

# 615 Midterm Project

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## Data Set Overview

This dataset compares most countries in the world in different aspects, such as GDP, energy use, and CO2 emission etc. Some data are missing, but the current data is sufficient enough for use to do some analysis. Personally I am interested in the comparison of CO2 emission and CO2 emission per capita, and I am going to explore this relationship in this project.

## Load the data

First load the data

```
Climate_data <- read_excel("C:\\Users\\wuyf\\Desktop\\MSSP\\615\\project\\World Bank Data\\climate_change\\climate_data.xlsx")
head(Climate_data)
```

```
## # A tibble: 6 x 28
##   `Country code` `Country name` `Series code` `Series name` SCALE Decimals
##   <chr>          <chr>          <chr>        <chr>          <dbl>    <dbl>
## 1 ABW           Aruba            AG.LND.EL5M.~ Land area be~    0      1
## 2 ADO           Andorra          AG.LND.EL5M.~ Land area be~    0      1
## 3 AFG           Afghanistan     AG.LND.EL5M.~ Land area be~    0      1
## 4 AGO           Angola           AG.LND.EL5M.~ Land area be~    0      1
## 5 ALB           Albania          AG.LND.EL5M.~ Land area be~    0      1
## 6 ARE           United Arab E~ AG.LND.EL5M.~ Land area be~    0      1
## # ... with 22 more variables: `1990` <chr>, `1991` <chr>, `1992` <chr>,
## #   `1993` <chr>, `1994` <chr>, `1995` <chr>, `1996` <chr>, `1997` <chr>,
## #   `1998` <chr>, `1999` <chr>, `2000` <chr>, `2001` <chr>, `2002` <chr>,
## #   `2003` <chr>, `2004` <chr>, `2005` <chr>, `2006` <chr>, `2007` <chr>,
## #   `2008` <chr>, `2009` <chr>, `2010` <chr>, `2011` <chr>
```

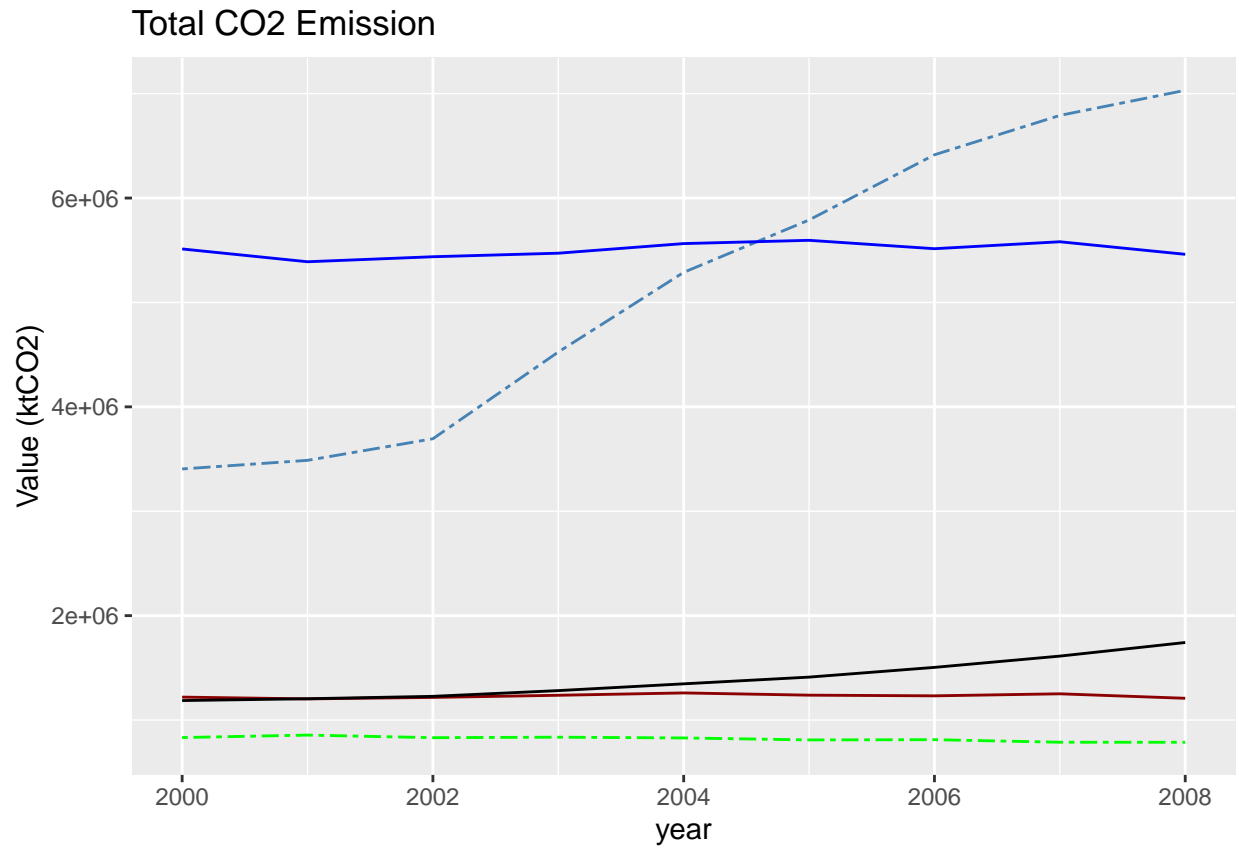
## Data Cleaning Process

I will first choose the section of data I want to look at, and then clean this part of the data

The Six countries I choose are the top six with CO2 emission according to the United nation, and I am interested in comparing them in different aspects

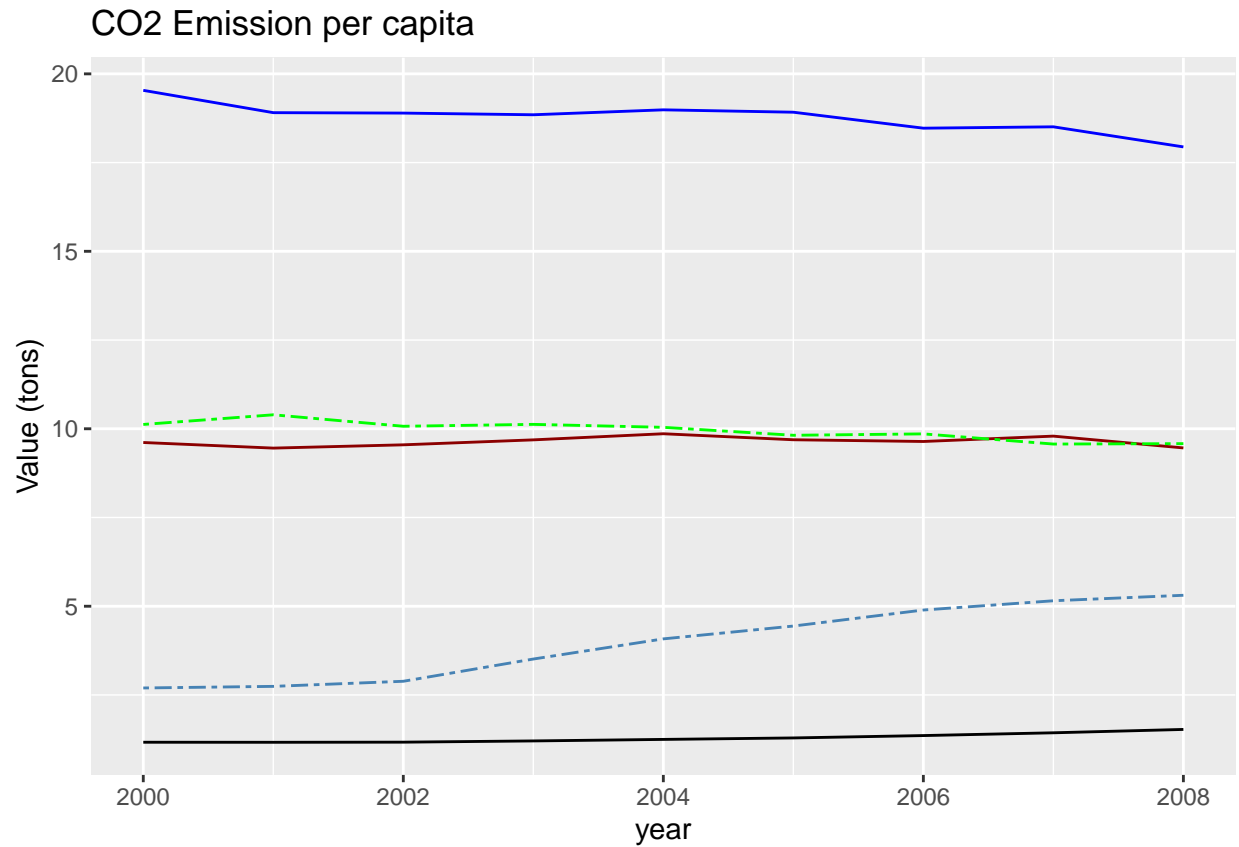
## Explore The Data – Comparing total CO2 emission

```
## Warning: Setting row names on a tibble is deprecated.
```



### Explore The Data – Comparing CO2 emission per capita

## Warning: Setting row names on a tibble is deprecated.



## Results

From this two graphs we can see that the general trending of CO2 emmsion, both aggregate and per capita, does not fluctuate a lot from 2000 to 2008, except that China's emmsion increased hugely since 2002. Although China is the largest carbon emission country, the USA ranks number one in per capita, and nearly twice as much as Japan, who is the second place.