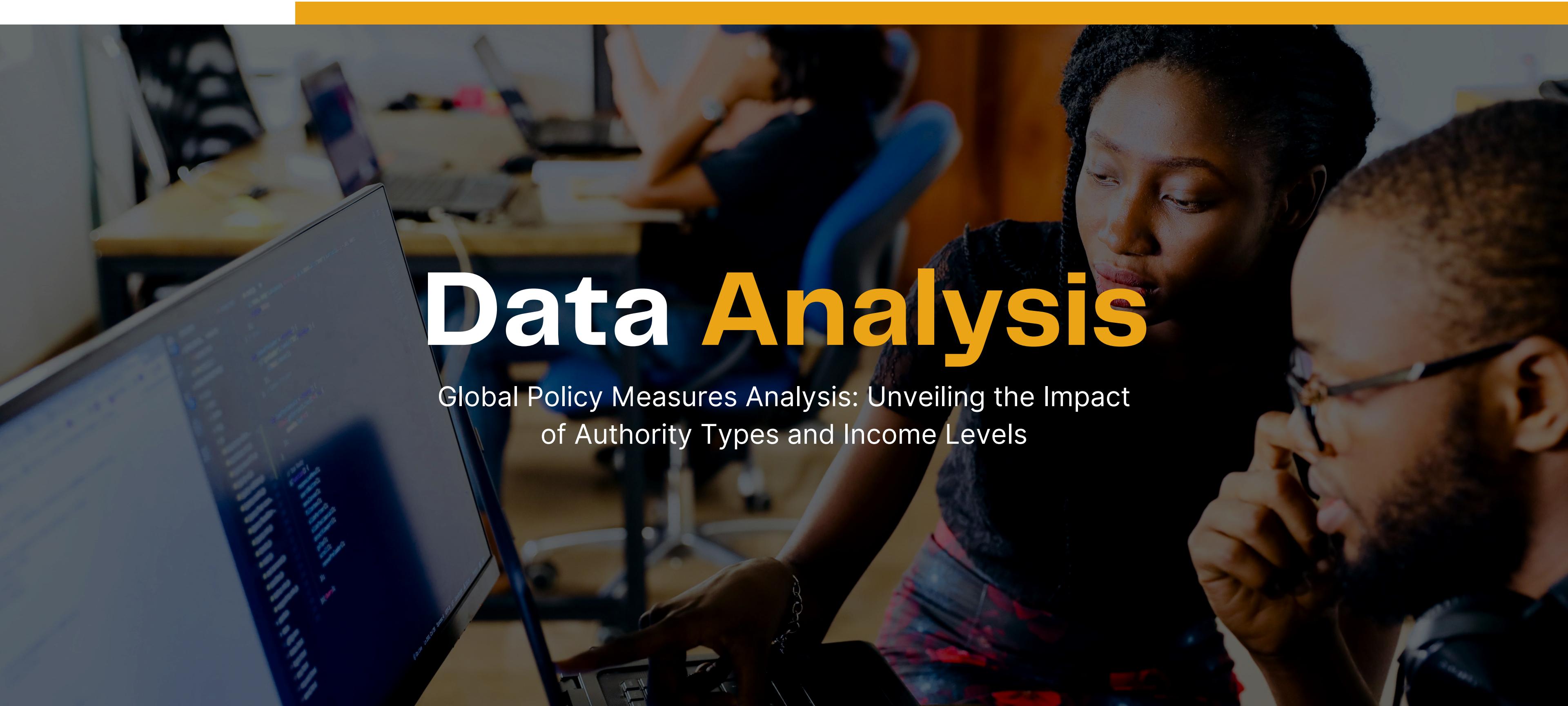


Data Analysis

Global Policy Measures Analysis: Unveiling the Impact
of Authority Types and Income Levels



Understanding Financials

This project focused on identifying and analyzing key policy measures and their impact across various countries, specifically highlighting the classification of countries based on the number of financial measures implemented.

By using clustering methods, PCA for dimensionality reduction, and visualizations like bar charts and heatmaps, we were able to identify trends, assess policy effectiveness, and uncover patterns in the global financial sector.



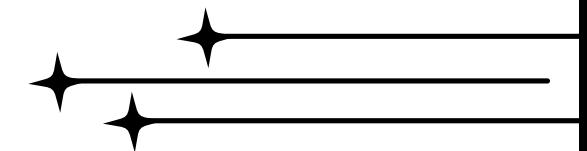
AV Vertical Data



The findings suggest significant variations in policy measures, especially between high-income and low-income countries.



Key insights on Financials



➤ Top Countries by Number of Financial Measures

Countries like India, Italy, and Korea lead in the number of financial measures implemented, focusing on key areas such as Banking, Financial Markets/NBFI, and Liquidity/Funding.

➤ Impact of Income Level on Policy Measures

High-income countries tend to adopt a broader range of financial measures, while lower-income countries primarily focus on Liquidity/Funding and Payment Systems, reflecting their differing economic priorities.

Top Countries and Key Features

Key Countries Leading

India, Italy, and Korea lead with the highest number of financial measures, showcasing their global influence.

Income Level Influence

High-income countries dominate the list, emphasizing the link between economic status and financial policy.

Authority Types

"CB" and "SUP" authorities are the most common, influencing policy design across these nations.

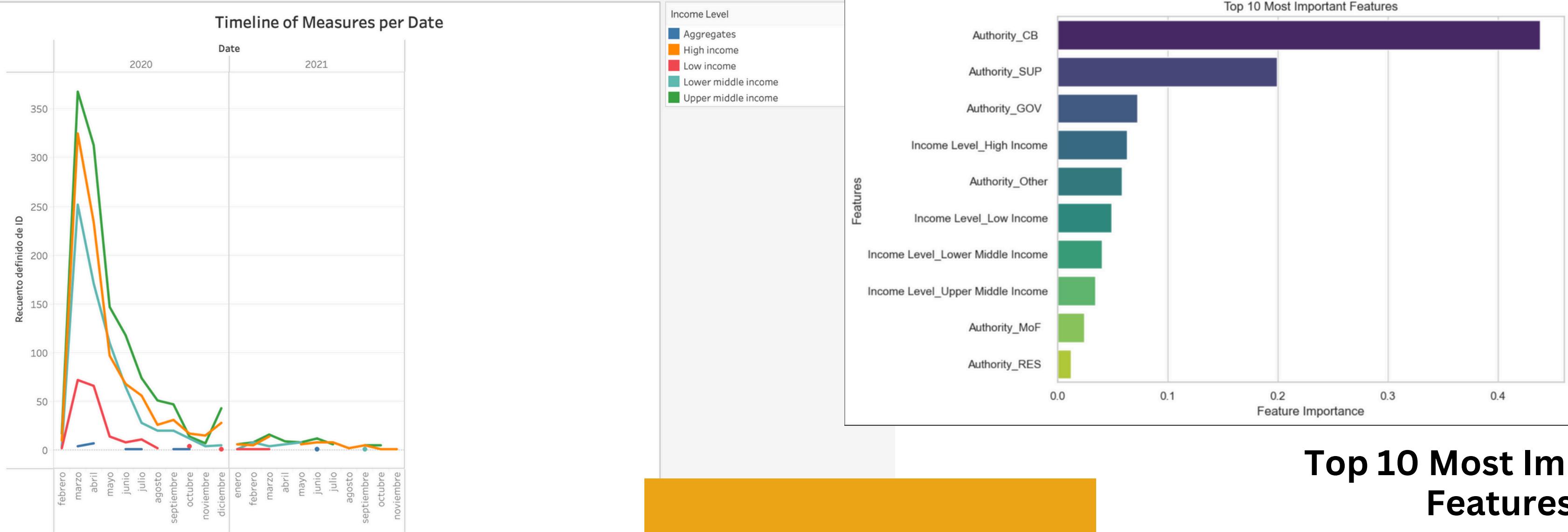
Global Policy Measures Distribution

Countries across Europe, Asia, and America show varying policy measures, with high concentrations in regions like Europe and North America.

The size and color variation of circles indicate a diverse range of policy measures applied, suggesting differentiated strategies globally.

GLOBAL





Timeline of Measures per Date

There was a significant spike in policy measures across all income levels during the early months of 2020, particularly from February to March, likely due to global responses to the COVID-19 pandemic.

Following the initial surge, the number of policy measures for all income levels decreased significantly, with a gradual stabilization observed throughout the rest of 2020 and into 2021, especially for lower income countries.

Top Insights Analysis

Top 10 Most Important Features

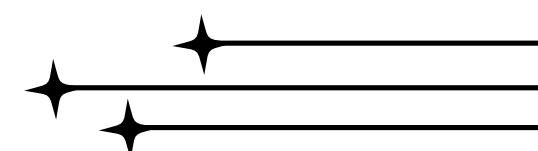
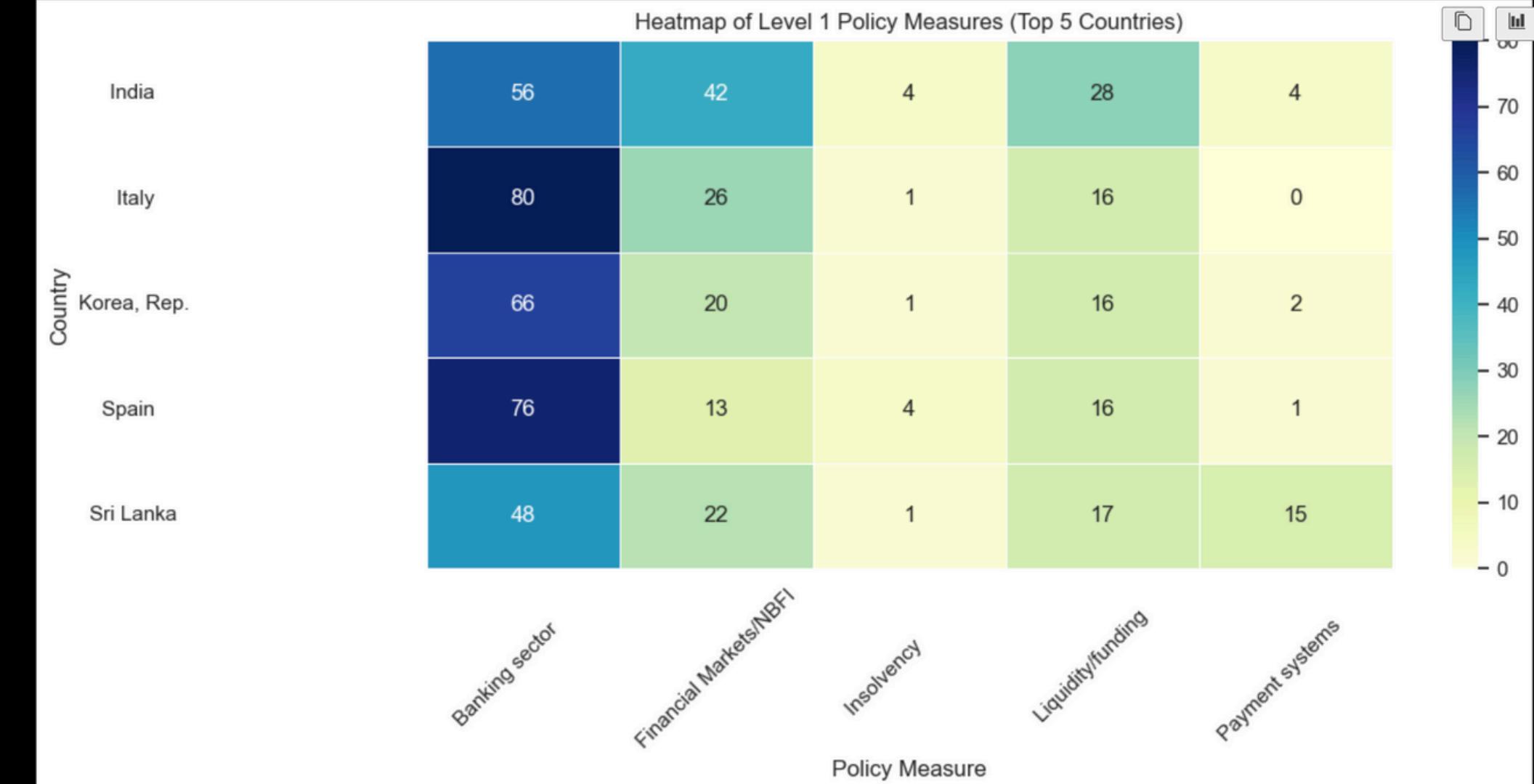
The most significant features in determining policy measures are the authority types, especially "Authority_CB" and "Authority_SUP," indicating their major influence on the shaping of policies across countries.

The "Income Level" features, particularly "Income Level_High Income," show a notable correlation with the policy measures, underlining the importance of economic status in policy implementation.

Policy Levels Measurements

Italy stands out with the highest number of policy measures, particularly excelling in the "Banking sector" and "Liquidity/funding" categories.

Countries like India and Korea focus heavily on "Banking sector" policies, while Sri Lanka's emphasis lies more in "Payment systems."



Performance

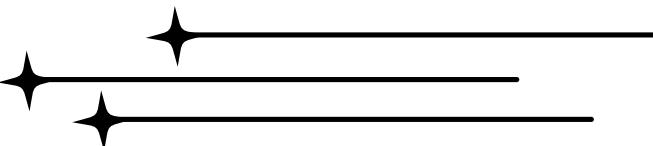
➤ **High Accuracy for Major Classes in All Models**

All three models (Random Forest, Logistic Regression, and Gradient Boosting) perform well in predicting the dominant class ("Banking sector"), with a high number of true positives in that category.

➤ **Better Performance in Minority Classes**

Random Forest and Gradient Boosting consistently outperform Logistic Regression, especially in the prediction of minority classes like "Financial Markets/NBFI" and "Payment systems."

MATRIX





➤ Data Quality

The analysis identified that "Authority_CB" and "Authority_SUP" were the most influential features in determining the types of policy measures adopted, particularly in higher-income countries.

➤ High-Income Countries Play a Crucial Role

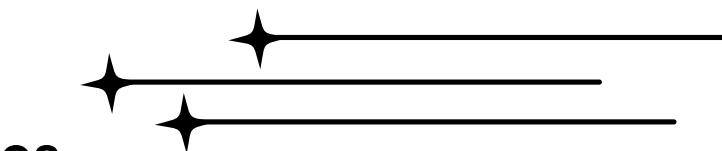
High-income countries are more likely to implement a higher number of policy measures, especially in sectors like "Banking" and "Liquidity/funding," showing a strong correlation between economic status and the type of policies enforced.

➤ Consistent Patterns Across Global Policies

Despite varying income levels and regional differences, common patterns emerge across countries, especially in their prioritization of financial stability and market liquidity, indicating global trends in economic policy responses.

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Challenges In Data Analysis





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Thank You
So Much

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