

Power BI Inflation Analysis: Journeying Through Global Economic Terrain

Project Report

1. Introduction

Inflation is a major economic indicator that reflects changes in the purchasing power of money. Understanding inflation trends across countries helps interpret global economic stability, government performance, and financial risk.

This project, “Power BI Inflation Analysis: Journeying Through Global Economic Terrain,” provides a visual and analytical exploration of inflation rates worldwide.

Using Power BI, interactive dashboards were developed to analyze inflation patterns over time, compare inflation across countries, and identify extreme inflation scenarios.

2. Objective of the Project

The main objectives of this project are:

- To analyze global inflation trends from 1960–2023.
 - To compare inflation rates between countries.
 - To identify countries with highest and lowest inflation.
 - To visualize global inflation movement on a map.
 - To create interactive dashboards using slicers for country and year selection.
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3. Dataset Summary

The dataset used contains:

- Country – Name of the country
- Indicator – Type of data (Inflation rate)
- Inflationrate – Annual inflation rate
- Year – Corresponding year

This dataset provides enough information to study long-term inflation behavior globally.

4. Power Query

The following cleaning steps were performed:

- Removed blank and null values
 - Removed unnecessary indicators by filtering only inflation-related records
 - Changed data types
 - Year → Whole Number
 - Inflation rate → Decimal Number
 - Checked for duplicates
 - Verified all rows are properly formatted
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5. Visualizations Created in Power BI

1. Map Visual – Global Inflation Spread

- Plotted using Country as location.
- Shows country-wise geographical distribution of inflation data.
- Helps visually interpret inflation patterns across continents.

2. Line Chart – Inflation Trend Over Time

- X-Axis: Year
- Y-Axis: Average Inflationrate
- Legend: Country

This visual shows how inflation behaved from 1960 to 2023 across selected countries.

3. Bar Chart – Average Inflationrate by Country

- Shows which countries have highest and lowest inflation on average.
- Example insight: Venezuela shows extremely high inflation among all countries.

4. Card Visuals

Cards created:

- Max Inflationrate
- Min Inflationrate
- Average Inflationrate

These KPIs summarize the dataset's extreme and average values.

5. Slicers

Two slicers were added:

- Country slicer → Select individual/multiple countries
- Year slicer → Select specific years

These make the dashboard fully interactive.

6. Key Insights From the Dashboard

- Some countries show extreme spikes in inflation (e.g., Venezuela, Zimbabwe).
 - Many developed countries maintain stable and low inflation across decades.
 - Certain time periods (like late 1980s and early 1990s) exhibit global inflation volatility.
 - The map highlights regional inflation trends, showing stronger inflation challenges in parts of Africa and South America.
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7.Challenges Faced

- Large Dataset needed cleaning and transformation.
 - Year values were incorrectly summed before converting them to categorical format.
 - Map visualization required enabling location permissions.
 - Some countries had missing/null inflation values
 - Needed to choose appropriate chart types for clear storytelling.
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8. Conclusion

This Power BI project effectively demonstrates how inflation trends vary significantly across regions and time periods.

Through interactive visuals, the dashboard allows users to explore global inflation behaviour, compare economies, and detect unusual inflation movements.

This fulfils the project objective of providing a clear, interactive, insightful analysis of global inflation using Power BI.

9. Future Scope :

To expand this project, we can add:

- GDP and unemployment data → compare inflation with other economic indicators
- Forecasting model → predict future inflation
- Country categorization → compare developing vs. developed nations

- Additional KPIs (CPI index, real wages, etc.)