

Assignment05

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Data and Methods

	country	inflation_rate	exports_gdp_share	gdp_growth_rate	gdp_per_capita	adult_
0	Afghanistan	NaN	18.380042	-6.240172	352.603733	NaN
1	Albania	6.725203	37.395422	4.856402	6810.114041	98.5
2	Algeria	9.265516	31.446856	3.600000	5023.252932	NaN
3	American Samoa	NaN	46.957520	1.735016	19673.390102	NaN
4	Andorra	NaN	NaN	9.563798	42350.697069	NaN

Exploratory Data Analysis: Distribution and Ranking

1 GDP per capita — Distribution

Mean: \$20,346 | Median: \$7,588 | 10th-90th pct: \$1,000 - \$53,383

Interpretation.

As shown in Figure Figure 1, the distribution of GDP per capita in 2022 is highly right-skewed, with a mean of \$20,346 and a median of \$7,588. This large gap indicates that a few very high-income countries pull up the global average. Most countries lie between \$1,000 and \$53,000 (10th–90th percentile), showing that the majority of economies fall in low- to middle-income ranges.

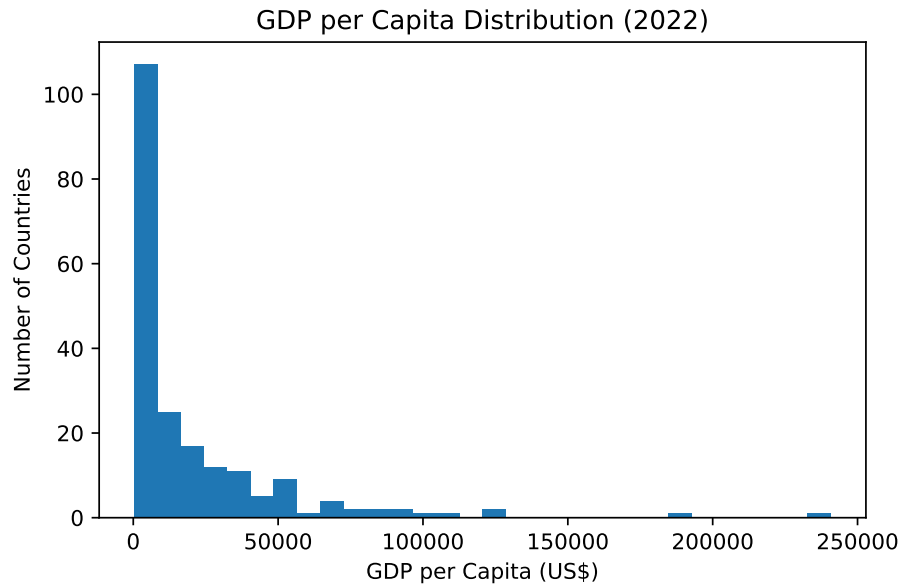


Figure 1: Distribution of GDP per capita across countries (2022).

2 Life expectancy — Distribution

Mean: 72.4 years | Median: 73.5 years | 10th-90th pct: 61.4 - 82.2 years

Interpretation.

Figure Figure 2 shows that life expectancy is centered around the mid-70s. In contrast with GDP per capita (Figure Figure 1), its distribution is much more symmetric, suggesting smaller inequality across countries in health outcomes.

3 Inflation rate — Ranking

Global average (sample): 12.49% | Average among the same 15: 12.48% | Count above global avg

Interpretation.

Figure Figure 2 shows that life expectancy is centered around the mid-70s. In contrast with GDP per capita (Figure Figure 1), its distribution is much more symmetric, suggesting smaller inequality across countries in health outcomes.

4 Summary statistics table

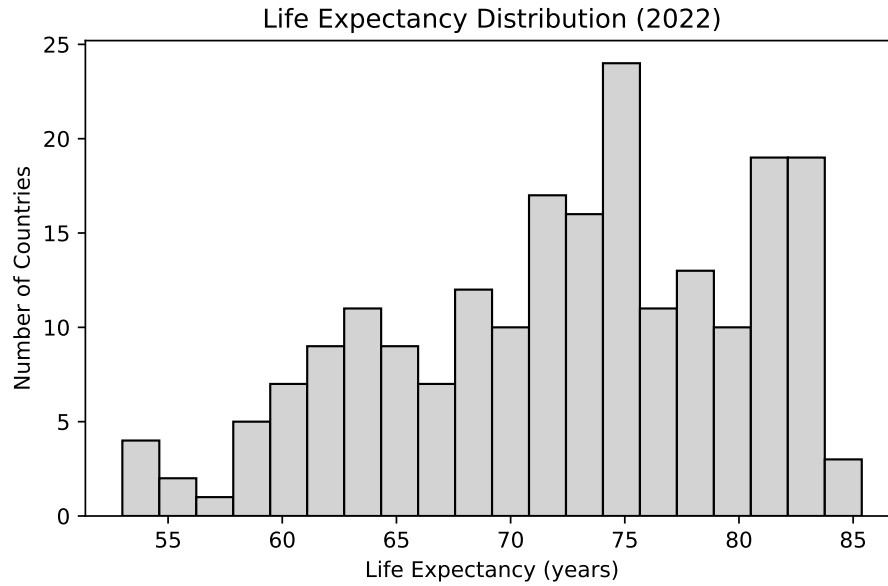


Figure 2: Distribution of life expectancy across countries (2022).

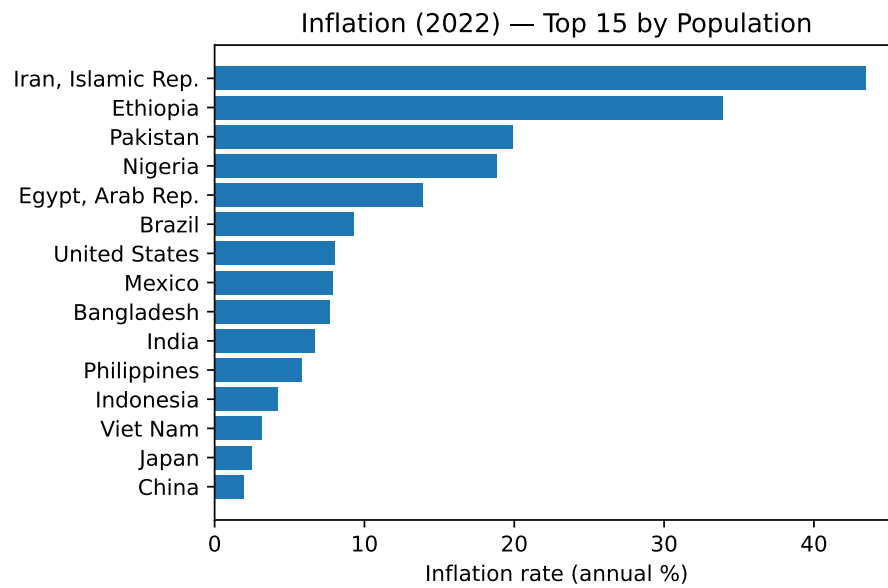


Figure 3: Inflation rate (annual %, 2022) among 15 most populous countries.

Table 2: Summary statistics for three analyzed indicators (2022).

	gdp_per_capita	life_expectancy	inflation_rate
count	203.00	209.00	169.00
mean	20345.71	72.42	12.49
median	7587.59	73.51	7.97
std	31308.94	7.71	19.68
min	259.03	53.00	-6.69
max	240862.18	85.38	171.21

Reading Table Table 2.

- GDP per capita and life expectancy show moderate spread.
- Inflation has higher relative dispersion, confirming Figure Figure 3.

Data: World Development Indicators (Bank, 2024).

Document built with **Quarto** (Posit, PBC, 2025).

Bank, T. W. (2024). *World development indicators (WDI)*. <https://databank.worldbank.org/source/world-development-indicators>

Posit, PBC. (2025). *Quarto documentation*. <https://quarto.org/docs/>