This folder contains the codes for generating Figure 1, Figure 2 and Table 1.

To generate Fig 1,

- set "monte_carlo_exp = 1" and "correlated_fc = false" in master_monte_carlo.m
- run this script with N_vec = 2 and phi = 0.4. The result is saved as a mat-file
- repeat the script with N_vec = 3, 4, or 5 and phi = 0.5, 0.6, or 0.7. Each run generates a mat-file.
- run plot_CoverageProb.m, which load the mat-files generated above to obtain Fig 1

To generate Fig 2,

- same as above except for setting "correlated_fc = true" instead

To generate Table 1,

- Set "monte_carlo_exp = 2" in master_monte_carlo.m and run this script to obtain Table 1.

* master_monte_carlo.m: script to conduct Monte Carlo simulations.
* corr_script_monte_carlo.m: additional script for estimation when correlated_fc = true
* plot_CoverageProb.m: script to generate Figure 1 and Figure 2

* gen_iv_monte_carlo.m: function called by master_monte_carlo.m and corr_script_monte_carlo.m to define IVs
* obj_fy_as10_corr.m, obj_ct_as10.m, obj_at_as10.m: functions called by master_monte_carlo.m to obtain test statistics and critical values using the FY bounds, the CT bounds, and the AT bounds, respectively.
* as10_test_corr.m: called by the above three functions to obtain the test statistic and the critical value