World Bank's World Development Indicators Data Analysis Report

Anna Choi Jooha Lee Minjoo Kim Sean Jeon 2025-04-28

Introduction

Data Description

Data Analysis

	country	year	gdp_per_capita	<pre>employment_population_ratio</pre>	gdp_growth	\
520	China	2024	NaN	62.404	NaN	
521	China	2023	12175.196115	62.756	5.249558	
522	China	2022	11555.930238	62.523	2.950670	
523	China	2021	11223.255348	64.056	8.448469	
524	China	2020	10358.169997	62.678	2.238638	
	populat	ion_gr	owth			
520	NaN					
521	-0.103795					
522	-0.013100					
523	0.089252					
524	0.238041					

volatility vs income

population growth vs gdp growth

```
(array([1950., 1960., 1970., 1980., 1990., 2000., 2010., 2020., 2030.]),
[Text(1950.0, 0, '1950'),
```

```
Text(1960.0, 0, '1960'),
Text(1970.0, 0, '1970'),
Text(1980.0, 0, '1980'),
Text(1990.0, 0, '1990'),
Text(2000.0, 0, '2000'),
Text(2010.0, 0, '2010'),
Text(2020.0, 0, '2020'),
Text(2030.0, 0, '2030')])
```

Population Growth by Country



Figure 1: GDP Growth by Country

Population Growth Over Time:

The population growth trends for each country are now color-coded, making it easier to compare them. The red line represents China, which shows a gradual decline in population growth. India (orange) have relatively higher population growth, though with a decline over time. Japan (green) and Korea, Rep. (blue) show a significant decrease in population growth, particularly in recent decades.

GDP Growth Over Time:

For GDP growth, each country is represented with a distinct color. China's GDP growth (red) shows more volatility, with a noticeable spike in the early 1990s. India (orange) exhibit positive growth in

several periods, while Japan (green) and Korea (blue) show more fluctuations with occasional negative growth.

Overall, as countries exhibit grdual declines in population growth, it is important to note that GDP growth does not always correlate with population growth. For instance, China has experienced a decline in population growth but has maintained a relatively high GDP growth rate. Taiwan's GDP growth has been more stable compared to the other countries, despite its population growth decline. In contrast, Japan and Korea have seen both population and GDP growth decline over time. Also, China's dramatic increase population in 1960s caused a great jump in GDP growth.

employment rate vs gdp growth

Results and Discussion

Conclusion

Further Reading