

## Problem Background

```
data <- data.table(read.csv(paste0(data.dir, "Stock_Bond.csv"),
                             header = T))

prices <- cbind(GM = data$GM_AC, F = data$F_AC, CAT = data$CAT_AC, UTX = data$UTX_AC,
                MRK = data$MRK_AC, IBM = data$IBM_AC)

n <- nrow(prices)

returns <- data.table(100 * (prices[2:n,] / prices[1:(n-1),] - 1))

mean_vec <- colMeans(returns)
cov_mat <- cov(returns)
sd_vect <- sqrt(diag(cov_mat))
```

```
ggpairs(returns)
```

