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Home assignment 1: Openness

The following questions are based on the Excel spreadsheet entitled “WorldBankData”. The data are from the World Bank. Countries with missing data have been omitted.

First, define the ‘openness’ of a country as the sum of its imports and exports divided by its GDP.

(1) What has happened to the average level of openness in the world over the years in question?

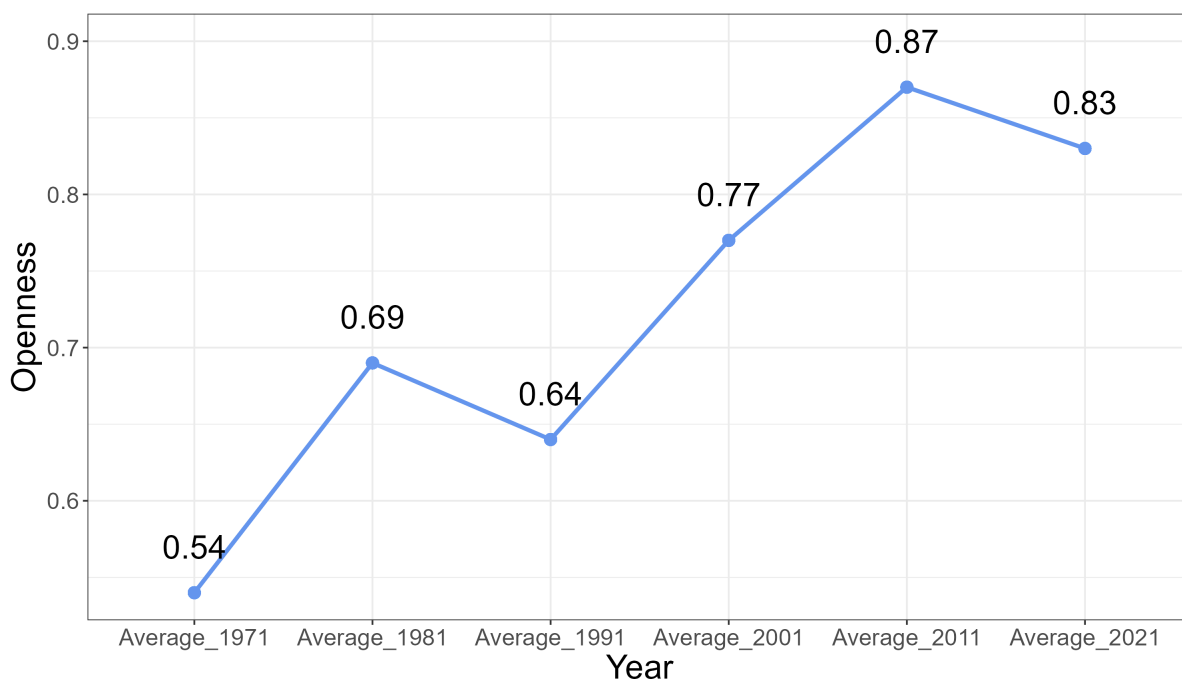


Figure 1: Average openness over the years

The average openness over the years has increased from 1971 to 2021 but has had a small decrease the last 10 years after a peak of 0.87 in 2011.

(2) How many countries experienced an increase in openness between 2011 and 2021?

```
# A tibble: 1 x 1
  n
<int>
1  36
```

Thirty six countries experienced an increase in openness between 2011 and 2021.

(3) Compare the average openness of the 20 largest countries (measured in terms of population) and the 20 smallest countries in 2011. Which is more open? 3

(3) Compare the average openness of the 20 largest countries (measured in terms of population) and the 20 smallest countries in 2011. Which is more open?

```
# A tibble: 1 x 1
  Average_openness_largest
                <dbl>
1                0.589

# A tibble: 1 x 1
  Average_openness_smallest
                <dbl>
1                1.13
```

The smallest countries are more open than the largest countries in 2011.

(4) Now compare the average openness of the 20 richest countries (measured in terms of per capita GDP) and the 20 poorest countries in 2011. Which is more open?

```
# A tibble: 1 x 1
  Average_openness_richest
                <dbl>
1                1.16

# A tibble: 1 x 1
  Average_openness_poorest
                <dbl>
1                0.515
```

The richest countries are more open than the poorest countries in 2011.

(5) Now, the most important part of your empirical analysis! Based on your results, what kind of countries tend to be more open and what kind tend to be less open.

The results show that the smallest and richest countries tend to be more open than the largest and poorest countries.

(5) Now, the most important part of your empirical analysis! Based on your results, what kind of countries tend to be more open and what kind tend to be less open. 4

World development indicators. (2024). The World Bank. <https://databank.worldbank.org/source/world-development-indicators>