



VINUNIVERSITY

# Data visualization project

## Interactive Global Economics Dashboard: Insights from Data Visualization

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# BACKGROUND



*Source: <https://nbfwm.ca>*

- Economic monitoring is key for informed decisions in policy, investment and research.
- Datasets:
  - World Bank
  - IMF
  - OECD databases
  - etc.

# PROBLEM AND MOTIVATION

- Case Study: to understand macroeconomic trends across various countries  
→ This is challenge, especially for those without technical expertise.

Static  
Reporting

Data  
Complexity

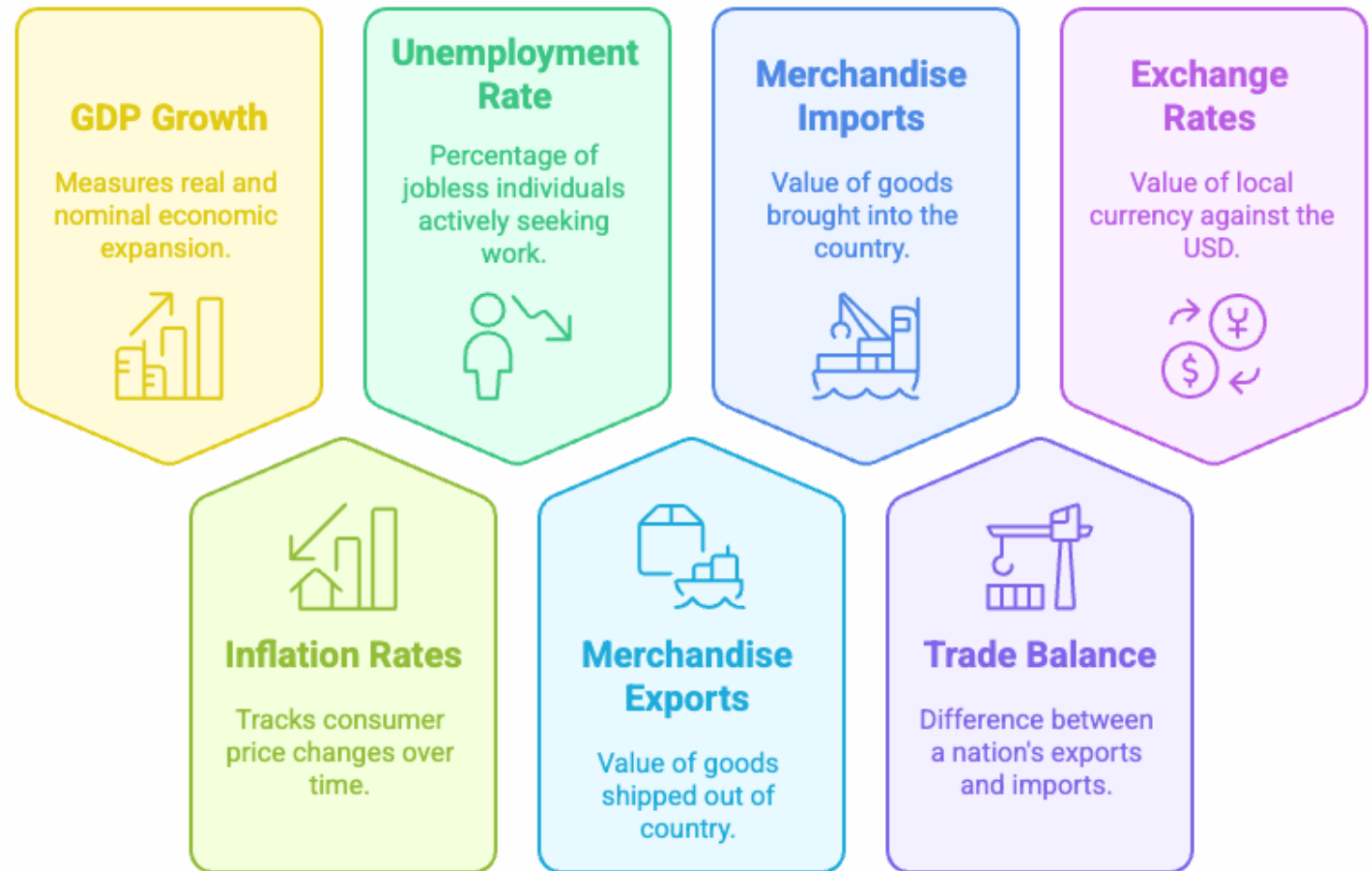
Fragmented  
Access

Limited  
Comparative

→ Our Motivation: to simplified this task.

# DATASET DESCRIPTION

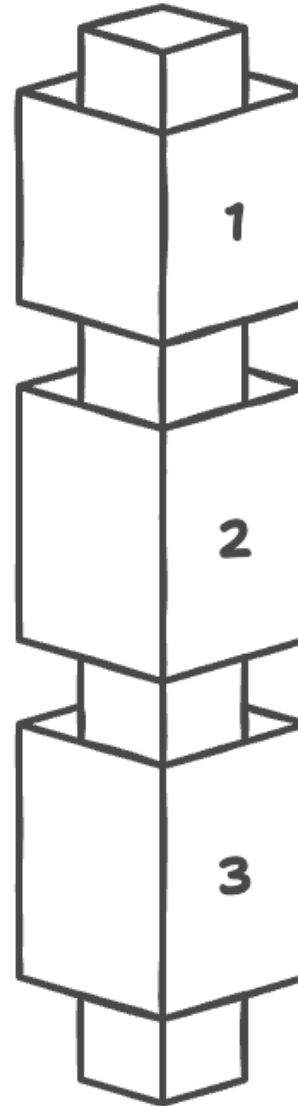
- Dataset from World Bank World Economics Indicator
- Annual frequency from the year 2000 to 2023
- Product: interactive dashboard built using an R Shiny app



# RESEARCH QUESTION

## Research Questions:

- What economic and social trends and characteristics emerged among the selected countries from 2000 to 2023?
- How have international trade conditions and trade balances evolved across these countries during this period?
- What notable fluctuations occurred in financial and monetary indicators, such as exchange rates, during this time?



### Analyze Trends

Identify economic and social trends from 2000 to 2023.



### Evaluate Trade

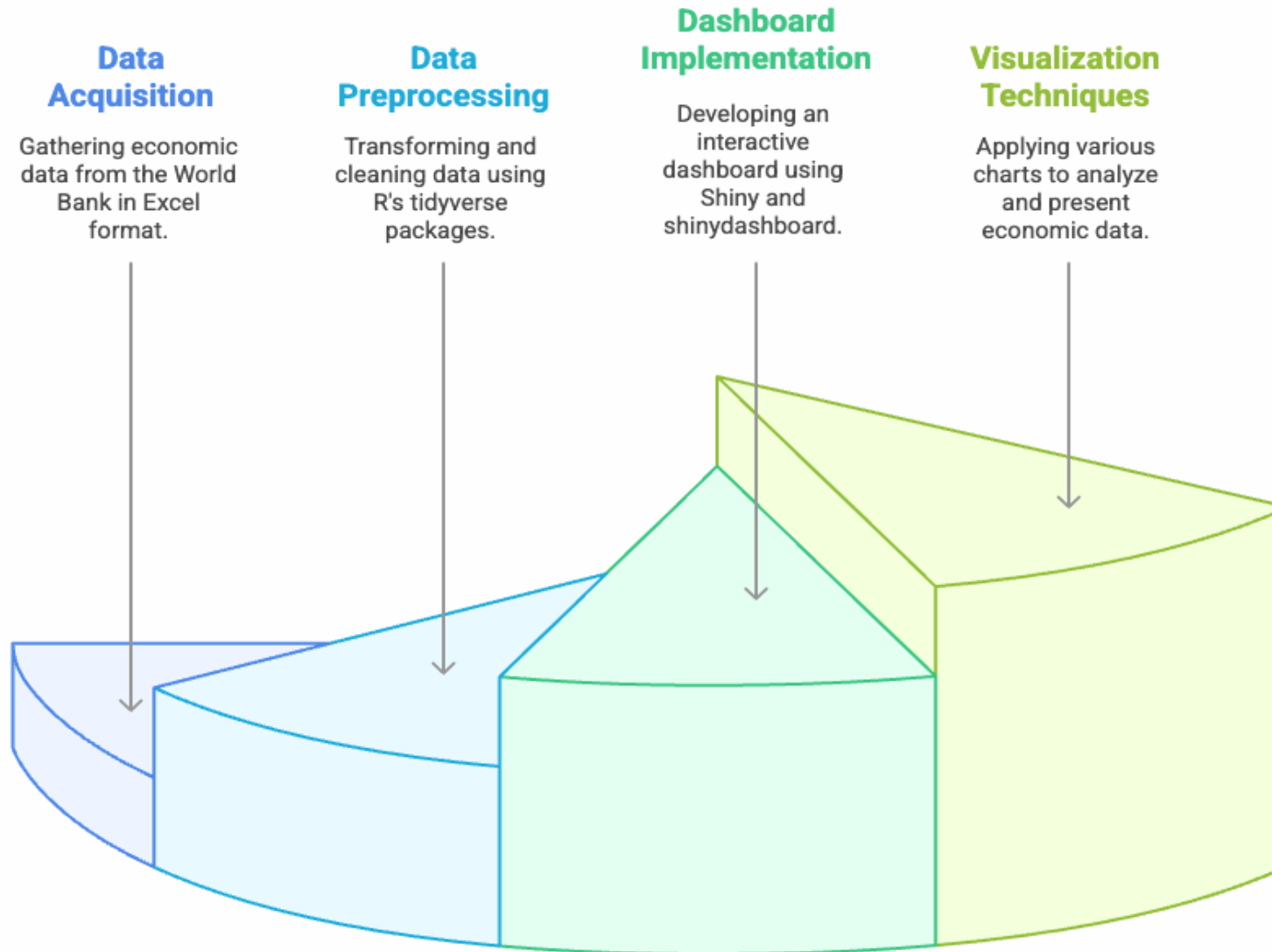
Assess the evolution of international trade conditions and balances.



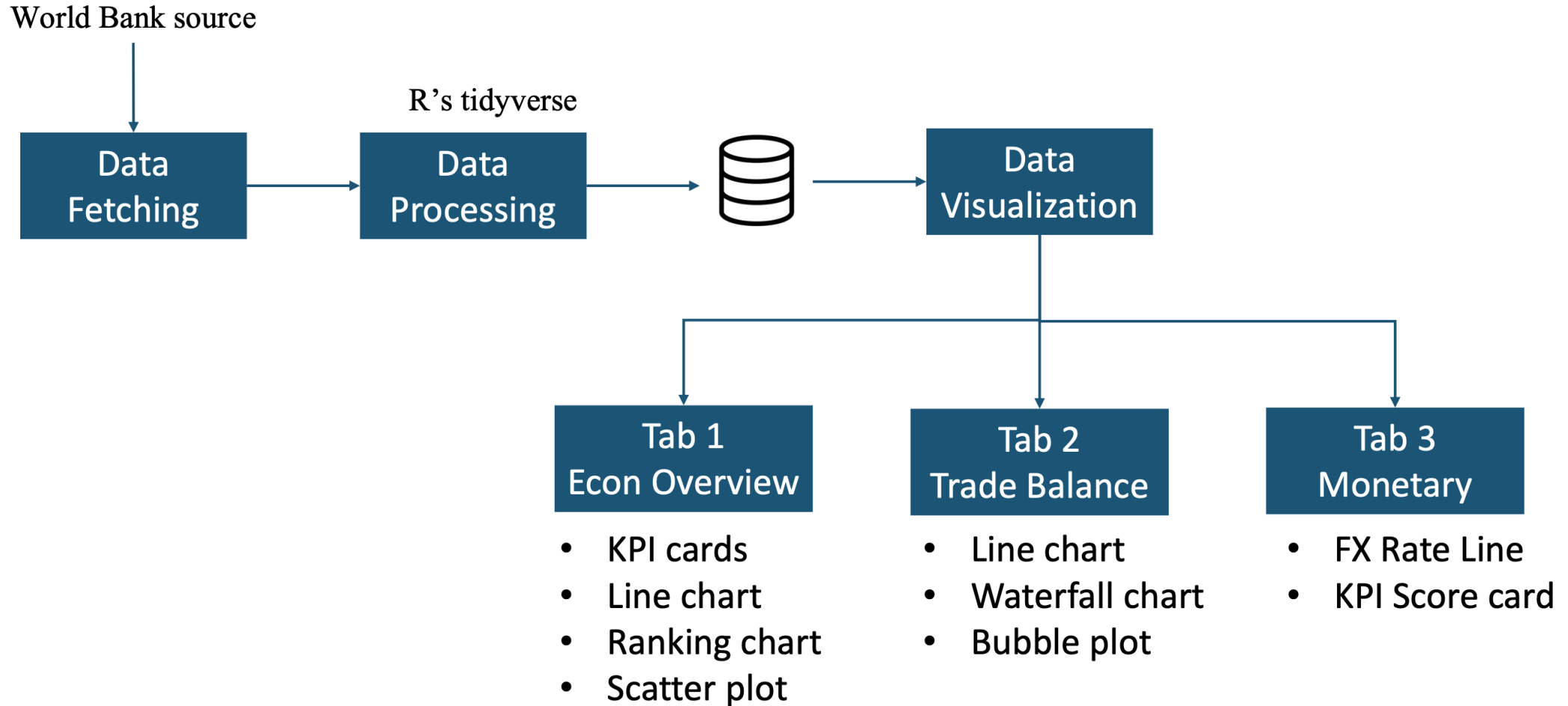
### Examine Fluctuations

Investigate fluctuations in financial and monetary indicators.

# METHODOLOGY



# WORKFLOW





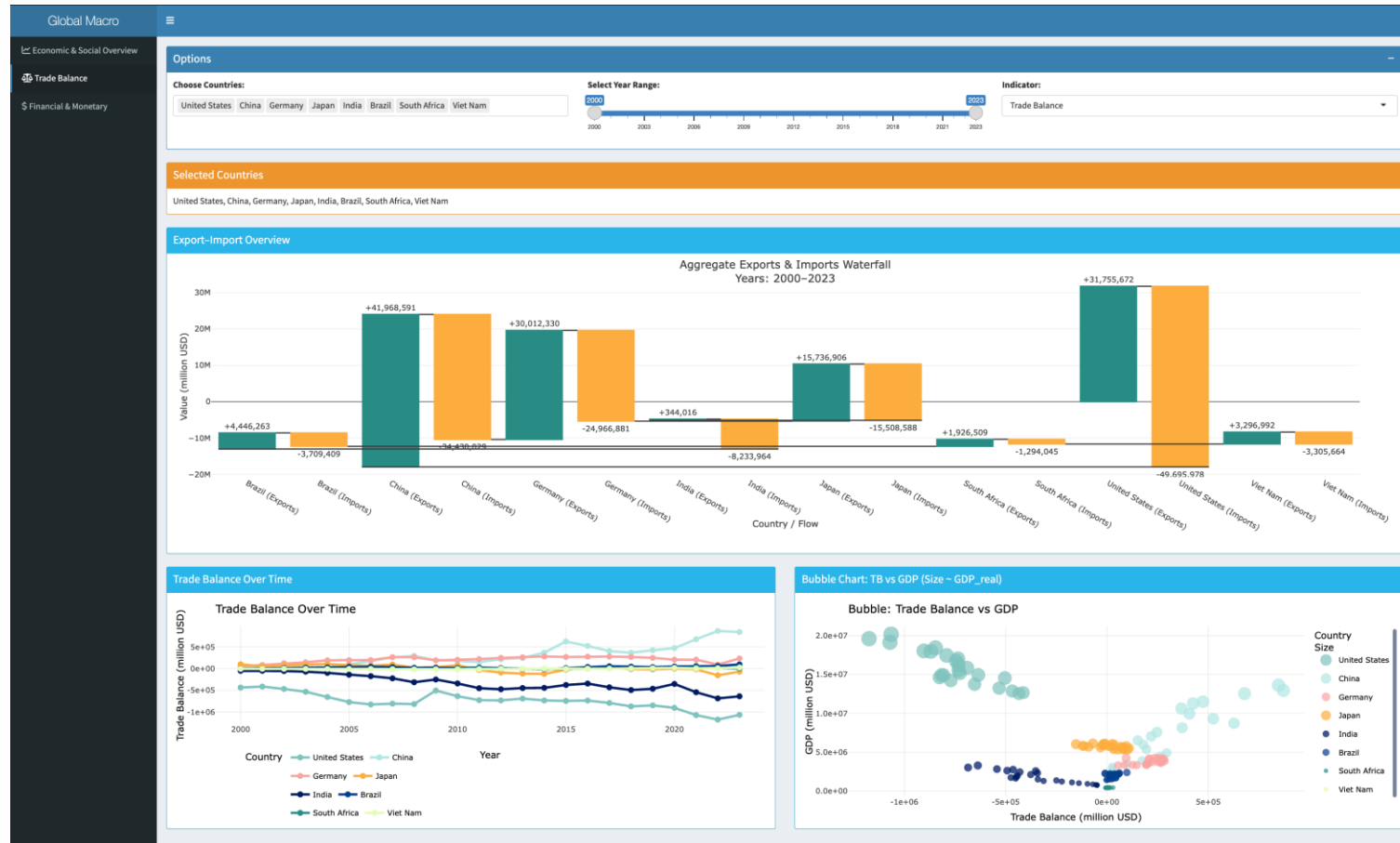
# DASHBOARD INTRODUCTION

## 3 Tabs:

- Economics & Social Overview
- Trade Balance
- Financial & Monetary Indicators

Characteristic	Economic & Social Overview	Trade Balance	Financial & Monetary Indicators
KPI Cards	Summarizes recent economic performance	None	Summarizes recent FX rates
Line Chart	Shows trends of economic indicators	Shows trends of exports and imports	Tracks evolution of exchange rates
Ranking Chart	Displays country rankings by indicator	None	None
Scatter Plot	Explores correlations between indicators	None	None
Waterfall Chart	None	Presents cumulative trade balance	None
Bubble Chart	None	Explores relationship between trade and GDP	None
KPI Scorecard	None	None	Identifies significant currency movements

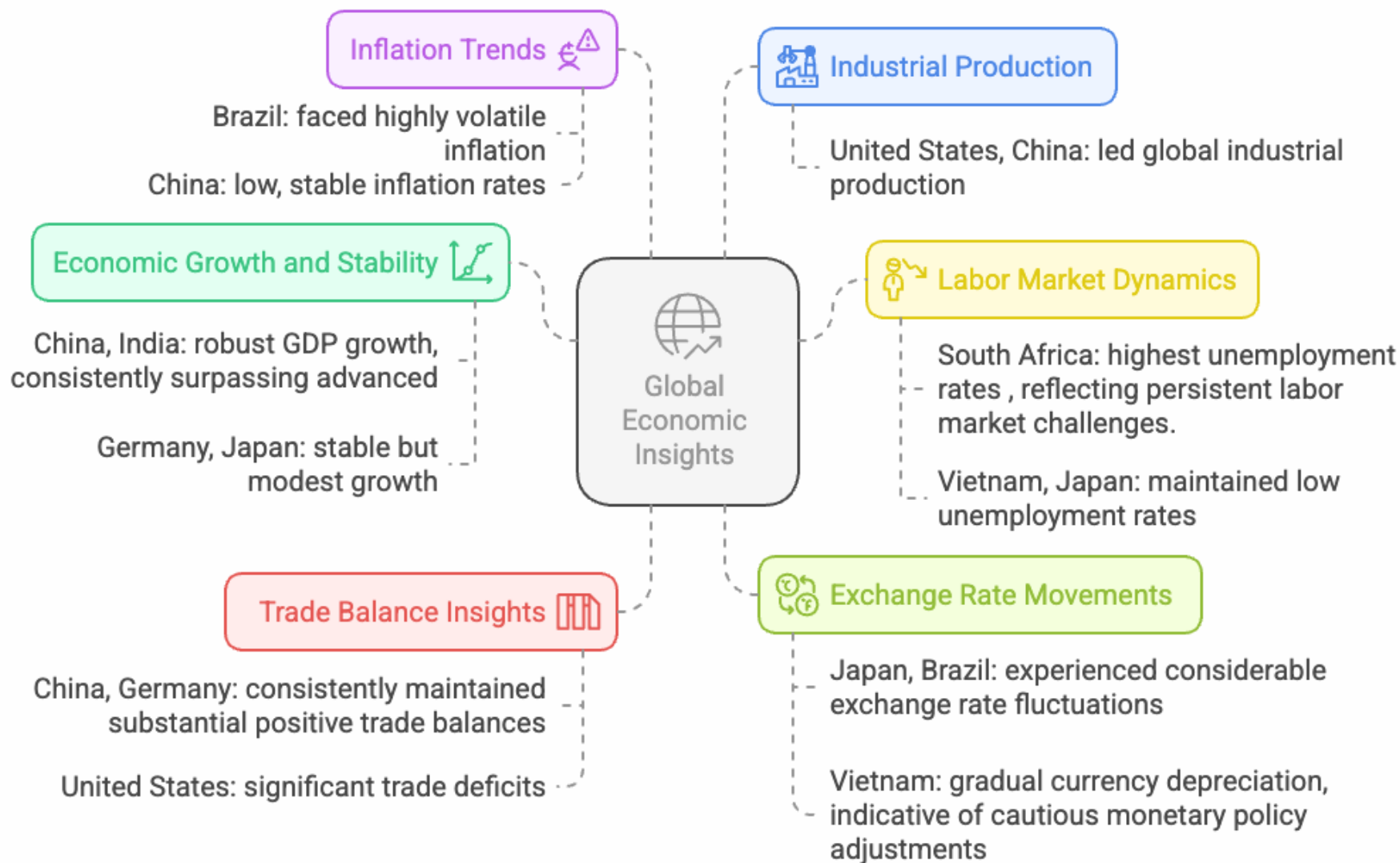
# DASHBOARD: AT A GLANCE



Link dashboard: <https://vyvvt.shinyapps.io/project2-economics/>

Link github: <https://github.com/cqpham28/data-vis-sp25/tree/main/Project2>

# KEY FINDINGS




# DISCUSSION

## PROs

- Multiple indicators 
- Interactive Exploration 
- Enhanced Data Exploration 

Dashboard Strengths

-  Data Gaps and Consistency

-  Limited Indicator Scope

-  Static Data Updates

Dashboard Limitations

## CONs

**THANK YOU!**