

BI Data Analysis – Report Review of GDP Economic Performance

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Report Summary

The report aims to provide an analysis of economic performance, comparing the GDP of countries, and predicting economic trends.

The analysis is based on the data set from the World Bank national accounts and OECD National Accounts files about the GDP of various countries since 1961. The data set was analyzed by the BI tool – Power BI.

The report is structured by providing the world economic performance by looking at regions, then digs deeper into countries' GDP to connect with the current performance and build the conclusion of possible future.

At the end of the report, a brief conclusion is written that summarises all insights from the data.

Terminology

Gross Domestic Product (GDP) is a measure of the economic performance of a country, typically reflecting the total value of all goods and services produced over a specified time period, usually annually.

Region Analysis by Income

The overall income by region has a big amount of high-income countries with 82 (38%), the smallest one – low-income with 26 (12%) (Figure 1). From the data, the following 3 regions are chosen for the deeper investigation:

- Europe & Central Asia have the highest amount of high-income countries, which can help to understand the greatest economic performance.
- Sub-Saharan Africa has the highest amount of low-income countries, which can help to understand the most unpleasant economic performance so far.
- North America has only high-income countries, which can benefit from grasping insights of the most successful region.

These regions shaped the current economic performance so knowing them better can explain other regions' performance and predict the future economic situation.

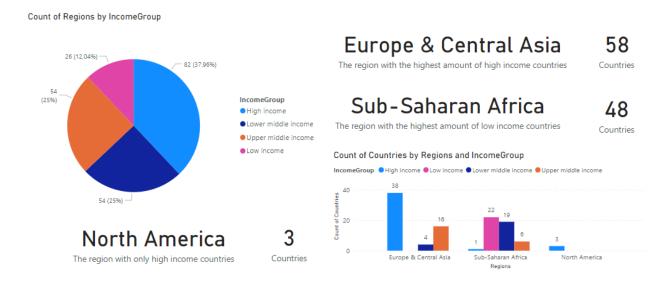


Figure 1. Region analysis by income groups.

Region Analysis by GDP

Looking at the GDP from 1961 to 2022 years at the selected regions (Figure 2), it's visible that the group allocation is correlated with the level of GDP – the higher the GDP the better the income of the country relying on the average numbers of GDP for regions.

At the same time, it's surprising that the highest GDP value was received in the African region with 140,48, and it's expected that the African region achieved the lowest one as well. So the fluctuation of GDP does not affect the economic performance of a region, the average value seems like the most reliable characteristic for building an opinion and predicting the possible economic trend.

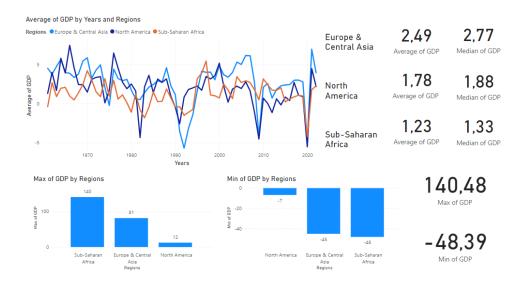


Figure 2. Basic statistics of GDP for selected regions

African Countries Analysis by GDP

To understand a region's performance better its country's GDP is also presented in Figure 3 with basic statistics.

The media and the mean of the countries are stable 1,2-1,3 showing that is a pretty reliable characteristic, at the same time the variance is huge explaining the high fluctuation of the GDP values. Moreover, the highest value 140 (in Equatorial Guinea) seems like an outlier, as it happened once and does not represent the overall situation in the country.

Knowing that the mean value is the most reliable to assess the economic performance, the linear regression (trend) was built based on the GDP performance during the whole time range (it's presented as a dark red dashed line on the line chart). The trend is shown as almost constant over time, according to that, it's logical to guess that the economic performance will keep being at that level in the future.

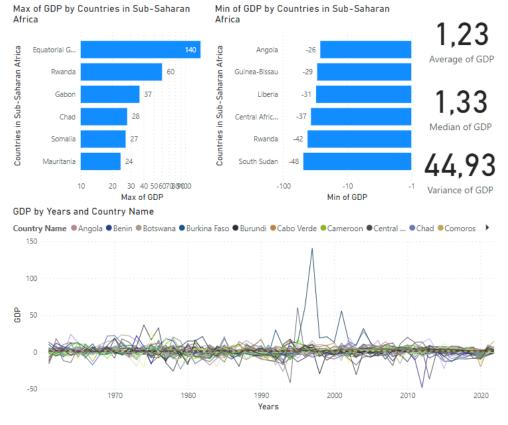


Figure 3. Countries' GDP for Sub-Saharan Region.

European Countries Analysis by GDP

On the other hand, the European and Central Asian countries have quite stable performance with twice less variance at 28,55. The maximum in Bosnia also seems like an outlier at 81.

The overall trend (a dark red dashed line on the line chart) seems constant over time as well so it's likely that the economic performance will be still that good in the future.

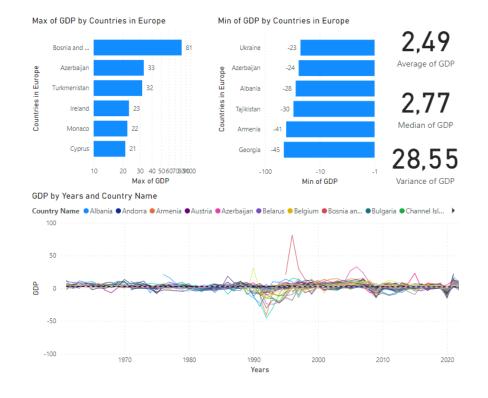


Figure 4. Countries' GDP for Europe and Central Asia Region.

North American Countries Analysis by GDP

The last region – North America, having only 3 high-income countries shows a very reliable mean of 1,8 and low variance over time at 8,41.

Meanwhile, the trend is going down over time. It is possible that in the future the economic performance of the countries will go down.

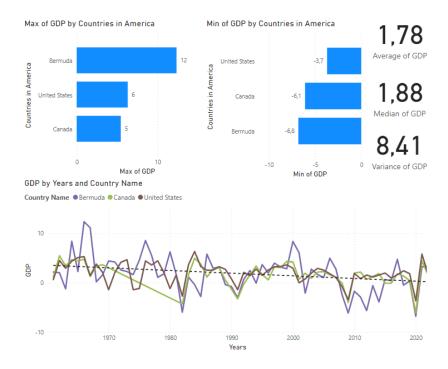


Figure 5. Countries' GDP for the North American Region.

Conclusion

The overall world economic performance relying on the collected data is good showing a significant amount of countries with high and upper middle-income levels.

Europe & Central Asia show the highest amount of high-income countries at 58 and the highest GDP mean value at 2,49, on the other hand, Sub-Saharan Africa with the highest amount of low-income countries at 48 and the lowest GDP mean value at 1.23.

The prediction for these regions and their countries is that it will be stable (so if a country inside the region shows a growing GDP – it will keep growing, and vice versa) in the future.

Meanwhile, the North American region's economic performance will possibly go down in the future for all 3 countries.