Dublin R Workshop on Bootstrapping

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1. Introducing the Bootstrap

Exercise 1.1 Using the code in file `basic_bootstrap.R`, run a basic bootstrap on the mean of the air conditioning data.

Exercise 1.2

Exercise 1.3

2. Using the Bootstrap with Regression

3. Using the Bootstrap with Portfolio Optimisation

Exercise 3.1 Using the data in `equity_returns.rds`, and the function `portfolio.optim()` in the *tseries* package, calculate the optimum portfolio weights for the four equities given.

Exercise 3.2 Using the code in `portfolio_bootstrap.R`, run the bootstrap on the portfolio optimisation problem. Investigate the output. Use 120 days for each bootstrap.

Exercise 3.3 Investigate the effect of bootstrap sample size on the output of the bootstrap.