Executive Summary

Overview

This project analyzes global financial policy measures adopted during the COVID-19 pandemic, using clustering and classification models to reveal country-level patterns.

It integrates machine learning with interactive dashboards to support better understanding of governmental actions based on income level and authority type.

Key Findings and Recommendations

- Most financial measures were concentrated in high and upper-middle income countries, with central banks being the dominant implementing authority.
- The model's performance can be improved by addressing class imbalance and exploring additional features or ensemble methods.

Goals and Objectives

Analyze Financials

Understand how countries with different income levels and authority types responded financially to the COVID-19 crisis.

Clustering Responses

Use dimensionality reduction and clustering techniques (PCA + KMeans) to group countries based on policy behavior patterns.

Build Predictive Models

Train classification models (Random Forest, Logistic Regression, Gradient Boosting) to predict the type of policy implemented based on income level and authority.

Target Audience and Segmentation

| Category	Insights	Implication
Top Authority	Central Banks (CB)	Played the most significant role in financial policy deployment.
Most Active Income Level	Upper Middle Income Countries	Implemented the largest number of measures across all policy types.
Peak Policy Period	March-May 2020	Indicates urgent global response to COVID-19 economic impact.

Advertising and Promotions

Financial Measures by Country Income Level
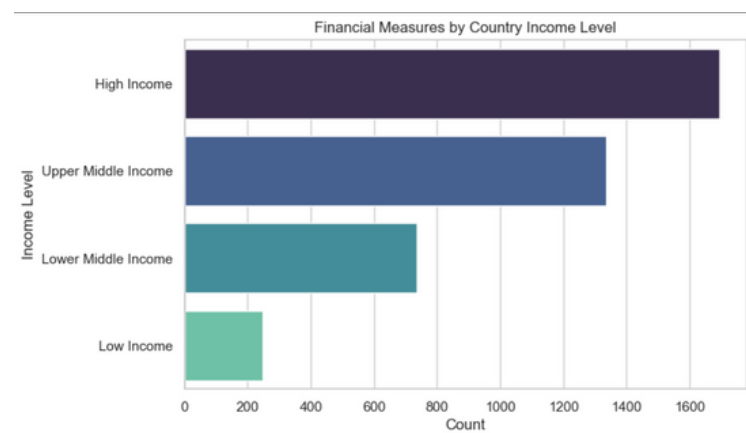
Executive Summary

Banking Sector Top Measures

383

Banking Sector Policy Engagement

Italy
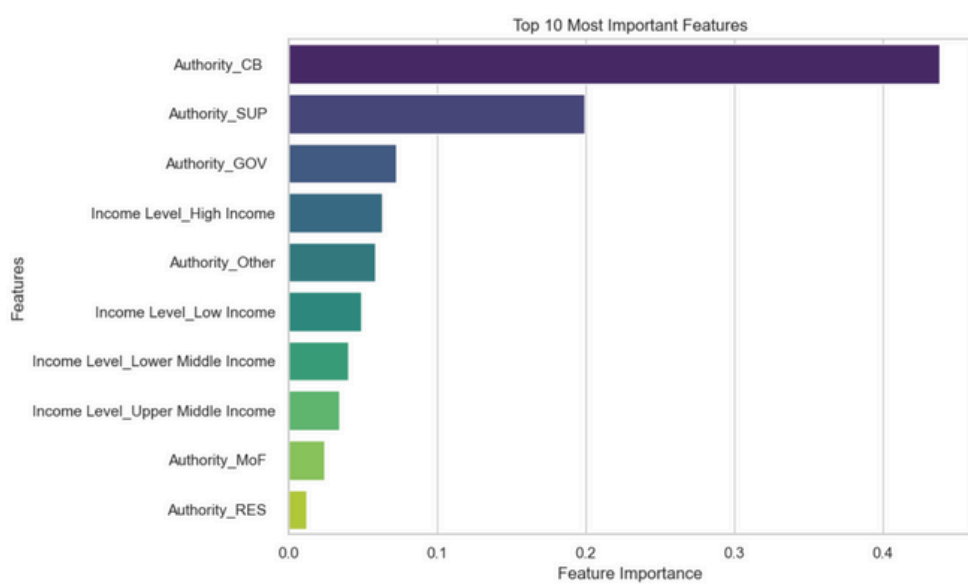
Authority Types and Economics

"Authority_CB" is the most important feature, followed closely by "Authority_SUP," emphasizing the crucial role of authority types in shaping policy measures

High-income countries play a significant role, as indicated by the feature "Income Level_High Income," suggesting a strong relationship between economic status and policy implementation.

Key Insights on Level 1

India, Italy, and Korea, Rep. are the top three countries, showing high engagement with the Banking Sector and Financial Markets/NBFI policies

Spain stands out with strong attention to Liquidity/Funding and Banking Sector policies, highlighting a diverse approach to financial measures.

Policy Measures by Country

Presented by

Juan J Pardo

This analysis highlights the significant role of income levels and authority types in shaping global policy measures. High-income countries, in particular, are pivotal in driving financial and policy interventions.