

This script aggregates FRED data (T10YIE & UNRATE) by year, calculating annual average inflation (10-Year Breakeven Inflation Rate) and unemployment rate. It merges both into one data frame (fred\_data) for visualization and regression analysis in later steps.

```
fred_inf_y <- fred_inflation %>% mutate(Year = year(as.Date(observation_date))) %>% group_by(Year) %>% summarise(Inflation = mean(T10YIE, na.rm = TRUE), .groups = "drop")  
fred_unem_y <- fred_unemploy %>% mutate(Year = year(as.Date(observation_date))) %>% group_by(Year) %>% summarise(Unemployment = mean(UNRATE, na.rm = TRUE), .groups = "drop")  
fred_data <- inner_join(fred_inf_y, fred_unem_y, by = "Year") %>% arrange(Year)
```