank)	0.066*** (3.04)	Property rights (Heritage Foundation)	0.003** (2.57)
Quality of governance (ICRG)	0.264*** (2.74)	Property rights (Ease of Doing Business)	0.245*** (4.41)
Government integrity (Heritage Foundation)	0.003*** (3.52)	Rule of law (World Bank)	0.070*** (3.49)
Regulatory quality (World Bank)	0.068*** (3.02)	Contract enforcement (Ease of Doing Business)	0.005*** (3.91)
Corruption perceptions (Transparency International)	0.003*** (3.43)	**Employment and inequality**	
Corruption (World Bank)	0.065*** (3.50)	Labor force participation (World Bank)	0.009*** (5.18)
		Female labor force participation (World Bank)	0.006*** (5.83)
Political stability and conflict			
Political stability (World Bank)	0.089*** (4.86)	Women business and the law index (World Bank)	0.003*** (3.68)
Fragile state (Fund for Peace)	-0.002*** (-3.15)	Top 10% income share (World Inequality Database)	-0.664*** (-3.29)
Conflict (Vision of Humanity)	-0.099*** (-3.98)	Uneven economic development (Fund for Peace)	-0.029*** (-2.56)
Democracy and freedom		**Population and culture**	
Egalitarian democracy (V-Dem)	0.337*** (3.61)	Population (World Bank)	-0.000*** (-4.36)
Liberal democracy (V-Dem)	0.229*** (3.20)	Distance to regional frontier in 1500 CE (Ashraf and Galor) (Log)	0.018*** (2.77)
Democracy (Polity V)	0.007*** (2.78)	Power distance (Hofstede)	-0.002** (-2.14)
Freedom (Fraser Institute)	0.068** (2.47)	Patience (GPS)	0.092* (1.86)
		Power distance × Liberal democracy	-0.008** (-2.38)
Health care		Patience × Liberal democracy	0.737*** (3.54)
Total health care spending (World Bank)	0.014* (1.88)		
Government health care spending (World Bank)	0.022** (2.55)		
Private health care spending (World Bank)	-0.004*** (-3.42)		

Figure 1. Boxplot of total monthly deaths and government policies per continent

This first row of figures shows by continent and month the monthly deaths (per million, smooth data, predicted values as described in the text). The second row shows the equivalent for the Containment and Health Index in the preceding month. Both figures expressed in z-scores. We also plot scatter points reflecting countries. The boxplots are colored according to the continent.
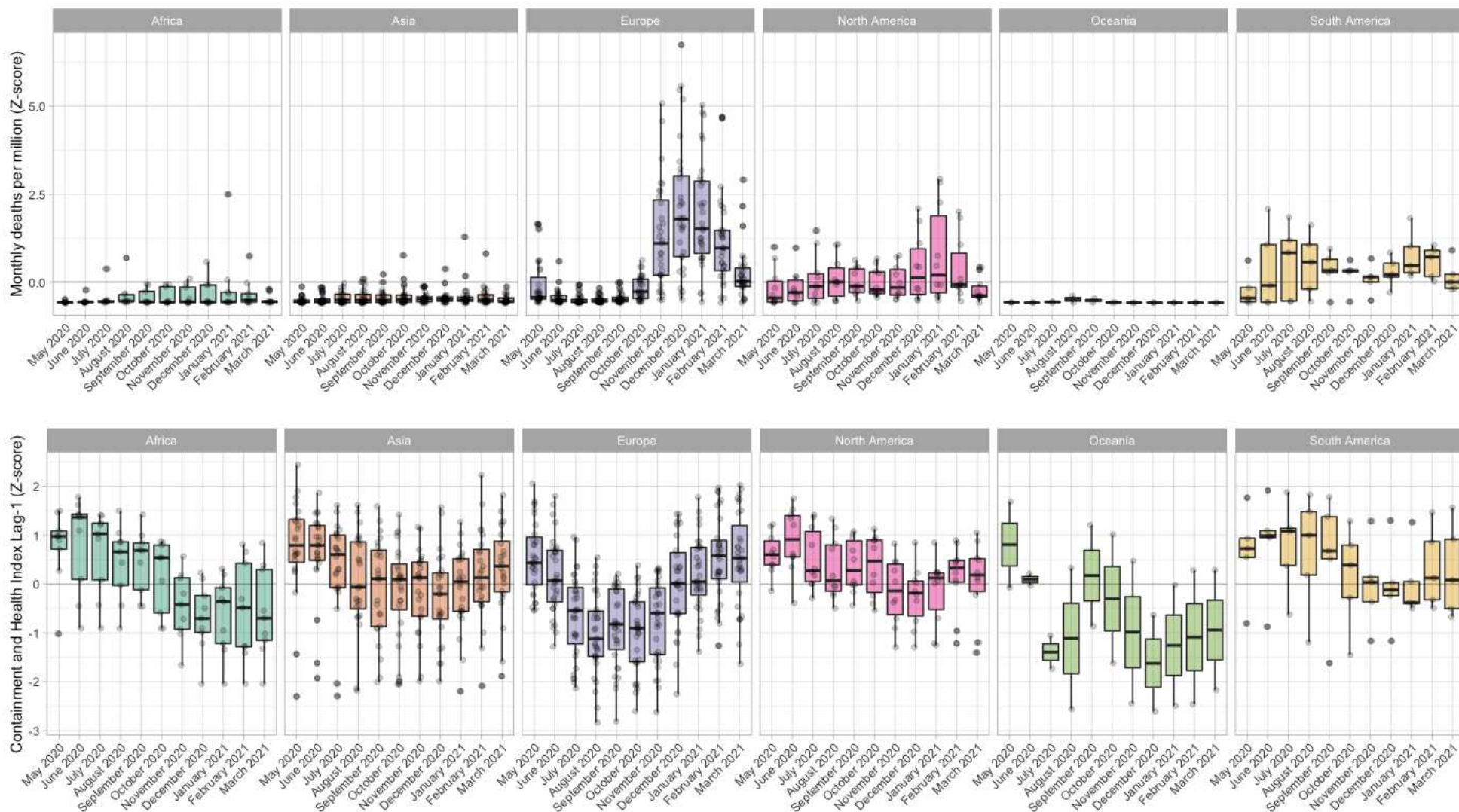
Figure 2. Boxplot of efficiency scores per country along the time dimension

This figure shows the distribution of countries' (normalized) efficiency. We also plot scatter points reflecting country-month scores. We order the countries by their average efficiency score. The boxplots are colored according to the continent.
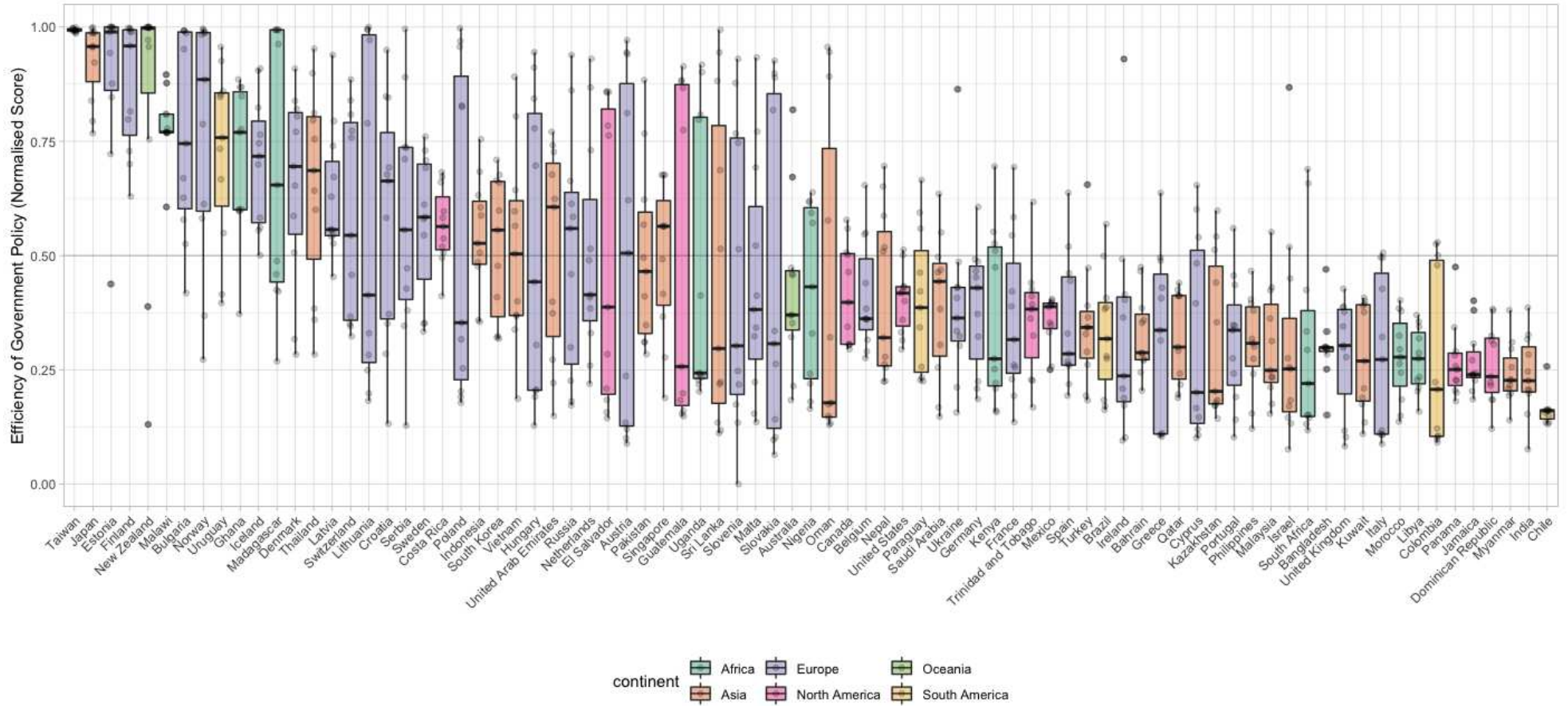
Figure 3. Boxplot of efficiency scores by month per continent

This figure illustrates the distribution of countries' (normalized) efficiency scores by month per continent. We also plot scatter points reflecting countries. The boxplots are colored according to the continent.
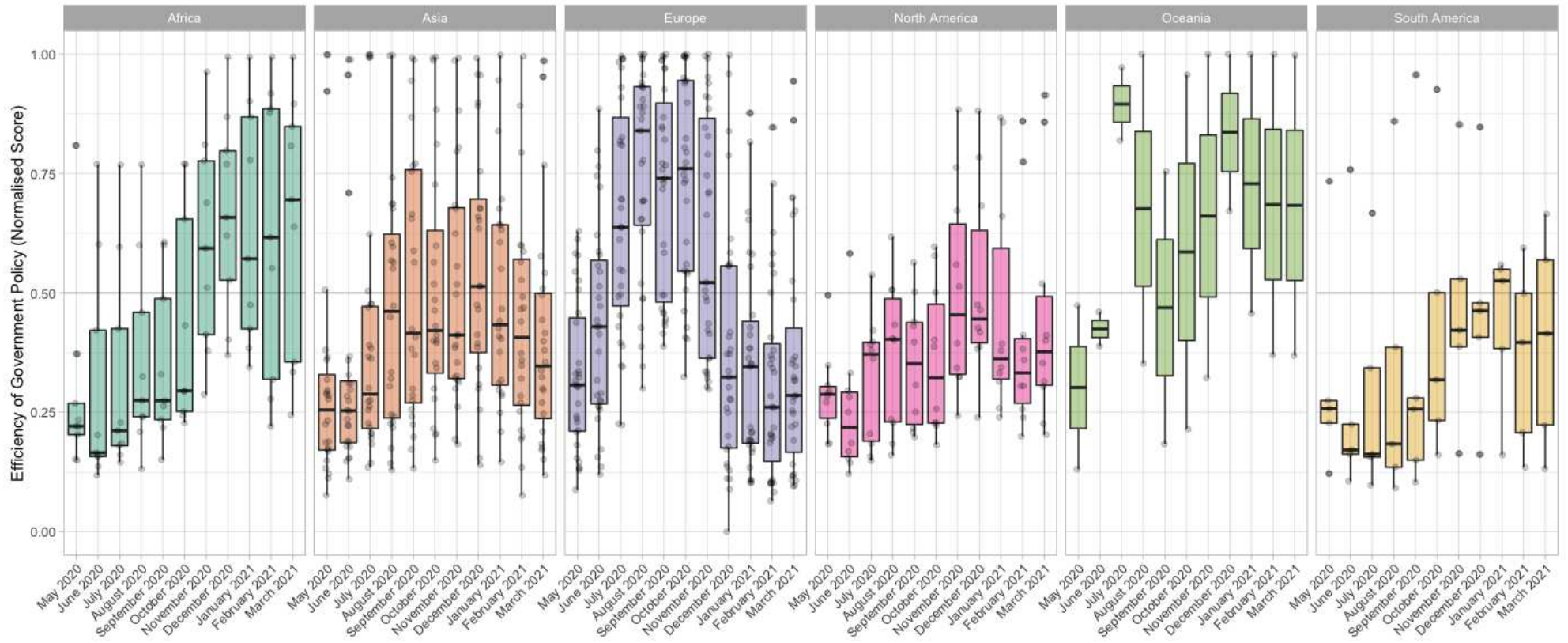
Table A1. Variable definitions

Variable	Description	Source
Panel A. Government efficiency and components		
Monthly deaths (per million, smooth, estimates)	Sum of monthly estimated smooth mortality figures per million of population. See Section 2.1 of the manuscript for more details.	Authors' elaboration on data obtained via 'Our World in Data'
Log distance to max monthly deaths (per million, smooth, estimates)	Output in efficiency estimation. Rescaled monthly deaths (pm, smooth, estimates) as $Log(1+max(X) - X\_it)$	Authors' elaboration on data obtained via 'Our World in Data'
Health and containment index	Component of the Oxford COVID-19 Government Response Tracker (OxCGRT). Equally weighted composite index structured in two dimensions: containment and closure policies and health system policies. For more information, see Hale et al. (2021)	Hale et al. (2021)
Government efficiency score (SW estimates)	Bias-corrected efficiency estimates from input-oriented DEA estimators with CRS according to Simar and Wilson (1998)	Authors' elaboration on data obtained via 'Our World in Data'
Normalised government efficiency score (SW estimates)	Probability score from a normal cumulative density function ($\mu=0$, $\sigma=1$) of the standardised Government efficiency score (SW estimates).	Authors' elaboration on data obtained via 'Our World in Data'
Government efficiency score (SF estimates)	Efficiency estimates from the "true fixed effects" SF model of Greene (2005)	Authors' elaboration on data obtained via 'Our World in Data'
Normalised government efficiency score (SF estimates)	Probability score from a normal cumulative density function ($\mu=0$, $\sigma=1$) of the standardised Government efficiency score (SF estimates).	Authors' elaboration on data obtained via 'Our World in Data'
Panel B. Second stage analysis		

Government effectiveness

Government effectiveness	Government effectiveness combines into a single grouping responses on the quality of public service provision, the quality of the bureaucracy, the competence of civil servants, the independence of the civil service from political pressures, and the credibility of the government's commitment to policies.	World Bank
Quality of governance	The mean value of the ICRG variables: Corruption, Law and Order and Bureaucracy Quality, scaled 0-1. Higher values indicate higher quality of government and vice versa.	ICRG
Government integrity	Scale from 0 to 100, where 100 indicates very little corruption. Corruption erodes economic freedom by introducing insecurity and uncertainty into economic relationships.	Heritage Foundation
Regulatory quality	Regulatory Quality includes measures of the incidence of market-unfriendly policies such as price controls or inadequate bank supervision, as well as perceptions of the burdens imposed by excessive regulation in areas such as foreign trade and business development	World Bank
Corruption perceptions	Corruption Perceptions Index. Scale of 0-100 where a 0 equals the highest level of perceived corruption and 100 equals the lowest level of perceived corruption	Transparency International
Corruption	Control of Corruption measures perceptions of corruption, conventionally defined as the exercise of public power for private gain. The particular aspect of corruption measured by the various sources differs somewhat, ranging from the frequency of additional payments to get things done, to the effects of corruption on the business environment, to measuring "grand corruption" in the political arena or in the tendency of elite forms to engage in state capture	World Bank

Property rights and law enforcement

Property rights	This factor scores the degree to which a country's laws protect private property rights and the degree to which its government enforces those laws. It also accounts for the possibility that private property will be expropriated.	Heritage Foundation

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Property rights	Equal access to property rights index evaluates whether married or unmarried women have equal access to property rights.	Ease of Doing Business
Rule of law	Includes several indicators which measure the extent to which agents have confidence in and abide by the rules of society. These include perceptions of the incidence of crime, the effectiveness and predictability of the judiciary, and the enforceability of contracts.	World Bank
Contract enforcement	Measures the gap between an economy's performance and the regulatory best practice on the Enforcing Contracts indicator components. It is calculated as the simple average of the scores for Time (days), Cost (% of claim value) and Quality of judicial processes index.	Ease of Doing Business

Political stability and conflict

Political stability	"Political Stability and Absence of Violence/Terrorism" measures perceptions of the likelihood of political instability and/or politically-motivated violence, including terrorism.	World Bank
Fragile state	The Fragile States Index is highlighting not only the normal pressures that all states experience, but also when those pressures are pushing a state towards the brink of failure. By highlighting pertinent issues in weak and failing states, the FSI - and the social science framework and software application upon which it is built - makes political risk assessment and early warning of conflict accessible to policymakers and the public at large	Fund for Peace
Conflict	Ongoing Domestic and International Conflict (1 to 5, 5 refers to higher intensity of conflict) is one of the three subdomains of the Global Peace Index. It , investigates the extent to which countries are involved in internal and external conflicts, as well as their role and duration of involvement in conflicts.	Vision of Humanity

Employment and inequality

Labor force participation	The proportion of the population ages 15-64 that is economically active (ILO estimates): all people who supply labor for the production of goods and services during a specified period	World Bank
Female labor force participation	The proportion of the females ages 15-64 that is economically active (ILO estimates): all people who supply labor for the production of goods and services during a specified period.	World Bank
Women business and the law index	Women Business and the Law Index Score (1-100) measures how laws and regulations affect women's economic opportunity. Overall scores are calculated by taking the average score of each of the eight areas (Going Places, Starting a Job, Getting Paid, Getting Married, Having Children, Running a Business, Managing Assets and Getting a Pension), with 100 representing the highest possible score.	World Bank
Top 10% income share	Top 10% income share, equal-split adults. Pre-tax national income share held by a given percentile group. Pre-tax national income is the sum of all pre-tax personal income flows accruing to the owners of the production factors, labor and capital, before taking into account the operation of the tax/transfer system, but after taking into account the operation of pension system	World Inequality Database
Uneven economic development	Uneven Economic Development - When there are ethnic, religious, or regional disparities, the governed tend to be uneven in their commitment to the social contract. Includes pressures and measures related to GINI coeffcient, income share of highest 10%, income share of lowest 10%, urban-rural service distribution, access to improved services, slum population	Fund for Peace

Democracy and Freedom

Egalitarian democracy	The egalitarian principle of democracy holds that material and immaterial inequalities inhibit the exercise of formal rights and liberties, and diminish the ability of citizens from all social groups to participate. Egalitarian democracy is achieved when 1) rights and freedoms of individuals are protected equally across all social groups; 2) resources are distributed equally across all social groups; and 3) access to power is equally distributed by gender, socioeconomic class and social group.	Varieties of Democracy (V-Dem)
Liberal democracy	The liberal principle of democracy emphasizes the importance of protecting individual and minority rights against the tyranny of the state and the tyranny of the majority. The liberal model takes a negative view of political power insofar as it judges the quality of democracy by the limits placed on government. This is achieved by constitutionally protected civil liberties, strong rule of law, an independent judiciary, and effective checks and balances that, together, limit the exercise of	Varieties of Democracy (V-Dem)
Democracy	Revised Combined Polity Score: The polity score is computed by subtracting the p_autoc score from the p_democ score; the resulting unified polity scale ranges from +10 (strongly democratic) to -10 (strongly autocratic).	Polity V
Freedom	The index is founded upon objective components that reflect the presence (or absence) of economic freedom. The index ranges from 0-10 where 0 corresponds to less economic freedom and 10 to more economic freedom.	Fraser Institute

Population and culture

Population	Total population is based on the de facto definition of population, which counts all residents regardless of legal status or citizenship.	World Bank
Log distance to regional frontier in 1500CE	Log (1 + distance to regional frontier in 1500CE) obtained from Ashraf and Galor (2011).	Ashraf and Galor (2011)
Power distance index (Hofstede)	Expresses the degree to which the less powerful members of a society accept and expect that power is distributed unequally.	Hofstede Insights

| Patience | The qualitative measure of patience is given by the respondents' self-assessment regarding their willingness to wait on an 11-point Likert scale, asking "how willing are you to give up something that is beneficial for you today in order to benefit more from that in the future?" | Global Preferences Survey (GPS) |

Health Care

Total health care spending	Current health expenditure (% of GDP)	World Bank
Government health care spending	Domestic general government health expenditure (% of GDP). Public expenditure on health from domestic sources as a share of the economy as measured by GDP	World Bank
Private health care spending	Share of current health expenditure funded from domestic private sources (% of total health expenditure). Domestic private sources include funds from households, corporations and non-profit organizations. Such expenditures can be either prepaid to voluntary health insurance or paid directly to healthcare providers.	World Bank

Table A2. Government efficiency scores

Continent	ISO Code	Country	Date	SW (normalised)	SFA (normalised)
Africa	GHA	Ghana	2020-05	0.372	0.294
Africa	GHA	Ghana	2020-06	0.602	0.580
Africa	GHA	Ghana	2020-07	0.597	0.574
Africa	GHA	Ghana	2020-08	0.600	0.577
Africa	GHA	Ghana	2020-09	0.601	0.582
Africa	GHA	Ghana	2020-10	0.769	0.788
Africa	GHA	Ghana	2020-11	0.777	0.796
Africa	GHA	Ghana	2020-12	0.869	0.894
Africa	GHA	Ghana	2021-01	0.868	0.892
Africa	GHA	Ghana	2021-02	0.885	0.903
Africa	GHA	Ghana	2021-03	0.849	0.870
Africa	KEN	Kenya	2020-05	0.221	0.250
Africa	KEN	Kenya	2020-06	0.158	0.146
Africa	KEN	Kenya	2020-07	0.161	0.150
Africa	KEN	Kenya	2020-08	0.209	0.225
Africa	KEN	Kenya	2020-09	0.274	0.340
Africa	KEN	Kenya	2020-10	0.252	0.298
Africa	KEN	Kenya	2020-11	0.511	0.704
Africa	KEN	Kenya	2020-12	0.527	0.733
Africa	KEN	Kenya	2021-01	0.475	0.668
Africa	KEN	Kenya	2021-02	0.552	0.768
Africa	KEN	Kenya	2021-03	0.695	0.903
Africa	LBY	Libya	2020-05	0.203	0.659
Africa	LBY	Libya	2020-06	0.159	0.506
Africa	LBY	Libya	2020-07	0.211	0.673
Africa	LBY	Libya	2020-08	0.275	0.797
Africa	LBY	Libya	2020-09	0.235	0.675
Africa	LBY	Libya	2020-10	0.228	0.654
Africa	LBY	Libya	2020-11	0.287	0.783
Africa	LBY	Libya	2020-12	0.370	0.903
Africa	LBY	Libya	2021-01	0.345	0.860
Africa	LBY	Libya	2021-02	0.319	0.834
Africa	LBY	Libya	2021-03	0.355	0.899
Africa	MAR	Morocco	2020-05	0.150	0.421
Africa	MAR	Morocco	2020-06	0.137	0.374
Africa	MAR	Morocco	2020-07	0.185	0.543
Africa	MAR	Morocco	2020-08	0.325	0.840

Africa	MAR	Morocco	2020-09	0.264	0.715
Africa	MAR	Morocco	2020-10	0.295	0.762
Africa	MAR	Morocco	2020-11	0.379	0.859
Africa	MAR	Morocco	2020-12	0.402	0.901
Africa	MAR	Morocco	2021-01	0.384	0.903
Africa	MAR	Morocco	2021-02	0.278	0.774
Africa	MAR	Morocco	2021-03	0.244	0.710
Africa	MDG	Madagascar	2020-05	0.269	0.068
Africa	MDG	Madagascar	2020-06	0.422	0.144
Africa	MDG	Madagascar	2020-07	0.425	0.145
Africa	MDG	Madagascar	2020-08	0.459	0.165
Africa	MDG	Madagascar	2020-09	0.488	0.185
Africa	MDG	Madagascar	2020-10	0.654	0.318
Africa	MDG	Madagascar	2020-11	0.963	0.774
Africa	MDG	Madagascar	2020-12	0.994	0.903
Africa	MDG	Madagascar	2021-01	0.994	0.903
Africa	MDG	Madagascar	2021-02	0.994	0.903
Africa	MDG	Madagascar	2021-03	0.994	0.903
Africa	MWI	Malawi	2020-05	0.809	0.811
Africa	MWI	Malawi	2020-06	0.770	0.765
Africa	MWI	Malawi	2020-07	0.768	0.757
Africa	MWI	Malawi	2020-08	0.768	0.759
Africa	MWI	Malawi	2020-09	0.606	0.564
Africa	MWI	Malawi	2020-10	0.770	0.766
Africa	MWI	Malawi	2020-11	0.810	0.813
Africa	MWI	Malawi	2020-12	0.770	0.766
Africa	MWI	Malawi	2021-01	0.778	0.739
Africa	MWI	Malawi	2021-02	0.877	0.859
Africa	MWI	Malawi	2021-03	0.896	0.903
Africa	NGA	Nigeria	2020-05	0.220	0.293
Africa	NGA	Nigeria	2020-06	0.165	0.189
Africa	NGA	Nigeria	2020-07	0.180	0.216
Africa	NGA	Nigeria	2020-08	0.242	0.336
Africa	NGA	Nigeria	2020-09	0.330	0.505
Africa	NGA	Nigeria	2020-10	0.432	0.677
Africa	NGA	Nigeria	2020-11	0.593	0.868
Africa	NGA	Nigeria	2020-12	0.620	0.890
Africa	NGA	Nigeria	2021-01	0.572	0.847
Africa	NGA	Nigeria	2021-02	0.616	0.885
Africa	NGA	Nigeria	2021-03	0.638	0.903

Africa	UGA	Uganda	2020-05	0.234	0.118
Africa	UGA	Uganda	2020-06	0.203	0.093
Africa	UGA	Uganda	2020-07	0.229	0.113
Africa	UGA	Uganda	2020-08	0.241	0.123
Africa	UGA	Uganda	2020-09	0.218	0.105
Africa	UGA	Uganda	2020-10	0.243	0.125
Africa	UGA	Uganda	2020-11	0.413	0.289
Africa	UGA	Uganda	2020-12	0.797	0.756
Africa	UGA	Uganda	2021-01	0.901	0.883
Africa	UGA	Uganda	2021-02	0.918	0.903
Africa	UGA	Uganda	2021-03	0.808	0.771
Africa	ZAF	South Africa	2020-05	0.152	0.163
Africa	ZAF	South Africa	2020-06	0.118	0.098
Africa	ZAF	South Africa	2020-07	0.145	0.109
Africa	ZAF	South Africa	2020-08	0.132	0.081
Africa	ZAF	South Africa	2020-09	0.151	0.137
Africa	ZAF	South Africa	2020-10	0.294	0.376
Africa	ZAF	South Africa	2020-11	0.689	0.903
Africa	ZAF	South Africa	2020-12	0.658	0.785
Africa	ZAF	South Africa	2021-01	0.425	0.191
Africa	ZAF	South Africa	2021-02	0.220	0.179
Africa	ZAF	South Africa	2021-03	0.334	0.471
Asia	ARE	United Arab Emirates	2020-05	0.149	0.098
Asia	ARE	United Arab Emirates	2020-06	0.222	0.194
Asia	ARE	United Arab Emirates	2020-07	0.272	0.269
Asia	ARE	United Arab Emirates	2020-08	0.741	0.880
Asia	ARE	United Arab Emirates	2020-09	0.771	0.903
Asia	ARE	United Arab Emirates	2020-10	0.727	0.862
Asia	ARE	United Arab Emirates	2020-11	0.624	0.757
Asia	ARE	United Arab Emirates	2020-12	0.677	0.812
Asia	ARE	United Arab Emirates	2021-01	0.606	0.722
Asia	ARE	United Arab Emirates	2021-02	0.374	0.372
Asia	ARE	United Arab Emirates	2021-03	0.399	0.431
Asia	BGD	Bangladesh	2020-05	0.297	0.670
Asia	BGD	Bangladesh	2020-06	0.297	0.664
Asia	BGD	Bangladesh	2020-07	0.470	0.903
Asia	BGD	Bangladesh	2020-08	0.334	0.733
Asia	BGD	Bangladesh	2020-09	0.299	0.669
Asia	BGD	Bangladesh	2020-10	0.300	0.673
Asia	BGD	Bangladesh	2020-11	0.300	0.673

Asia	BGD	Bangladesh	2020-12	0.299	0.670
Asia	BGD	Bangladesh	2021-01	0.284	0.642
Asia	BGD	Bangladesh	2021-02	0.252	0.570
Asia	BGD	Bangladesh	2021-03	0.151	0.296
Asia	BHR	Bahrain	2020-05	0.288	0.638
Asia	BHR	Bahrain	2020-06	0.274	0.553
Asia	BHR	Bahrain	2020-07	0.205	0.385
Asia	BHR	Bahrain	2020-08	0.245	0.502
Asia	BHR	Bahrain	2020-09	0.285	0.586
Asia	BHR	Bahrain	2020-10	0.353	0.694
Asia	BHR	Bahrain	2020-11	0.385	0.795
Asia	BHR	Bahrain	2020-12	0.475	0.903
Asia	BHR	Bahrain	2021-01	0.466	0.890
Asia	BHR	Bahrain	2021-02	0.359	0.712
Asia	BHR	Bahrain	2021-03	0.270	0.563
Asia	IDN	Indonesia	2020-05	0.506	0.666
Asia	IDN	Indonesia	2020-06	0.359	0.441
Asia	IDN	Indonesia	2020-07	0.477	0.615
Asia	IDN	Indonesia	2020-08	0.606	0.779
Asia	IDN	Indonesia	2020-09	0.588	0.753
Asia	IDN	Indonesia	2020-10	0.486	0.621
Asia	IDN	Indonesia	2020-11	0.683	0.854
Asia	IDN	Indonesia	2020-12	0.755	0.903
Asia	IDN	Indonesia	2021-01	0.632	0.777
Asia	IDN	Indonesia	2021-02	0.527	0.657
Asia	IDN	Indonesia	2021-03	0.355	0.426
Asia	IND	India	2020-05	0.076	0.135
Asia	IND	India	2020-06	0.154	0.397
Asia	IND	India	2020-07	0.207	0.562
Asia	IND	India	2020-08	0.226	0.604
Asia	IND	India	2020-09	0.198	0.518
Asia	IND	India	2020-10	0.205	0.548
Asia	IND	India	2020-11	0.327	0.829
Asia	IND	India	2020-12	0.386	0.903
Asia	IND	India	2021-01	0.317	0.823
Asia	IND	India	2021-02	0.284	0.768
Asia	IND	India	2021-03	0.246	0.687
Asia	ISR	Israel	2020-05	0.133	0.081
Asia	ISR	Israel	2020-06	0.252	0.232
Asia	ISR	Israel	2020-07	0.275	0.245

Asia	ISR	Israel	2020-08	0.450	0.455
Asia	ISR	Israel	2020-09	0.868	0.903
Asia	ISR	Israel	2020-10	0.519	0.413
Asia	ISR	Israel	2020-11	0.183	0.120
Asia	ISR	Israel	2020-12	0.256	0.197
Asia	ISR	Israel	2021-01	0.146	0.046
Asia	ISR	Israel	2021-02	0.076	0.021
Asia	ISR	Israel	2021-03	0.171	0.108
Asia	JPN	Japan	2020-05	0.922	0.553
Asia	JPN	Japan	2020-06	0.956	0.643
Asia	JPN	Japan	2020-07	0.999	0.903
Asia	JPN	Japan	2020-08	0.998	0.870
Asia	JPN	Japan	2020-09	0.988	0.774
Asia	JPN	Japan	2020-10	0.987	0.768
Asia	JPN	Japan	2020-11	0.987	0.767
Asia	JPN	Japan	2020-12	0.957	0.631
Asia	JPN	Japan	2021-01	0.839	0.392
Asia	JPN	Japan	2021-02	0.794	0.341
Asia	JPN	Japan	2021-03	0.768	0.330
Asia	KAZ	Kazakhstan	2020-05	0.172	0.235
Asia	KAZ	Kazakhstan	2020-06	0.179	0.244
Asia	KAZ	Kazakhstan	2020-07	0.184	0.232
Asia	KAZ	Kazakhstan	2020-08	0.143	0.139
Asia	KAZ	Kazakhstan	2020-09	0.172	0.224
Asia	KAZ	Kazakhstan	2020-10	0.203	0.293
Asia	KAZ	Kazakhstan	2020-11	0.354	0.592
Asia	KAZ	Kazakhstan	2020-12	0.513	0.814
Asia	KAZ	Kazakhstan	2021-01	0.441	0.722
Asia	KAZ	Kazakhstan	2021-02	0.599	0.903
Asia	KAZ	Kazakhstan	2021-03	0.542	0.862
Asia	KOR	South Korea	2020-05	0.319	0.403
Asia	KOR	South Korea	2020-06	0.709	0.903
Asia	KOR	South Korea	2020-07	0.477	0.654
Asia	KOR	South Korea	2020-08	0.677	0.878
Asia	KOR	South Korea	2020-09	0.665	0.866
Asia	KOR	South Korea	2020-10	0.599	0.803
Asia	KOR	South Korea	2020-11	0.556	0.755
Asia	KOR	South Korea	2020-12	0.660	0.856
Asia	KOR	South Korea	2021-01	0.409	0.534
Asia	KOR	South Korea	2021-02	0.321	0.401

Asia	KOR	South Korea	2021-03	0.324	0.410
Asia	KWT	Kuwait	2020-05	0.189	0.448
Asia	KWT	Kuwait	2020-06	0.110	0.206
Asia	KWT	Kuwait	2020-07	0.135	0.300
Asia	KWT	Kuwait	2020-08	0.175	0.434
Asia	KWT	Kuwait	2020-09	0.408	0.903
Asia	KWT	Kuwait	2020-10	0.401	0.874
Asia	KWT	Kuwait	2020-11	0.391	0.877
Asia	KWT	Kuwait	2020-12	0.394	0.895
Asia	KWT	Kuwait	2021-01	0.377	0.885
Asia	KWT	Kuwait	2021-02	0.269	0.683
Asia	KWT	Kuwait	2021-03	0.209	0.531
Asia	LKA	Sri Lanka	2020-05	0.112	0.018
Asia	LKA	Sri Lanka	2020-06	0.223	0.050
Asia	LKA	Sri Lanka	2020-07	0.219	0.049
Asia	LKA	Sri Lanka	2020-08	0.687	0.348
Asia	LKA	Sri Lanka	2020-09	0.944	0.722
Asia	LKA	Sri Lanka	2020-10	0.994	0.903
Asia	LKA	Sri Lanka	2020-11	0.882	0.589
Asia	LKA	Sri Lanka	2020-12	0.515	0.200
Asia	LKA	Sri Lanka	2021-01	0.297	0.078
Asia	LKA	Sri Lanka	2021-02	0.135	0.023
Asia	LKA	Sri Lanka	2021-03	0.118	0.019
Asia	MMR	Myanmar	2020-05	0.381	0.903
Asia	MMR	Myanmar	2020-06	0.310	0.814
Asia	MMR	Myanmar	2020-07	0.227	0.634
Asia	MMR	Myanmar	2020-08	0.229	0.639
Asia	MMR	Myanmar	2020-09	0.256	0.700
Asia	MMR	Myanmar	2020-10	0.216	0.574
Asia	MMR	Myanmar	2020-11	0.194	0.517
Asia	MMR	Myanmar	2020-12	0.140	0.337
Asia	MMR	Myanmar	2021-01	0.209	0.569
Asia	MMR	Myanmar	2021-02	0.199	0.550
Asia	MMR	Myanmar	2021-03	0.296	0.789
Asia	MYS	Malaysia	2020-05	0.233	0.408
Asia	MYS	Malaysia	2020-06	0.235	0.415
Asia	MYS	Malaysia	2020-07	0.362	0.674
Asia	MYS	Malaysia	2020-08	0.551	0.903
Asia	MYS	Malaysia	2020-09	0.424	0.770
Asia	MYS	Malaysia	2020-10	0.431	0.774

Asia	MYS	Malaysia	2020-11	0.313	0.577
Asia	MYS	Malaysia	2020-12	0.154	0.222
Asia	MYS	Malaysia	2021-01	0.249	0.433
Asia	MYS	Malaysia	2021-02	0.212	0.346
Asia	MYS	Malaysia	2021-03	0.176	0.272
Asia	NPL	Nepal	2020-05	0.225	0.262
Asia	NPL	Nepal	2020-06	0.255	0.314
Asia	NPL	Nepal	2020-07	0.263	0.328
Asia	NPL	Nepal	2020-08	0.320	0.424
Asia	NPL	Nepal	2020-09	0.225	0.252
Asia	NPL	Nepal	2020-10	0.279	0.338
Asia	NPL	Nepal	2020-11	0.518	0.705
Asia	NPL	Nepal	2020-12	0.651	0.859
Asia	NPL	Nepal	2021-01	0.696	0.903
Asia	NPL	Nepal	2021-02	0.587	0.789
Asia	NPL	Nepal	2021-03	0.509	0.696
Asia	OMN	Oman	2020-05	0.175	0.061
Asia	OMN	Oman	2020-06	0.178	0.059
Asia	OMN	Oman	2020-07	0.144	0.038
Asia	OMN	Oman	2020-08	0.130	0.032
Asia	OMN	Oman	2020-09	0.133	0.033
Asia	OMN	Oman	2020-10	0.149	0.038
Asia	OMN	Oman	2020-11	0.321	0.141
Asia	OMN	Oman	2020-12	0.956	0.903
Asia	OMN	Oman	2021-01	0.945	0.900
Asia	OMN	Oman	2021-02	0.892	0.820
Asia	OMN	Oman	2021-03	0.577	0.414
Asia	PAK	Pakistan	2020-05	0.284	0.187
Asia	PAK	Pakistan	2020-06	0.311	0.208
Asia	PAK	Pakistan	2020-07	0.623	0.590
Asia	PAK	Pakistan	2020-08	0.568	0.531
Asia	PAK	Pakistan	2020-09	0.767	0.778
Asia	PAK	Pakistan	2020-10	0.884	0.903
Asia	PAK	Pakistan	2020-11	0.411	0.330
Asia	PAK	Pakistan	2020-12	0.465	0.390
Asia	PAK	Pakistan	2021-01	0.310	0.212
Asia	PAK	Pakistan	2021-02	0.348	0.255
Asia	PAK	Pakistan	2021-03	0.496	0.437
Asia	PHL	Philippines	2020-05	0.122	0.220
Asia	PHL	Philippines	2020-06	0.155	0.318

Asia	PHL	Philippines	2020-07	0.301	0.689
Asia	PHL	Philippines	2020-08	0.241	0.545
Asia	PHL	Philippines	2020-09	0.274	0.613
Asia	PHL	Philippines	2020-10	0.396	0.829
Asia	PHL	Philippines	2020-11	0.318	0.716
Asia	PHL	Philippines	2020-12	0.308	0.702
Asia	PHL	Philippines	2021-01	0.404	0.844
Asia	PHL	Philippines	2021-02	0.466	0.903
Asia	PHL	Philippines	2021-03	0.380	0.823
Asia	QAT	Qatar	2020-05	0.292	0.686
Asia	QAT	Qatar	2020-06	0.189	0.399
Asia	QAT	Qatar	2020-07	0.196	0.429
Asia	QAT	Qatar	2020-08	0.218	0.505
Asia	QAT	Qatar	2020-09	0.242	0.574
Asia	QAT	Qatar	2020-10	0.412	0.873
Asia	QAT	Qatar	2020-11	0.413	0.879
Asia	QAT	Qatar	2020-12	0.413	0.878
Asia	QAT	Qatar	2021-01	0.425	0.892
Asia	QAT	Qatar	2021-02	0.440	0.903
Asia	QAT	Qatar	2021-03	0.300	0.710
Asia	SAU	Saudi Arabia	2020-05	0.168	0.199
Asia	SAU	Saudi Arabia	2020-06	0.148	0.147
Asia	SAU	Saudi Arabia	2020-07	0.255	0.331
Asia	SAU	Saudi Arabia	2020-08	0.305	0.432
Asia	SAU	Saudi Arabia	2020-09	0.383	0.577
Asia	SAU	Saudi Arabia	2020-10	0.463	0.710
Asia	SAU	Saudi Arabia	2020-11	0.497	0.762
Asia	SAU	Saudi Arabia	2020-12	0.635	0.903
Asia	SAU	Saudi Arabia	2021-01	0.551	0.837
Asia	SAU	Saudi Arabia	2021-02	0.469	0.744
Asia	SAU	Saudi Arabia	2021-03	0.444	0.710
Asia	SGP	Singapore	2020-05	0.277	0.363
Asia	SGP	Singapore	2020-06	0.189	0.207
Asia	SGP	Singapore	2020-07	0.366	0.523
Asia	SGP	Singapore	2020-08	0.564	0.802
Asia	SGP	Singapore	2020-09	0.564	0.802
Asia	SGP	Singapore	2020-10	0.564	0.802
Asia	SGP	Singapore	2020-11	0.676	0.903
Asia	SGP	Singapore	2020-12	0.676	0.903
Asia	SGP	Singapore	2021-01	0.677	0.903

Asia	SGP	Singapore	2021-02	0.492	0.715
Asia	SGP	Singapore	2021-03	0.416	0.604
Asia	THA	Thailand	2020-05	0.360	0.190
Asia	THA	Thailand	2020-06	0.284	0.129
Asia	THA	Thailand	2020-07	0.384	0.211
Asia	THA	Thailand	2020-08	0.686	0.535
Asia	THA	Thailand	2020-09	0.755	0.622
Asia	THA	Thailand	2020-10	0.812	0.697
Asia	THA	Thailand	2020-11	0.796	0.676
Asia	THA	Thailand	2020-12	0.899	0.821
Asia	THA	Thailand	2021-01	0.642	0.481
Asia	THA	Thailand	2021-02	0.600	0.432
Asia	THA	Thailand	2021-03	0.953	0.903
Asia	TUR	Turkey	2020-05	0.365	0.553
Asia	TUR	Turkey	2020-06	0.328	0.506
Asia	TUR	Turkey	2020-07	0.391	0.616
Asia	TUR	Turkey	2020-08	0.473	0.738
Asia	TUR	Turkey	2020-09	0.655	0.903
Asia	TUR	Turkey	2020-10	0.343	0.504
Asia	TUR	Turkey	2020-11	0.262	0.336
Asia	TUR	Turkey	2020-12	0.343	0.405
Asia	TUR	Turkey	2021-01	0.290	0.346
Asia	TUR	Turkey	2021-02	0.194	0.221
Asia	TUR	Turkey	2021-03	0.184	0.221
Asia	TWN	Taiwan	2020-05	0.999	0.903
Asia	TWN	Taiwan	2020-06	0.988	0.777
Asia	TWN	Taiwan	2020-07	0.994	0.820
Asia	TWN	Taiwan	2020-08	0.997	0.858
Asia	TWN	Taiwan	2020-09	0.993	0.810
Asia	TWN	Taiwan	2020-10	0.992	0.802
Asia	TWN	Taiwan	2020-11	0.992	0.802
Asia	TWN	Taiwan	2020-12	0.992	0.802
Asia	TWN	Taiwan	2021-01	0.998	0.874
Asia	TWN	Taiwan	2021-02	0.995	0.838
Asia	TWN	Taiwan	2021-03	0.986	0.761
Asia	VNM	Vietnam	2020-05	0.187	0.093
Asia	VNM	Vietnam	2020-06	0.368	0.274
Asia	VNM	Vietnam	2020-07	0.504	0.439
Asia	VNM	Vietnam	2020-08	0.597	0.556
Asia	VNM	Vietnam	2020-09	0.370	0.277

Asia	VNM	Vietnam	2020-10	0.400	0.312
Asia	VNM	Vietnam	2020-11	0.805	0.810
Asia	VNM	Vietnam	2020-12	0.891	0.903
Asia	VNM	Vietnam	2021-01	0.643	0.615
Asia	VNM	Vietnam	2021-02	0.565	0.516
Asia	VNM	Vietnam	2021-03	0.338	0.241
Europe	AUT	Austria	2020-05	0.237	0.080
Europe	AUT	Austria	2020-06	0.621	0.404
Europe	AUT	Austria	2020-07	0.812	0.645
Europe	AUT	Austria	2020-08	0.941	0.847
Europe	AUT	Austria	2020-09	0.971	0.903
Europe	AUT	Austria	2020-10	0.944	0.816
Europe	AUT	Austria	2020-11	0.505	0.095
Europe	AUT	Austria	2020-12	0.089	0.004
Europe	AUT	Austria	2021-01	0.134	0.015
Europe	AUT	Austria	2021-02	0.101	0.015
Europe	AUT	Austria	2021-03	0.120	0.024
Europe	BEL	Belgium	2020-05	0.316	0.201
Europe	BEL	Belgium	2020-06	0.290	0.390
Europe	BEL	Belgium	2020-07	0.550	0.817
Europe	BEL	Belgium	2020-08	0.654	0.903
Europe	BEL	Belgium	2020-09	0.440	0.679
Europe	BEL	Belgium	2020-10	0.546	0.642
Europe	BEL	Belgium	2020-11	0.362	0.023
Europe	BEL	Belgium	2020-12	0.276	0.104
Europe	BEL	Belgium	2021-01	0.384	0.344
Europe	BEL	Belgium	2021-02	0.362	0.411
Europe	BEL	Belgium	2021-03	0.360	0.493
Europe	BGR	Bulgaria	2020-05	0.579	0.277
Europe	BGR	Bulgaria	2020-06	0.745	0.443
Europe	BGR	Bulgaria	2020-07	0.992	0.903
Europe	BGR	Bulgaria	2020-08	0.991	0.880
Europe	BGR	Bulgaria	2020-09	0.987	0.863
Europe	BGR	Bulgaria	2020-10	0.992	0.857
Europe	BGR	Bulgaria	2020-11	0.952	0.100
Europe	BGR	Bulgaria	2020-12	0.418	0.002
Europe	BGR	Bulgaria	2021-01	0.669	0.097
Europe	BGR	Bulgaria	2021-02	0.626	0.149
Europe	BGR	Bulgaria	2021-03	0.526	0.089
Europe	CHE	Switzerland	2020-05	0.458	0.412

Europe	CHE	Switzerland	2020-06	0.544	0.568
Europe	CHE	Switzerland	2020-07	0.809	0.877
Europe	CHE	Switzerland	2020-08	0.839	0.903
Europe	CHE	Switzerland	2020-09	0.758	0.821
Europe	CHE	Switzerland	2020-10	0.773	0.820
Europe	CHE	Switzerland	2020-11	0.885	0.379
Europe	CHE	Switzerland	2020-12	0.324	0.037
Europe	CHE	Switzerland	2021-01	0.345	0.095
Europe	CHE	Switzerland	2021-02	0.351	0.226
Europe	CHE	Switzerland	2021-03	0.367	0.311
Europe	CYP	Cyprus	2020-05	0.146	0.147
Europe	CYP	Cyprus	2020-06	0.120	0.106
Europe	CYP	Cyprus	2020-07	0.396	0.602
Europe	CYP	Cyprus	2020-08	0.654	0.903
Europe	CYP	Cyprus	2020-09	0.601	0.859
Europe	CYP	Cyprus	2020-10	0.540	0.796
Europe	CYP	Cyprus	2020-11	0.483	0.687
Europe	CYP	Cyprus	2020-12	0.201	0.176
Europe	CYP	Cyprus	2021-01	0.166	0.121
Europe	CYP	Cyprus	2021-02	0.101	0.068
Europe	CYP	Cyprus	2021-03	0.107	0.085
Europe	DEU	Germany	2020-05	0.323	0.501
Europe	DEU	Germany	2020-06	0.429	0.717
Europe	DEU	Germany	2020-07	0.453	0.756
Europe	DEU	Germany	2020-08	0.487	0.800
Europe	DEU	Germany	2020-09	0.467	0.775
Europe	DEU	Germany	2020-10	0.607	0.903
Europe	DEU	Germany	2020-11	0.492	0.696
Europe	DEU	Germany	2020-12	0.372	0.297
Europe	DEU	Germany	2021-01	0.209	0.063
Europe	DEU	Germany	2021-02	0.186	0.117
Europe	DEU	Germany	2021-03	0.225	0.283
Europe	DNK	Denmark	2020-05	0.507	0.405
Europe	DNK	Denmark	2020-06	0.587	0.533
Europe	DNK	Denmark	2020-07	0.695	0.677
Europe	DNK	Denmark	2020-08	0.771	0.769
Europe	DNK	Denmark	2020-09	0.821	0.823
Europe	DNK	Denmark	2020-10	0.804	0.793
Europe	DNK	Denmark	2020-11	0.909	0.903
Europe	DNK	Denmark	2020-12	0.838	0.737

Europe	DNK	Denmark	2021-01	0.653	0.345
Europe	DNK	Denmark	2021-02	0.284	0.147
Europe	DNK	Denmark	2021-03	0.317	0.212
Europe	ESP	Spain	2020-05	0.268	0.258
Europe	ESP	Spain	2020-06	0.262	0.344
Europe	ESP	Spain	2020-07	0.637	0.903
Europe	ESP	Spain	2020-08	0.520	0.779
Europe	ESP	Spain	2020-09	0.445	0.611
Europe	ESP	Spain	2020-10	0.462	0.563
Europe	ESP	Spain	2020-11	0.329	0.210
Europe	ESP	Spain	2020-12	0.259	0.217
Europe	ESP	Spain	2021-01	0.219	0.139
Europe	ESP	Spain	2021-02	0.194	0.070
Europe	ESP	Spain	2021-03	0.285	0.309
Europe	EST	Estonia	2020-05	0.438	0.056
Europe	EST	Estonia	2020-06	0.722	0.157
Europe	EST	Estonia	2020-07	0.989	0.545
Europe	EST	Estonia	2020-08	1.000	0.903
Europe	EST	Estonia	2020-09	1.000	0.897
Europe	EST	Estonia	2020-10	1.000	0.820
Europe	EST	Estonia	2020-11	1.000	0.793
Europe	EST	Estonia	2020-12	0.998	0.492
Europe	EST	Estonia	2021-01	0.876	0.128
Europe	EST	Estonia	2021-02	0.847	0.127
Europe	EST	Estonia	2021-03	0.943	0.213
Europe	FIN	Finland	2020-05	0.629	0.224
Europe	FIN	Finland	2020-06	0.798	0.404
Europe	FIN	Finland	2020-07	0.989	0.820
Europe	FIN	Finland	2020-08	0.998	0.903
Europe	FIN	Finland	2020-09	0.997	0.885
Europe	FIN	Finland	2020-10	0.997	0.886
Europe	FIN	Finland	2020-11	0.991	0.824
Europe	FIN	Finland	2020-12	0.959	0.641
Europe	FIN	Finland	2021-01	0.815	0.393
Europe	FIN	Finland	2021-02	0.729	0.315
Europe	FIN	Finland	2021-03	0.700	0.294
Europe	FRA	France	2020-05	0.230	0.189
Europe	FRA	France	2020-06	0.256	0.297
Europe	FRA	France	2020-07	0.389	0.538
Europe	FRA	France	2020-08	0.694	0.903

Europe	FRA	France	2020-09	0.584	0.787
Europe	FRA	France	2020-10	0.544	0.661
Europe	FRA	France	2020-11	0.422	0.187
Europe	FRA	France	2020-12	0.136	0.048
Europe	FRA	France	2021-01	0.193	0.087
Europe	FRA	France	2021-02	0.261	0.148
Europe	FRA	France	2021-03	0.316	0.315
Europe	GBR	United Kingdom	2020-05	0.303	0.458
Europe	GBR	United Kingdom	2020-06	0.377	0.837
Europe	GBR	United Kingdom	2020-07	0.345	0.846
Europe	GBR	United Kingdom	2020-08	0.387	0.903
Europe	GBR	United Kingdom	2020-09	0.388	0.901
Europe	GBR	United Kingdom	2020-10	0.428	0.888
Europe	GBR	United Kingdom	2020-11	0.298	0.464
Europe	GBR	United Kingdom	2020-12	0.278	0.355
Europe	GBR	United Kingdom	2021-01	0.103	0.009
Europe	GBR	United Kingdom	2021-02	0.083	0.035
Europe	GBR	United Kingdom	2021-03	0.117	0.219
Europe	GRC	Greece	2020-05	0.337	0.515
Europe	GRC	Greece	2020-06	0.430	0.674
Europe	GRC	Greece	2020-07	0.637	0.903
Europe	GRC	Greece	2020-08	0.489	0.751
Europe	GRC	Greece	2020-09	0.496	0.748
Europe	GRC	Greece	2020-10	0.407	0.604
Europe	GRC	Greece	2020-11	0.314	0.258
Europe	GRC	Greece	2020-12	0.111	0.029
Europe	GRC	Greece	2021-01	0.108	0.060
Europe	GRC	Greece	2021-02	0.104	0.068
Europe	GRC	Greece	2021-03	0.108	0.072
Europe	HRV	Croatia	2020-05	0.132	0.048
Europe	HRV	Croatia	2020-06	0.285	0.174
Europe	HRV	Croatia	2020-07	0.678	0.623
Europe	HRV	Croatia	2020-08	0.693	0.639
Europe	HRV	Croatia	2020-09	0.848	0.810
Europe	HRV	Croatia	2020-10	0.950	0.903
Europe	HRV	Croatia	2020-11	0.846	0.260
Europe	HRV	Croatia	2020-12	0.372	0.004
Europe	HRV	Croatia	2021-01	0.351	0.042
Europe	HRV	Croatia	2021-02	0.583	0.293
Europe	HRV	Croatia	2021-03	0.663	0.535

Europe	HUN	Hungary	2020-05	0.305	0.218
Europe	HUN	Hungary	2020-06	0.443	0.407
Europe	HUN	Hungary	2020-07	0.697	0.741
Europe	HUN	Hungary	2020-08	0.778	0.830
Europe	HUN	Hungary	2020-09	0.844	0.881
Europe	HUN	Hungary	2020-10	0.945	0.903
Europe	HUN	Hungary	2020-11	0.911	0.350
Europe	HUN	Hungary	2020-12	0.128	0.003
Europe	HUN	Hungary	2021-01	0.207	0.020
Europe	HUN	Hungary	2021-02	0.204	0.034
Europe	HUN	Hungary	2021-03	0.191	0.033
Europe	IRL	Ireland	2020-05	0.209	0.057
Europe	IRL	Ireland	2020-06	0.237	0.104
Europe	IRL	Ireland	2020-07	0.493	0.354
Europe	IRL	Ireland	2020-08	0.930	0.903
Europe	IRL	Ireland	2020-09	0.415	0.273
Europe	IRL	Ireland	2020-10	0.403	0.245
Europe	IRL	Ireland	2020-11	0.365	0.199
Europe	IRL	Ireland	2020-12	0.172	0.058
Europe	IRL	Ireland	2021-01	0.189	0.030
Europe	IRL	Ireland	2021-02	0.102	0.011
Europe	IRL	Ireland	2021-03	0.096	0.021
Europe	ISL	Iceland	2020-05	0.583	0.506
Europe	ISL	Iceland	2020-06	0.764	0.733
Europe	ISL	Iceland	2020-07	0.909	0.903
Europe	ISL	Iceland	2020-08	0.904	0.898
Europe	ISL	Iceland	2020-09	0.717	0.674
Europe	ISL	Iceland	2020-10	0.824	0.798
Europe	ISL	Iceland	2020-11	0.746	0.631
Europe	ISL	Iceland	2020-12	0.562	0.468
Europe	ISL	Iceland	2021-01	0.555	0.469
Europe	ISL	Iceland	2021-02	0.501	0.405
Europe	ISL	Iceland	2021-03	0.699	0.652
Europe	ITA	Italy	2020-05	0.088	0.072
Europe	ITA	Italy	2020-06	0.273	0.539
Europe	ITA	Italy	2020-07	0.496	0.903
Europe	ITA	Italy	2020-08	0.427	0.837
Europe	ITA	Italy	2020-09	0.496	0.903
Europe	ITA	Italy	2020-10	0.506	0.881
Europe	ITA	Italy	2020-11	0.322	0.214

Europe	ITA	Italy	2020-12	0.110	0.028
Europe	ITA	Italy	2021-01	0.108	0.045
Europe	ITA	Italy	2021-02	0.109	0.076
Europe	ITA	Italy	2021-03	0.117	0.123
Europe	LTU	Lithuania	2020-05	0.330	0.052
Europe	LTU	Lithuania	2020-06	0.414	0.077
Europe	LTU	Lithuania	2020-07	0.972	0.590
Europe	LTU	Lithuania	2020-08	1.000	0.903
Europe	LTU	Lithuania	2020-09	0.994	0.729
Europe	LTU	Lithuania	2020-10	0.995	0.707
Europe	LTU	Lithuania	2020-11	0.790	0.126
Europe	LTU	Lithuania	2020-12	0.250	0.004
Europe	LTU	Lithuania	2021-01	0.183	0.003
Europe	LTU	Lithuania	2021-02	0.198	0.012
Europe	LTU	Lithuania	2021-03	0.283	0.031
Europe	LVA	Latvia	2020-05	0.526	0.492
Europe	LVA	Latvia	2020-06	0.556	0.534
Europe	LVA	Latvia	2020-07	0.546	0.526
Europe	LVA	Latvia	2020-08	0.629	0.630
Europe	LVA	Latvia	2020-09	0.740	0.765
Europe	LVA	Latvia	2020-10	0.795	0.806
Europe	LVA	Latvia	2020-11	0.939	0.903
Europe	LVA	Latvia	2020-12	0.557	0.204
Europe	LVA	Latvia	2021-01	0.454	0.065
Europe	LVA	Latvia	2021-02	0.541	0.159
Europe	LVA	Latvia	2021-03	0.672	0.509
Europe	MLT	Malta	2020-05	0.154	0.054
Europe	MLT	Malta	2020-06	0.136	0.045
Europe	MLT	Malta	2020-07	0.224	0.102
Europe	MLT	Malta	2020-08	0.933	0.903
Europe	MLT	Malta	2020-09	0.771	0.611
Europe	MLT	Malta	2020-10	0.693	0.492
Europe	MLT	Malta	2020-11	0.522	0.178
Europe	MLT	Malta	2020-12	0.382	0.087
Europe	MLT	Malta	2021-01	0.412	0.161
Europe	MLT	Malta	2021-02	0.342	0.117
Europe	MLT	Malta	2021-03	0.324	0.118
Europe	NLD	Netherlands	2020-05	0.331	0.134
Europe	NLD	Netherlands	2020-06	0.490	0.345
Europe	NLD	Netherlands	2020-07	0.515	0.387

Europe	NLD	Netherlands	2020-08	0.931	0.903
Europe	NLD	Netherlands	2020-09	0.868	0.814
Europe	NLD	Netherlands	2020-10	0.731	0.560
Europe	NLD	Netherlands	2020-11	0.414	0.157
Europe	NLD	Netherlands	2020-12	0.408	0.160
Europe	NLD	Netherlands	2021-01	0.384	0.111
Europe	NLD	Netherlands	2021-02	0.260	0.083
Europe	NLD	Netherlands	2021-03	0.220	0.085
Europe	NOR	Norway	2020-05	0.613	0.262
Europe	NOR	Norway	2020-06	0.885	0.580
Europe	NOR	Norway	2020-07	0.983	0.831
Europe	NOR	Norway	2020-08	0.989	0.858
Europe	NOR	Norway	2020-09	0.987	0.847
Europe	NOR	Norway	2020-10	0.994	0.890
Europe	NOR	Norway	2020-11	0.996	0.903
Europe	NOR	Norway	2020-12	0.788	0.412
Europe	NOR	Norway	2021-01	0.581	0.219
Europe	NOR	Norway	2021-02	0.369	0.104
Europe	NOR	Norway	2021-03	0.273	0.065
Europe	POL	Poland	2020-05	0.353	0.122
Europe	POL	Poland	2020-06	0.317	0.103
Europe	POL	Poland	2020-07	0.825	0.570
Europe	POL	Poland	2020-08	0.957	0.805
Europe	POL	Poland	2020-09	0.969	0.835
Europe	POL	Poland	2020-10	0.998	0.903
Europe	POL	Poland	2020-11	0.828	0.108
Europe	POL	Poland	2020-12	0.178	0.009
Europe	POL	Poland	2021-01	0.191	0.015
Europe	POL	Poland	2021-02	0.203	0.023
Europe	POL	Poland	2021-03	0.254	0.045
Europe	PRT	Portugal	2020-05	0.242	0.426
Europe	PRT	Portugal	2020-06	0.275	0.541
Europe	PRT	Portugal	2020-07	0.348	0.691
Europe	PRT	Portugal	2020-08	0.346	0.699
Europe	PRT	Portugal	2020-09	0.456	0.848
Europe	PRT	Portugal	2020-10	0.560	0.903
Europe	PRT	Portugal	2020-11	0.436	0.489
Europe	PRT	Portugal	2020-12	0.337	0.256
Europe	PRT	Portugal	2021-01	0.191	0.010
Europe	PRT	Portugal	2021-02	0.103	0.008

Europe	PRT	Portugal	2021-03	0.141	0.191
Europe	RUS	Russia	2020-05	0.181	0.078
Europe	RUS	Russia	2020-06	0.173	0.069
Europe	RUS	Russia	2020-07	0.226	0.108
Europe	RUS	Russia	2020-08	0.299	0.175
Europe	RUS	Russia	2020-09	0.459	0.342
Europe	RUS	Russia	2020-10	0.939	0.903
Europe	RUS	Russia	2020-11	0.663	0.483
Europe	RUS	Russia	2020-12	0.613	0.363
Europe	RUS	Russia	2021-01	0.585	0.342
Europe	RUS	Russia	2021-02	0.559	0.349
Europe	RUS	Russia	2021-03	0.861	0.793
Europe	SRB	Serbia	2020-05	0.128	0.024
Europe	SRB	Serbia	2020-06	0.472	0.199
Europe	SRB	Serbia	2020-07	0.996	0.903
Europe	SRB	Serbia	2020-08	0.890	0.623
Europe	SRB	Serbia	2020-09	0.738	0.442
Europe	SRB	Serbia	2020-10	0.736	0.436
Europe	SRB	Serbia	2020-11	0.711	0.280
Europe	SRB	Serbia	2020-12	0.556	0.067
Europe	SRB	Serbia	2021-01	0.428	0.088
Europe	SRB	Serbia	2021-02	0.380	0.103
Europe	SRB	Serbia	2021-03	0.347	0.096
Europe	SVK	Slovakia	2020-05	0.307	0.174
Europe	SVK	Slovakia	2020-06	0.263	0.136
Europe	SVK	Slovakia	2020-07	0.818	0.770
Europe	SVK	Slovakia	2020-08	0.890	0.859
Europe	SVK	Slovakia	2020-09	0.926	0.903
Europe	SVK	Slovakia	2020-10	0.898	0.834
Europe	SVK	Slovakia	2020-11	0.335	0.120
Europe	SVK	Slovakia	2020-12	0.142	0.019
Europe	SVK	Slovakia	2021-01	0.103	0.003
Europe	SVK	Slovakia	2021-02	0.065	0.002
Europe	SVK	Slovakia	2021-03	0.097	0.007
Europe	SVN	Slovenia	2020-05	0.134	0.043
Europe	SVN	Slovenia	2020-06	0.514	0.386
Europe	SVN	Slovenia	2020-07	0.930	0.903
Europe	SVN	Slovenia	2020-08	0.878	0.829
Europe	SVN	Slovenia	2020-09	0.767	0.687
Europe	SVN	Slovenia	2020-10	0.747	0.549

Europe	SVN	Slovenia	2020-11	0.303	0.005
Europe	SVN	Slovenia	2020-12	0.000	0.000
Europe	SVN	Slovenia	2021-01	0.174	0.006
Europe	SVN	Slovenia	2021-02	0.218	0.041
Europe	SVN	Slovenia	2021-03	0.248	0.093
Europe	SWE	Sweden	2020-05	0.545	0.317
Europe	SWE	Sweden	2020-06	0.580	0.542
Europe	SWE	Sweden	2020-07	0.612	0.695
Europe	SWE	Sweden	2020-08	0.692	0.839
Europe	SWE	Sweden	2020-09	0.730	0.878
Europe	SWE	Sweden	2020-10	0.760	0.903
Europe	SWE	Sweden	2020-11	0.708	0.764
Europe	SWE	Sweden	2020-12	0.584	0.385
Europe	SWE	Sweden	2021-01	0.351	0.072
Europe	SWE	Sweden	2021-02	0.334	0.207
Europe	SWE	Sweden	2021-03	0.352	0.354
Europe	UKR	Ukraine	2020-05	0.212	0.136
Europe	UKR	Ukraine	2020-06	0.157	0.083
Europe	UKR	Ukraine	2020-07	0.429	0.397
Europe	UKR	Ukraine	2020-08	0.864	0.903
Europe	UKR	Ukraine	2020-09	0.432	0.365
Europe	UKR	Ukraine	2020-10	0.324	0.205
Europe	UKR	Ukraine	2020-11	0.335	0.164
Europe	UKR	Ukraine	2020-12	0.303	0.120
Europe	UKR	Ukraine	2021-01	0.363	0.199
Europe	UKR	Ukraine	2021-02	0.407	0.273
Europe	UKR	Ukraine	2021-03	0.486	0.383
North America	CAN	Canada	2020-05	0.307	0.386
North America	CAN	Canada	2020-06	0.295	0.503
North America	CAN	Canada	2020-07	0.398	0.724
North America	CAN	Canada	2020-08	0.507	0.863
North America	CAN	Canada	2020-09	0.502	0.858
North America	CAN	Canada	2020-10	0.578	0.903
North America	CAN	Canada	2020-11	0.559	0.855
North America	CAN	Canada	2020-12	0.464	0.672
North America	CAN	Canada	2021-01	0.344	0.437
North America	CAN	Canada	2021-02	0.305	0.471
North America	CAN	Canada	2021-03	0.304	0.542
North America	CRI	Costa Rica	2020-05	0.495	0.824
North America	CRI	Costa Rica	2020-06	0.582	0.903

North America	CRI	Costa Rica	2020-07	0.537	0.839
North America	CRI	Costa Rica	2020-08	0.506	0.750
North America	CRI	Costa Rica	2020-09	0.564	0.764
North America	CRI	Costa Rica	2020-10	0.597	0.780
North America	CRI	Costa Rica	2020-11	0.672	0.895
North America	CRI	Costa Rica	2020-12	0.683	0.878
North America	CRI	Costa Rica	2021-01	0.660	0.855
North America	CRI	Costa Rica	2021-02	0.412	0.645
North America	CRI	Costa Rica	2021-03	0.519	0.831
North America	DOM	Dominican Republic	2020-05	0.186	0.491
North America	DOM	Dominican Republic	2020-06	0.121	0.271
North America	DOM	Dominican Republic	2020-07	0.185	0.460
North America	DOM	Dominican Republic	2020-08	0.235	0.579
North America	DOM	Dominican Republic	2020-09	0.216	0.543
North America	DOM	Dominican Republic	2020-10	0.222	0.610
North America	DOM	Dominican Republic	2020-11	0.324	0.831
North America	DOM	Dominican Republic	2020-12	0.383	0.903
North America	DOM	Dominican Republic	2021-01	0.380	0.889
North America	DOM	Dominican Republic	2021-02	0.306	0.748
North America	DOM	Dominican Republic	2021-03	0.314	0.809
North America	GTM	Guatemala	2020-05	0.184	0.085
North America	GTM	Guatemala	2020-06	0.153	0.056
North America	GTM	Guatemala	2020-07	0.149	0.047
North America	GTM	Guatemala	2020-08	0.160	0.055
North America	GTM	Guatemala	2020-09	0.199	0.086
North America	GTM	Guatemala	2020-10	0.257	0.133
North America	GTM	Guatemala	2020-11	0.884	0.852
North America	GTM	Guatemala	2020-12	0.881	0.833
North America	GTM	Guatemala	2021-01	0.867	0.802
North America	GTM	Guatemala	2021-02	0.775	0.679
North America	GTM	Guatemala	2021-03	0.914	0.903
North America	JAM	Jamaica	2020-05	0.271	0.713
North America	JAM	Jamaica	2020-06	0.186	0.484
North America	JAM	Jamaica	2020-07	0.380	0.886
North America	JAM	Jamaica	2020-08	0.401	0.903
North America	JAM	Jamaica	2020-09	0.307	0.747
North America	JAM	Jamaica	2020-10	0.227	0.546
North America	JAM	Jamaica	2020-11	0.243	0.617
North America	JAM	Jamaica	2020-12	0.240	0.612
North America	JAM	Jamaica	2021-01	0.240	0.613

North America	JAM	Jamaica	2021-02	0.239	0.600
North America	JAM	Jamaica	2021-03	0.203	0.496
North America	MEX	Mexico	2020-05	0.348	0.903
North America	MEX	Mexico	2020-06	0.250	0.605
North America	MEX	Mexico	2020-07	0.392	0.833
North America	MEX	Mexico	2020-08	0.405	0.854
North America	MEX	Mexico	2020-09	0.397	0.899
North America	MEX	Mexico	2020-10	0.402	0.899
North America	MEX	Mexico	2020-11	0.395	0.887
North America	MEX	Mexico	2020-12	0.388	0.827
North America	MEX	Mexico	2021-01	0.332	0.506
North America	MEX	Mexico	2021-02	0.257	0.423
North America	MEX	Mexico	2021-03	0.353	0.875
North America	PAN	Panama	2020-05	0.291	0.898
North America	PAN	Panama	2020-06	0.282	0.854
North America	PAN	Panama	2020-07	0.205	0.460
North America	PAN	Panama	2020-08	0.228	0.591
North America	PAN	Panama	2020-09	0.251	0.757
North America	PAN	Panama	2020-10	0.182	0.587
North America	PAN	Panama	2020-11	0.343	0.903
North America	PAN	Panama	2020-12	0.475	0.872
North America	PAN	Panama	2021-01	0.258	0.291
North America	PAN	Panama	2021-02	0.200	0.516
North America	PAN	Panama	2021-03	0.226	0.771
North America	SLV	El Salvador	2020-05	0.285	0.226
North America	SLV	El Salvador	2020-06	0.144	0.072
North America	SLV	El Salvador	2020-07	0.157	0.074
North America	SLV	El Salvador	2020-08	0.184	0.095
North America	SLV	El Salvador	2020-09	0.209	0.130
North America	SLV	El Salvador	2020-10	0.387	0.338
North America	SLV	El Salvador	2020-11	0.763	0.805
North America	SLV	El Salvador	2020-12	0.784	0.811
North America	SLV	El Salvador	2021-01	0.857	0.871
North America	SLV	El Salvador	2021-02	0.859	0.884
North America	SLV	El Salvador	2021-03	0.858	0.903
North America	TTO	Trinidad and Tobago	2020-05	0.227	0.336
North America	TTO	Trinidad and Tobago	2020-06	0.168	0.215
North America	TTO	Trinidad and Tobago	2020-07	0.362	0.603
North America	TTO	Trinidad and Tobago	2020-08	0.617	0.903
North America	TTO	Trinidad and Tobago	2020-09	0.440	0.660

North America	TTO	Trinidad and Tobago	2020-10	0.228	0.308
North America	TTO	Trinidad and Tobago	2020-11	0.325	0.521
North America	TTO	Trinidad and Tobago	2020-12	0.427	0.697
North America	TTO	Trinidad and Tobago	2021-01	0.393	0.644
North America	TTO	Trinidad and Tobago	2021-02	0.383	0.631
North America	TTO	Trinidad and Tobago	2021-03	0.411	0.682
North America	USA	United States	2020-05	0.295	0.491
North America	USA	United States	2020-06	0.332	0.705
North America	USA	United States	2020-07	0.422	0.823
North America	USA	United States	2020-08	0.433	0.803
North America	USA	United States	2020-09	0.431	0.837
North America	USA	United States	2020-10	0.501	0.903
North America	USA	United States	2020-11	0.513	0.856
North America	USA	United States	2020-12	0.418	0.478
North America	USA	United States	2021-01	0.315	0.212
North America	USA	United States	2021-02	0.359	0.447
North America	USA	United States	2021-03	0.400	0.784
Oceania	AUS	Australia	2020-05	0.473	0.509
Oceania	AUS	Australia	2020-06	0.460	0.492
Oceania	AUS	Australia	2020-07	0.819	0.903
Oceania	AUS	Australia	2020-08	0.352	0.318
Oceania	AUS	Australia	2020-09	0.184	0.119
Oceania	AUS	Australia	2020-10	0.215	0.159
Oceania	AUS	Australia	2020-11	0.322	0.298
Oceania	AUS	Australia	2020-12	0.672	0.764
Oceania	AUS	Australia	2021-01	0.457	0.488
Oceania	AUS	Australia	2021-02	0.370	0.365
Oceania	AUS	Australia	2021-03	0.369	0.364
Oceania	NZL	New Zealand	2020-05	0.131	0.012
Oceania	NZL	New Zealand	2020-06	0.389	0.063
Oceania	NZL	New Zealand	2020-07	0.972	0.552
Oceania	NZL	New Zealand	2020-08	1.000	0.889
Oceania	NZL	New Zealand	2020-09	0.754	0.229
Oceania	NZL	New Zealand	2020-10	0.957	0.502
Oceania	NZL	New Zealand	2020-11	1.000	0.854
Oceania	NZL	New Zealand	2020-12	1.000	0.903
Oceania	NZL	New Zealand	2021-01	1.000	0.869
Oceania	NZL	New Zealand	2021-02	1.000	0.858
Oceania	NZL	New Zealand	2021-03	0.997	0.750
South America	BRA	Brazil	2020-05	0.275	0.545

South America	BRA	Brazil	2020-06	0.171	0.247
South America	BRA	Brazil	2020-07	0.163	0.217
South America	BRA	Brazil	2020-08	0.184	0.274
South America	BRA	Brazil	2020-09	0.280	0.550
South America	BRA	Brazil	2020-10	0.318	0.681
South America	BRA	Brazil	2020-11	0.387	0.819
South America	BRA	Brazil	2020-12	0.407	0.792
South America	BRA	Brazil	2021-01	0.383	0.676
South America	BRA	Brazil	2021-02	0.499	0.821
South America	BRA	Brazil	2021-03	0.569	0.903
South America	CHL	Chile	2020-05	0.258	0.903
South America	CHL	Chile	2020-06	0.163	0.314
South America	CHL	Chile	2020-07	0.156	0.333
South America	CHL	Chile	2020-08	0.135	0.455
South America	CHL	Chile	2020-09	0.150	0.552
South America	CHL	Chile	2020-10	0.161	0.601
South America	CHL	Chile	2020-11	0.164	0.633
South America	CHL	Chile	2020-12	0.162	0.627
South America	CHL	Chile	2021-01	0.161	0.573
South America	CHL	Chile	2021-02	0.135	0.431
South America	CHL	Chile	2021-03	0.132	0.492
South America	COL	Colombia	2020-05	0.122	0.269
South America	COL	Colombia	2020-06	0.106	0.190
South America	COL	Colombia	2020-07	0.098	0.115
South America	COL	Colombia	2020-08	0.091	0.072
South America	COL	Colombia	2020-09	0.104	0.121
South America	COL	Colombia	2020-10	0.501	0.885
South America	COL	Colombia	2020-11	0.529	0.903
South America	COL	Colombia	2020-12	0.479	0.838
South America	COL	Colombia	2021-01	0.525	0.718
South America	COL	Colombia	2021-02	0.207	0.353
South America	COL	Colombia	2021-03	0.223	0.553
South America	PRY	Paraguay	2020-05	0.228	0.354
South America	PRY	Paraguay	2020-06	0.225	0.349
South America	PRY	Paraguay	2020-07	0.343	0.582
South America	PRY	Paraguay	2020-08	0.386	0.606
South America	PRY	Paraguay	2020-09	0.257	0.312
South America	PRY	Paraguay	2020-10	0.233	0.265
South America	PRY	Paraguay	2020-11	0.422	0.631
South America	PRY	Paraguay	2020-12	0.463	0.656

South America	PRY	Paraguay	2021-01	0.559	0.783
South America	PRY	Paraguay	2021-02	0.594	0.824
South America	PRY	Paraguay	2021-03	0.665	0.903
South America	URY	Uruguay	2020-05	0.734	0.581
South America	URY	Uruguay	2020-06	0.758	0.614
South America	URY	Uruguay	2020-07	0.667	0.498
South America	URY	Uruguay	2020-08	0.860	0.750
South America	URY	Uruguay	2020-09	0.957	0.903
South America	URY	Uruguay	2020-10	0.926	0.851
South America	URY	Uruguay	2020-11	0.852	0.735
South America	URY	Uruguay	2020-12	0.847	0.692
South America	URY	Uruguay	2021-01	0.550	0.267
South America	URY	Uruguay	2021-02	0.396	0.171
South America	URY	Uruguay	2021-03	0.415	0.202