

metaVAR: Internal Tests

Ivan Jacob Agaloos Pesigan

Tests

```
#> test-metaVAR-fit-ct-var-id-mx-theta-null-fixed
#> Running CTVAR with 12 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 12 parameters
#>
#> Lowest minimum so far:   -2781.91307737116
#>
#> Solution found
```

```
#>
#> Solution found!   Final fit=-2781.9131 (started at -2667.8333)   (1 attempt(s):
1 valid, 0 errors)
#> Start values from best fit:
#> -0.436283136296556,0.581430064215022,-0.692131023747746,-0.0312583857104042,-0.287741639214355,0.
#> Running CTVAR with 12 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 12 parameters
#>
#> Lowest minimum so far:   -2696.8171011284
#>
#> Solution found
```

```
#>
#> Solution found!   Final fit=-2696.8171 (started at -2553.6049)   (1 attempt(s):
1 valid, 0 errors)
#> Start values from best fit:
#> -0.436755093740936,0.950732515822416,-0.782634475987831,-0.119303590983245,-0.693199711323752,0.
#> Running Model with 12 parameters
#>
#> Beginning initial fit attempt
#> Running Model with 12 parameters
```

```

#>
#> Lowest minimum so far:   -79.2081134461944
#>
#> Solution found

#>
#> Solution found!   Final fit=-79.208113 (started at 1454.2099)   (1 attempt(s): 1
valid, 0 errors)
#> Start values from best fit:
#> -0.376523943499213,0.759292334044879,-0.715885895980673,-0.0757399210120224,-0.463437415309729,0.
#>
#>      est      se      z      p      2.5%   97.5%
#> b0_1  -0.3765  0.1141 -3.2992 0.0010 -0.6002 -0.1528
#> b0_2   0.7593  0.1121  6.7705 0.0000  0.5395  0.9791
#> b0_3  -0.7159  0.1124 -6.3701 0.0000 -0.9362 -0.4956
#> b0_4  -0.0757  0.0876 -0.8648 0.3871 -0.2474  0.0959
#> b0_5  -0.4634  0.0874 -5.3006 0.0000 -0.6348 -0.2921
#> b0_6   0.7584  0.0875  8.6672 0.0000  0.5869  0.9299
#> b0_7   0.0500  0.0793  0.6307 0.5282 -0.1054  0.2054
#> b0_8  -0.0414  0.0790 -0.5234 0.6007 -0.1963  0.1135
#> b0_9  -0.6997  0.0802 -8.7208 0.0000 -0.8569 -0.5424
#> b0_10  0.0978  0.0045 21.5280 0.0000  0.0889  0.1067
#> b0_11  0.0975  0.0045 21.8957 0.0000  0.0887  0.1062
#> b0_12  0.0985  0.0045 21.9366 0.0000  0.0897  0.1073
#> Test passed

#> test-metaVAR-fit-ct-var-id-mx-theta-null
#> Running CTVAR with 12 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 12 parameters
#>
#> Lowest minimum so far:   -2707.31197426421
#>
#> Solution found

#>
#> Solution found!   Final fit=-2707.312 (started at -2583.5637)   (1 attempt(s): 1
valid, 0 errors)
#> Start values from best fit:
#> -0.545410808015616,0.655791704057053,-0.4319181053049,0.0684713570989829,-0.1952231790709,0.8591
#> Running CTVAR with 12 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 12 parameters
#>
#> Lowest minimum so far:   -2726.62588111983

```

```
#>
```

```
#> Solution found
```

```
#>
```

```
#> Solution found! Final fit=-2726.6259 (started at -2584.9163) (1 attempt(s):  
1 valid, 0 errors)
```

```
#> Start values from best fit:
```

```
#> -0.213900151770005,0.861186849501166,-0.405561461480421,-0.131907517647472,-0.523808720935904,0.8
```

```
#> Running Model with 90 parameters
```

```
#>
```

```
#> Beginning initial fit attempt
```

```
#> Running Model with 90 parameters
```

```
#>
```

```
#> Lowest minimum so far: -89.7692787740229
```

```
#>
```

```
#> Solution found
```

```
#>
```

```
#> Solution found! Final fit=-89.769279 (started at 49.63987) (1 attempt(s): 1  
valid, 0 errors)
```

```
#> Start values from best fit:
```

```
#> -0.375137349077617,0.757131830409476,-0.414493586496051,-0.0312218385901363,-0.356491031738541,0.8
```

```
#> Error in OpenMx::mxSE(i_sqr, model = object$output, silent = TRUE): Couldn't evaluate  
expression 'i_sqr'. Might help to check if it works in mxEval.
```

```
#> Recall also that elements of submodels are addressed as submodelName.objectName
```

```
#> For example, to refer to an object called 'bob' in submodel 'sub1', you would say  
'sub1.bob'.
```

Environment

```
ls()  
#> [1] "root"
```

Class

```
#> [[1]]  
#> [1] "root_criterion"
```

References

R Core Team. (2023). *R: A language and environment for statistical computing*. R Foundation for Statistical Computing. Vienna, Austria. <https://www.R-project.org/>