Project Title: Measuring the Pulse of Prosperity

An Index of Economic Freedom

1. INTRODUCTION

1.1 Project Overview
Economic freedom reflects the ability of individuals to control their labor, property, and financial decisions. This project focuses on analyzing the Index of Economic Freedom to assess and visualize how freely individuals and businesses can operate across countries.

1.2 Purpose
The purpose of this project is to offer a data-driven perspective on economic liberty globally, highlighting the factors that influence economic freedom and enabling comparative insights through visual dashboards.

2. IDEATION PHASE

2.1 Problem Statement
Many people around the world suffer due to limited economic freedom, affecting their standard of living and opportunities. There is a need to quantify and visualize economic freedom to inform decisions and foster development.

2.2 Empathy Map Canvas

- *Think*: Economic fairness and liberty are essential for growth.
- *Feel*: Frustrated with inequality.
- *Say*: Economic freedom should be a global right.
- *Do*: Analyze, visualize, and advocate for improvement.

2.3 Brainstorming
Key focus areas were identified: governance, regulatory efficiency, trade openness, and financial freedom. The idea was to use visual tools to represent the economic landscape clearly.

3. REQUIREMENT ANALYSIS

3.1 Customer Journey Map
User accesses dashboard → views visualized data → interprets economic conditions → shares/report insights.

3.2 Solution Requirement

- Tools: Python, Pandas, Matplotlib, Seaborn, Plotly
- Platform: Jupyter Notebook
- Dataset: Heritage Foundation Index of Economic Freedom

3.3 Data Flow Diagram
Data Source → Preprocessing → Analysis → Visualization → Dashboard

3.4 Technology Stack

- Programming Language: Python
- Libraries: Pandas, Seaborn, Matplotlib, Plotly
- Deployment: GitHub

4. PROJECT DESIGN

4.1 Problem-Solution Fit
Data on economic freedom exists but is underutilized. A visual and interactive approach makes it more engaging and understandable.

4.2 Proposed Solution
A structured dashboard displaying country-wise economic scores and related indicators, helping identify trends and gaps.

4.3 Solution Architecture
Data Ingestion → Processing → Feature Extraction → Visualization → Output Display

5. PROJECT PLANNING & SCHEDULING

5.1 Project Planning

- Week 1: Dataset exploration and cleaning
- Week 2: Exploratory data analysis
- Week 3: Visualization building
- Week 4: Dashboard integration and testing

6. FUNCTIONAL AND PERFORMANCE TESTING

6.1 Performance Testing
The visualizations were tested for load time and rendering. The dashboard performed smoothly with minimal latency.

7. Code

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</a>

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```

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vizElement.style.maxWidth='1650px';

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```

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else

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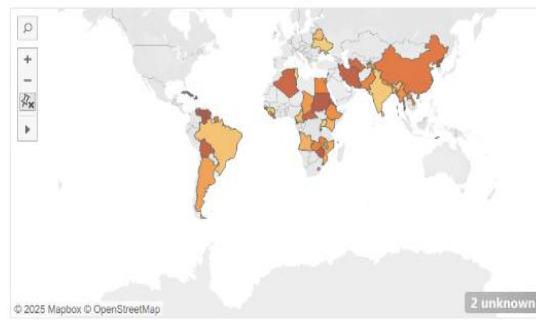
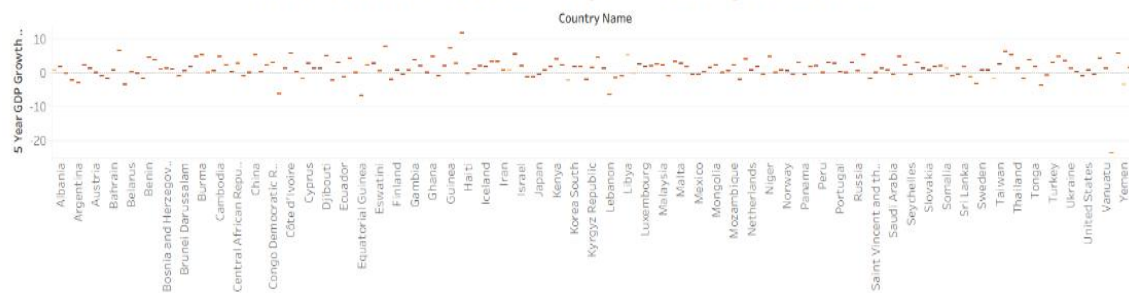# 8. RESULTS

8.1 DASHBOARDS
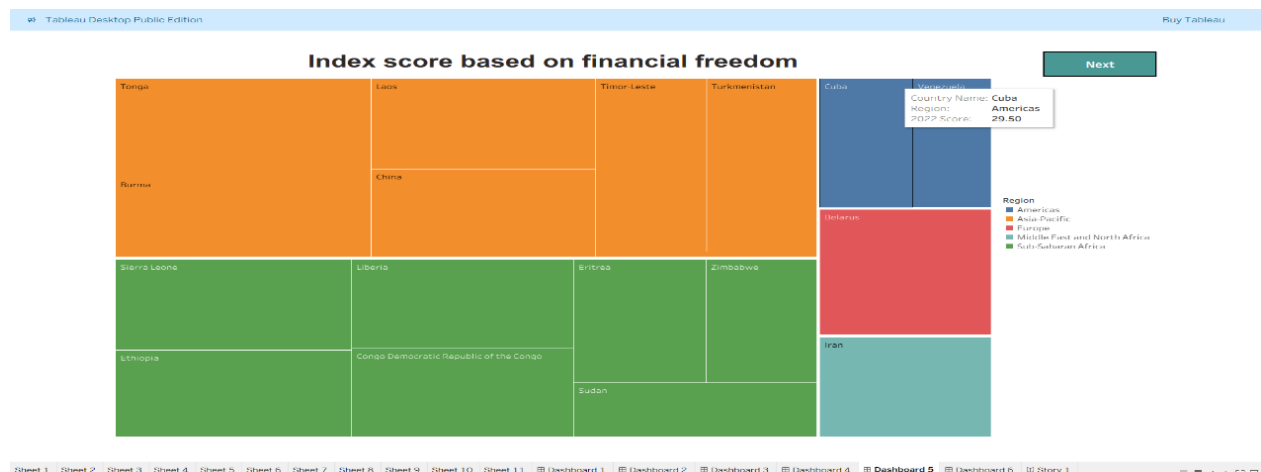
Top 40 ranking countries
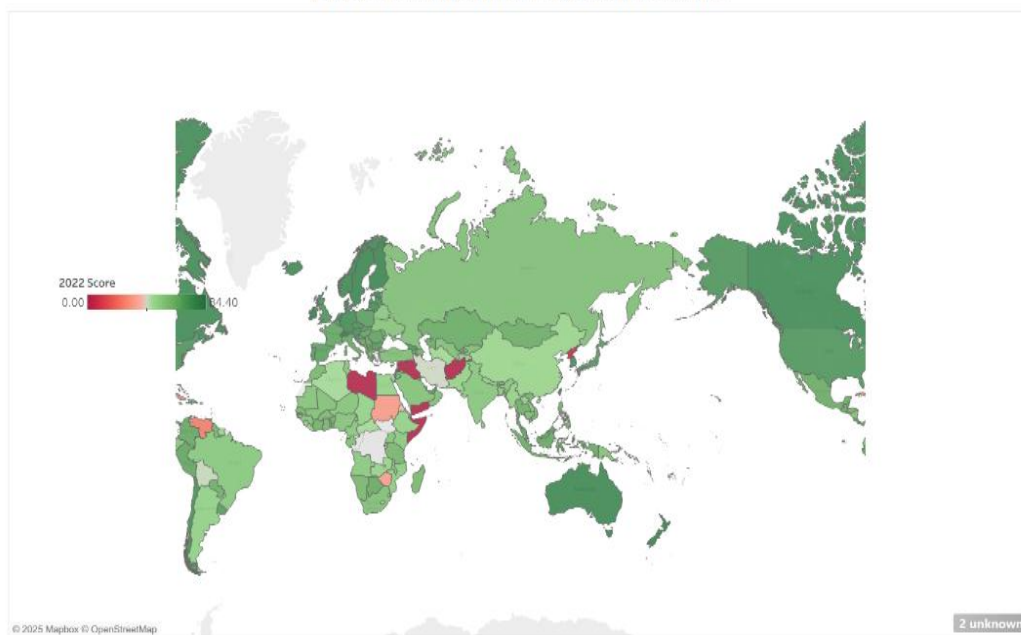
Bottom ranking countries

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2 unknown
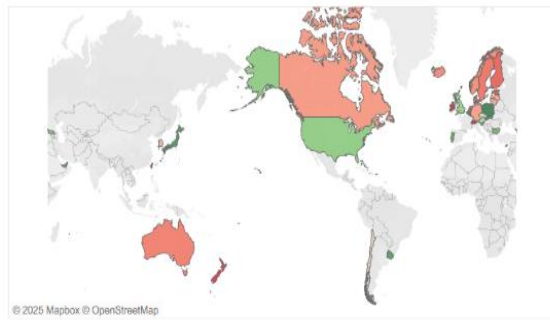
Index score based on 5 year GDP growth rate

Country Name

5 Year GDP Growth..

10

0

-10

-20

Albania | Argentina | Austria | Bahrain | Belarus | Benin | Bosnia and Herzegov.. | Brunei Darussalam | Burma | Cambodia | Central African Repu.. | China | Congo Democratic R.. | Côte d'Ivoire | Cyprus | Djibouti | Ecuador | Equatorial Guinea | Eswatini | Finland | Gambia | Ghana | Guinea | Haiti | Iceland | Iran | Israel | Japan | Kenya | Korea South | Kyrgyz Republic | Lebanon | Libya | Luxembourg | Malaysia | Malta | Mexico | Mongolia | Mozambique | Netherlands | Niger | Norway | Panama | Peru | Portugal | Russia | Saint Vincent and th.. | Saudi Arabia | Seychelles | Slovakia | Somalia | Sri Lanka | Sweden | Taiwan | Thailand | Tonga | Turkey | Ukraine | United States | Vanuatu | Yemen

2022 Economic freedom score

2022 Score
0.00   84.40

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2 unknown

Inflation rate in different countries
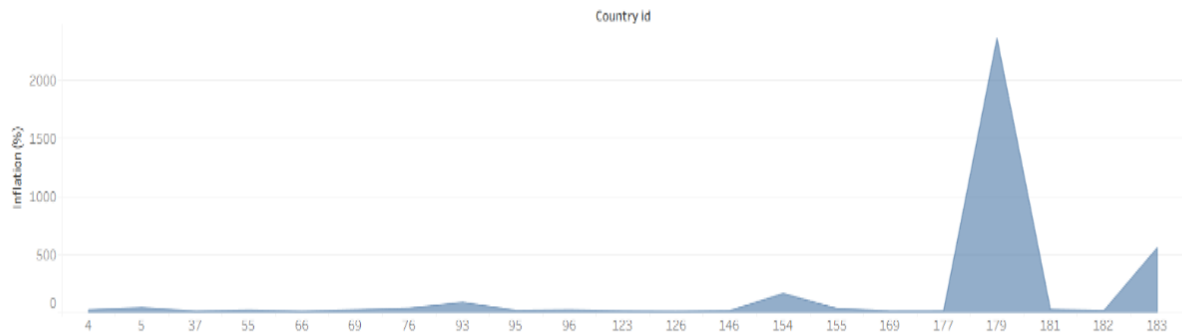
Country id

Top 40 countries by GDP growth rate

Country Name

Correlation between inflation and unemployment

Country Name

Country Name: **Venezuela**
Inflation (%): **2,355**

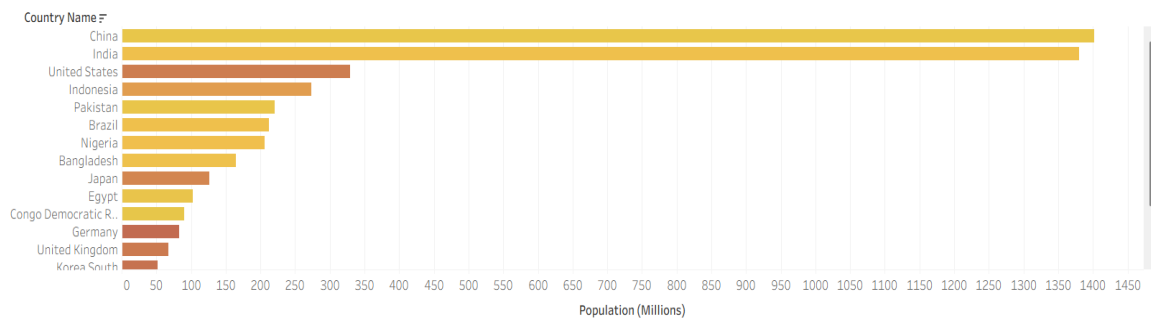# Correlation between GDP(PPP) and monetary freedom

Country Name
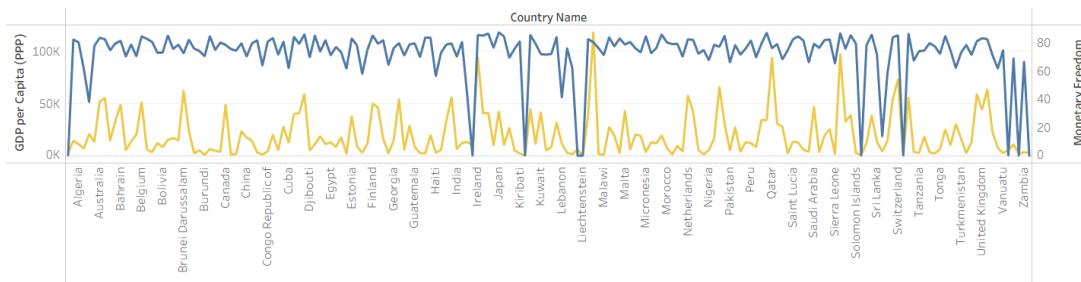
Correlation between inflation and unemployment
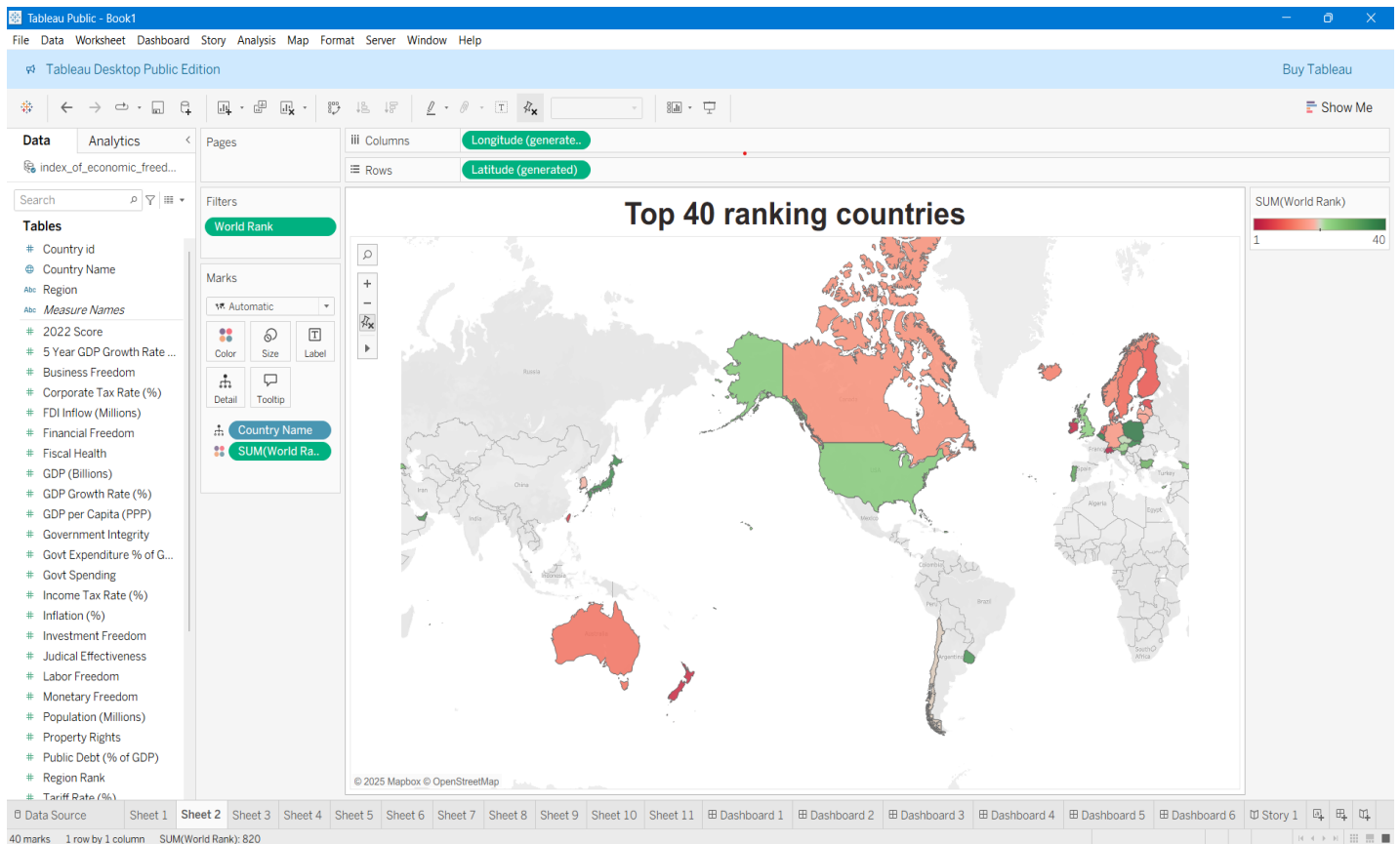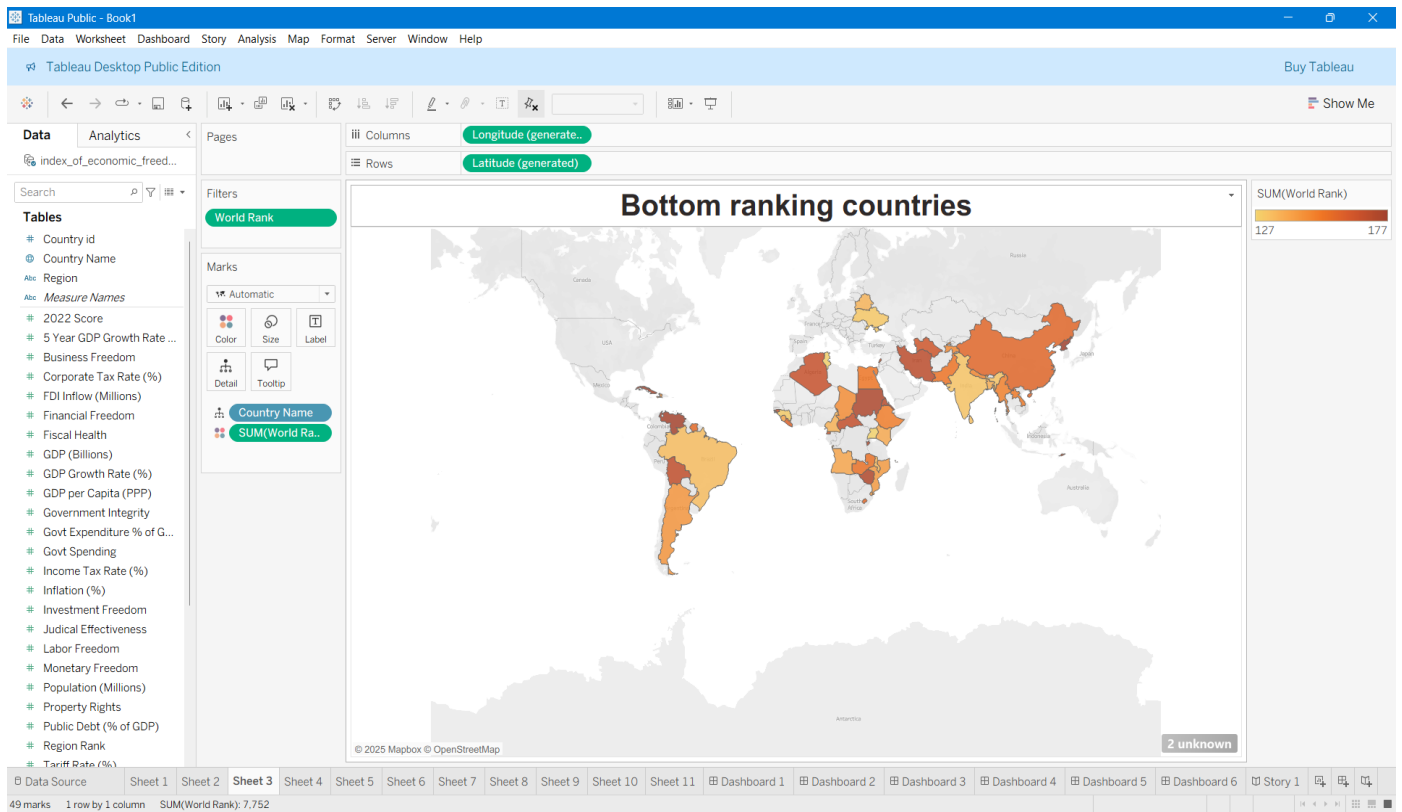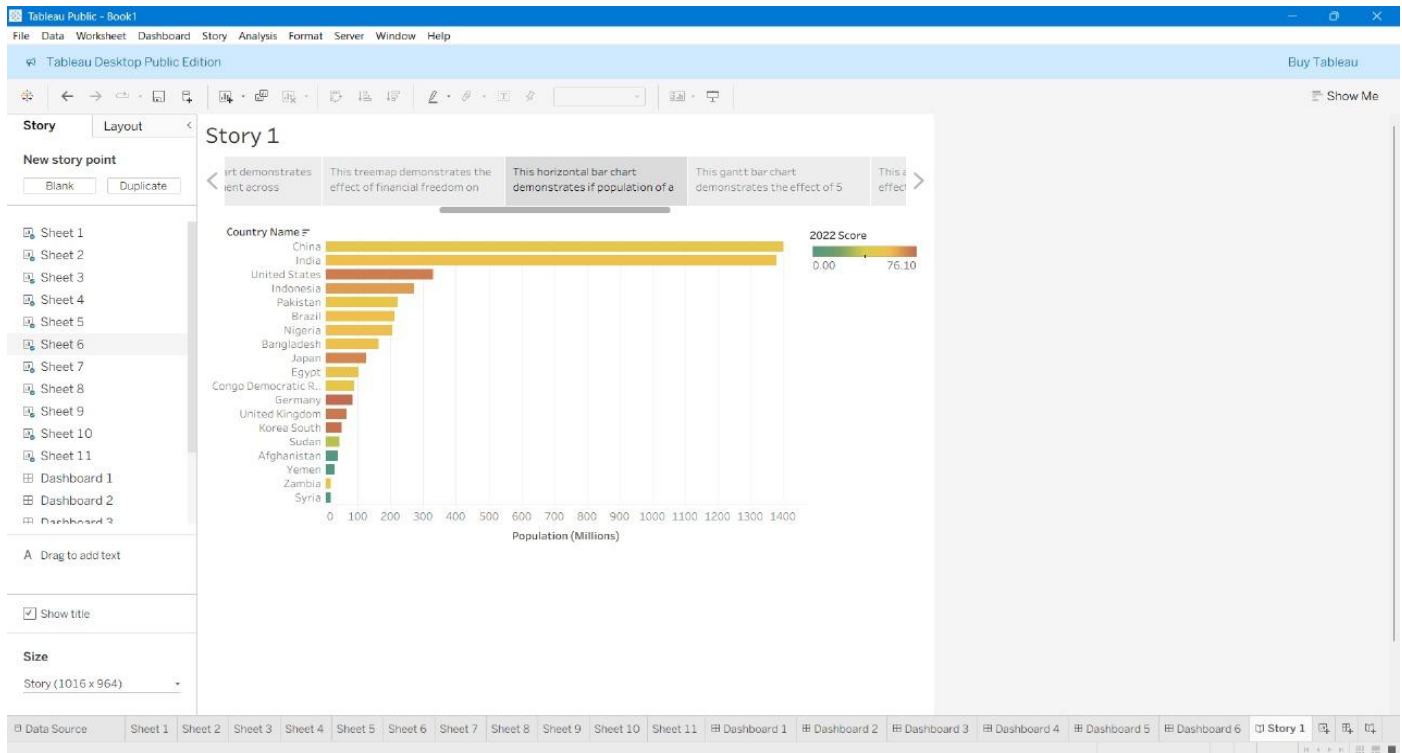
Return
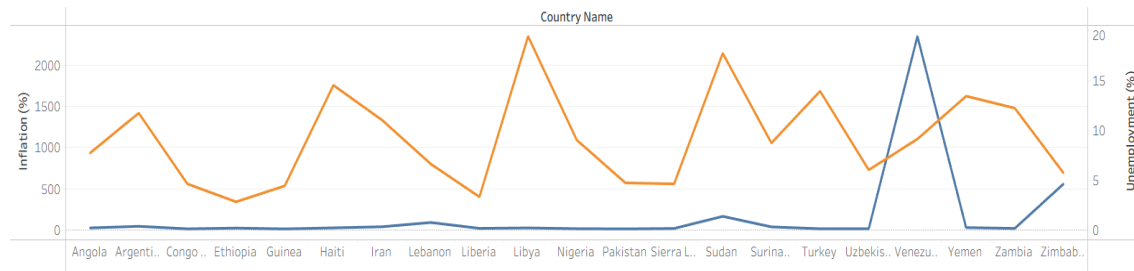
Index score based on population

Sheet 1 | Sheet 2 | Sheet 3 | Sheet 4 | Sheet 5 | Sheet 6 | Sheet 7 | Sheet 8 | Sheet 9 | Sheet 10 | Sheet 11 | ⊞ Dashboard 1 | ⊞ Dashboard 2 | ⊞ Dashboard 3 | ⊞ Dashboard 4 | ⊞ Dashboard 5 | ⊞ **Dashboard 6** | ᗢ Story 1

8.2 VISUALIZATION SHEETS

Bottom ranking countries

Top 40 countries by GDP growth rate

8.3 STORY

9. ADVANTAGES & DISADVANTAGES

Advantages:

- Easy to understand visuals
- Informs economic policies and decisions
- Comparative global perspective

Disadvantages:

- Static data, no real-time updates
- Limited to the dataset's scope and accuracy

10. CONCLUSION

This project successfully analyzed and visualized the Index of Economic Freedom. It showcased the global disparity in economic liberty and emphasized the importance of governance and openness in national progress.

11. FUTURE SCOPE

- Incorporate real-time economic data streams
- Add prediction models for future trends
- Extend dashboard with more interactive filters