MATLAB Code Documentation for "Short Interest and Aggregate Stock Returns" (Documentation Version: February 8, 2016)

- If you have questions, please contact Dave Rapach at rapachde@slu.edu.
- All data are in the Excel spreadsheet **Returns_short_interest_data.xlsx**.
- Output is written to the Excel spreadsheet **Returns_short_interest_results.xlsx**.
  - I ran the MATLAB program files on a MacBook Pro, so that the results are written to the Excel spreadsheet using 'xlwrite' (available from MATLAB Central File Exchange). If you run MATLAB on a Windows-based machine, use 'xlswrite' in place of 'xlwrite' and delete or comment out the lines with 'javaaddpath' near the top of the files.
- The MATLAB programs utilize functions from Jim LeSage's Econometrics Toolbox.
- The MATLAB programs call the following functions (provided):
  - **Compute_IVX_Wald.m**
  - **Compute_MZ_ADF_GLS.m**
  - **Compute_qLL_hat.m**
  - **Compute_t_lambda.m**
  - **Compute_z_lambda_md.m**
- **Program_generate_GW_predictors.m** generates the 14 Goyal-Welch predictor variables. The predictor variables are saved to **Program_generate_GW_predictors.mat**.
- **Program_main.m** generates the following:
  - Summary statistics reported in Table 1
  - Predictor variable correlation matrix reported in Table 2
  - In-sample predictive regression estimation results reported in Table 3
  - Out-of-sample test results reported in Table 5
  - Harvey, Leybourne, and Taylor (2007) $z_{\lambda}^{m\delta}$ statistics given in footnote 11
  - Ng and Perron (2001) MZ_{α}^{GLS} and ADF^{GLS} statistics given in footnote 12
  - Out-of-sample R^2 statistics for alternative detrending methods discussed in footnote 21 and reported in Table A1
  - Kostakis, Magdalinos, and Stamatogiannis (2015) IVX-Wald statistics discussed in Section 3.4.1 and reported in Table A2
  - Elliott and Müller (2006) $\widehat{\text{qLL}}$ statistics discussed in Section 3.4.2 and reported in Table A2
  - Harvey, Leybourne, and Taylor (2009) t_{λ} statistics given in footnote 24

- **Program_additional_in_sample_PR_results.m** generates the following:
  - In-sample predictive regression estimation results for alternative detrending methods reported in Table 4
  - In-sample predictive regression estimation results for different decadal subsamples discussed in Section 3.4.2 and reported in Table A3
  - In-sample predictive regression estimation results for different excess return measures discussed in Section 3.4.3 and reported in Table A4
  - In-sample predictive regression estimation results for different short interest measures discussed in Section 3.4.4 and reported in Table A5
  - In-sample predictive regression estimation results for quasi-value-weighted short interest discussed in Section 3.4.5 and reported in Table A5
- **Program_asset_allocation.m** generates the following:
  - Out-of-sample CER gains reported in Table 6
  - Sharpe ratios reported in Table 7
- **Program_VAR_decomposition.m** generates the following:
  - Predictive regression estimation results for market return components in Table 8