

Correlation between Inflation and Unemployment

Overview

This project investigates the relationship between inflation and unemployment using data from FRED and the World Bank. We test for correlation and estimate a simple linear model (Phillips-curve style) using monthly U.S. data and annual international data.

##Files and Roles ###data/ — datasets used in the project 1.T10YIE.csv — 10-Year Breakeven Inflation Rate (FRED) 2.UNRATE.csv — Unemployment Rate (FRED) 3.API_FP.CPI.TOTL.ZG_DS2_en_csv_v2_130173.csv — World Bank inflation (consumer prices, %) 4.API_SL.UEM.TOTL.NE.ZS_DS2_en_csv_v2_125709.csv — World Bank unemployment (% of labor force)

###Scripts/ — code organization 00_requirements.R — installs/loads required packages (tidyverse, lubridate, broom, ggplot2) 01_data_load.R — reads and cleans the datasets; aligns date/years 11_Breakev_Inf_By_Unem.R — analysis & plots for FRED (breakeven inflation vs. unemployment) 12_CPI_By_Unem.R — analysis & plots for World Bank (CPI vs. unemployment)

###Rmd's FinalReport.Rmd — combines all text, code, and figures into a complete reproducible report.

###report FinalReport.pdf — final rendered report from the Rmd file, showing code output, analysis, and written interpretation.

##Reproducibility Instructions 1. Open the project file **FinalProject.Rproj** in RStudio.

2. Run **Scripts/00_requirements.R** to load all packages.

3. Knit **FinalReport.Rmd** to generate the final report (**FinalReport.pdf**).

4. All data paths are relative, so the project can be run on any computer as long as the **data/** folder is in the same directory.