SNW_MP_PARAM Examples: Get Parameters

back to Fan's Intro Math for Econ, Matlab Examples, or Dynamic Asset Repositories

This is the example vignette for function: **snw_mp_param** from the **PrjOptiSNW Package.** This function sets and gets different parameters

Test SNW MP PARAM Defaults

Call the function with defaults.

mp_params = snw_mp_param('default_base', true, 50, 6);

CONTAINER NAME: mp_params_preftechpricegov Scalars

	i	idx	value
	-		
a2	1	1	3.664
beta	2	2	0.96077
cons_allocation_rule	3	3	2
g_cons	4	4	0.17576
g_n	5	5	0.0201
gamma	6	6	1
r	7	7	0.0816
theta	8	8	0.42315

	i	idx	value
	_		
n_agrid	1	1	40
n_educgrid	2	2	2
n_etagrid	3	3	7
n_jgrid	4	4	42
n_kidsgrid	5	5	6
n_marriedgrid	6	6	2

CONTAINER NAME: mp_params_statesgrid ND Array (Matrix etc)

	i	idx	ndim	numel	rowN	colN	mean	std	coefvari	min	max
	-										
agrid	1	1	2	40	40	1	12.821	14.881	1.1607	0	50
eta_grid	2	2	2	7	7	1	0	1.2535	Inf	-1.7408	1.7408

xxx TABLE:agrid xxxxxxxxxxxxxxxxxx

r1	0
r2	0.0008429
r3	0.0067432
r4	0.022758

```
r5
       0.053946
        0.10536
r6
r7
        0.18207
        0.28911
r8
r9
        0.43156
r10
        0.61447
r11
         0.8429
r12
         1.1219
r13
         1.4565
r14
         1.8519
r15
         2.3129
         2.8448
r16
         3.4525
r17
         4.1412
r18
r19
         4.9158
         5.7815
r20
r21
         6.7432
r22
         7.8061
r23
         8.9752
r24
         10.256
r25
         11.652
r26
         13.17
r27
         14.815
r28
         16.591
r29
         18.503
r30
         20.557
         22.758
r31
r32
         25.111
r33
         27.62
r34
         30.291
r35
         33.129
r36
         36.139
r37
         39.326
r38
         42.695
         46.252
r39
r40
            50
```

xxx TABLE:eta_grid xxxxxxxxxxxxxxxxxx

c1

r1	-1.7408
r2	-1.1605
r3	-0.58026
r4	0
r5	0.58026
r6	1.1605
r7	1 7/08

CONTAINER NAME: mp_params_exotrans ND Array (Matrix etc)

	i	idx	ndim	numel	rowN	colN	mean	std	coefvari	min	max
	-										
pi_eta	1	1	2	49	7	7	0.14286	0.33001	2.3101	1e-12	0.94234
pi_kids	2	2	4	2952	6	492	0.16667	0.25167	1.51	0	1
psi	3	3	2	42	42	1	0.89299	0.19761	0.22129	0	0.99857

xxx TABLE:pi_eta xxxxxxxxxxxxxxxxxxx

	c1	c2	C3	C5	С6	c7
r1	0.94148	0.057059	0.0014409	1.4702e-07	5.94e-10	1e-12

r2	0.0095099	0.94196	0.047559	9.7035e-06	4.9006e-08	9.9e-11
r3	9.606e-05	0.019024	0.94225	0.00057644	3.8814e-06	9.801e-09
r4	9.703e-07	0.00028821	0.028538	0.028538	0.00028821	9.703e-07
r5	9.801e-09	3.8814e-06	0.00057644	0.94225	0.019024	9.606e-05
r6	9.9e-11	4.9006e-08	9.7035e-06	0.047559	0.94196	0.0095099
r7	1e-12	5.94e-10	1.4702e-07	0.0014409	0.057059	0.94148

xxx TABLE:pi_kids xxxxxxxxxxxxxxxxxxxxxx

	c1	c2	c 3	c490	c491	c492
r1	0.81478	0.16949	0.015153	0	0	0
r2	0.96006	0.03702	0.0028103	0	0	0
r3	0.44129	0.47697	0.078528	0	0	0
r4	0.080853	0.47493	0.41609	0	0	0
r5	0.0062597	0.075965	0.62991	0	0	0
r6	0.00062709	0.0082186	0.18887	0	0	0

xxx TABLE:psi xxxxxxxxxxxxxxxxx

r1	0.99853
r2	0.99853
r3	0.99845
r4	0.99851
r5	0.99857
r6	0.99851
r7	0.99834
r8	0.9981
r9	0.99775
r10	0.99733
r11	0.99683
r12	0.99626
r13	0.99567
r14	0.99503
r15	0.99432
r16	0.99366
r17	0.99293
r18	0.99183
r19	0.99023
r20	0.98819
r21	0.98578
r22	0.98285
r23	0.97918
r24	0.97462
r25	0.96915
r26	0.96304
r27	0.95564
r28	0.94713
r29	0.93766
r30	0.92515
r31	0.90988
r32	0.89031
r33	0.86484
r34	0.8327
r35	0.79417
r36	0.74957
r37	0.69903
r38	0.64301
r39	0.5832
r40 r41	0.52581 0.47541
r41 r42	0.47541
142	О

CONTAINER NAME: mp_params_typelife ND Array (Matrix etc)

	i	idx	ndim	numel	rowN	colN	mean	std	coefvari	min	max
	_										
SS	1	1	2	84	42	2	0.11506	0.1346	1.1698	0	0.29263
epsilon	2	2	2	84	42	2	0.96873	0.89659	0.92553	0	2.2609

xxx TABLE:SS xxxxxxxxxxxxxxxxx

X IADLE	c1	c2
r1	0	0
r2	0	0
r3	0	0
r4 -	0	0
r5	0	0
r6	0	0
r7	0	0
r8 r9	0 0	0 0
	0	0
r10 r11	0	0
r12	0	0
r13	0	0
r14	0	0
r15	0	0
r16	0	0
r17	0	0
r18	0	0
r19	0	0
r20	0	0
r21	0	0
r22	0	0
r23	0	0
r24	0	0
r25	0.24433	0.29263
r26	0.24433	0.29263
r27	0.24433	0.29263
r28	0.24433	0.29263
r29	0.24433	0.29263
r30	0.24433	0.29263
r31	0.24433	0.29263
r32	0.24433	0.29263
r33	0.24433	0.29263
r34	0.24433	0.29263
r35	0.24433	0.29263
r36	0.24433	0.29263
r37	0.24433	0.29263
r38 r39	0.24433 0.24433	0.29263 0.29263
r40	0.24433	0.29263
r41	0.24433	0.29263
r42	0.24433	0.29263
144	0.24433	0.23203

xxx TABLE:epsilon xxxxxxxxxxxxxxxxx

	c1	c2
r1	1.0199	1.0461
r2	1.0199	1.0461
r3	1.0978	1.2302
r4	1.1712	1.409

r5	1.2396	1.5765
r6	1.3024	1.7281
r7	1.3594	1.8606
r8	1.4105	1.9724
r9	1.4555	2.0633
r10	1.4946	2.1343
r11	1.5278	2.187
r12	1.5553	2.2236
r13	1.5773	2.2466
r14	1.594	2.2583
r15	1.6054	2.2609
r16	1.6118	2.2562
r17	1.6131	2.2458
r18	1.6094	2.2308
r19	1.6007	2.2118
r20	1.5869	2.1892
r21	1.5678	2.1626
r22	1.5435	2.1315
r23	1.5136	2.0951
r24	1.4781	2.052
r25	0	0
r26	0	0
r27	0	0
r28	0	0
r29	0	0
r30	0	0
r31	0	0
r32	0	0
r33	0	0
r34	0	0
r35	0	0
r36	0	0
r37	0	0
r38	0	0
r39	0	0
r40	0	0
r41	0	0
r42	0	0

CONTAINER NAME: mp_params_stat ND Array (Matrix etc)

	i	idx	ndim	numel	rowN	colN	mean	std	coefvari	min
	-									
Pop	1	1	2	42	42	1	0.55108	0.30642	0.55602	0.0062776
stat_distr_educ	2	3	2	2	1	2	0.5	0.2786	0.5572	0.303
stat_distr_eta	3	4	2	7	1	7	0.14286	0.11742	0.82196	0.015625
stat_distr_kids	4	5	3	24	2	12	0.16667	0.27788	1.6673	0
stat_distr_married	5	6	2	2	1	2	0.5	0.034224	0.068448	0.4758

xxx TABLE:Pop xxxxxxxxxxxxxxxxx

r1	1
r2	0.97886
r3	0.95817
r4	0.93783
r5	0.91798
r6	0.89861
r7	0.87959
r8	0.86083
r9	0.84227

```
r10
            0.82381
   r11
            0.80542
   r12
            0.78704
            0.76865
   r13
            0.75024
   r14
   r15
             0.7318
   r16
            0.71331
   r17
            0.69482
   r18
            0.67631
            0.65757
   r19
   r20
            0.63831
   r21
            0.61835
            0.59754
   r22
            0.57572
   r23
   r24
            0.55263
   r25
            0.52799
   r26
            0.50162
   r27
            0.47356
   r28
            0.44363
   r29
            0.4119
            0.37861
   r30
   r31
            0.34337
   r32
            0.30627
   r33
            0.2673
   r34
            0.22662
   r35
            0.18499
   r36
            0.14402
   r37
            0.10582
   r38
           0.072517
   r39
           0.04571
           0.026133
   r40
   r41
            0.01347
   r42
          0.0062776
c2
          c1
                 0.303
   r1
         0.697
xxx TABLE:stat_distr_eta xxxxxxxxxxxxxxxxxx
                                            с5
            c1
                      c2
                                 с3
                                                      с6
                                                                  c7
   r1
         0.015625
                    0.09375
                               0.23437
                                          0.23437
                                                    0.09375
                                                               0.015625
xxx TABLE:stat_distr_kids xxxxxxxxxxxxxxxxxx
                                                               c12
           c1
                     c2
                                c3
                                          c10
                                                     c11
   r1
         0.73337
                     0.4143
                              0.15132
                                         0.0199
                                                  0.0030003
                                                                0
          0.9752
                    0.75348
                               0.0236
                                                                0
xxx TABLE:stat_distr_married xxxxxxxxxxxxxxxxxx
           c1
                    c2
         0.5242
                   0.4758
   r1
xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
CONTAINER NAME: mp_params_stat String
xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
                        i
                              idx
                                                string
```

Test SNW_MP_PARAM Tiny

Call the function with defaults.

mp_params = snw_mp_param('default_tiny', true, 50, 6);

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CONTAINER NAME: mp_params_preftechpricegov Scalars

	i	idx	value
	-		
a2	1	1	3.664
beta	2	2	0.96077
cons_allocation_rule	3	3	2
g_cons	4	4	0.17576
g_n	5	5	0.17258
gamma	6	6	2
r	7	7	0.87298
theta	8	8	0.42315

	i	idx	value
	-		
n_agrid	1	1	10
n_educgrid	2	2	2
n_etagrid	3	3	5
n_jgrid	4	4	7
n_kidsgrid	5	5	3
n_marriedgrid	6	6	2

CONTAINER NAME: mp_params_statesgrid ND Array (Matrix etc)

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	i	idx	ndim	numel	rowN	colN	mean	std	coefvari	min	max
	-										
agrid	1	1	2	10	10	1	13.889	17.236	1.241	0	50
eta_grid	2	2	2	5	5	1	4.4409e-17	1.1237	2.5303e+16	-1.4213	1.4213

xxx TABLE:agrid xxxxxxxxxxxxxxxxx

r1	0
r2	0.068587
r3	0.5487
r4	1.8519
r5	4.3896
r6	8.5734
r7	14.815
r8	23.525
r9	35.117
r10	50

c1

r1 -1.4213

r2 -0.71067

r3 0

r4 0.71067 r5 1.4213

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CONTAINER NAME: mp_params_exotrans ND Array (Matrix etc)

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	i	idx	ndim	numel	rowN	colN	mean	std	coefvari	min	max
	-										
pi_eta	1	1	2	25	5	5	0.2	0.38844	1.9422	1e-08	0.96099
pi_kids	2	2	4	126	3	42	0.33333	0.34999	1.05	0	1
psi	3	3	2	7	7	1	0.62404	0.44469	0.71261	0	0.98684

xxx TABLE:pi_eta xxxxxxxxxxxxxxxxxxx

	c1	c2	с3	c4	с5
r1	0.9606	0.038812	0.00058806	3.96e-06	1e-08
r2	0.009703	0.96089	0.029112	0.00029404	9.9e-07
r3	9.801e-05	0.019408	0.96099	0.019408	9.801e-05
r4	9.9e-07	0.00029404	0.029112	0.96089	0.009703
r5	1e-08	3.96e-06	0.00058806	0.038812	0.9606

xxx TABLE:pi_kids xxxxxxxxxxxxxxxxxx

	c1	c2	с3	c40	c41	c42
r1	0.81525	0.16959	0.015162	1	0	0
r2	0.96017	0.037024	0.0028106	1	0	0
r3	0.44271	0.47851	0.078781	1	0	0

xxx TABLE:psi xxxxxxxxxxxxxxxxx

c1

r1 0.98684

r2 0.98684

r3 0.96264

r4 0.8697

r5 0.52975

r6 0.032482

xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

CONTAINER NAME: mp_params_typelife ND Array (Matrix etc)

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	i	idx	ndim	numel	rowN	colN	mean	std	coefvari	min	max
	-										
SS	1	1	2	14	7	2	0.11506	0.13885	1.2067	0	0.29263
epsilon	2	2	2	14	7	2	0.94364	0.88779	0.94082	0	2.2266

xxx TABLE:SS xxxxxxxxxxxxxxxxx

c1 c2

r1	0	0
r2	0	0
r3	0	0
r4	0	0
r5	0.24433	0.29263
r6	0.24433	0.29263
r7	0.24433	0.29263

xxx TABLE:epsilon xxxxxxxxxxxxxxxxx

	CI	C2
r1	1.257	1.6108
r2	1.257	1.6108
r3	1.5724	2.2266
r4	1.5421	2.1342
r5	0	0
r6	0	0
r7	0	0

CONTAINER NAME: mp_params_stat ND Array (Matrix etc)

	i	idx	ndim	numel	rowN	colN	mean	std	coefvari	min
	-									
Pop	1	1	2	7	7	1	0.53756	0.35339	0.65741	0.0053974
stat_distr_educ	2	3	2	2	1	2	0.5	0.2786	0.5572	0.303
stat_distr_eta	3	4	2	5	1	5	0.2	0.1355	0.67748	0.0625
stat_distr_kids	4	5	3	12	2	6	0.33333	0.33166	0.99497	0.00010011
stat_distr_married	5	6	2	2	1	2	0.5	0.034224	0.068448	0.4758

xxx TABLE:Pop xxxxxxxxxxxxxxxxx

c1

r1	1
r2	0.8416
r3	0.70829
r4	0.58148
r5	0.43128
r6	0.19484
r7	0 0053974

xxx TABLE:stat_distr_educ xxxxxxxxxxxxxxxxxx

xxx TABLE:stat_distr_eta xxxxxxxxxxxxxxxxxx

 c1
 c2
 c3
 c4
 c5

 --- --- --- ---

 r1
 0.0625
 0.25
 0.375
 0.25
 0.0625

	C1	c2	C 3	С4	C5	С6
r1	0.75801	0.44877	0.1564	0.32041	0.08559	0.23083
r2	0.97627	0.7604	0.023626	0.2173	0.00010011	0.022305

Test SNW_MP_PARAM Small

Call the function with defaults.

mp_params = snw_mp_param('default_small', true, 50, 6);

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CONTAINER NAME: mp_params_preftechpricegov Scalars

i idv

value

	т.	Iux	value
	_		
a2	1	1	3.664
beta	2	2	0.96077
cons_allocation_rule	3	3	2
g_cons	4	4	0.17576
g_n	5	5	0.05101
gamma	6	6	2
r	7	7	0.21665
theta	8	8	0.42315

	i	idx	value
	_		
n_agrid	1	1	20
n_educgrid	2	2	2
n_etagrid	3	3	5
n_jgrid	4	4	18
n_kidsgrid	5	5	3
n_marriedgrid	6	6	2

CONTAINER NAME: mp_params_statesgrid ND Array (Matrix etc)

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	i	idx	ndim	numel	rowN	colN	mean	std	coefvari	min	max
	_										
agrid	1	1	2	20	20	1	13.158	15.625	1.1875	0	56
eta_grid	2	2	2	5	5	1	4.4409e-17	1.1237	2.5303e+16	-1.4213	1.4213

xxx TABLE:agrid xxxxxxxxxxxxxxxxx

r1	0
r2	0.0072897
r3	0.058318
r4	0.19682
r5	0.46654
r6	0.91121
r7	1.5746
r8	2.5004
r9	3.7323
r10	5.3142
r11	7.2897
r12	9.7026
r13	12.597
r14	16.015
r15	20.003
r16	24.603
r17	29.859
r18	35.814
r19	42.513
r20	50

xxx TABLE:eta_grid xxxxxxxxxxxxxxxxx

c1

r1 -1.4213 r2 -0.71067 r3 0 r4 0.71067 r5 1.4213

CONTAINER NAME: mp_params_exotrans ND Array (Matrix etc)

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MONOTO CONTROL												
	i	idx	ndim	numel	rowN	colN	mean	std	coefvari	min	max	
	_											
pi_eta	1	1	2	25	5	5	0.2	0.38844	1.9422	1e-08	0.96099	
pi_kids	2	2	4	324	3	108	0.33333	0.33174	0.99523	0	1	
psi	3	3	2	18	18	1	0.79153	0.31243	0.39472	0	0.99635	

xxx TABLE:pi_eta xxxxxxxxxxxxxxxxx

	c1	c2	c 3	c4	c5
r1	0.9606	0.038812	0.00058806	3.96e-06	1e-08
r2	0.009703	0.96089	0.029112	0.00029404	9.9e-07
r3	9.801e-05	0.019408	0.96099	0.019408	9.801e-05
r4	9.9e-07	0.00029404	0.029112	0.96089	0.009703
r5	1e-08	3.96e-06	0.00058806	0.038812	0.9606

xxx TABLE:pi_kids xxxxxxxxxxxxxxxxxx

	c1	c2	c 3	c106	c107	c108
r1	0.81525	0.16959	0.015162	1	0	0
r2	0.96017	0.037024	0.0028106	1	0	0
r3	0.44271	0.47851	0.078781	1	0	0

xxx TABLE:psi xxxxxxxxxxxxxxxxx

```
r1 0.99623
r2 0.99623
r3 0.99635
r4 0.99537
r5 0.99299
r6 0.98956
r7
     0.98547
r8 0.98022
r9 0.96914
r10 0.95071
r11 0.92082
r12 0.87772
r13 0.81394
r14 0.70638
r15 0.54032
r16 0.34767
r17 0.18848
r18
```

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CONTAINER NAME: mp_params_typelife ND Array (Matrix etc)

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	i	idx	ndim	numel	rowN	colN	mean	std	coefvari	min	max
	-										
SS	1	1	2	36	18	2	0.089493	0.12913	1.443	0	0.29263
epsilon	2	2	2	36	18	2	1.1052	0.85428	0.77297	0	2.2588

xxx TABLE:SS xxxxxxxxxxxxxxxxx

	CI	CZ
r1	0	0
r2	0	0
r3	0	0
r4	0	0
r5	0	0
r6	0	0
r7	0	0
r8	0	0
r9	0	0
r10	0	0
r11	0	0
r12	0	0
r13	0.24433	0.29263
r14	0.24433	0.29263
r15	0.24433	0.29263
r16	0.24433	0.29263
r17	0.24433	0.29263
r18	0.24433	0.29263

xxx TABLE:epsilon xxxxxxxxxxxxxxxxx

	c1	c2
r1	1.0778	1.1836
r2	1.0778	1.1836
r3	1.2546	1.6124
r4	1.397	1.9418
r5	1.5022	2.1452
r6	1.5712	2.2394
r7	1.6064	2.2588
r8	1.6097	2.2341

r9	1.5815	2.182
r10	1.5204	2.1034
r11	1.4243	1.9846
r12	1.2917	1.8041
r13	0	0
r14	0	0
r15	0	0
r16	0	0
r17	0	0
r18	0	0

xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

CONTAINER NAME: mp_params_stat ND Array (Matrix etc)

	i	idx	ndim	numel	rowN	colN	mean	std	coefvari	min
	-									
Pop	1	1	2	18	18	1	0.54815	0.31815	0.58041	0.006079
stat_distr_educ	2	3	2	2	1	2	0.5	0.2786	0.5572	0.303
stat_distr_eta	3	4	2	5	1	5	0.2	0.1355	0.67748	0.0625
stat_distr_kids	4	5	3	12	2	6	0.33333	0.33166	0.99497	0.00010011
stat_distr_married	5	6	2	2	1	2	0.5	0.034224	0.068448	0.4758

xxx TABLE:Pop xxxxxxxxxxxxxxxxx

c1

r1	1
r2	0.94788
r3	0.89848
r4	0.85176
r5	0.80667
r6	0.76214
r7	0.71758
r8	0.67283
r9	0.62751
r10	0.57863
r11	0.52341
r12	0.45857
r13	0.38296
r14	0.29658
r15	0.19933
r16	0.10248
r17	0.033898
r18	0.006079

xxx TABLE:stat_distr_educ xxxxxxxxxxxxxxxxxx

c1 c2

r1 0.697 0.303

xxx TABLE:stat_distr_eta xxxxxxxxxxxxxxxxxx

c1 c2 c3 c4 c5 —— —— —— —— — c1 0.0625 0.25 0.375 0.25 0.0625

xxx TABLE:stat_distr_kids xxxxxxxxxxxxxxxxxx

	c1	c2	c3 c4		c 5	с6	
r1	0.75801	0.44877	0.1564	0.32041	0.08559	0.23083	
r2	0.97627	0.7604	0.023626	0.2173	0.00010011	0.022305	