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Does Control of Corruption Sand or Grease the Wheel of Human Development? Evidence from Panel Threshold Analysis

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Abstract

This paper applies the panel threshold regression analysis to investigate the potential non-linear relationship between control of corruption and human development. Pass studies fail to investigate the dynamics in the corruption-human development relationship. Using a sample of 163 countries from 2000 to 2017, the results indicate that a decline in corruption initially improves human development but after a threshold level of human development, control of corruption reduces human development. Explicitly, the results suggest that control of corruption might grease the wheel of human development in countries with low HDI and sand the wheel in countries with high HDI. We also find that political stability, government effectiveness role of law, regulatory quality, research and development and urbanisation improve human development whereas an increase in the prevalence of anaemia and smoking reduces human development.

Keywords: human development, control of corruption

1. Introduction

The past years have witnessed growing attention in economic research and policy circles regarding the issue of human development. Researchers are intrigued by the stunning paradox posed by the fact that most developing countries are very rich in natural resources but unable to convert these rich resources to sustainable human development (Deaton, 2019; Piketty, 2020). While most of these countries are rich in natural resources, they also face the problem of high levels of corruption (Khan et al., 2020; Nginyu, 2023). The evidence in the literature indicates that the problem of corruption is not unique to developing countries; it exists throughout the world, in developed and developing countries, though it is more prevalent in less developed countries (Mauro, 2020; Transparency International, 2022; Fonchamnyo & Nginyu, 2023; Nginyu et al., 2023). Though the problem of corruption is not new, it still deserves serious attention since the debate about the effect of corruption has not yet been settled (Rothstein & Teorell, 2019; Gupta & Tiwari, 2021).

An ample literature has studied the relationship between corruption and economic growth as well as human development. There are two divergent approaches in the theoretical literature concerning the effect of corruption on economic growth: the efficiency-enhancing approach and the efficiency-reducing approach. Authors of the efficiency-enhancing approach such as Leff (1964) and Nye (1967)[1], argued that corruption improves efficiency in an economy while advocates of the efficiency-reducing approach such as McMullan (1961), Shleifer and Vishny (1993), Krueger (1974), Tanzi and Davoodi (1998), Mauro (1995), Akcay (2006), Mauro (1996) Fonchamnyo and

[1] Nye (1967) examine corruption by applying a cost-benefit analysis. The effect of corruption can either be negative or positive depending on the probability of its cost to be more than its benefit or vice versa.

Nginyu (2023), Nginyu et al. (2024) and Fonchamnyo et al. (2023) claim that corruption hampers economic growth and distorts resource allocation thereby reducing efficiency.

Over the past years, there have been numerous empirical studies about the impact of corruption. Many authors have empirically shown that corruption harms economic growth as well as human development. For instance, Mauro (1995), Ades and Di Tella (1997), Mauro (1996), and Tanzi and Davoodi (1998) found a negative relationship between investments and corruption. Mauro (1996), Tanzi and Davoodi (2000), Leite and Weidmann (1999), Abed and Davoodi (2000) and Mo (2001) found that corruption hurts economic growth. Wei (2000), Habib and Zurawicki (2001) and Drabek and Payne (2002), found that corruption is a hindering factor for foreign investors. Al-Marhubi (2000) found a positive relationship between inflation and corruption. Bahmani-Oskooee and Nasir (2002) showed that countries with high levels of corruption tend to have a real depreciation in their currency. Gupta (1998) found that corruption increases income inequality as well as poverty by reducing economic growth. Tiongson et al. (2000) found that corruption increases infant and child mortality rates as well as increases dropout rates in primary school. Akhter (2004), Akcay (2006) and Ortega et al. (2016) found that corruption harms human development. In a nutshell, the foregoing literature suggests that the costs of corruption are immense.

Furthermore, the existing studies also established that this relationship is very likely to be nonlinear such that the effect of corruption on economic growth may vary based on the level of economic development. For example, Saha and Gounder (2013) showed a pattern of non-linear relationship between economic growth and corruption across different income levels[1]. Huang (2016) showed that corruption has a significantly negative effect on economic growth in all the 13 Asian-Pacific countries on the other hand corruption has a positive effect on growth for South Korea. Shumetie and Watabaji (2019) confirmed that corruption has a positive effect on Ethiopian enterprises. Mudassaar et al. (2019) found that corruption enhances growth in East Asia and South Asia and in the West Asian region corruption is found to be a hindrance to growth.

We, therefore, notice that there is yet a conclusion in the literature to that which concerns the effect of corruption on human development. The best way to understand this relationship is to verify the effect of corruption on human development by employing the threshold regression technique of Hansen (1999)[2]. The question to be answered here is, is it always beneficial (at all levels) to control corruption or is there a level at which it is no more important to control corruption? In other words, is there any level at which the effect of corruption changes?

Although “less corruption, more human development” is a reasonable conjecture, however, the opposing views about the effects of corruption on human development in the literature suggest that this relationship is more probable to be nonlinear such that, the effect of corruption on human development may differ by levels of economic development. Nevertheless, there has been limited evidence to confirm that the development level of a country makes a difference in the way corruption affects human development. This conjecture therefore requires a flexible modelling approach that can be able to accommodate a nonlinear corruption-human development interaction therefore, there is a need for a threshold regression approach.

This study extends the literature in three aspects. Firstly, we employ a regression approach based on the idea of the threshold effect of Hansen (2000). This approach permits us to allow the relationship between corruption and human development to be piecewise on the level of development of a country acting as a regime-switching determinant (variable). Secondly, we use a sufficiently large data set to enable robust conclusions to be drawn. Specifically, the data set employed in this study consists of annual data from 163 countries from 2000 to 2017. Thirdly, the study fills the gap between the empirical and theoretical literature by verifying the non-linear relationship between corruption and human development.

2. The Between Human Development and Corruption

Theoretically, the is no consensus in the literature regarding the effect of corruption on human development. The theoretical argument about the effect of corruption have divided researchers into two groups as early announced above. Two theories explain how corruption influences human development; the “grease the wheels” hypothesis which explains the ways through corruption can benefit the economy (Leff, 1964; Nye, 1967; Lui, 1985; Mauro, 1995; Mo, 2001; Dridi, 2013; Gru¨ndler & Potrafke, 2019; Fonchamnyo & Nginyu, 2023). On the other hand, the “sand the wheels” hypothesis which on the other hand explain the ways through which corruption can harm the economy (Nye, 1967; Mauro, 1995; Mo, 2001; Saha & Gounder, 2013; Gru¨ndler & Potrafke, 2019).

[1] Saha and Gounder (2013) showed that high-income countries are less corrupt compared to low-income countries but the middle income countries are perceived to be more corrupt than the low-income countries. The non-linear results show that corruption increases at low economic development stage and decreases as nations’ achieve higher levels of economic development.

[2] The threshold regressions of Hansen (1999) is an estimation technique capable for non-linear and non dynamic panel based on the intuition that individual observations can be divided into two classes based on the value of an observed variable.

Firstly, to that which concerns the "grease the wheels" hypothesis, according to Grundler and Potrafke (2019) when procedures (bureaucracy) for starting businesses are long, bribing will probably give rise to vibrant economic activities. Therefore, corruption may help to facilitate economic exchange, helping to overcome cumbersome regulations. Mo (2001) claimed that Corruption is like a piece-rate wage to bureaucrats, which encourages an efficient provision of government services, and therefore provides a breathing space for entrepreneurs to bypass long cumbersome and inefficient regulations. From this perspective, corruption acts as a lubricant that smooths operations and, hence, raises the efficiency of an economy. Corruption can therefore be a good source to increase efficiency by removing the rigidities imposed by the government which delays investment and disturbs economic decisions that are unfavourable to economic growth Dridi (2013). In addition, employees who charge bribes can also work harder since bribes act as a piece rate (Mauro, 1995). This is why Lui (1985) argued with his queue model that corruption may be desirable in an economy since it minimizes the average queueing (waiting line) time spent for bureaucracy. Corruption can, therefore, drive corrupt officials to be more efficient and to make decisions faster.

Secondly, the "sand the wheels" hypothesis explains on the contrary that, corruption decreases human development through several channels. Corruption prevents the efficient allocation of resource (financial as well as human resources) for production the production of goods and services (Murphy et al., 1991) and Mauro (1995). Mauro (1995) argued that public officials do not like to spend more on health and education since those spending programs give them fewer opportunities for rent-seeking activities. Corruption hinders the state's legitimacy and gives some people advantages that others do not have as it dismisses the rule of fairness. Murphy et al. (1991) showed that in countries where talented people or intellectuals are allocated to rent-seeking activities economic growth tends to be very slow. In this type of country, a greater share of the country's wealth (resources) is distributed to corrupt bidders, creating to inequalities in wealth (Akcay, 2006). According to Rose-Ackerman (1997), corruption also alters the allocation of resources favouring the "haves" against the "have-nots" leading to income inequality which can also lead to political instability as the less privileged will revolt for change. Corruption makes the business environment fragile and therefore discourages investment. In addition, corruption affects human development by causing political instability which weakens administrative capacity and hinders democracy as well as economic activities.

From both theoretical and empirical literature, we can therefore understand that corruption has both negative and positive effects on human development. From the cost-benefit analysis of Nye (1967) which analyses the compensation of the negative effect and the positive effects of corruption on human development, we can therefore think that there exists a level at which the effect of corruption on human development is no more negative. We therefore retain from (Nye, 1967) that the effect of corruption is negative if the costs of corruption are more than the benefits. What therefore happens if the cost is equal to the benefits or when the cost is less than the benefits? We therefore have the intuition that, there exists a level of development at which the cost of corruption is no greater than the benefits of corruption, and therefore at this level of development, it becomes disadvantageous to control corruption.

3. Empirical Model and the Data

3.1 Empirical Model

The empirical model is based on the model employed by Akcay (2006) where human development is a function of corruption as shown in equation (1) below.

$$HDI_{it} + \beta' C_{it} + \gamma X_{it} + \varepsilon_{it} \quad \text{.....(1)}$$

where HDI is the human development index, C is corruption, X is a vector of control variables, ξ is an error term and $_i$ and $_t$ are the individual and time specifications respectively.

To test attain the objective outlined in the first section, the threshold model is, therefore, appropriate to take care of the contingency effects on human development and therefore offer a better way of modelling the role of development level on the impact of corruption on human development as shown in equation (2) bellow. Therefore, we employ the threshold regression analysis suggested by Hansen (1999, 2000) to explore the nonlinear behaviour of corruption on human development. Based on the threshold regression approach, the model takes the following form;

$$HDI_{it} = \beta_1'(C_{it} + \gamma_1 X_{it}) I(HDI \leq \lambda) + \beta_2'(C_{it} + \gamma_2 X_{it}) I(HDI \geq \lambda) + \varepsilon_{it} \quad \text{.....(1)}$$

where HDI is the dependent variable as well as the threshold variable, which is used to split the sample into deferent groups or regimes λ is an unknown threshold parameter and I(.) is an indicator function, which takes the value 1 the argument in the indicator function is valid and 0 otherwise. This type of modelling approach allows the effect of corruption to differ depending on whether the HDI are above or below the unknown level of λ. The impact of corruption on human development will be β_1 and β_2 for countries with a low or high regime, respectively. Nevertheless, it is obvious that under the hypothesis $\gamma_1 = \gamma_2$ and $\beta_1 = \beta_2$ the model becomes linear and reduces to

equation (1). Models such as equation (2) have been used in the analysis of trade and growth (El Khoury & Savvides, 2006) and finance and growth (Law et al., 2013), foreign direct investment (FDI) and growth (Azman-Saini et al., 2010) among other topics. Equation (2) can also be written as;

$$HDI_{it} = \begin{matrix} \beta_1'(C_{it} + \gamma_1 X_{it}) I(HDI \leq \lambda) \\ \beta_2'(C_{it} + \gamma_2 X_{it}) II(HDI \geq \lambda) \end{matrix} \quad \ldots\ldots\ldots\ldots (3)$$

The first step of our estimation will be to test the null hypothesis of linearity of the corruption-human development relationship $H0$: $\beta_1 = \beta_2$ and $\gamma_1 = \gamma_2$ in the threshold (non-linear relationship) model in equation (2) or (3).

3.2 Data

To investigate the effect of control of corruption on human development, this paper employed annual data from three sources; the Human Development Index (HDI) from the United Nations Development Program (UNDP), institutions dataset from World Governance Indicators (WGIs) and World Development indicators (WDI) which was compiled for 163 countries from 2000 through 2016[1]. HDI is a composite index that measures the extent to which human development has been improved. It is based on three vital aspects of socioeconomic development; education, health, and standard of living. The value of this index ranges from 0 to 1, where 0 means a low level of human development and 1 means a high level of human development.

The institutions' dataset from (WGIs) was assembled by Kaufmann et al. (2009). Several variables were used from this data source; Control of Corruption measures the extent to which public power is used for private gain, Political Stability and Absence of Violence measures perceptions of the likelihood of political instability, Rule of Law measures the extent to which agents have confidence in as well as abide by the rules of society, Regulatory Quality measures the ability of the government to frame and implement rigorous policies and regulations that permit and help private sector development, Government Effectiveness measures the quality of public services, the quality of the civil service and the degree of its independence from political pressures. All these variables from WGI range from approximately -2.5 (weak) to 2.5 (strong) governance performance and are there for expected to have a positive effect on human development.

We also used the following control variables; STJA (Scientific and technical journal articles) which refer to the number of scientific articles published in chemistry, physics, clinical medicine, biology, mathematics, engineering, biomedical research and technology and earth and space sciences, UP is Urban population (% of total population), POS is the prevalence of smoking POA is the prevalence of anaemia among children under the age 0f 5 year measured as a percentage of children under the age of 5 whose haemoglobin level is less than 110 grams per litter at sea level.

4. Empirical Results and Discussion

4.1 Results of the Baseline Model

Table 1 and 2 presents the descriptive statistics and correlation analysis of the variables employed in the analysis respectively. As demonstrated in Table 2, all the variables are highly correlated among themselves. As confirmed in Table 2, all the variables are highly correlated among themselves.

Table 1. Descriptive statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
HDI	2,934	.6791626	.1651193	.252	.953
RL	2,934	-.0341868	1.001409	-2.255175	2.100273
RQ	2,934	.0435902	.9662186	-2.25506	2.260543
GE	2,934	.0303919	.9893553	-2.270754	2.436975
PS	2,934	-.0748159	.9587841	-2.180798	1.760102
CC	2,934	-.0178597	1.023667	-1.82574	2.469991

Source: Computed by authors.

Table 3 reports the results of the estimation of equation 2 which investigates the effect of corruption on human development by applying Hansen (2000) threshold regression. The transitional variable is human development

[1] The indicators from WGIs are constructed based on information gathered through a wide variety of cross-country surveys as well as polls of experts. Kaufmann et al. (1999) used a model of unobserved components, which enabled them to determine levels of coverage in approximately 212 countries for each of their indicators.

index (HDI). The statistical significance of the threshold estimate is evaluated based on the p-value calculated using the bootstrap method with 300 replications. As shown in Table 3, the bootstrap p-values shows that the hypothesis of no threshold effect is rejected for all models. Thus, the sample can be divided into two regimes thus we can therefore continue with the interpretation of the result in Table 4. The point estimate of the threshold value of HDI is 0.4980 with a corresponding 95% confidence interval [0.4970, 0.5010] for all the Models. This implies that countries bellow threshold value of 0.4980 are the low-HDI group (developing countries) while those with greater values are classified into the high-HDI group (developed countries). We also tested whether the high- HDI group could be further divided into sub-regimes and the bootstrap p-values were insignificant for the second sample split, which therefore suggest that only the single threshold in equation 2 is adequate for all models. Having established the existence of a human development threshold, the next thing is to show how control of corruption affect human development bellow and above the threshold level. Table 4 presents the empirical results of equation 2.

Table 2. Correlation

	HDI	**CC**	**PS**	**RL**	**RQ**	**GE**
HDI	1.0000					
CC	0.7327	1.0000				
PS	0.6154	0.7567	1.0000			
RL	0.7552	0.9537	0.7765	1.0000		
RQ	0.7520	0.8918	0.7106	0.9330	1.0000	
GE	0.8039	0.9421	0.7358	0.9569	0.9391	1.0000

Source: Computed by authors.

Table 3. Threshold estimates

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Threshold estimate	0.4980	0.4980	0.4980	0.4980	0.4980	0.4980
Bootstrap p-value	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
F-stat	561.86	555.71	524.72	545.06	580.41	542.89
95% Confidence interval	[0.4970, 0.4990]	[0.4970, 0.5010]	[0.4970, 0.5010]	[0.4970, 0.5010]	[0.4970, 0.5010]	[0.4970, 0.0.5010]

Source: Computed by authors.

Since the data favour a threshold model, we focused on the threshold model specifications as in equations 2 and 3 and adding a set of other institutional variables as control variables for robust tests and controlling for multicollinearity since the variables are highly correlated among themselves. Turning first to model 1 (without control variable), the coefficient estimate of control of corruption is positive and significant when the HDI is below the threshold level. On the contrary, above the threshold level of the HDI, the effect control of corruption on HDI becomes negative and insignificant.

Table 4. Regression results using Hansen (2000) threshold technique

	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	1	2	3	4	5	6
CC (HDI < λ(0.4980))	0.061***	0.059***	0.045***	0.052***	0.048***	0.040***
	(0.004)	(0.004)	(0.005)	(0.004)	(0.004)	(0.005)
CC (HDI >λ(0.4980))	-0.001	-0.003	-0.014***	-0.008**	-0.013***	-0.019***
	(0.003)	(0.003)	(0.004)	(0.004)	(0.004)	(0.004)
PS		0.003*				-0.002
		(0.002)				(0.002)

RL			0.027***			0.022***
			(0.004)			(0.004)
RQ				0.014***		0.000
				(0.003)		(0.004)
GE					0.023***	0.015***
					(0.004)	(0.004)
Constant	0.689***	0.689***	0.689***	0.688***	0.688***	0.688***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Observations	2,934	2,934	2,934	2,934	2,934	2,934
R-squared	0.125	0.126	0.142	0.131	0.138	0.147
Number of Countries	163	163	163	163	163	163

Standard errors in parentheses.

*** p<0.01, ** p<0.05, * p<0.1

Source: computed by authors.

When we independently add political stability, the results remain unchanged though the effect of political stability is positively significant. Adding role of law, regulatory quality, government effectiveness and finally including all the control variables respectively as some control variables, the results remain unchanged when the HDI fall below the threshold level but when the HDI falls above the threshold level, control of corruption becomes negatively significant. The results also demonstrate the importance of other institutional variables.

The above findings demonstrate that HDI responds differently to control of corruption when considering the different levels of development and for corruption to have a positive effect in an economy, it must be accompanied by good performance in other institutional variables. It therefore means that there exists a level at which the marginal effect of control of corruption turns to diminish and therefore it is less important at this level to control corruption. Therefore, corruption has a U-shaped (control of corruption has an inverted U-shaped) relationship with human development. This finding is in line with the cost-benefit analysis of (Nye, 1967) where the effect of corruption is analysed concerning its cost and benefit. Here we see that below the threshold level of HD, the cost of corruption control is lower than the benefits and therefore controlling corruption increases human development. On the other hand, above the threshold, the benefits of corruption are lower than the costs of controlling corruption. Then, the effect of CC on HD becomes negative. Theoretically, this suggests that control of corruption greases the wheels of HD in countries above the threshold HDI whilst it sands the wheels of HDI when countries reach and pass a certain threshold of HD. These results are the main contribution of our paper. The results also explain the importance of other institutional variables in explaining human development. Our results therefore explain the importance of corruption in explaining the stagnation of human development in developing countries.

4.2 Robustness Check

It is difficult to gate data for a threshold regression since it needs a perfectly balanced panel without absent observations. It was therefore difficult to add all the control variables in the same sample as in the baseline model. We filtered the panel with respect to data availability in other to check for robustness in our result.

Table 5 presents the first robustness check with the following control variables; STJA, POS POA MS, Trade, CPI, PUALBDW and PUALBS. These results demonstrate the robustness of the existence of a threshold in the corruption human development relationship. It also shows the importance of STJA, UP, POS, POA, MS, Trade, CPI, PUALBDW and PUALBS in determining the level of human development in a country. The result remains the same though the threshold estimate and the confidence interval change from one estimation to the other. Our robust estimation is therefore in line with our baseline estimation.

Table 5. Regression results using Hansen (2000) threshold technique with control variables

	(1)	(2)	(3)	(4)
VARIABLES	HDI	HDI	HDI	HDI
CC (HDI <λ)	0.0238***	0.00943**	0.0199***	0.0150***
	(0.00541)	(0.00381)	(0.00461)	(0.00425)

CC (HDI ≥ λ)	-0.0233***	-0.0213***	-0.0156***	-0.0115***
	(0.00445)	(0.00328)	(0.00372)	(0.00343)
PS	0.00218	0.00438***	-0.00298	-0.00477***
	(0.00195)	(0.00143)	(0.00185)	(0.00170)
RL	0.0213***	0.0154***	0.00532	0.00647
	(0.00512)	(0.00373)	(0.00430)	(0.00394)
RQ	0.00495	0.00433	0.00201	0.00484
	(0.00438)	(0.00319)	(0.00360)	(0.00331)
GE	0.0140***	0.0138***	0.0209***	0.0161***
	(0.00444)	(0.00324)	(0.00374)	(0.00346)
STJA	5.98e-07***	1.18e-07***	9.75e-08*	1.89e-07***
	(5.06e-08)	(3.90e-08)	(5.09e-08)	(4.73e-08)
UP		0.00841***	0.00730***	0.00648***
		(0.000220)	(0.000296)	(0.000280)
POS			-0.00247***	-0.00253***
			(0.000235)	(0.000216)
POA				-0.00277***
				(0.000232)
Constant	0.697***	0.187***	0.325***	0.463***
	(0.00120)	(0.0134)	(0.0207)	(0.0223)
Observations	1,778	1,778	872	872
R-squared	0.219	0.585	0.671	0.723
Nº of Countries	127	127	109	109

Standard errors in parentheses.

*** p<0.01, ** p<0.05, * p<0.1.

Source: computed by author.

5. Conclusion

Using data from 163 countries over the period 2000 to 2017, this study investigates whether there is a development threshold in corruption-human development relationship. One main contribution of this paper was the adoption of a regression model which is based on the notion of threshold effect proposed by Hansen (1999) to take care of the dynamics in the relationship between control of corruption and human development. The empirical results showed that there is a significant developmental threshold in the corruption-human development relationship. By using the HDI to distinguish the different levels of development, when the HDI falls below the threshold, control of corruption has a positive effect on human development. However, the effect of control of corruption on human development turns out to be negative when the HDI is above the threshold level. More so, these findings suggest that the corruption human development relationship is contingent on the level of development of a country, where corruption promotes growth after HDI exceed a certain threshold level. Since the effect of corruption on human development kicks in after HDI reaches a certain threshold, policy makers should improve the level of human development (such as cracking down on corruption, improving the rule of law, improving government efficiency and transparency) to explore the benefits of corruption on human development. In addition, if a country tries to fight against corruption beyond a particular threshold, the country tends to benefit less from the decrease in corruption.

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Appendix

List of Countries in the Database

Albania, Algeria, Angola, Argentina, Armenia, Australia, Austria, Azerbaijan, Bahamas, Bahrain, Bangladesh, Barbados, Belarus, Belgium, Belize, Benin, Bolivia, Bosnia and Herzegovina, Botswana, Brazil, Brunei Darussalam, Bulgaria, Burkina Faso, Burundi, Cambodia, Cameroon, Canada, Central African Republic, Chad, Chile, China, Colombia, Democratic Republic of Congo, Republic of Congo, Costa Rica, Cote d'Ivoire, Croatia, Cuba, Cyprus, Czech Republic, Denmark, Djibouti, Dominica, Dominican Republic, Ecuador, Egypt, El Salvador, Equatorial Guinea, Estonia, Ethiopia, Fiji, Finland, France, Gabon, Gambia, Georgia, Germany, Ghana, Greece, Guatemala, Guinea, Guyana, Haiti, Honduras, Hong Kong SAR, China, Hungary, Iceland, India, Indonesia, Iran, Iraq, Ireland, Israel, Italy, Jamaica, Japan, Jordan, Kazakhstan, Kenya, Korea, Kuwait, Kyrgyz Republic, Lao, Latvia, Lesotho, Liberia, Libya, Liechtenstein, Lithuania, Luxembourg, Madagascar, Malawi, Malaysia, Maldives, Mali, Malta, Mauritania, Mauritius, Mexico, Moldova, Mongolia, Morocco, Mozambique, Myanmar, Namibia, Nepal, Netherlands, New Zealand, Nicaragua, Niger, Norway, Oman, Pakistan, Panama, Papua New Guinea,

Paraguay, Peru, Philippines, Poland, Portugal, Qatar, Romania, Russian Federation, Rwanda, Samoa, Sao Tome, Saudi Arabia, Senegal, Serbia, Seychelles, Sierra Leone, Singapore, Slovak Republic, Slovenia, Solomon Islands, South Africa, Spain, Sri Lanka, St. Lucia, St. Vincent and the Grenadines, Sudan, Sweden, Switzerland, Syrian Arab Republic, Tajikistan, Tanzania, Thailand, Togo, Trinidad, Tunisia, Turkey, Uganda, Ukraine, United Arab Emirates, United Kingdom, United States, Uruguay, Uzbekistan, Venezuela, Vietnam, Yemen, Zambia, Zimbabwe.

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