Corruption Perceptions During the Pandemic
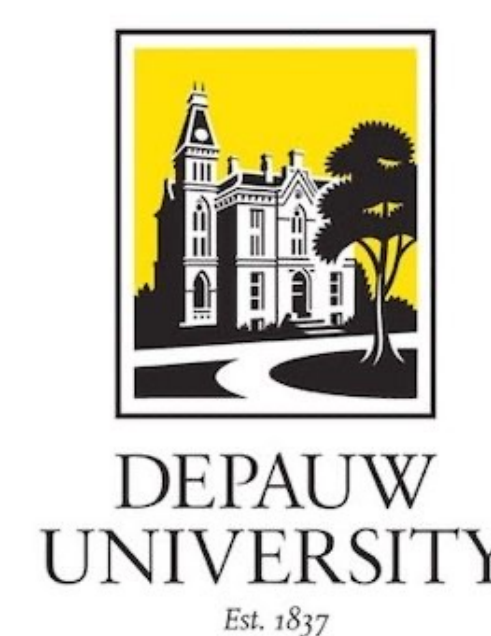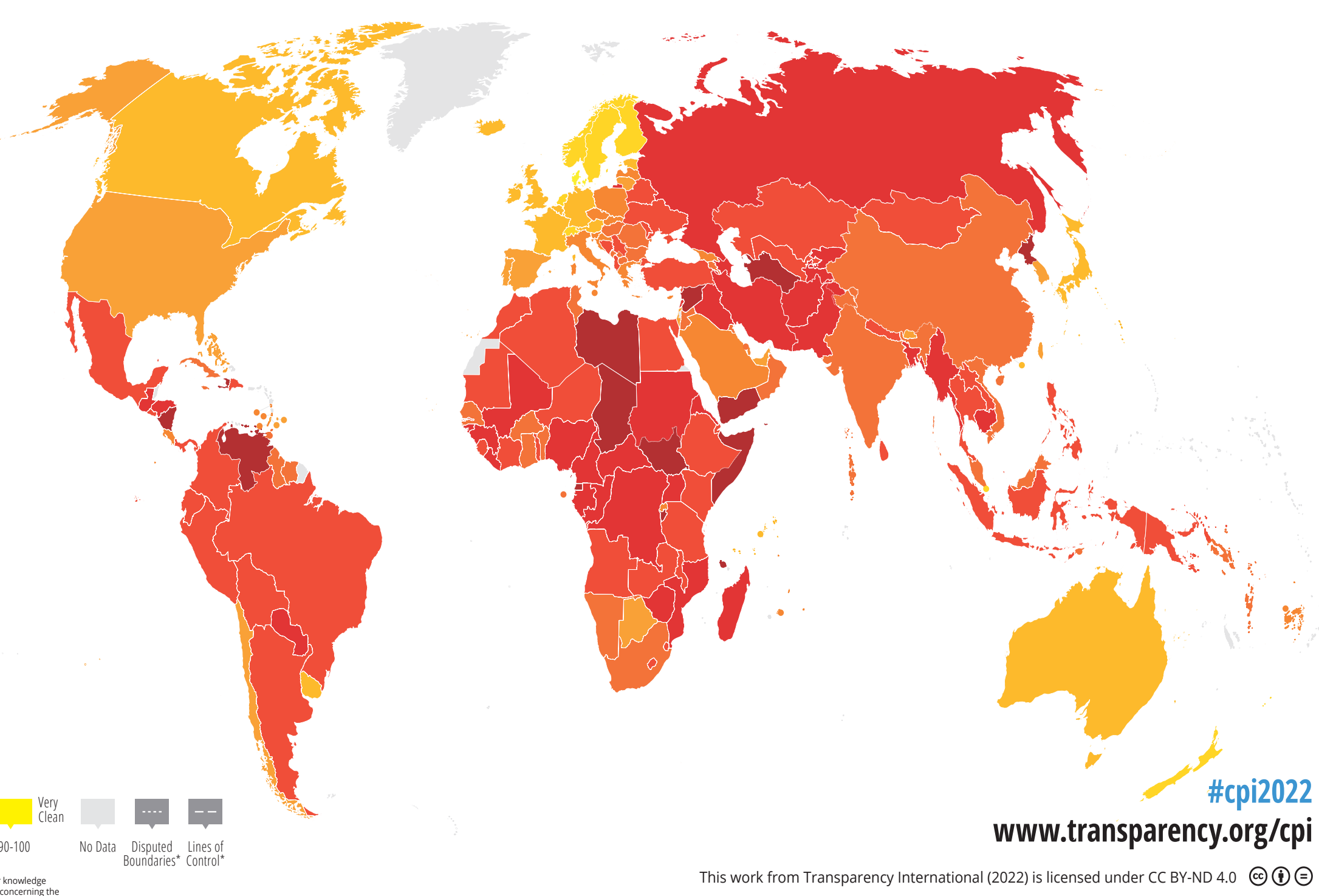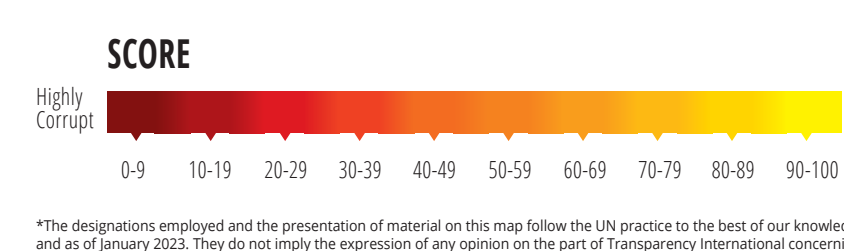
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TRANSPARENCY INTERNATIONAL
the global coalition against corruption

CORRUPTION PERCEPTIONS INDEX 2022

The perceived levels of public sector corruption in 180 countries/territories around the world.

SCORE

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Did the World Become More Corrupt during the Pandemic?

Measure of Corruption

We decided to choose perceived level of corruption assessed by people as our measure of corruption. This study focuses on the two most widely used cross-country corruption perception indices, the Control of Corruption measure from the World Bank's Governance Indicators (WGI-CC) and the Corruption Perception Index measures from Transparency International (TI-CPI). **Here is a brief comparison:**

1. WGI-CC sources data from **a diverse range of respondents**, including both experts and the general public, while TI-CPI exclusively relies on **expert opinions**

2. WGI-CC covers data from up to **200 nations**, whereas TI-CPI covers **180 nations**

3. Both organizations **do not directly conduct the surveys** but obtain data from distinct sources responsible for survey administration

4. WGI-CC compiles its indexes from data collected by **21 survey sources**, while TI-CPI draws from **13 sources** (TI-CPI sources are already encompassed within the 21 sources utilized by WGI-CC)

5. WGI-CC employs the **Unobserved Components Method (UCM),** to assign weights to each data source, culminating in a composite score. On the other hand, TI-CPI treats all data sources qeually and computes the final score through **an arithmetic average**.

Literature Review

1. **Corruption perception:** Kaufmann and Kraay (2011) shed light on the WGI methodologies and highlight some controversies surrounding the measure. Svensson (2005)'s study then discusses the distinction between the actual and perceived levels of corruption

2. **Criticism of corruption perception indexes:** Langbein and Knack's study in 2010 questions whether the six indicators within the WGI truly capture distinct aspects of governance quality or if they are measuring a single overarching concept

3. **Investigation of corruption perception consensus:** A noteworthy departure from the conventional approach is observed in Qu et al.'s study (2019), where standard errors are employed as a metric for assessing corruption perception indices. Rather than relying solely on average scores, this study examines the level of agreement among individuals regarding a country's corruption level. Low standard errors signify consensus among respondents, while high standard errors indicate divergence in perceptions.

4. **Corruption perception and the pandemic:** Farzanegan (2021) found that the corruption level is positively and significantly associated with Covid fatality rates, while Alfano (2022) showed that countries where government is perceived to be more corrupt have more covid cases.

→ This current study will take the opposite direction to explore the effect of the pandemic on corruption perception, so we are trying to learn whether the pandemic did change people's perceived level of corruption.

Ongoing Work

We are seeking to uncover the narratives that underlie these results and **explore the reasons behind the observed phenomenon** where individuals tend to exhibit greater consensus in their corruption assessments when a country experiences a more severe impact from the COVID-19 pandemic.

Data, Model and Results

In our data analysis, we incorporate the corruption perception scores, including **WGI-CC and TI-CPI**. For our COVID-19 statistics, we compile data on **confirmed cases and official COVID-19 deaths from John Hopkins University**. Given the disparities in reporting frequencies among states and countries, we employ a **7-day moving average** to mitigate potential data fluctuations. Furthermore, to ensure comparability across countries of varying sizes**, we normalize COVID-19 confirmed cases, deaths, and recoveries** by dividing them by each country's population. In Table 1, we compare (1) the 2019 scores to that in 2022 and (2) the average scores 3 years before COVID (2017-19) vs. those after COVID (2020-22). Below are our empirical results:

Table 1. Pre-pandemic vs. Post-pandemic Average Corruption Scores Across Countries and Their P-values

Average Across Countries	2017	2018	2019	2020	2021	2022
TI-CPI Score	43.07	43.12	43.17	43.34	43.20	42.92
WGI-CC Score	0	0	0	0	0	N.A.

World Average of TI-CPI: higher or lower?	2019 vs. 2022	2017-19 vs. 2020-22
t statistic	0.123	0.019
p value	0.451	0.493

In Table 1, p-values exceed 0.45 when we compare pre- and post-pandemic corruption scores, **signifying a lack of statistical significance in the disparities between pre- and post-pandemic scores** → We reject the null hypothesis that the COVID-19 pandemic has induced a discernible change in corruption levels, whether an increase or decrease.

Table 2. Pre-pandemic vs. Post-pandemic Standard Error Across Countries and Their P-value

Average Across Countries	2017	2018	2019	2020	2021	2022
TI-CPI Standard Error	2.986	2.986	3.141	2.240	2.136	2.169
WGI-CC Standard Error	1	1	1	1	1	N.A.

World Average of TI-CPI Standard Errors: Higher or Lower?	2019 vs. 2022	2017-19 vs. 2020-22
t statistic	6.453	5.728
p value	0.000	0.000

Our statistical analysis reveals incremental p-values, suggesting a statistically significant difference between the pre- and post- standard errors, **indicating an increased consensus among respondents regarding a country's corruption level following the pandemic.**

Table 3. Regression Results of Pre- and Post-pandemic Standard Errors of Corruption Scores in relation to Covid Data

Variables	2019		2021					
	WGI-CC 2019	TI-CPI 2019	WGI-CC 2021	TI-CPI 2021	WGI-CC 2021	TI-CPI 2021	WGI_CC 2021	TI-CPI 2021
Confirmed Covid Cases (% population)					0.028 (0.033)	-3.947*** (1.712)		
Covid deaths (% population)							-142.800** (75.000)	-142.800** (75.000)
Population (log)	-0.001 (0.001)	-0.129** (0.076)	-0.001 (0.001)	-0.122*** (0.056)	-0.001 (0.001)	-0.160*** (0.058)	-0.126*** (0.056)	-0.126*** (0.056)
GDP per capita (log)	0.003*** (0.001)	0.053 (0.111)	0.002 (0.001)	-0.075 (0.083)	0.001 (0.002)	0.085 (0.107)	-0.014 (0.088)	-0.014 (0.088)
GDP growth (2017-19)	-0.015*** (0.005)	-0.669 (0.486)	-0.01*** (0.007)	-0.713** (0.362)	-0.014*** (0.007)	-0.631** (0.359)	-0.721*** (0.360)	-0.721*** (0.360)
Education[1] (2017-19)	0.001 (0.011)	-0.361 (1.060)	0.006 (0.015)	-0.351 (0.789)	0.007 (0.016)	-0.507 (0.782)	-0.301 (0.785)	-0.301 (0.785)
Democracy_index[2]	0.000*** (0.000)	-0.002 (0.001)	0.000 (0.000)	0.000 (0.001)	0.000 (0.000)	0.000 (0.001)	0.000 (0.001)	0.000 (0.001)
Socialist[3]	0.003 (0.005)	0.152 (0.488)	0.005 (0.007)	-0.041 (0.363)	0.005 (0.007)	-0.110 (0.360)	-0.105 (0.362)	-0.105 (0.362)
Sample size (n)	117	118	117	118	115	116	116	116
Adjusted R-square	0.181	0.004	0.035	0.021	0.035	0.055	0.042	0.042

*Note: *** 1% level of significance; ** 5% level of significance; * 10% level of significance*
1. Labor force with advanced education (% of total working-age population with advanced education)
2. From EIU
3. According to the World Population Review, countries that have constitutional references to socialism and are thus considered to be socialist states include: China, North Korea, Cuba, Vietnam, Laos, Bangladesh, Eritrea, Guyana, India, Nepal, Nicaragua, Portugal, Sri Lanka, and Tanzania

Table 3 shows that the confirmed Covid cases have a statistically significant impact on the WGI-CC scores' standard error at 14% significance level. They also have a statistically significant negative impact on the standard error of TI-CPI scores at 1% significance level, which **implies that the more the confirmed covid cases in a country, the more people agree with each other about the country' corruption level**. Additionally, the last 2 columns indicate a negative correlation and statically significant impact of Covid deaths on the standard errors of the corruption scores, **implying that the more deaths caused by Covid in a country, the higher consensus on the corruption level in that country.**

Conclusion

According to our analysis, the pandemic has not led to a significant change in corruption levels. Instead, it has resulted in an enhanced consensus among respondents concerning a country's corruption level. Notably, a positive correlation exists between the number of confirmed COVID-19 cases and increased agreement on a country's corruption level, while a higher number of COVID-19 deaths is associated with heightened consensus regarding corruption levels within a country.

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