Stata code for the BUC-estimator with thresholds (used in the application)

To estimate the thresholds and $\beta$ in Stata with all possible copies with fixed cutoffs and additional $S$ copies of each individual, which are dichotomized at observation specific random cutoff points, run the following code replacing $S$ ivar yvar xvar in the last program line as follows: $S$ is the number or additional copies; ivar is the individual identifier; yvar is the ordered dependent variable; xvars is the list of explanatory variables.

```
program feologit_buctau, eclass
version 10
gettoken S 0:0
gettoken i2 0: 0
gettoken y xvar: 0
tempvar t2 nc icc r cut dr
preserve
qui sum `y'
local lk= r(min)
local hk= r(max)
local pc=`hk'-`lk'
bys `i2': gen `t2'=_n
expand `S'+`pc'
bys `i2' `t2': gen long `nc'=_n
gen `icc' = group(`i2', `nc')
gen `r'=uniform()
gen `cut'=
foreach c of num `lk'+1/'hk' {
    replace `cut'= `c' if `r'<1/(`pc')*((`c'-1) & `r'>1/(`pc')*(`c'-2))
}
replace `cut'=nc'+`lk' if `nc'<=`pc'
gen `dr'=cond(`y'>=`cut',1,0)
foreach c of num `lk'+2/'hk'{
gen tau_`c'=cond(`cut'=c,-1,0)
}
clogit `dr' `xvar' tau_*, group(`icc') cluster(`i2')
restore
end

feologit_buctau S ivar yvar xvars
```

If $S$ is set to zero, $\beta$ is estimated with the BUC-estimator.