

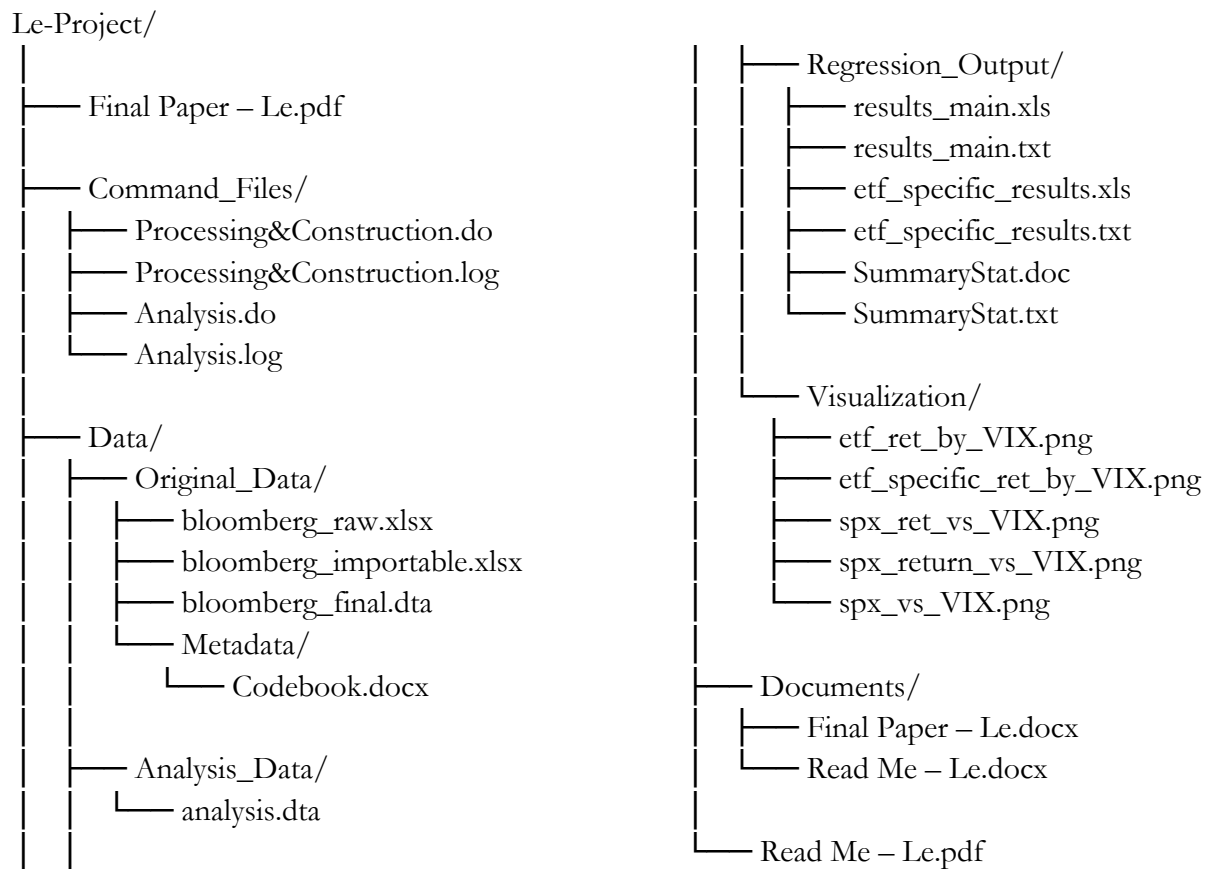
## README FILE FOR ECON 467 PROJECT

**“How does market sentiment, proxied by the VIX, affect the returns of major ETFs representing different equity market segments?”**

*December 2025*

### 1. Contents of the Replication Documentation

This replication package contains all data, code, and documentation required to reproduce the empirical results in the final paper. The project folder is organized as follows:



### 2. Creation of Importable Data

From data extracted from Bloomberg Terminal, we only need to change the column headers to standardized Stata variable names to arrive at the importable dataset. Specific name changes are outlined in the following table.

Original Headers	New Headers
SPY US Equity (R3)	SPY
QQQ US Equity (R3)	QQQ
IWM US Equity (L2)	IWM
VUG US Equity (R3)	VUG
VTI US Equity (L2)	VTI
EFA US Equity (R2)	EFA
EEM US Equity (R2)	EEM
XLFX US Equity (R2)	XLFX
XLK US Equity (L2)	XLK
VIX Index (R2)	VIX
SPX Index (L3)	SPX
USGG10YR Index (L1)	US10YR
USGG3M Index (L1)	US3M
MOODCBAA Index (R1)	CBAA
MOODCAAA Index (R1)	CAAA

### 3. Instructions for Replicating the Study

To replicate this study, the required software is Stata BE, Version 18, and the package *outreg2* needs to be installed to export regression and visualization outputs.

#### Replication Steps

- **Step 1: Set Working Directory**
  - Open Stata and set the working directory to the main project folder: Le-Project/
- **Step 2: Run Data Processing and Construction**
  - Execute the following file: Command\_Files/*Processing&Construction.do*
    - This script does the following:
      - Imports *bloomberg\_importable.xlsx*
      - Constructs the following variables:
        - ETF weekly log returns
        - S&P 500 weekly returns
        - VIX–SPX interaction term
        - Term and credit spreads
      - Reshapes ETF price data from wide to long format
      - Saves the final analysis dataset as: Data/Analysis\_Data/*analysis.dta*

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- **Step 3: Run Empirical Analysis**

- Execute: Command\_Files/*Analysis.do*

- This script:

- Loads *analysis.dta*
    - Produces summary statistics and descriptive visualizations
    - Estimates fixed-effects panel regressions
    - Estimates ETF-specific regressions
    - Exports regression tables and figures to:
      - Data/Regression\_Output/
      - Data/Visualization/

(All tables and figures reported in the paper are generated by this file.)

### ***Expected Output***

Successful replication will reproduce:

- *analysis.dta*
- Summary statistics tables
- Regression output files
- All figures used in the paper
- Log files documenting execution