



## **Corruption and Tourism: Evidence from democracies and non-democracies**

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### **I. Introduction**

The tourism industry has become an increasingly significant part of the global economy and was still on the rise because of higher disposable incomes and populations (Poprawe 2015). There were over 1.2 billion tourist arrivals in 2015 and tourism receipts accounted for 7% of all exports globally (World Bank, 2017). The volume of business for the tourism industry has either matched or surpassed that of prominent industries such as oil exports, food products and automobiles (United Nations, 2017). The World Tourism Organization forecasted that by 2030 international tourist arrivals will reach 1.8 billion. This is driven by people trotting across the globe for either leisure, business or heritage purposes. High income regions like the European Union attract the bulk of all travel, meanwhile, Sub-Saharan Africa, South Asia, and the Arab world only have small fractions of the global tourism pie (World Bank, 2017). Tourism industries are largely labor-intensive and provide employment for the people (Lv & Xu, 2017). It is one of the main sources of revenue for developing countries. Tourism also invites foreign direct investment into a country's infrastructure and businesses (Das & DiRienzo, 2010).

In this paper, I analyze the relationship between tourism and another determinant, corruption. Theoretically, the literature does not provide a consensus on the relationship between corruption and tourism. For example, in Nigeria, paying a bribe to the right official can get a potential tourist out of cumbersome and bureaucratic regulations. Alternatively, "...corruption [can] have the same effect as a tax, implying that tourists incur additional costs in travelling to more corrupt countries, without any additional benefits" (Poprawe 2015).

Empirically, in the tourism field, the impact of corruption on tourism isn't clear cut. Poprawe (2015) investigated the effect of corruption on tourism and found that a reduction in the perceived levels of corruption leads to an increase in tourist inflows. She found that corruption has a negative impact on tourism demand. Other studies such as Yap and Saha (2013), Das and DiRienzo (2010) also agree that corruption negatively affects tourism. However, Yap and Saha (2013) suggest that tourist destinations that have UNESCO approved historical and natural heritage sites would not have their tourism demand reduce with an increase in corruption. On the other hand, Lv and Xu (2017) and Saha and Yap (2015) find that up to a certain threshold corruption positively impacts tourism demand and after that, it negatively affects tourism demand.

I believe this is the first paper that looks into how corruption impacts tourism demand across democracies versus non-democracies. Specifically, I examine how corruption impacts tourism demand across democracies and non-democracies using panel data for 194 countries over the period 1996 – 2016. I find that corruption has a negative impact on tourist arrivals. In democratic countries, a one-point increase in the corruption index (implying less corruption) increases tourist arrivals by 8.57%. In non-democratic countries, I find that corruption has a statistically insignificant effect to tourist arrivals.

The rest of the paper is structured as follows. Section II will cover the literature review and the hypothesis. Section III will go over the data and model used in this model. The statistical results will be discussed in Section IV. Concluding remarks will follow in Section V.

## II. Literature Review and Hypothesis

The literature on the impact of corruption on tourism demand is far from conclusive. Corruption has been shown to affect tourism both positively and negatively in many different ways. The tourism industry is made up of different stakeholders; from the government, to firms, to potential tourists themselves. To understand the impact of corruption on the tourism industry, it is important to see how these individual players are affected by corruption. Corruption can encourage business because it increases the exchanging of money and speeds up business which ends up boosting tourism demand (Poprawe, 2015). Another way in which corruption can positively impact tourism is as a result of bribes. When people know that they can get bribes as a result of their work, they work harder so that they can get more bribes (Saha and Yap, 2013).

In countries that are overwhelmed by regulations, corruption can actually be very helpful for firms in the tourism industry. Bicchieri and Duffy (1997) argue that corruption can be beneficial by speeding up processes and sidestepping difficult regulations. In addition, according to Saha & Yap (2015), government employees in the public sector usually work harder if they ask for bribes. Regulations can constrict business and when firms can bypass extreme regulations by paying bribes to necessary officials, business works better. Also, corruption “facilitate(s) entrepreneurial activity” which leads to an increase in the speed of money and the speed of doing business (Poprawe, 2015). This means that corruption helps businesses run faster as activities can be done quicker. This results in the following hypothesis:

*H1: Corruption is beneficial to the tourism industry, therefore, countries with higher levels of corruption will receive more tourists than countries with lower levels of corruption*

On the other hand, there are many ways that corruption negatively impacts tourism. Contrary to the suggestion that people work harder when they’re expecting bribes, it has also been found that people work slower when they expect bribes so that they can get even more bribes to expedite the process even a little bit (Myrdal 1968). Corruption increases the uncertainty of tourists and increases the risks they have to undertake. All of that negatively affects the image of the tourist destination, which makes them more likely to switch to an alternative destination. For example, if a tourist wants to visit Nigeria, but knows that he would have to pay a bribe to be ensured of the safety of his luggage, that reduces the attractiveness of Nigeria as a tourist destination in his/her eyes. The tourist is more likely to switch his tourist destination.

Corruption interrupts the business and economic factors that are essential for the tourism industry to be successful. On the government level, corruption may negatively impact the tourism industry. Corrupt governments often circumvent resources that are supposed to go towards the tourism industry for personal gain. A corrupt government might not take the initiative to address important issues that affect the tourism industry. For example, in Kenya, the corrupt government refused to fix the environmental problems it had which derailed the Kenya’s then growing ecotourism industry (Saha and Yap, 2013). People are discouraged from investing

in the tourism industry in corrupt countries because heavily corrupt countries can be politically unstable prompting rapid changes in political regimes and making the economy very unpredictable.

Resources that are supposed to go towards infrastructure and tourism development are often diverted for personal gain by corrupt governments. For example, in the tourism industry in Belize, the elites use the industry and other resources under their command to pursue personal ambitions, both legal and illegal (Duffy 2000). According to Das & DiRienzo (2010), misallocation of resources and general corruption make it harder to conduct business or even enter the market. This is because the presence of corruption through the form of bribery or approval of inefficient projects raise the costs involved and reduce the incentive for members of the market. Corrupt governments also may not enforce regulations that help the tourism industry. Tosun and Timothy (2001) state that corruption would lead to shorter political regimes, which would create political instability that would make doing business more expensive and discourage investment. In such situations, the business climate can be toxic. Political instability creates uncertainty which scares potential investors away.

In addition, Das and DiRienzo (2010) find that corruption negatively affects a country's image or brand. The image of a country is what potential tourists are attracted to. Corruption affecting the image directly affects the number of potential tourists. Corruption also increases the uncertainty of tourists and increases the risks they have to undertake. For example, according to Poprawe (2015), going to the Caribbean and paying someone to 'watch one's bags' which is just a way to ensure said person does not steal one's bags. This form of corruption discourages potential tourists. Forms of corruption like bribery can create extra costs, which act like a tax. According to Lv and Xu (2017), potential tourists do not want to pay the additional costs, this tax, that corruption brings up. This leads to the following hypothesis:

*H2: Corruption adversely affects the tourism industry, therefore, countries with lower levels of corruption will receive more tourists than countries with higher levels of corruption.*

Arguably, the impact of corruption on tourism may differ in democracies versus non-democracies. In democratic countries, corruption can be reported and exposed to the right authorities which would ensure that corruption would be punished. In non-democratic countries, corruption might go undetected or might even be brazenly accepted. This which has led me to hypothesize:

*H3: Corruption affects the tourism industry in democracies differently than it does the tourism industry in non-democracies.*

### **III. Data and Empirical Model**

I used a panel set of tourist arrivals for 194 countries from 1996 to 2016. The measure of corruption comes from the Worldwide Governance Indicators (WGI) which covers six different institutions (Kaufmann et al, 2011). The one of attention in this paper is control of corruption which is defined as the perception of the level of corruption in a society. This includes "both petty and grand forms of corruption, as well as 'capture of the state by elites and private

interests” (Kaufmann et al, 2011). Several individual variables from different data sources were used to create the control of corruption measure, some of these include: corruption among public officials; public trust in politicians; anti-corruption policy and many others.

Corruption can be defined as “the extent to which public power is exercised for private gain”. (Kaufmann et al, 2011). For example, an elected politician offering government contracts to private corporations for a cut of the fee. Another definition describes corruption as “the illegitimate use of public roles and resources for private benefit” (Bicchieri and Duffy, 1997). The corruption variable used in this paper is the Control of Corruption variable from Worldwide Governance Indicators databank. The measure captures perceived corruption. This works great for this study because potential tourists consider their perceptions of corruption levels not actual corruption levels. The scale goes from -2.5 to 2.5. The measure is created using 23 different variables from various sources such as Economist Intelligence Unit Riskwire & Democracy Index to show corruption among public officials and Political Risk Services International Country Risk Guide’s measure of corruption.

Raw data on the dependent variable, tourist arrivals, is obtained from the World Bank’s World Development Indicators databank. The databank provides data on departures and tourism receipts as a percentage of total exports as well as arrivals. Data for geographic controls is collected from Gallup. This includes variables such as a dummy indicating if the country is landlocked or not, a variable that gives the average distance to the nearest coast. Economic variables such as GDP per capita, annual GDP growth rates are collected from the Penn World Table data. Penn World Table provides real variables as well as nominal variables. The raw democracy data was collected from Cheibub, Gandhi and Vreeland’s dataset. Cheibub et al classifies 202 countries from 1946. The authors assigned a 1 to countries that are democratic and a 0 to countries that are not democratic.

The following equation will be estimated:

$$Tourism_{it} = \beta_0 + \beta_1 Corruption_{it} + X_{it} + \varepsilon_{it} + u_{it} \text{ for } t = 1, \dots, T \text{ and } i = 1, \dots, N$$

In this equation,  $Tourism_{it}$  is the log tourist arrivals into a country,  $i$  is country,  $t$  is time,  $Corruption_{it}$  is the measure of perceived corruption in country  $i$  and year  $t$ , and  $X_{it}$  represents a set of control variables.  $\varepsilon$  is the error term.

#### IV. Results

To simply analyze the relationship between tourist arrivals and corruption, Figure 1 shows a scatter diagram plotting log tourism against the corruption variable. As Figure 1 shows, there is a positive relationship between corruption and tourism. Less corruption seems is associated with the tourism industry. As can be seen in Figure 2 and 3, this relationship holds true for both democratic countries and non-democratic countries. A simple OLS regression of corruption and the log of tourism with time effects gives corruption a positive coefficient of 0.225 with a  $R^2$  of 0.46. This also is in line with the results of the scatter plot diagrams. It is important to account for other determinants of tourism before drawing any strong conclusions about these correlations.

Table 7 shows all the different regressions run. The first three columns describe the results of three regressions that have either time-variant variables or fixed effects or none of them. In all these specifications, the corruption variable remains statistically significant. The fourth column contains the results of the regression of log tourist arrivals on corruption. This is without any controls but it is a fixed effects regression with time-variant variables. The positive coefficient of the corruption variable is 0.188. This means that that a one-point increase in the corruption index (implying less corruption) increases tourist arrivals by 18.8%. After adding controls of GDP per capita, GDP growth rate, population, and exchange rate, the corruption coefficient remained statistically significant. The values of the corruption coefficient from all the regression models range from 0.113 to 0.189. The log GDP per capita variable was also significant in all specifications. As expected, the coefficient was always positive, meaning that richer countries attract more tourists. In addition, the log population also had a positive coefficient and was significant in every specification. However, the GDP growth rate and the log exchange rate were not statistically significant.

Looking at Table 2, we can see that in democratic countries, the corruption, log GDP per capita, GDP growth rate, log population, and log exchange rate variables are all significant in explaining tourist arrivals at different levels in most of the specifications. None of the signs on the coefficients changed. Looking at the corruption variable particularly, the coefficient ranges from 0.0555 to 0.122. This means that in democratic countries, a one-point increase in the corruption index (implying less corruption) will lead to an increase of 5.55% to 12.2% of tourist arrivals, depending on the specification.

However, for non-democratic countries, Figure 3 shows that the story changes completely. Corruption is only significant for four of the specifications. When the model contains all the controls, corruption is no longer significant. The only control variables that are significant in all specifications are the log population and GDP per capita variables. The sign on the log exchange rate variable changes from positive to negative, implying that in non-democratic countries, if the currency appreciates, tourist arrivals go down. However, this variable is still not significant. The results show that corruption is more significant to the tourism industry in democratic countries rather than non-democratic countries.

The results support literature that claims that corruption negatively impacts the tourism industry. An increase in the Control of Corruption variable by one would lead to a 11.3% – 18.8% increase in tourist arrivals across all various specifications. The results show that corruption has a negative and statistically significant effect on tourist arrivals only in democratic countries, this effect is limited or statistically insignificant in non-democratic countries.

## V. Conclusion

This paper looked into the impact of corruption on tourism industries worldwide. To do this, a panel data set of 194 countries from 1996 to 2016 was used. The results seem to support literature that suggests that corruption has a detrimental impact on tourism. We can see that a one-point increase in the corruption index (implying less corruption) *ceteris paribus* increases tourist arrivals by between 11.3% to 18.8%. The paper also dove into the different impact corruption has on democratic countries versus non-democratic countries. It finds that corruption is more significant to tourism in democratic countries rather than non-democratic countries. This

could be because in democratic countries, corruption isn't as expected or tolerated as in non-democratic countries and so it is more of a deterrent in democratic countries rather than in non-democratic countries. Many non-democratic countries are developing countries, constantly trying to grow and improve the lives of their people. The tourism sector can be an incredibly important one economically. Governments in developing countries should look to target the corruption that plagues their societies to help grow their tourism industries.

## VI. References

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Fig. 1. The relationship of corruption and the log of tourist arrivals

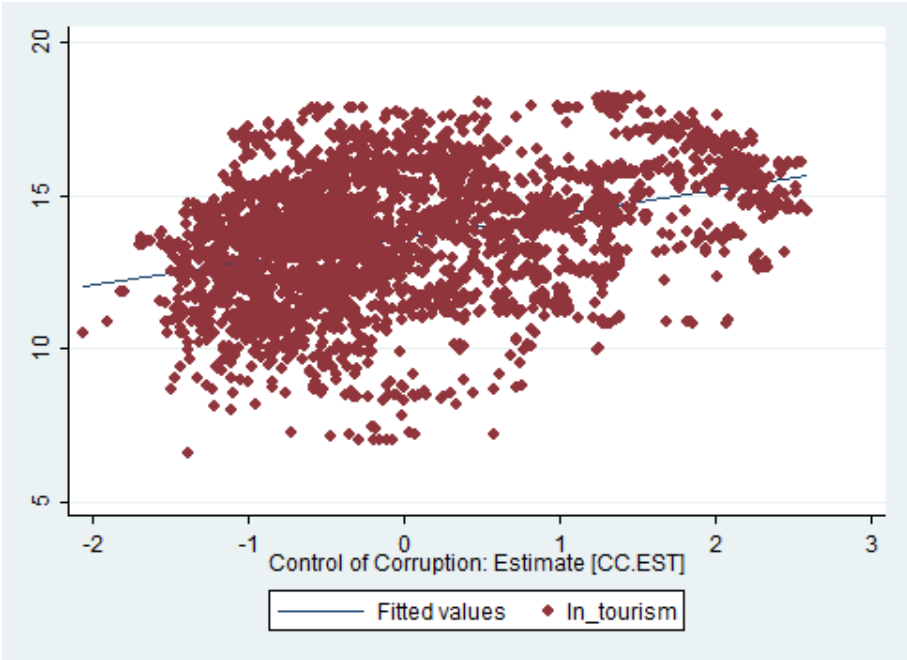


Fig. 2. The relationship of corruption on the log of tourist arrivals in democratic countries

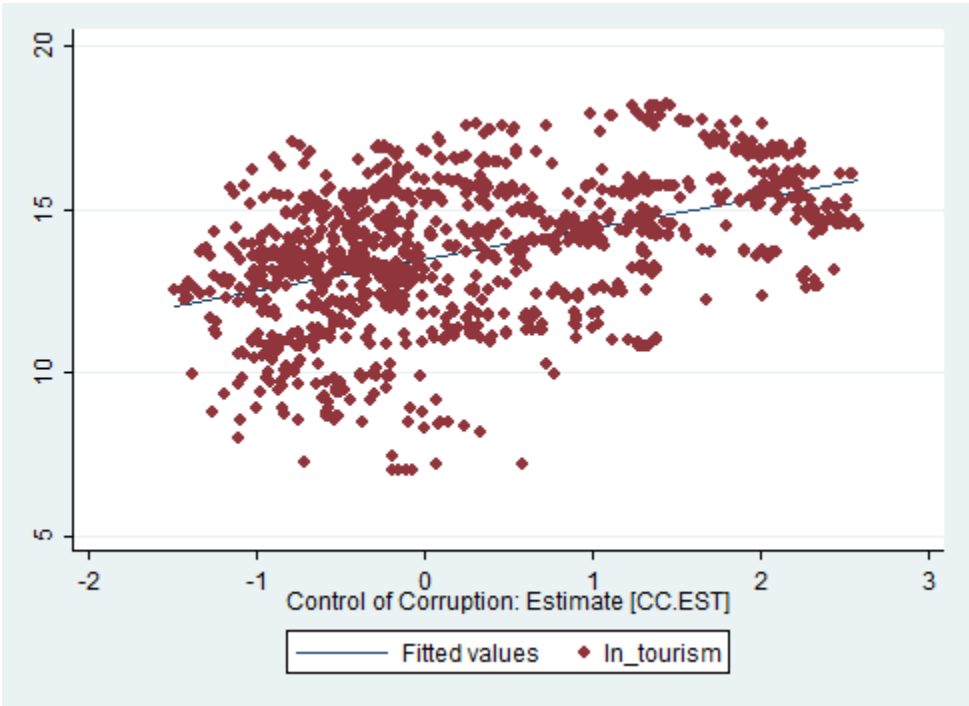




Fig. 3. The relationship of corruption on the log of tourist arrivals in non-democratic countries

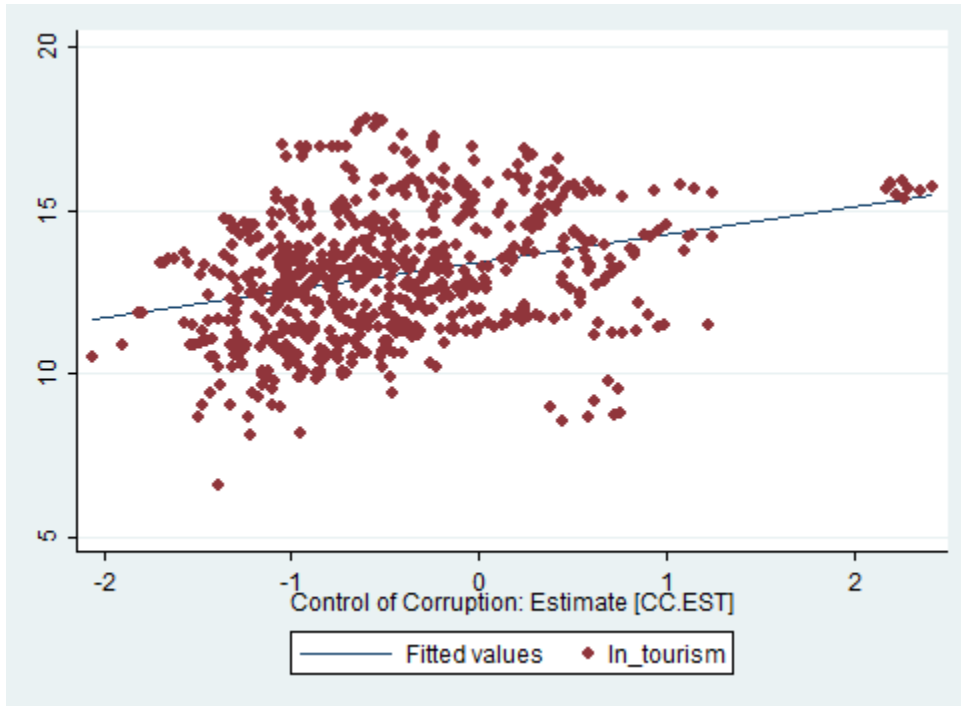


Table 1: Regression estimates (dependent variable: log of tourist arrivals): Full sample.

	1	2	3	4	5	6
Corruption	0.785*** (0.00)	0.225*** (0.00)	0.149*** (0.001)	0.188*** (0.00)	0.113*** (0.00)	0.126*** (0.00)
GDP per capita					0.97*** (0.00)	1.03*** (0.00)
GDP growth rate						0.00136 (0.501)
Population						1.23*** (0.00)
Exchange rate						0.0328 (0.108)
R-squared	0.139	0.46	0.0042	0.46	0.51	0.53
N	3084	3084	3084	3084	3011	2577
Countries	194	194	194	194	192	170
Time effects	x	✓	x	✓	✓	✓
Country effects	x	x	✓	✓	✓	✓

Notes: \* p < 0:10, \*\* p < 0:05, \*\*\* p < 0:01.

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Table 2. Regression estimates (dependent variable: log of tourist arrivals): democratic countries.

	1	2	3	4	5	6
Corruption	0.956*** (0.00)	0.159*** (0.00)	0.16*** (0.003)	0.115*** (0.005)	0.0555 (0.135)	0.0857*** (0.029)
GDP per capita					1.29*** (0.00)	1.53*** (0.00)
GDP growth rate						0.00655** (0.014)
Population						0.981*** (0.00)
Exchange rate						0.122*** (0.00)
R-squared	0.201	0.427	0.221	0.427	0.532	0.777
N	1041	1041	1041	1041	1029	954
Countries		118	118	118	117	107
Time effects	x	✓	x	✓	✓	✓
Country effects	x	x	✓	✓	✓	✓

Notes: \* p < 0:10,  
\*\* p < 0:05, \*\*\* p  
< 0:01.

Table 3. Regression estimates (dependent variable: log of tourist arrivals): non-democratic countries.

	1	2	3	4	5	6
Corruption	0.861*** (0.00)	0.321*** (0.00)	0.00923 (0.926)	0.273*** (0.001)	0.269*** (0.001)	0.123 (0.177)
GDP per capita					0.272* (0.083)	0.428** (0.018)
GDP growth rate						0.000435 (0.933)
Population						1.85*** (0.00)
Exchange rate						-0.0475 (0.172)
R-squared	0.101	0.378	0.112	0.379	0.371	0.426
N	669	669	669	669	654	598
Countries		87	87	87	86	80
Time effects	x	✓	x	✓	✓	✓
Country effects	x	x	✓	✓	✓	✓

Notes: \* p < 0:10, \*\* p < 0:05, \*\*\* p < 0:01.

**Appendix**

Table A1. Variable names, descriptions and source.

VARIABLE	DESCRIPTION	SOURCE
TOURISM	Log number of tourist arrivals	WDI
CORRUPTION	Estimate of the control of corruption	WGI
GDP PER CAPITA	Log GDP per capita in constant 2010 U.S. dollars	WDI
GDP GROWTH RATE	Annual GDP growth rate	WDI
POPULATION	Log total population	WDI
EXCHANGE RATE	Log exchange rate, local currency/USD	Penn World Table

Table A2. List of countries.

Albania	Algeria*	American Samoa	Andorra	Angola*	Antigua and Barbuda	Argentina
Armenia	Aruba	Australia	Austria	Azerbaijan*	Bahamas	Bahrain*
Bangladesh*	Barbados	Belarus*	Belgium	Belize	Benin	Bermuda
Bhutan*	Bolivia	Bosnia and Herzegovina*	Botswana*	Brazil	Brunei Darussalam*	Bulgaria
Burkina Faso*	Burundi*	Cabo Verde	Cambodia*	Cameroon*	Canada	Cayman Islands
Central African Republic*	Chad*	Chile	China*	Columbia	Comoros*	Congo Dem. Reo.*
Congo Rep*	Costa Rica	Cote d'Ivoire*	Croatia	Cuba*	Cyprus	Czech Republic
Denmark	Djibouti*	Dominica	Dominican Republic	Ecuador	Egypt, Arab Rep.*	El Salvador
Eritrea*	Estonia	Ethiopia*	European Union	Fiji*	Finland	France
Gabon*	Gambia*	Georgia*	Germany	Ghana	Greece	Grenada
Guam	Guatemala	Guinea*	Guinea-Bissau	Guyana*	Haiti*	Honduras
Hong Kong SAR., China	Hungary	Iceland	India	Indonesia*	Iran*	Iraq*
Ireland	Israel	Italy	Jamaica	Japan	Jordan*	Kazakhstan*
Kenya*	Kiribati	Korea, Rep.	Kuwait*	Kyrgyz Republic*	Lao PDR*	Latvia
Lebanon*	Lesotho*	Libya*	Liechtenstein	Lithuania	Luxembourg	Macao SAR, China
Macedonia, FYR	Madagascar	Malawi	Malaysia*	Maldives*	Mali	Malta
Marshall Islands	Mauritania*	Mauritius	Mexico*	Micronesia, Fed. Sts.	Moldova	Mongolia
Montenegro*	Morocco*	Mozambique*	Myanmar*	Namibia*	Nepal*	Netherlands
New Zealand	Nicaragua	Niger*	Nigeria*	Norway	Oman*	Pakistan*
Palau	Panama	Papua New Guinea	Paraguay	Peru*	Philippines	Poland

Portugal	Puerto Rico	Qatar*	Romania	Russian Federation*	Rwanda*	Samoa*
Sao Tome and Principe	Saudi Arabia*	Senegal*	Serbia	Seychelles*	Sierra Leone	Singapore*
Slovak Republic	Slovenia	Solomon Islands	South Africa*	Spain	Sri Lanka	St. Kitts and Nevis
St. Lucia	St. Vincent and the Grenadines	Sudan*	Suriname	Swaziland*	Sweden	Switzerland
Syrian Arab Republic*	Tajikistan	Tanzania*	Thailand*	Timor-Leste	Togo*	Tonga*
Trinidad and Tobago	Tunisia*	Turkey	Turkmenistan*	Tuvalu	Uganda*	Ukraine
United Arab Emirates*	United Kingdom	United States	Uruguay	Uzbekistan*	Vanuatu	Venezuela
Vietnam*	Virgin Islands (U.S.)	Yemen*	West Bank and Gaza	Zambia*	Zimbabwe*	

Notes: Countries that are starred were classified non-democratic at some point during 1996 – 2016. Because countries are starred does not mean that they have been non-democratic throughout the time period used in this study. It just means they have been identified to be non-democratic at any point during the time period.