

Exercise 6B: Drawdown Analysis

BUSI 722: Data-Driven Finance II

Using the portfolio return series from Exercise 5, analyze drawdowns for the long-short and long-only portfolios.

Submission

Submit a **Jupyter notebook** (.ipynb) containing all code, output, and charts. Use markdown cells for any written discussion.

For the long-short linear-weight portfolio (Exercise 5B):

1. Compute the **drawdown** series: $dd_t = (V_t - V_{\max,t})/V_{\max,t}$ where V_t is the cumulative portfolio value.
2. Report the **maximum drawdown**, its start date, trough date, and recovery date (if recovered).
3. Report the 5 worst monthly returns and the 5 largest drawdowns.
4. Plot the **underwater chart** (drawdown over time).
5. Repeat for the long-only top-decile portfolio (Exercise 5A). In a markdown cell, discuss which portfolio has deeper drawdowns and why.