STEP1 Data Preprocessing

Required data: VVVV.xls (SPY hist. and implied vol.)

Using Excel to calculate spread and determine long/short.

Using Excel to generate price_original (tested period SPY price) and VVV_original (SPY traded signals summary)

STEP2 Select out SPY options from original data and process a summary

Required data:

DATA_original (All SPY option dataset), price_original (tested period SPY price),

VVV_original (tested period SPY price)

Run: Code_R then you have output.csv

STEP3 Dynamic hedging & Implementing Strategy

Required data: output.csv, price_.csv (descending order of price_original.csv with delta)

Run: Vol Arb.R (to line 94)

You get a summary of P&L and Cost of the strategy "Rehedged.csv"

STEP4 Visualize performance

Required data: Rehedged.csv

Using Excel to calculate profit and loss and can create a new csv "RTN.csv"

Run: Vol Arb.R (line 96 to end) using "RTN.csv" to visualize strategy performance.