Assignment 5 qmd file

Aanya Vusirikala

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Assignment 5

```
import pandas as pd
df = pd.read_csv('wdi.csv')
df

# Summary statistics


key_statistics = df[['inflation_rate', 'country', 'exports_gdp_share', 'gdp_per_capita']]

summary = key_statistics.describe()
print(summary)
print(key_statistics.head())
```

```
       inflation_rate  exports_gdp_share  gdp_per_capita
count      169.000000         169.000000      203.000000
mean        12.493936          46.170395    20345.707649
std         19.682433          34.001404    31308.942225
min         -6.687321           1.571162      259.025031
25%          5.518129          24.526642     2570.563284
50%          7.967574          40.221277     7587.588173
75%         11.665567          55.460067    25982.630050
max        171.205491         211.278206   240862.182448
   inflation_rate         country  exports_gdp_share  gdp_per_capita
0             NaN     Afghanistan          18.380042      352.603733
1        6.725203         Albania          37.395422     6810.114041
2        9.265516         Algeria          31.446856     5023.252932
3             NaN  American Samoa          46.957520    19673.390102
4             NaN         Andorra                NaN    42350.697069
```
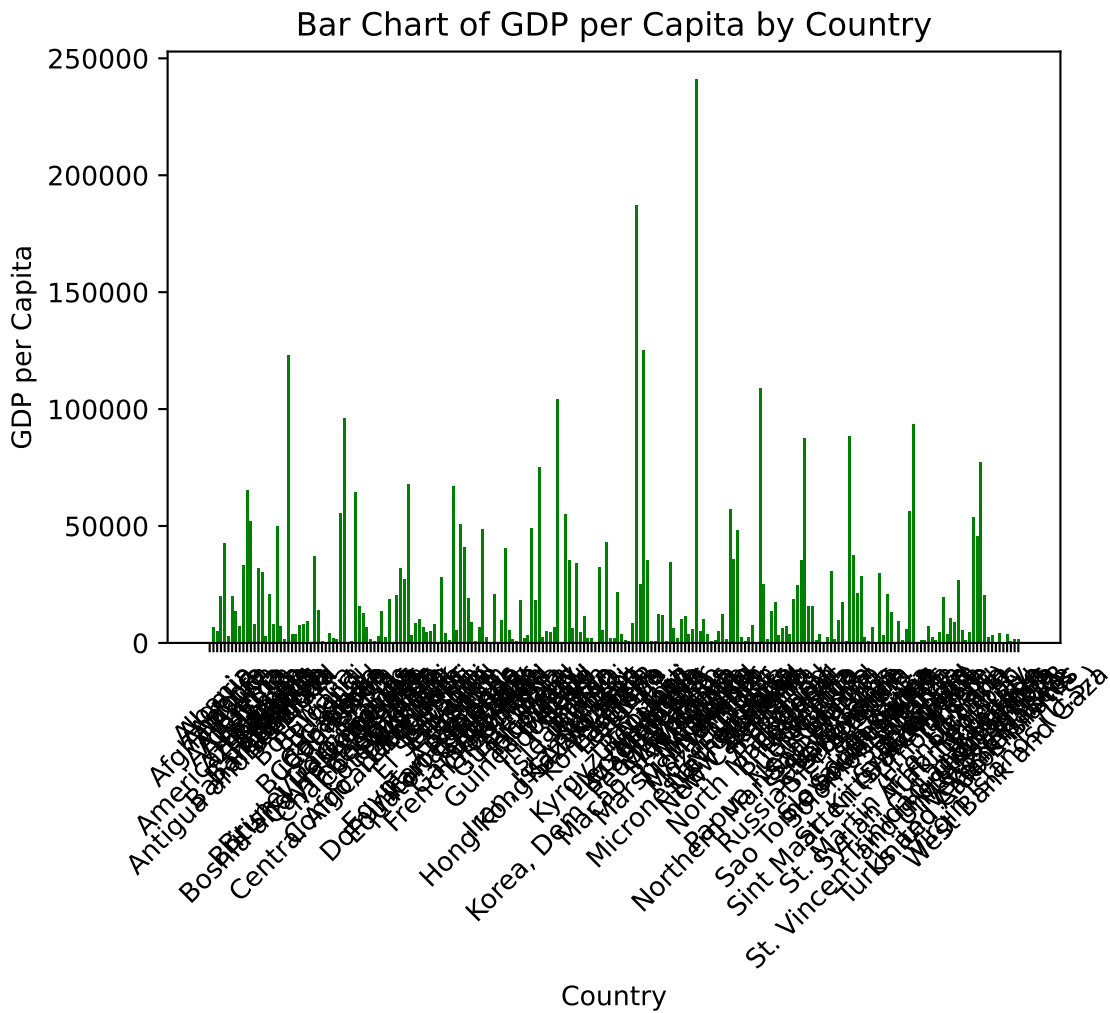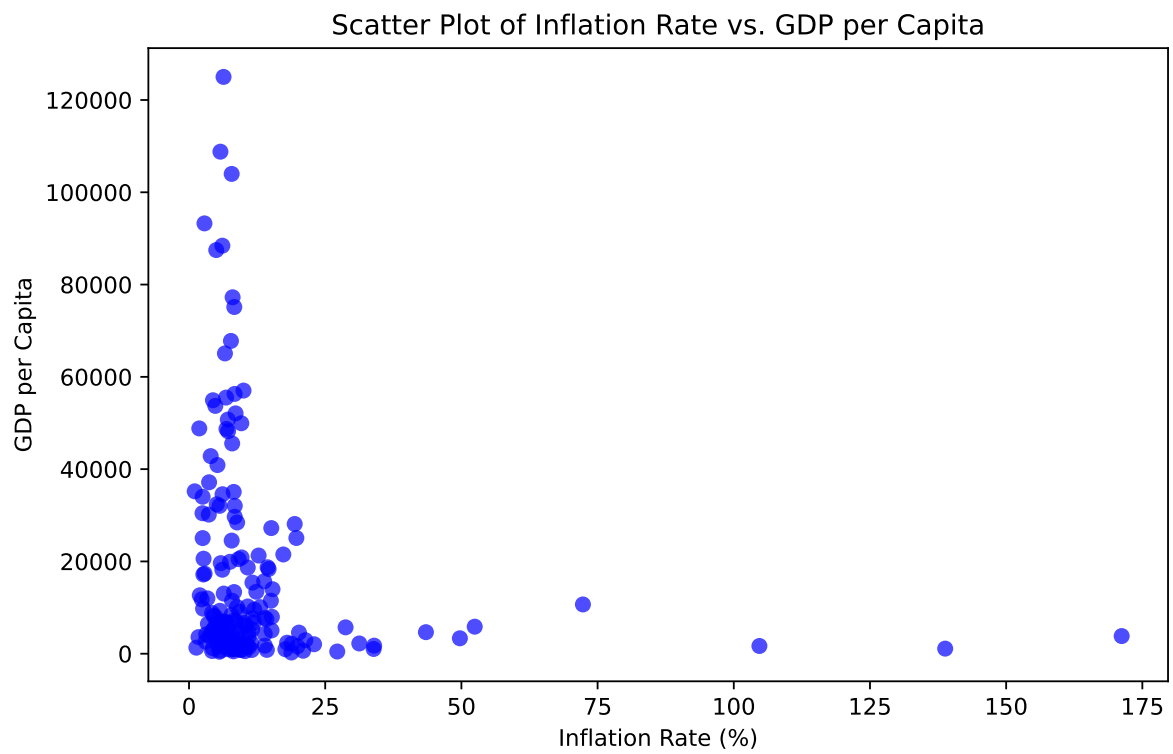
Summary of Findings

I chose to look at the three indicators inflation rate, gdp_per_capita, and exports_gdp_share by country. The mean inflation rate is 12.5, the mean gdp per capita is 20,345 and then mean exports gdp share is 46.2. The countries with the 2 highest exports gdp share are Luxmeborg and Hong Kong. The countries with the 2 highest inflation rates are Lebanon and Sudan. And the countries with the higest gdp per capita are Monaco and Liechtenstein.
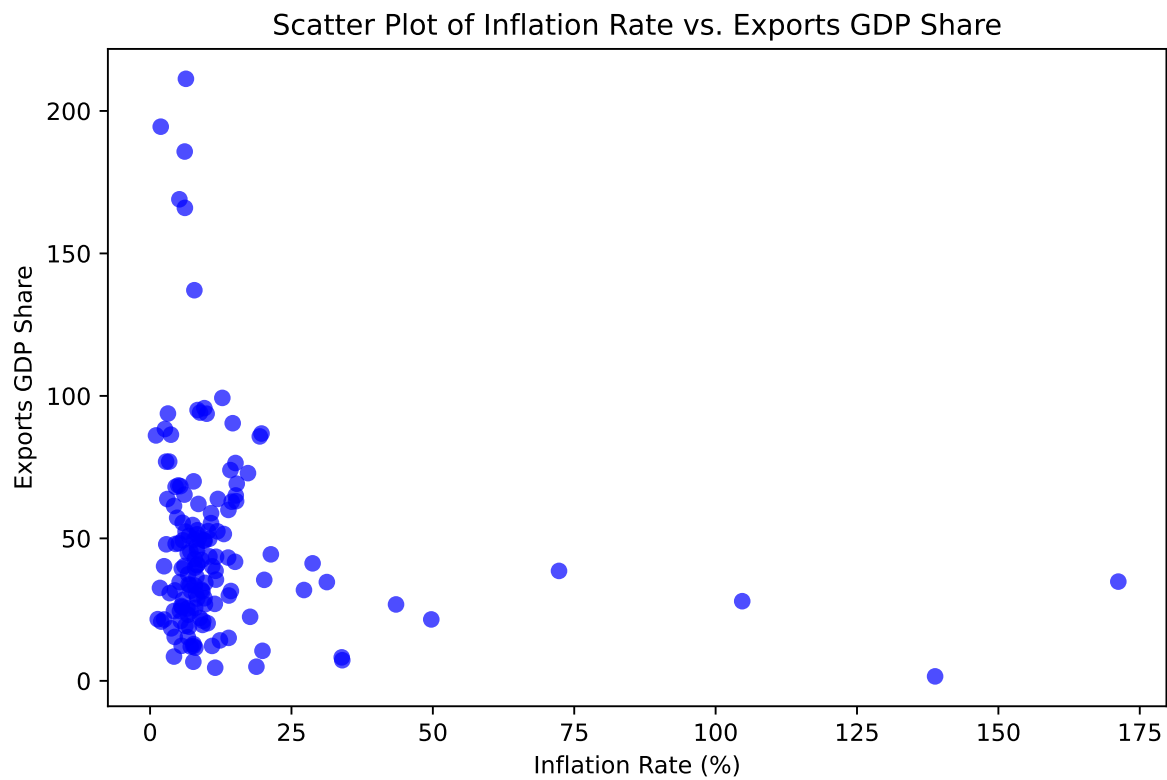
Data Source: *World Development Indicators*

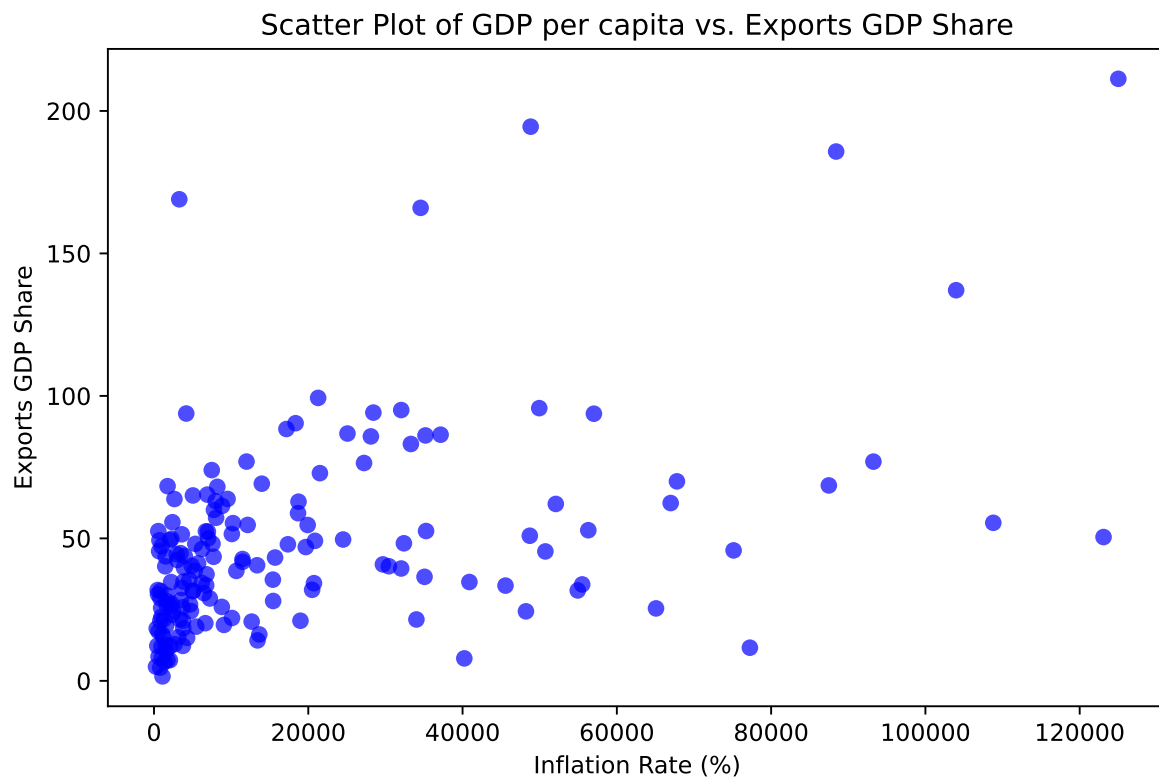**Bar Chart: GDP per Capita by Country**

Scatter Plots: Inflation Rate vs. GDP per Capital, Inflation Rate vs export GDP share, GDP per capital vs export GDP share

Scatter Plot of Inflation Rate vs. GDP per Capita

Scatter Plot of Inflation Rate vs. Exports GDP Share

Scatter Plot of GDP per capita vs. Exports GDP Share

Summary Statistics Table

Statistic	Inflation Rate	Exports GDP Share	GDP Per Capita
Count	169	169	203
Mean	12.49	46.17	20345.71
Std Dev	19.68	34.00	31308.94
Min	-6.69	1.57	259.03
25%	5.52	24.53	2570.56
50% (Median)	7.97	40.22	7587.59
75%	11.67	55.46	25982.63
Max	171.21	211.28	240862.18

Relevant Sources

James, Gubbins, and Murray (2012) Dao et al. (2024)

Dao, Mai Chi, Pierre-Olivier Gourinchas, Daniel Leigh, and Prachi Mishra. 2024. "Understanding the International Rise and Fall of Inflation Since 2020." *Journal of Monetary Economics* 148: 103658. https://doi.org/https://doi.org/10.1016/j.jmoneco.2024.103658.

James, S. L., P. Gubbins, and C. J. Murray. 2012. "Developing a Comprehensive Time Series of GDP Per Capita for 210 Countries from 1950 to 2015." *Population Health Metrics* 10: 12. https://doi.org/10.1186/1478-7954-10-12.