Homework 3

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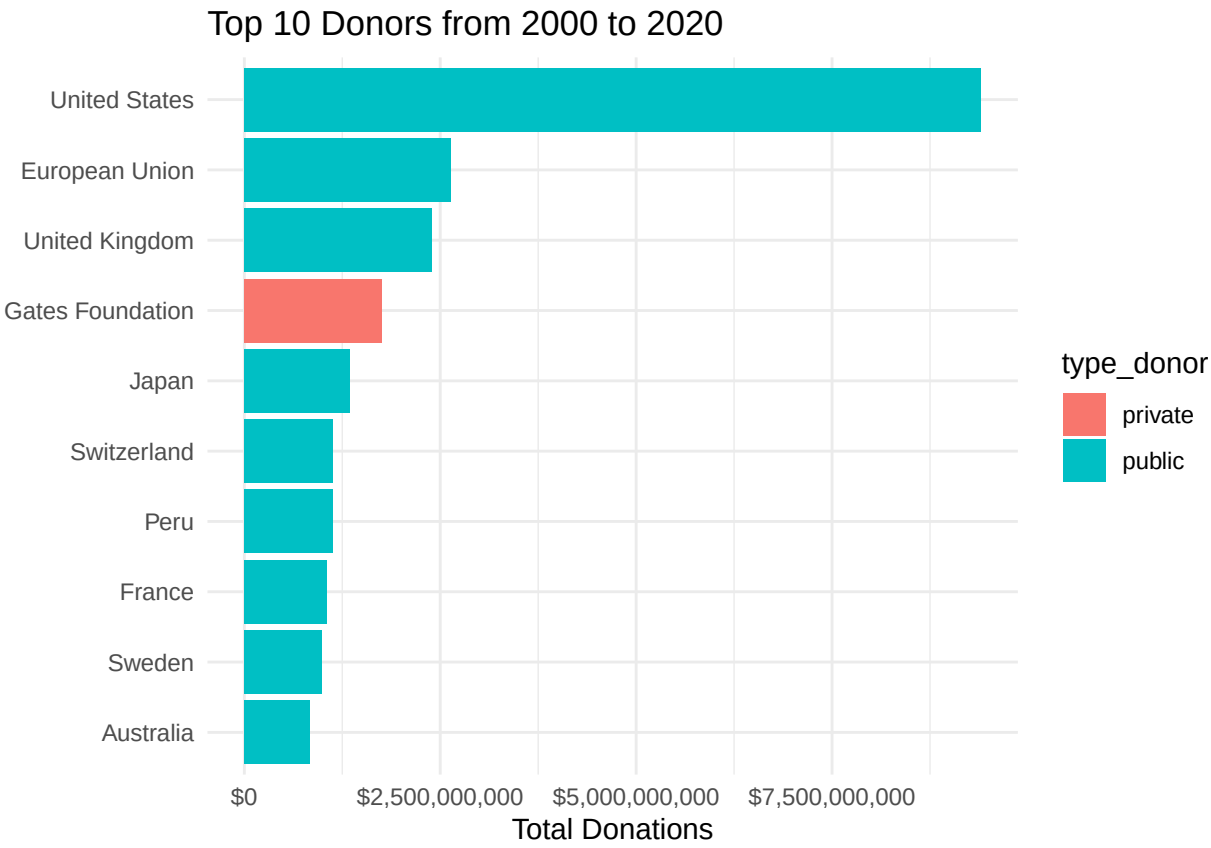
Income of International Organizations

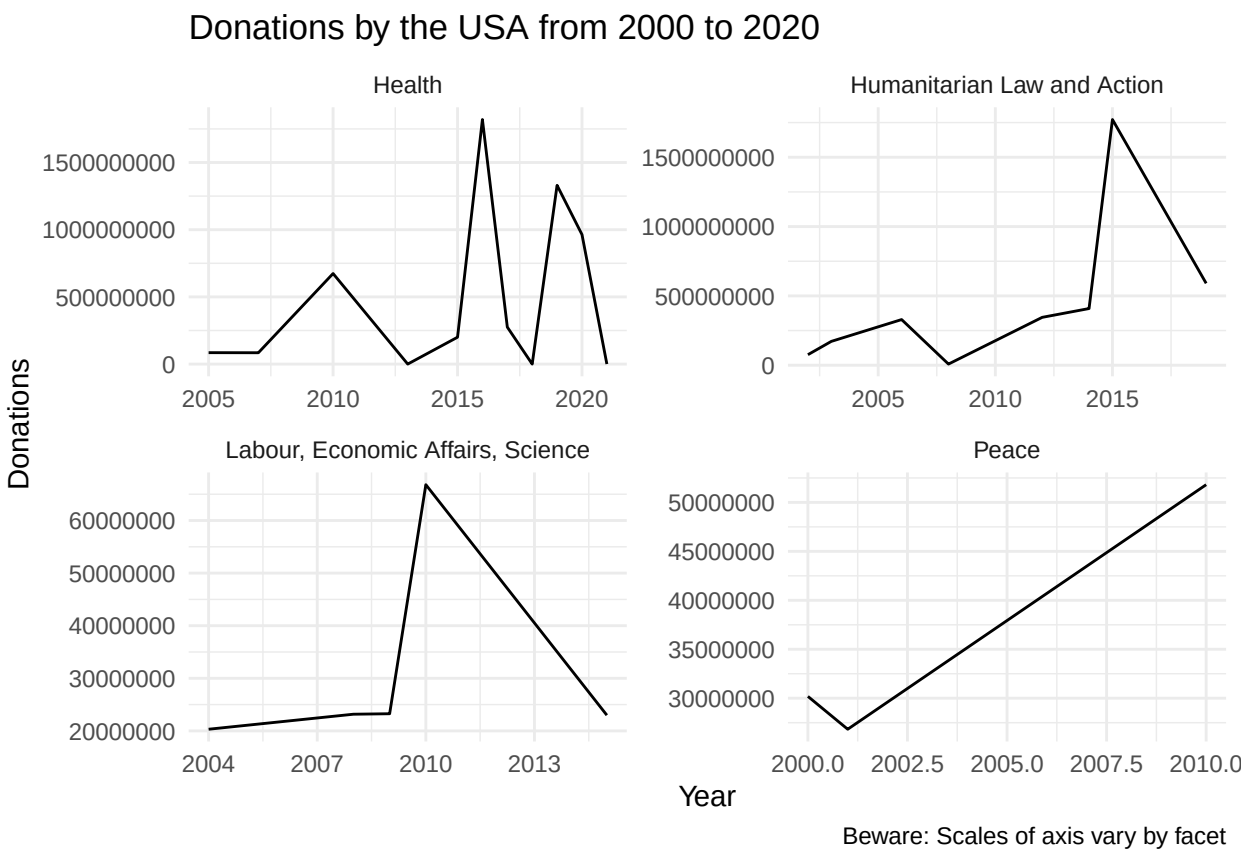
Question 1

```
io_income_rs %>% # select data
  drop_na(donor) %>%
  group_by(donor, type_donor) %>%
  summarise(amountnominal = sum(amount_nominal, na.rm = TRUE)) %>%
  arrange(-amountnominal) %>%
  ungroup() %>%
  slice(1:10) %>% # slice the top 10
  ggplot(mapping = aes(x = reorder(donor, amountnominal), y = amountnominal, fill = type_donor)) +
  geom_col() +
  scale_y_continuous(labels = scales::dollar) +
  labs(title = "Top 10 Donors from 2000 to 2020",
       x = NULL,
       y = "Total Donations") +
  scale_colour_discrete(name="Donor Type") +
  theme_minimal() +
  coord_flip()
```



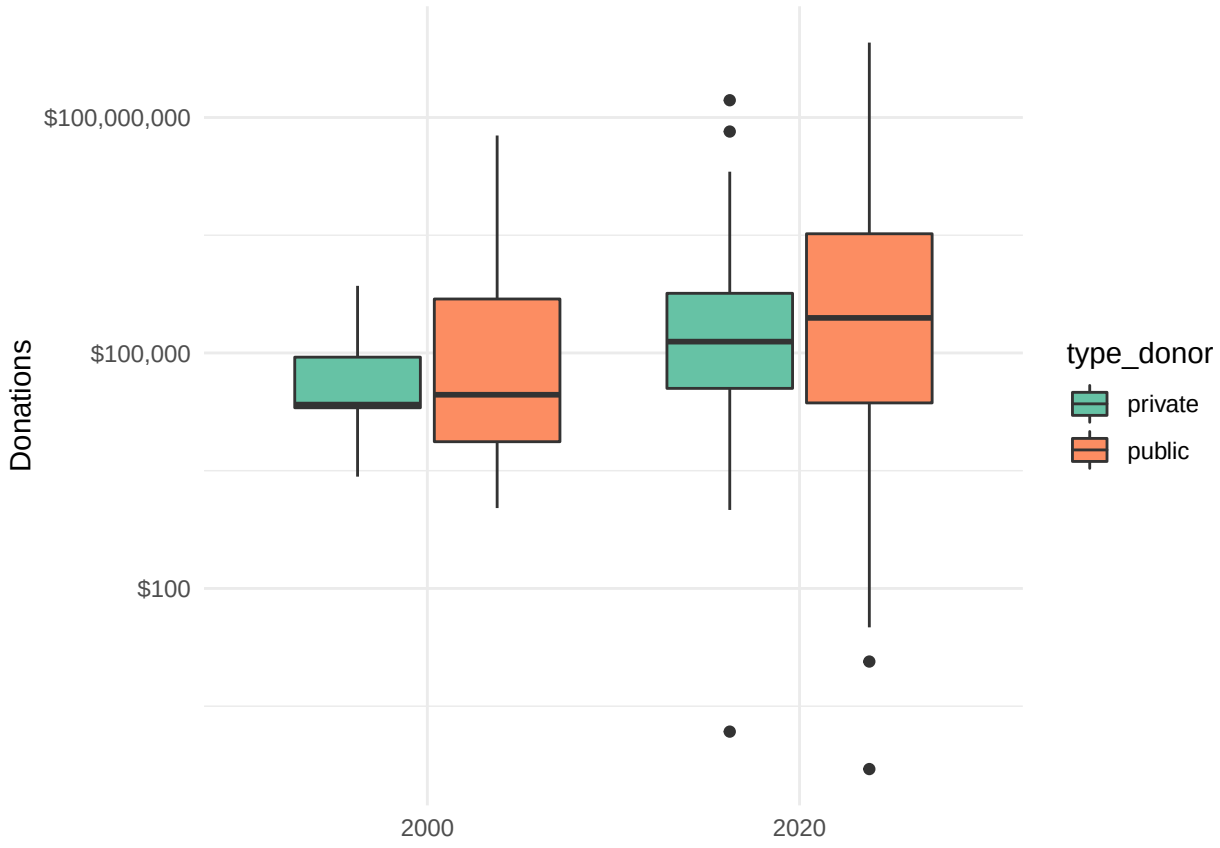
Question 2

```
io_income_rs %>% # select data
  filter(donor == "United States") %>%
  group_by(year, issue_area) %>%
  summarise(total_donations = sum(amount_nominal, na.rm = TRUE)) %>%
  ggplot(mapping = aes(x = year, y = total_donations)) +
  geom_line() +
  facet_wrap(~issue_area, scales = "free") +
  labs(title = "Donations by the USA from 2000 to 2020",
       x = "Year",
       y = "Donations", caption = "Beware: Scales of axis vary by facet") +
  theme_minimal()
```



Question 3

```
io_income_rs %>% # select data
  filter(year == 2000 | year == 2020) %>%
  drop_na() %>%
  ggplot(mapping = aes(x = as.factor(year), y = amount_nominal, fill = type_donor)) +
  geom_boxplot() +
  scale_y_log10(labels = scales::dollar) +
  scale_fill_brewer(palette = "Set2") +
  theme_minimal() +
  labs(x = NULL, y = "Donations")
```



Question 4

```
io_income_rs %>% # select data
  drop_na() %>%
  ggplot(mapping = aes(x = year, y = amount_nominal)) +
  geom_point(aes(shape = type_donor), alpha = .5) +
  facet_wrap(~issue_area) +
  geom_smooth(method = "lm", colour = "red") +
  scale_y_log10() +
  theme_minimal() +
  labs(x = NULL, y = "Donations")
```


Health
Humanitarian Law and Action
Labour, Economic Affairs, Science
Peace
Donations
100000000
100000
100
2000
2005
2010
2015
2020
type_donor
private
public