MATLAB Code Documentation for "International Stock Return Predictability: What is the Role of the United States?"

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- If you have questions, please contact Dave Rapach at rapachde@slu.edu.
- All data are available in the Excel spreadsheet **Returns_international_data_1980_2010.xls**. The MATLAB programs load the following data files:
  - **Data_1980_2010_equity_premium_GFD.m**
  - **Data_1980_2010_equity_premium_MSCI.m**
  - **Data_1980_2010_bill_GFD.m**
  - **Data_1980_2010_dividend_yield_GFD.m**
  - **Data_1980_2010_equity_premium_GFD_exclude_last_day.m**
  - **Data_1980_2010_industrial_production_growth.m**
  - **Data_1980_2010_term_spread.m**
  - **Data_1980_2010_inflation.m**
  - **Data_1980_2010_real_exchange_rate_growth.m**
  - **Data_1980_2010_real_oil_price_growth.m**
  - **Data_1980_2010_equity_premium_USD.m**
  - **Data_1980_2010_equity_premium_USD_exclude_last_day.m**
- Output is written to the Excel spreadsheet **Returns_international_results_1980_2010.xls**. (The MATLAB commands to write to the spreadsheet are commented out.)
- The MATLAB programs utilize functions from Jim LeSage's Econometrics Toolbox.
- The MATLAB programs call the following functions (provided):
  - **Estimate_benchmark_GMM.m**
  - **Perform_AHW_bias_reduction_bivariate_VAR.m**
  - **Perform_YK_bias_reduction_bivariate_VAR.m**
  - **Estimate_benchmark_USA_GMM.m**

  - **Perform_mARM_2_predictors.m**
  - **Compute_return_exclude_last_day.m**
  - **Estimate_Granger_pairwise_GMM.m**
  - **Select_ARDL_lag_AIC.m**
  - **Estimate_ARDL.m**
  - **Compute_bootstrap_CI_90.m**
  - **Perform_selection_AdENET.m**
  - **Compute_objective_news_system.m**
  - **Compute_moments_news_system.m**
  - **Compute_GMM_weight_matrix.m**
  - **Compute_objective_news_system_pool.m**
  - **Compute_moments_news_system_pool.m**
  - **Perform_CW_test.m**

- The results reported in Tables II and AIII are generated by
  - **Benchmark_OLS_1980_2010_GFD.m**.
- The pooled regression results corresponding to Ang and Bekaert (2007) discussed in the seventh paragraph of Section I are generated by
  - **Benchmark_AB2007_1980_2010_GFD.m**.
- The results reported in Table AIV are generated by
  - **Benchmnark_OLS_1980_2010_MSCI.m**.
- The results reported in Table AV are generated by
  - **Benchmark_OLS_USA_1980_2010_GFD.m**.
- The results reported in Table AVI are generated by
  - **Benchmark_mARM_1980_2010_GFD.m**.
- Monthly returns that exclude the last trading day of the month are generated by
  - **Generate_return_exclude_last_day.m**.
- The results reported in Tables III and AVIII are generated by

  - **Granger_pairwise_exclude_1980_2010_GFD.m**.

- The results reported in Table AIX are generated by
  - **Granger_IP_growth_1980_2010.m**.
- The results reported in Table AX are generated by
  - **Granger_pairwise_raw_1980_2010_GFD.m**.
- The results reported in Table AXI are generated by
  - **Granger_pairwise_raw_1980_2010_MSCI.m**.
- The results reported in Table AXII are generated by
  - **Granger_pairwise_exclude_PC_1980_2010_GFD.m**.
- Monthly returns measured in U.S. dollars that exclude the last trading day of the month are generated by
  - **Generate_return_USD_exclude_last_day.m**.
- The results reported in Table AXIII are generated by
  - **Granger_pairwise_exclude_1980_2010_USD.m**.
- The results reported in Table AXIV are generated by
  - **Granger_breaks_exclude_1980_2010_GFD.m**.
- The results reported in Table AXV are generated by
  - **Granger_pairwise_exclude_futures.m**.
- The results reported in Table IV are generated by
  - **Granger_general_pool_exclude_1980_2010_GFD.m**.
- Estimation of the adaptive elastic net models is based on the MATLAB version of the glmnet package available from The Lasso Page.
- The results reported in Table V are generated by the following files:
  - **Granger_AdENET_AUS_exclude_1980_2010_GFD.m**

  - **Granger_AdENET_CAN_exclude_1980_2010_GFD.m**
  - **Granger_AdENET_FRA_exclude_1980_2010_GFD.m**
  - **Granger_AdENET_DEU_exclude_1980_2010_GFD.m**
  - **Granger_AdENET_ITA_exclude_1980_2010_GFD.m**
  - **Granger_AdENET_JPN_exclude_1980_2010_GFD.m**
  - **Granger_AdENET_NLD_exclude_1980_2010_GFD.m**
  - **Granger_AdENET_SWE_exclude_1980_2010_GFD.m**
  - **Granger_AdENET_CHE_exclude_1980_2010_GFD.m**
  - **Granger_AdENET_GBR_exclude_1980_2010_GFD.m**
  - **Granger_AdENET_USA_exclude_1980_2010_GFD.m**

- The results reported in Table AXVI are generated by the following files:

  - **Granger_USA_AUS_exclude_1980_2010_GFD.m**
  - **Granger_USA_CAN_exclude_1980_2010_GFD.m**
  - **Granger_USA_FRA_exclude_1980_2010_GFD.m**
  - **Granger_USA_DEU_exclude_1980_2010_GFD.m**
  - **Granger_USA_ITA_exclude_1980_2010_GFD.m**
  - **Granger_USA_JPN_exclude_1980_2010_GFD.m**
  - **Granger_USA_NLD_exclude_1980_2010_GFD.m**
  - **Granger_USA_SWE_exclude_1980_2010_GFD.m**
  - **Granger_USA_CHE_exclude_1980_2010_GFD.m**
  - **Granger_USA_GBR_exclude_1980_2010_GFD.m**

- GMM estimation of the news-diffusion model utilizes the TOMLAB Optimization Environment for large-scale optimization in MATLAB.

- The results reported in Table VI are generated by the following files:

  - **News_diffusion_GMM_1980_2010.m**
  - **News_diffusion_pool_GMM_1980_2010.m**

- The results reported in Tables VII and AXVII are generated by

  - **Granger_OOS_exclude_1980_2010_GFD.m**.

- The data-mining-robust critical values discussed in the fifth paragraph of Section IV are generated by

  - **Granger_OOS_exclude_snooping_1980_2010_GFD.m**.

- Note that bootstrapped p-values and results for the adaptive elastic net based on five-fold cross validation may differ slightly from the results reported in the paper, since the random draws in the MATLAB programs are not seeded.