Multinomial Logit Core Functions

This is the example vignette for function: **bfw_mp_func_supply** from the **PrjLabEquiBFW Package.** This function generates a container map with key multinomial logit supply-side equations.

Test BL_LOG_WAGE is false

Default test

```
bl_log_wage = false;
bl_verbose = true;
mp_func_supply = bfw_mp_func_supply(bl_log_wage, bl_verbose);
CONTAINER NAME: mp_func Functions
i
                           idx
                     "1"
                           "1"
   fc_ar_prob_wrk
                                  "@(arpsi0,psi1,mtwage,probdenom)fc_v_occ(reshape(arpsi0,[1,length(arpsi0)]),psi1
                     "2"
                           "2"
   fc_log_pmdpo_occ
                                  @(psi0,psi1,arwage,pie1,pie2,pie3,pie4,pie5,pie6,t,prbchd,prbmar,prbapp,prbj:
                     "3"
                           "3"
   fc_prob_denom
                                  @(arpsi0,psi1,arpie,arwage1,arwage2,arwage3,t,prbchd,prbmar,prbapp,prbjsy)fc_
                     "4"
                           "4"
   fc_prob_lei
                                  "@(arpie,t,prbchd,prbmar,prbapp,prbjsy,probdenom)fc_v_lei(arpie(1),arpie(2),a
   fc_s1
                     "5"
                           "5"
                                  "@(p1,G_1,zeta_1_0,zeta_1_1)G_1./(1+(exp(-zeta_1_0-zeta_1_1.*p1)))"
                           "6"
   fc_s2
                     "6"
                                  "@(p2,G_2,zeta_2_0,zeta_2_1)G_2./(1+(exp(-zeta_2_0-zeta_2_1.*p2)))"
                           "7"
   fc_supply
                                  "@(potlabor,prob)potlabor.*prob"
```

Test BL_LOG_WAGE is false

Default test

```
bl log wage = true;
mp_func_supply = bfw_mp_func_supply(bl_log_wage, bl_verbose);
CONTAINER NAME: mp_func Functions
idx
                     "1"
                            "1"
   fc_ar_prob_wrk
                                  "@(arpsi0,psi1,mtwage,probdenom)fc_v_occ(reshape(arpsi0,[1,length(arpsi0)]),p:
                     "2"
                            "2"
   fc_log_pmdpo_occ
                                  "@(psi0,psi1,arwage,pie1,pie2,pie3,pie4,pie5,pie6,t,prbchd,prbmar,prbapp,prbj
                     "3"
                            "3"
   fc_prob_denom
                                  "@(arpsi0,psi1,arpie,arwage1,arwage2,arwage3,t,prbchd,prbmar,prbapp,prbjsy)fc
                     "4"
                            "4"
   fc_prob_lei
                                  "@(arpie,t,prbchd,prbmar,prbapp,prbjsy,probdenom)fc_v_lei(arpie(1),arpie(2),a
                     "5"
                           "5"
   fc_s1
                                  "@(p1,G_1,zeta_1_0,zeta_1_1)G_1./(1+(exp(-zeta_1_0-zeta_1_1.*p1)))"
                           "6"
                     "6"
   fc_s2
                                  "@(p2,G_2,zeta_2_0,zeta_2_1)G_2./(1+(exp(-zeta_2_0-zeta_2_1.*p2)))"
                     "7"
                           "7"
                                  "@(potlabor,prob)potlabor.*prob"
   fc_supply
```