This file explains how the different tables of the paper "Moment-based tests under parameter uncertainty" by Christian BONTEMPS. They are all written for the software R with the version 3.1.0.

- Table1-2.R. It generates the results of Table 1 and 2 of the paper. We simulate the following model $(1-\rho_0 L)(1-\rho_1 L)y_t = \mu + \varepsilon_t$ and compare the different tests in sample. When $\rho_1 = 0$, it gives the size properties (Table 1), otherwise it measures the power of the different testing procedures.

- File: Table3.R. Same model than for Table 1 and 2 but we consider out of sample properties, focusing on both the rolling scheme (Table 3) and the fixed scheme (Table in the online Appendix).

- Table4a.R, Table4b.R, Table4c.R generate the 3 subtables of Table 4 "Backtesting Var measures, Normal GARCH model - Out-of-sample properties, rolling scheme, $R = 500$". Each program generates a table with the values of the test statistics for the different tests considered and the different sample sizes. Table4a.R focuses on the size properties, Table 4b.R, the power properties when the DGP is a TGARCH, Table 4c.R, the power properties when the DGP is an EGARCH. Rejection probabilities have to be rebuild according to the level of the tests. For example, one run the following command line

```
Rscript Table4a.R num1 num2 R P pp > file.out
```

  It computes the simulations num1 to num2 and backtests the VaR forecasts computed from a Normal GARCH model, out-of-sample. R is the size of the sample used for estimation, P is the maximum size on which the moments are evaluated, pp is the risk exposure of the VaR forecast. The outcome is a collection of test statistics which, under the null, are asymptotically $\chi^2(1)$ distributed. The rejection probabilities for the level 5% can be computed using the file CalcTable4.R

```
Rscript CalcTable4.R file.out
```

  It then creates the file file.out.tex which contains the results.

- Table5a.R, Table5b.R, Table5c.R can be used equivalently for the outputs of Table 5 "Backtesting VaR measures, $\alpha = 5\%$ - T-GARCH model - Out of sample properties, rolling scheme, $R = 500$". Each program generates a table with the values of the

test statistics for the different tests considered and the different sample sizes. Table 5a.R is for the size properties and Table5b.R and Table5c.R for the power properties. Rejection probabilities have to be rebuild according to the level of the tests. To do so, one should run CalcTable5.R on the output files.

- Table6.R and Table7.R display the backtesting results in-sample and out-of-sample for VaR forecasts computed from a TGARCH model estimated on the data "exchrate.csv". They can be launched directly without any argument. They produce a table directly saved in the output file (its name is coded in the program).

- The two files exchrate.csv and newdata.txt contain the exchange rate and stock return data used in the Empirical Application and in the additional Appendix.