

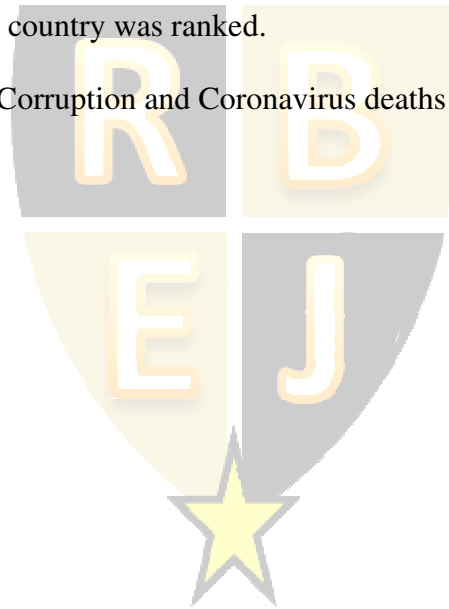
## Effect of Taxation, Corruption and Coronavirus deaths on Economic growth

Loretta Baryeh  
Coppin State University

### ABSTRACT

Massive disruptions to the economy coupled with destabilization ensued as a result of the corona virus pandemic in 2020. Corruption had affected various economies around the world long before the pandemic. This paper was a descriptive study that examined taxation, corruption, deaths due to Covid 19 and economic growth. It was found that countries ranked as least corrupt had less coronavirus deaths. Countries ranked as highly corrupt had more deaths due to covid 19. With respect to economic growth, all countries whether corrupt or not were similarly affected by a negative change in (Gross Domestic Product) GDP. The negative change was a bit more pronounced for countries with more deaths due to covid 19. Tax as a percentage of GDP in 2020 was greater the less corrupt the country was ranked.

Keywords: Economic growth, Corruption and Coronavirus deaths



Copyright statement: Authors retain the copyright to the manuscripts published in AABRI journals. Please see the AABRI Copyright Policy at <http://www.aabri.com/copyright.html>

## INTRODUCTION

Corruption has been a lingering problem for many countries over long periods of time. It involves the misuse and manipulation of public property for individual gratification. Corruption negatively affects economic development due to misallocation of public resources which impacts citizens and the economy negatively. While economies around the world were battling corruption, the coronavirus pandemic erupted with a vengeance around the world in 2020.

The virus caused illnesses that was very contagious and deadly, so most countries resorted to lockdowns, extreme sanitization, social distancing and other measures to curtail the spread. The illnesses as well as the measures taken to curtail it were not only costly but also led to loss of revenue and economic stagnation for most countries around the world. Apart from the medical and pharmaceutical industries most other industries were affected negatively. Social activities came to a standstill and this impacted mental health and other forms of productivity.

The pandemic led to a global crisis and since corruption had already been adversely affecting various economies this study seeks to find out if corruption exasperated covid 19 deaths and how economies responded. The motivation for this study was that prior studies have shown that corruption leads to inefficiency and since countries that were more corrupt were run inefficiently this inefficiency would spill over to the management and response of the pandemic. Will countries ranked as more corrupt have more deaths due to covid 19 than countries ranked as less corrupt? The results of the study would enable regulatory bodies in enacting laws and policies that would reduce inefficiencies and curtail corruption. This study examined taxation, corruption, deaths due to Covid 19 and economic growth. It was found that the least corrupt countries had less coronavirus deaths. Corrupt countries had more deaths due to covid 19. With respect to economic growth, all countries whether corrupt or not were similarly affected by a negative change in gdp. The negative change was a bit more pronounced for countries with more deaths due to covid 19. Tax as a percentage of GDP, was greater for countries ranked as less corrupt.

The paper proceeds with Section 2 literature review; 3 and 4 Methodology and Results while the last section presents the Conclusion.

## LITERATURE REVIEW

Elmukhtar & Saeh (2013) concluded that corruption harmed the economy. Even though some scholars were of the opinion that an obstacle to economic development was corruption others thought that corruption could sometimes help growth. It was also found that corruption impeded investment. Corruption negatively impacted economic growth and foreign direct investment. The study did not find evidence to uphold the “greasing of wheels hypothesis” of corruption but concluded that the economy is rather harmed by corruption.

Chiung-Ju Huang, (2016) used the “bootstrap panel Granger approach” to determine if corruption impeded economic growth in Asian countries. It was found empirically that there was positive significant causality between economic growth and corruption for China while for South Korea there was a positive significant causality for corruption to economic growth. The results showed that for most Asian countries anti-corruption policies used to promote economic growth was ineffective. Results do not support the notion that corruption impeded economic development for all 13 countries in the sample.

According to Krastev, Vladislav, et al. (2020) corruption still influenced modern

economies despite strategies to limit it; moreover, corruption still existed in societies in most countries. Corruption was undesirable due to its negative effects on society. It imbalanced public wealth distribution and negatively affected the economy and efficiency of governmental institutions. The study assessed the impact of corruption on the Bulgarian economy and found that corruption existed and threatened businesses. They concluded that corruption impacted businesses negatively. They recommended anti-corruption measures and regulations, investigation of corruption cases and other measures to reduce insecurity caused by corruption.

According to Fernandes, Nuno, (2020) each added month during the pandemic led to 3% of GDP loss globally. Economies that were service-based were more negatively impacted by the pandemic with more job losses. Spain, Portugal and Greece which depended highly on tourism about 15% of GDP were expected to be hit harder. Apart from these sectors the pandemic was causing spillover effects to other parts of the economy due to disruptions in the supply chain. The study noted that the economic effect of the pandemic was being underestimated because of comparisons to the 2008 financial crisis as well as SARS.

Abodunrin, Oyinlola, et al. 2020. found that the pandemic caused massive disruptions to economic development and growth. The study recommended that measures must be put in place to alleviate hardships caused by the pandemic.

## METHODOLOGY

Out of the countries listed as corrupt on Transparency International, the least corrupt countries were chosen by their rank on the Corruption Perception Index (CPI) from Transparency International; (Table 1). CPI is a composite index of rank and score due to public sector perception of a country based on 13 surveys and assessments compiled by reputable institutions. The compilation represented the informed view of businesspeople, experts and analyst worldwide and does not capture the realism of corruption. Tax as a percentage of GDP was obtained from Heritage.org (2020) for the countries under study.

The covid 19 cases and deaths were obtained from the real data covered by, Henrik Patterson, Byron Manley and Sergio Hernandez 2021 and reported on January 11, 2020 from the Johns Hopkins data. The actual covid 19 cases and deaths were obtained and to scale for size the cases as well as the deaths were obtained per 100 000 cases. To determine the countries affected most by the pandemic countries with more than 50 000 real deaths were obtained and to scale for size the deaths per 100 000 cases were obtained (Table 2). To further analyze countries affected the most by covid 19 deaths countries with more than 100 deaths per 100 000 people was also obtained: (Table 3).

The real Gross Domestic Product (GDP) change was obtained from the International Monetary Fund's (IMF) data for the change between 2019 to 2020. This is the closest data for before and during the pandemic.

## RESULTS

Table 1 shows the 20 least corrupt countries according to the CPI rank. Germany and Luxemburg tied for the rank of 9, while United Kingdom, Canada, Australia and Austria tied for 12. Ireland and Estonia tied for 18. Least corrupt countries all had negative real GDP growth which ranged between -2.8 Norway to -9.8 UK. Death per 100 000 was between 1; Singapore and 176; Belgium. Only two countries had more than 100 deaths per 100 000 people. UK 122

and Belgium 176. All other countries in the least corrupt group had less than 100 cases per 100 000 people. Tax as a percentage of GDP in 2020 was greater the less corrupt the country was ranked. Denmark had the highest 46% of GDP and was ranked as least corrupt on the CPI. Apart from Singapore which had a rate of 14.1 % of GDP and ranked 4 on the CPI, the top 20 least corrupt countries tax as a percentage of GDP generally decreased as the rank on CPI increased; Table 1.

Table 2 shows the countries with the highest number of deaths due to covid 19. Table 2 shows that these countries were very corrupt. Apart from UK none of these countries ranked in the least 20 corrupt countries. A third of this sample were extremely corrupt, ranking more than 100 on the CPI with Iran being the most corrupt with a CPI score of 146. Additionally, it was found that all these countries had negative real GDP change ranging from -4.1 Russia to Spain -12.8.

Table 3 shows countries with more than 100 deaths per 100 000 people. Apart from Belgium and UK none of these countries ranked in the least 20 corrupt countries. Five of these countries were extremely corrupt with a CPI rank of more than 100; with Mexico being the most corrupt with a CPI rank of 130. United States had the most raw cases with over 22 million cases and the most deaths with over 374 000. Belgium had the highest deaths per 100 000; (176).

All the countries with more than 100 deaths per 100000 had negative real GDP change ranging from -4 Bulgaria to -12.8 Spain

## CONCLUSION

This paper investigated the deaths due to Covid 19 and corruption for various economies around the world. It was found that while the least corrupt countries had less coronavirus deaths; the most corrupt countries had more deaths due to covid 19. With respect to economic development all countries whether corrupt or not were similarly affected by a negative change in economic growth measured by real change in GDP. The negative change was however more definitive for countries with more deaths due to covid 19.

Further studies will investigate if there is a correlation between the rank on the corruption perception index and covid 19 deaths. Future studies will also investigate whether there was a significant change between tax as percentage of GDP for the year before the pandemic as compared to the year of the pandemic. Additionally, policies that were in place in less corrupt countries that experienced less covid 19 deaths can be modified and adapted for others to prevent the devastating effects of the such occurrences.

**REFERENCES**

Abodunrin, Oyinlola, Gbolahan Oloye, And Bola Adesola. (2020) “Coronavirus Pandemic And Its Implication On Global Economy.” International Journal of Arts, Languages and Business Studies (IJALBS), Vol.4; March, 2020; pg. 13-23.

Ertimi, Basem Elmukhtar & Mohamed Ali Saeh (2013) “The Impact of Corruption on Some Aspects of the Economy” International Journal of Economics and Finance Vol. 5, No. 8, pp. 1-8.

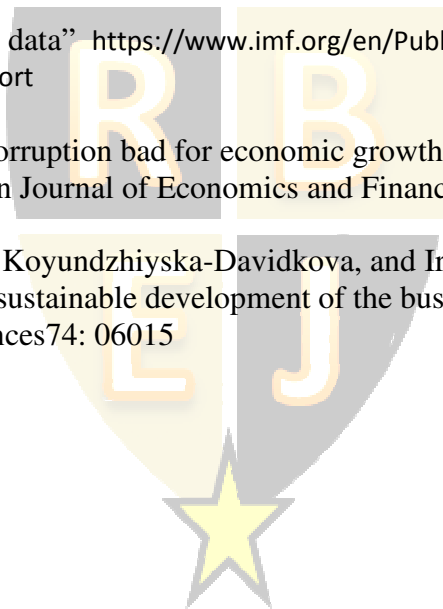
Fernandes, Nuno, Economic Effects of Coronavirus Outbreak (COVID-19) on the World Economy (March 22, 2020). IESE Business School Working Paper No. WP-1240-E, Available at SSRN: <https://ssrn.com/abstract=3557504> or <http://dx.doi.org/10.2139/ssrn.3557504>

Henrik Pettersson, Byron Manley and Sergio Hernandez. 2021 CNN Last updated: January 11, (2021) at 11:00 a.m. ET Sources: Johns Hopkins University Center for Systems Science and Engineering. Population data from World Bank and United Nations

Heritage.org (2020). “Heritage data” <https://www.imf.org/en/Publications/WEO/weo-database/2020/October/weo-report>

Huang, Chiung-Ju (2016) “Is corruption bad for economic growth? Evidence from Asia-Pacific countries,” The North American Journal of Economics and Finance, Volume 35, Pages 247-256,

Krastev, Vladislav, Blagovesta Koyundzhiyska-Davidkova, and Irina Atanasova. (2020). The impact of the corruption on the sustainable development of the businesses in South-West Bulgaria. SHS Web of Conferences 74: 06015



**APPENDIX**

Table 1: 20 Least corrupt countries

Country	Actual Covid Cases	Covid cases.per 100 000 people	Actual Deaths	Death per 100 000 people	CPI score 2019	CPI Rank	Real GDP growth annual percent change	Tax as a % of GDP 2020
Denmark	182,725	3,152	1,597	28	87	1	-4.5	46
Finland	38,790	703	586	11	86	3	-4	43.3
Sweden	489,471	4,807	9,433	93	85	4	-4.7	44
Switzerland	484,506	5,689	8,324	98	85	4	-5.3	28.5
Singapore	58,929	1,045	29	1	85	4	-6	14.1
Norway	55,474	1,044	478	9	84	7	-2.8	38.2
Netherlands	878,263	5,097	12,411	72	82	8	-5.4	38.8
Germany	1,936,070	2,335	40,971	49	80	9	-6	37.5
Luxembourg	47,744	7,856	527	87	80	9	-5.8	38.7
United Kingdom	3,072,349	4,621	81,431	122	77	12	-9.8	33.3
Canada	665,951	1,797	16,970	46	77	12	-7.1	32.2
Austria	382,258	4,321	6,747	76	77	12	-6.7	41.8
Australia	28,614	114	909	4	77	12	-4.2	27.8
Belgium	664,263	5,816	20,078	176	75	17	-8.3	44.6
Ireland	147,613	3,041	2,344	48	74	18	-3	22.8
Estonia	33,805	2,559	287	22	74	18	-5.2	33.0
Japan	293,707	232	3,894	3	73	20	-5.3	30.6

Table 2: Countries with More than 50 000 real deaths

Country	Covid Cases	Covid cases. per 100 000 people	Deaths	Death per 100 000 people	CPI score 2019	Rank	Real GDP growth annual percent change
United States	22,423,006	6,854	374,442	114	69	23	-4.3
Brazil	8,105,790	3,870	203,100	97	35	106	-5.8
India	10,466,595	774	151,160	11	41	80	-10.3
Mexico	1,534,039	1,216	133,706	106	29	130	-9
United Kingdom	3,072,349	4,621	81,431	122	77	12	-9.8
Italy	2,276,491	3,767	78,755	130	53	51	-10.6
France	2,777,921	4,147	67,380	101	69	23	-9.8
Russia	3,389,733	2,346	61,389	42	28	137	-4.1
Iran	1,292,614	1,580	56,262	69	26	146	-5
Spain	2,050,360	4,388	51,874	111	62	30	-12.8



Table 3: Countries with More than 100 deaths per 100 000 people

Country	Covid Cases	Covid cases.p er 100 000 people	Deaths	Death per 100K people	CPI score 2019	Ran k	Real GDP growth annual percent change
Belgium	664,263	5,816	20,078	176	75	17	-8.3
Slovenia	139,707	6,758	3,022	146	60	35	-6.7
Italy	2,276,491	3,767	78,755	130	53	51	-10.6
Bosnia– Herzegovina	115,633	3,479	4,330	130	36	101	-6.5
North Macedonia	86,494	4,152	2,622	126	35	106	-5.4
Czech Republic	835,454	7,863	13,272	125	56	44	-6.5
United Kingdom	3,072,349	4,621	81,431	122	77	12	-9.8
Peru	1,026,180	3,208	38,049	119	36	101	-13.9
Bulgaria	208,511	2,968	8,126	116	43	74	-4
Montenegro	52,431	8,425	725	116	45	66	-12
United States	22,423,006	6,854	374,442	114	69	23	-4.3
Spain	2,050,360	4,388	51,874	111	62	30	-12.8
Hungary	343,656	3,518	10,725	110	44	70	-6.1
Croatia	220,223	5,385	4,403	108	47	63	-9
Panama	279,196	6,684	4,455	107	36	101	-9
Mexico	1,534,039	1,216	133,706	106	29	130	-9
France	2,777,921	4,147	67,380	101	69	23	-9.8
Argentina	1,722,217	3,871	44,495	100	45	66	-11.8