STAGE_t: Model Database

1

Outline

- Database
  - Accounts
    - Sets
  - Transactions data
    - SAM
  - Satellite accounts
    - Factor use & ownership
    - Populations
  - Exogenous data
    - Elasticities
  - Model Information
    - Controls
    - Maps
- Data Entry

2

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STAGE

Accounts

3

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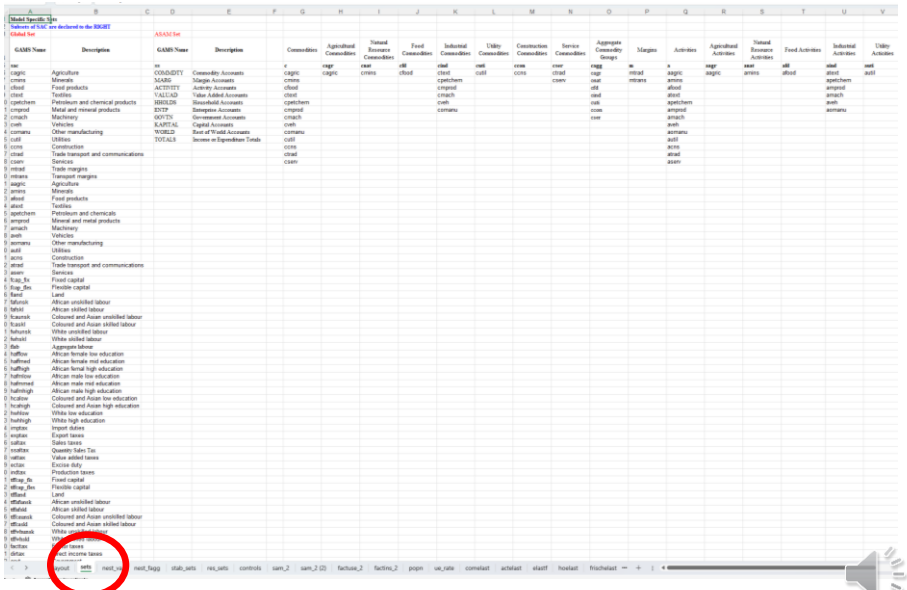
STAGE

Sets in Excel



4

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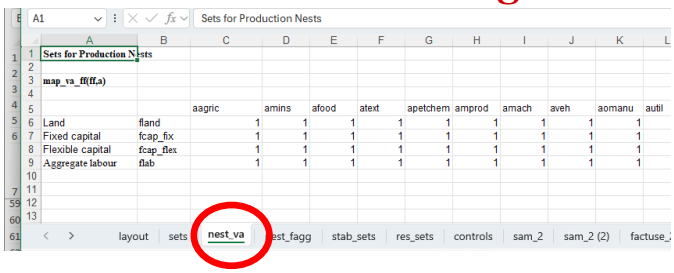
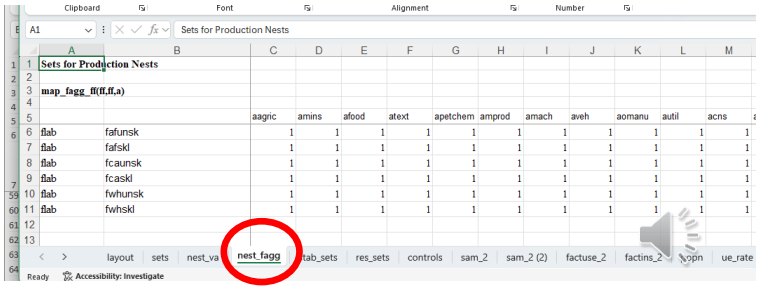
STAGE

Production Nesting Sets in Excel





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STAGE

Maps in Code

```
* Define mapping between CONSISTENTLY ORDERED sets
$ontext
  This method of declaration and assignment requires that the two set
 arguments are ordered so that the matching is perfect.
  Check carefully
$offtext

Sets
 map_f_tff(f,tff)  Factor taxes to factors /
 #f:#tff
  /
 map_tff_f(tff,f)  Factor taxes to factors reverse  /
 #tff:#f
  /
 map_i_k(in,k)    Mapping from investment type to capital type /
 #in:#k
  /
 ;
```

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Transactions Values (SAM)

7

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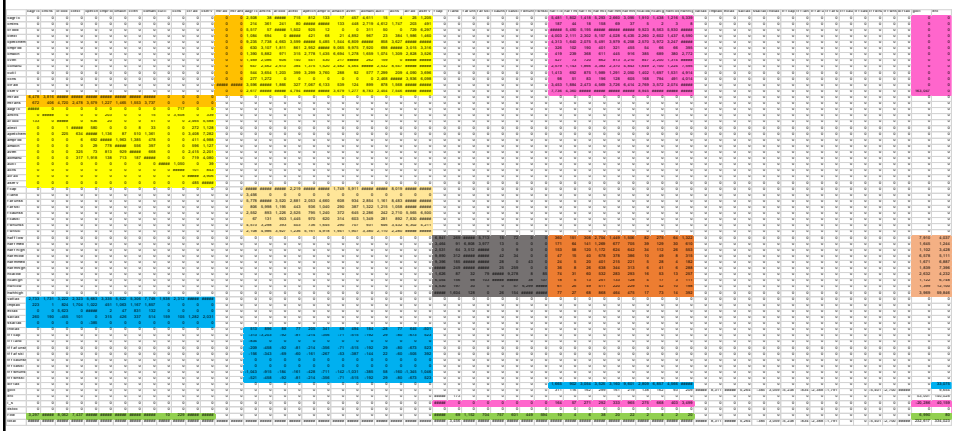
STAGE_int RSA SAM



YELLOW – intermediates & production
ORANGE – margin supply & demand
PURPLE – final demand
GREEN – exports and imports

BLUE – tax instruments
MAUVE – Values added & savings
TAN – Distribution of factor incomes
BROWN - transfers

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SAM in Excel

STAGE

Model Specific SAM
ADAPTED VERSION

	cagric	cmins	cfood	ctext	cpetchem	cmprod	cmach	cveh	comanu	cutil	ccns	ctrad	cserv	mtrad	mtrans
cagric	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
cmins	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
cfood	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
ctext	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
cpetchem	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
cmprod	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
cmach	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
cveh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
comanu	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
cutil	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
ccns	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
ctrad	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	186,299.14	19,837
cserv	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
mtrad	6,478.41	3,815.74	47,607.66	16,879.61	33,342.35	11,900.68	14,564.62	16,010.74	35,699.32	0.00	0.00	0.00	0.00	0.00	0
mtrans	671.89	406.09	4,720.02	2,478.16	3,579.22	1,227.09	1,484.95	1,553.37	3,736.74	0.00	0.00	0.00	0.00	0.00	0
aagric	63,248.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	717.30	0.00	0.00	0.00	0
amins	0.00	111,573.64	0.00	0.00	0.00	202.91	0.00	0.00	15.08	0.00	3,608.13	0.00	338.85	0.00	0
afood	132.84	0.00	95,837.75	0.00	635.96	20.47	0.00	0.00	50.94	0.00	0.00	2,465.40	5,587.99	0.00	0
atext	0.00	0.00	1.24	32,320.95	576.58	0.00	0.00	7.81	33.16	0.00	0.00	272.13	1,127.60	0.00	0
apetchem	0.00	0.00	224.96	633.66	137,532.80	1,135.96	87.45	510.26	1,361.38	0.00	0.00	3,407.98	7,282.32	0.00	0
amprod	0.00	0.00	0.00	5.97	691.75	113,454.14	1,963.46	1,385.04	477.61	0.00	0.00	410.86	4,988.49	0.00	0
amach	0.00	0.00	0.00	0.00	29.20	777.81	26,419.51	555.95	397.19	0.00	0.00	595.75	1,127.49	0.00	0
aveh	0.00	0.00	0.00	325.19	73.37	812.91	929.09	70,725.97	667.54	0.00	0.00	2,414.61	2,201.22	0.00	0
aomanu	0.00	0.00	0.00	316.99	1,918.08	137.72	712.74	186.62	91,963.82	0.00	0.00	719.08	4,079.54	0.00	0
autil	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	44,861.89	1,050.05	0.00	38.98	0.00	0
acns	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	87,550.94	100.98	842.76	0.00	0
atrad	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	355,854.82	3,905.66	0.00	0
aserv	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	485.43	581,897.40	0.00	0
fcap	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
fland	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
fafunsk	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
fafskl	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
fcaunsk	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
fcaskl	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
fwhunsk	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
fwhskl	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
hafflow	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
haffmed	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
haffhigh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
hafmlow	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
hafmmed	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
hafmhigh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
hcalow	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
hcahigh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
hwhlow	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0

layout | sets | maps | stab_sets | controls | sam | fa use | popn | ue_rate | comelast | actelast | elastf | ...

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SAM in GAMS Studio (GDX)

STAGE

Entry	Name	Type	Dim	Records	Text
149	ASAM0	Parameter	2	48	Aggregate SAM for data entry ...
150	ASAM1	Parameter	2	48	Macro Social Accounting Matri...
624	ASAM1CHK	Parameter	2	48	Ratio of ASAM1 to ASAM1 - 1 e...
151	ASAM2	Parameter	2	48	Macro Social Accounting Matri...
746	ASAM2CHK	Parameter	2	48	Ratio of ASAM2 to ASAM1 - 1 e...
627	CNTASAM1	Parameter	0	1	Count of non zero entries in DI...
748	CNTASAM2	Parameter	0	1	Count of non zero entries in DI...
631	CNTSAM1	Parameter	0	1	Count of non zero entries in DI...
752	CNTSAM2	Parameter	0	1	Count of non zero entries in DI...
626	DIFFASAM1	Parameter	2	0	Differences between ASAM an...
747	DIFFASAM2	Parameter	2	0	Differences between ASAM an...
630	DIFFSAM1	Parameter	2	0	Differences between SAM1 an...
751	DIFFSAM2	Parameter	2	0	Differences between SAM1 an...
129	SAM	Parameter	2	1,053	the SAM for this model
628	SAM1	Parameter	2	1,055	Micro SAM for checking initial ...
629	SAM1CHK	Parameter	2	1,055	Ratio of SAM1 to SAM1 should...
749	SAM2	Parameter	2	1,055	Micro SAM for checking initial ...
750	SAM2CHK	Parameter	2	1,055	Ratio of SAM2 to SAM1 should...
139	samscal	Parameter	0	1	algorithm performance scaling ...

Search ...

sac[1] | sacp[2] | Value

	cagric	cmins	cfood	ctext	cpetchem	cmprod	cmach	cveh	comanu	cutil	ccns	ctr
cagric												
cmins												
cfood												
ctext												
cpetchem												
cmprod												
cmach												
cveh												
comanu												
cutil												
ccns												
ctrad												
cserv												
mtrad	6.5	3.8	48	17	33	12	15	16	36			
mtrans	0.67	0.41	4.7	2.5	3.6	1.2	1.5	1.6	3.7			
aagric	63										0.72	
amins		1.1e+02				0.20			0.015		3.6	
afood	0.13		96		0.64	0.020			0.051			
atext			0.0012	32	0.58			0.0078	0.033			
apetchem			0.22	0.63	1.4e+02	1.1	0.087	0.51	1.4			
amprod				0.0060	0.69	1.1e+02	2.0	1.4	0.48			
amach					0.029	0.78	26	0.56	0.40			
aveh				0.33	0.073	0.81	0.93	71	0.67			
aomanu				0.32	1.9	0.14	0.71	0.19	92			
autil										45	1.1	
acns											88	
atrad												3.4
aserv												
fcap_fix												
fcap_flex												
fland												
fafunsk												

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Satellite Accounts

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Factor Use Accounts

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1	Model Specific Factor Use																	
2																		
3																		
4		aagric	amins	afood	atext	apetchem	amprod	amach	aveh	aomanu	autil	acns	atrad	aserv				
5	fcap	17460.7	35304.9	13965.9	2218.57	19109.7	20077.4	1749.19	5910.88	12828	17036.7	8019.38	91274.9	125089				
6	fland	3456.13	0	0	0	0	0	0	0	0	0	0	0	0				
7	fafunsk	5778.48	10195.7	3520.46	2880.71	2052.53	4659.82	607.866	934.43	2853.73	1161.29	8483.01	21620.6	29749.8				
8	fafskl	806.32	5998.07	1194.63	443.042	936.21	1039.6	289.864	386.891	1322.35	1214.92	1057.68	14670	76370.2				
9	fcaunsk	2551.87	892.665	1225.88	2524.57	794.583	1240.01	372.321	644.871	2286.13	242.292	2709.73	5565.45	6499.56				
10	fcaskl	66.867	130.65	903.016	1444.72	969.994	619.736	314.418	603.264	1348.91	280.833	891.894	7830.05	24684.2				
11	fwhunsk	4573.36	3298.01	392.91	402.53	736.286	1644.94	289.814	707.491	930.823	645.801	3432.03	6302.39	4210.95				
12	fwhskl	2107.88	4985.61	3927.09	1236	5161.21	4918.39	1941.21	1907.06	3379.91	2109.95	2279.62	26527.1	79607.3				
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43																		
44																		

layout | sets | maps | stab_sets | controls | sam | factuse | prdpn | ue_rate | comelast | actelast | elastf | ...

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cgemod

STAGE

Un(der)employment

	A	B
1	**Unemployment Rates**	**Expressed as proportions**
2		
3		
4		rate
5	fcap	0
6	fland	0
7	fafunsk	0.01
8	fafskl	0
9	fcaunsk	0
10	fcaskl	0
11	fwhunsk	0
12	fwhskl	0

layout | sets | maps | stab_sets | controls | sam | factuse | popn | ue_rate | comelast | actelas

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STAGE

Population

	A	B	C
1	Model Specific	Population Data	
2			
3			
4		pophh	pophaeq
5	hafflow	11,366,122	8,409,239
6	haffmed	3,237,981	2,447,997
7	haffhigh	1,967,435	1,510,150
8	hafmlow	9,955,960	7,581,524
9	hafmmed	4,180,036	3,273,639
10	hafmhigh	3,754,778	2,962,700
11	hcalow	3,106,000	2,397,772
12	hcahigh	1,636,048	1,292,255
13	hwhlow	995,077	843,287
14	hwhhigh	2,446,162	2,041,089

layout | sets | maps | stab_sets | controls | sam | factuse | popn | ue_rate | comelast

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STAGE

Exogenous Data

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STAGE

Commodity Elasticities

A1 Model Specific Commodity Elasticities

	A	B	C	D	E	F
1	**Model Specific Commodity Elasticities**					
2	Elasticities					
3						
4	ELASTC	ELASTC	ELASTC sigma	ELASTC omega	ELASTC exdem	ELASTC sigmaxc
6	Agriculture	cagric	1.75	2	0	4
7	Minerals	cmins	1.5	1.5	0	4
8	Food products	cfood	1.5	1.75	0	4
9	Textiles	ctext	1.75	2	0	4
10	Petroleum and chemical products	cpetchem	1.25	2	0	4
11	Metal and mineral products	cmprod	0.9	1.1	0	4
12	Machinery	cmach	0.75	1.2	0	4
13	Vehicles	cveh	0.8	1.25	0	4
14	Other manufacturing	comanu	1.1	1.1	0	4
15	Utilities	cutil	2	2	0	4
16	Construction	ccns	0.75	0.75	0	4
17	Trade transport and communicatior	ctrad	1.5	1.5	0	4
18	Services	cserv	1.5	1.5	0	4

layout | sets | maps | stab_sets | controls | sam | factuse | popn | ue_ra... | comelast | actelast | elastf | ...

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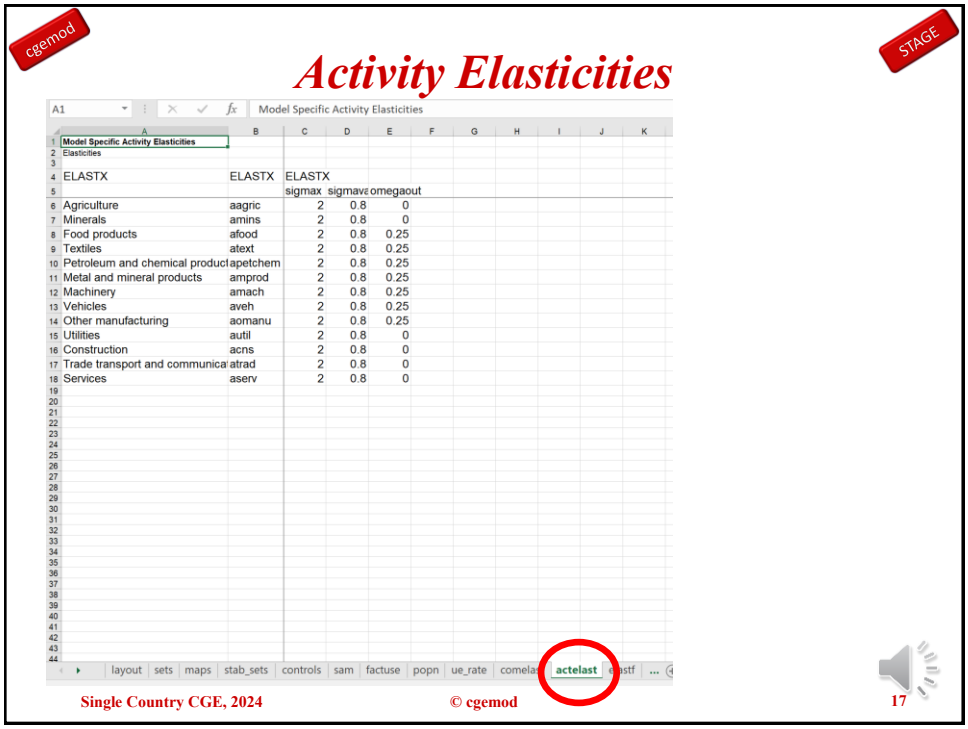
cgemod
STAGE
Activity Elasticities
Model Specific Activity Elasticities
Model Specific Activity Elasticities
Elasticities
ELASTX ELASTX ELASTX
sigmax sigmava omegaout
Agriculture aagric 2 0.8 0
Minerals amins 2 0.8 0
Food products afood 2 0.8 0.25
Textiles atext 2 0.8 0.25
Petroleum and chemical product apetchem 2 0.8 0.25
Metal and mineral products amprod 2 0.8 0.25
Machinery amach 2 0.8 0.25
Vehicles aveh 2 0.8 0.25
Other manufacturing aomanu 2 0.8 0.25
Utilities autil 2 0.8 0
Construction acns 2 0.8 0
Trade transport and communica atrad 2 0.8 0
Services aserv 2 0.8 0
layout sets maps stab_sets controls sam factuse popn ue_rate comelast actelast elastf
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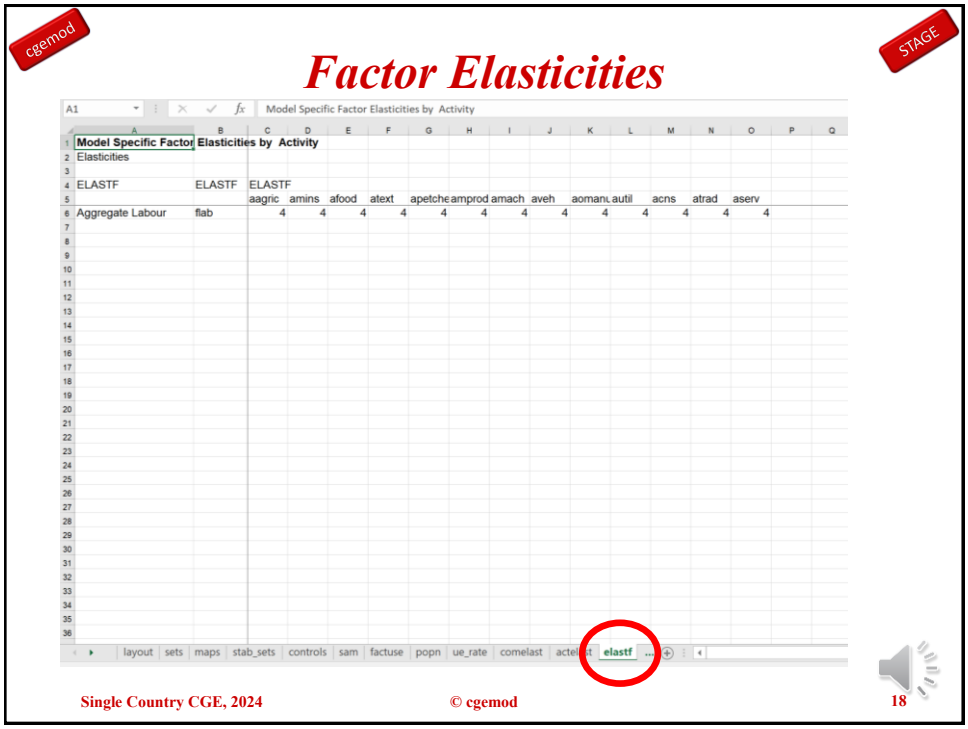
cgemod
STAGE
Factor Elasticities
Model Specific Factor Elasticities by Activity
Model Specific Factor Elasticities by Activity
Elasticities
ELASTF ELASTF ELASTF
aagric amins afood atext apetche amprod amach aveh aomanu autil acns atrad aserv
Aggregate Labour flab 4 4 4 4 4 4 4 4 4 4 4 4 4
layout sets maps stab_sets controls sam factuse popn ue_rate comelast actelast elastf
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Household Elasticities 1

STAGE

A1 | Model Specific Household Elasticities

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	Model Specific	Household Elasticities												
2	Elasticities													
3														
4	ELASTY	ELASTY	ELASTY	ELASTY	ELASTY									
5			hafflow	haffmed	haffhigh	hafmlow	hafmmed	hafmhigh	hcalow	hcahigh	hwhlow	hwhhigh		
6	Agriculture	cagric	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4		
7	Minerals	cmins	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6		
8	Food products	cfood	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7		
9	Textiles	ctext	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2		
10	Petroleum and cl	cpetchem	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4		
11	Metal and miner	cmprod	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1		
12	Machinery	cmach	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8		
13	Vehicles	cveh	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6		
14	Other manufactu	comanu	2	2	2	2	2	2	2	2	2	2		
15	Utilities	cutil	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2		
16	Construction	ccns	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8		
17	Trade transport &	ctrad	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5		
18	Services	cserv	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2		

... | stab_sets | controls | sam | factuse | popn | ue_rate | comelast | actelast | elastf | **hoelast** | frischelast

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Household Elasticities 2

STAGE

	A	B	C	D	E	F	G	H	I	J	K
1	PROVIDE: SA SAM 2000										
2	Elasticities										
3											
4	ELASTMU	ELASTMU	ELASTMU								
5			frisc								
6	African female low education	hafflow	-4.5932								
7	African female mid education	haffmed	-4.3019								
8	African femal high education	haffhigh	-2.7584								
9	African male low education	hafmlow	-4.0709								
10	African male mid education	hafmmed	-3.4285								
11	African male high education	hafmhigh	-2.3166								
12	Coloured and Asian low educ	hcalow	-3.4816								
13	Coloured and Asian high edu	hcahigh	-1.8792								
14	White low education	hwhlow	-1.9624								
15	White high education	hwhhigh	-1.0507								

... | stab_sets | controls | sam | factuse | popn | ue_rate | comelast | actelast | elastf | hoelast | **frischel**

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Model Information

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Controls

A1 fx Control Parameters

	A	B	E
1	**Control Parameters**		
2	These values are used to initialise various parameters that condition the model and control the operation of the model programme		
3			
4			
5	mod_control		
6			
7	**mcons**		
8	numerchk	1	IF 1 then default, if NOT 1 then check on numeraire
9	minaqxsh	0.1	Minimum share of intermediates in cost for aqx
10	samscal	0.001	SAM scaling factor and initial value for autoscaling
11	scaltarg	100	target level for auto scaling
12	scalprop	0.95	proportion of NON zero elements that must be below the target level
13	setpop	2	If 1 then POP data used; If 2 then adult equivalent data used
14	toldiffsam	1E-06	Tolerance on differences in base and solution SAM entries
15	micsam1	1	If 1 checks micro SAM at calibration; If 0 does not check micro SAM at calibration
16	micsam2	1	If 1 checks micro SAM at solution; If 0 does not check micro SAM at solution

... stab_se... controls ...am factuse popn ue_rate comelast actelast elastf hoelast frischelast

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STAGE

Stab(STructural TAbles) Sets

Structural Table Sets

GAMS Name	Description	GAMS Name	Description	GAMS Name	Description	GAMS Name	
Sets for Structural results							
stab1	(description)	stab3	(description)	stab4	(description)	stab5	(d
stQCDTOT	private consumption	stPRIVregDEM	private domestic demand by total domestic demand	stQINTQX	shares of intermediate input in GO by activity	stTRANS	Tr
stQEDTOT	enterprise consumption	stPRIVcomDEM	private domestic demand by total commodity demand	stQINT	shares of intermediate input use by activity	stACTSH	Fa
stQGDTOT	government consumption	stGOVTregDE	government domestic demand by total domestic dem	stVAQX	shares of value added in GO by activity	stFFSH	Fa
stQINVTOT	investment consumption	stGOVTcomDE	government domestic demand by total commodity de	stVA	shares of value added by activity		
stQABSORP	absorption	stINVDregDEM	investment domestic demand by total domestic dema	stQX	shares of gross output by activity		
stIMPORT	import demand	stINVDcomDE	investment domestic demand by total commodity dem	stLAB	shares of labour income in value added		
stEXPORT	export supply	stINTDregDEM	intermediate domestic demand by total domestic dem	stUskLAB	shares of unskilled labour income in value added		
stGDP	GDP from expenditure	stINTDcomDE	intermediate domestic demand by total commodity de	stSkLAB	shares of skilled labour income in value added		
stSUPPLY	total domestic production	stMAKEcomSU	domestic make by commodity shares	stCAP	shares of capital income in value added		
stUSE	total intermediate inputs	stSUPPcomSU	total domestic supply by commodity shares	stLND	shares of land income in value added		
stYHTOT	household income	stQMcomSUP	aggregate import supply by commodity shares	stFTAX	factor use taxes or subsidies in value added		
stYGTOT	government income	stQDcomSUP	domestic output to domestic market by commodity sh	stFACTchk	CHECK on factor shares addition		
stYFTOT	factor income	stQEconSUP	domestic ouptut to export market by commodity share	stSUB	If subsitution possible at Level 1		
stYFDISPTOT	distributed factor income	stregCHK	Check on regional shares	stELASTX	Elasticity of subsitution at Level 1		
stYFLABTOT	labour factor income	stcomCHK	Check on commodity shares	stELASTVA	Elasticity of subsitution at Level 2		
stTOTSAV	total savings	stLAB		stFSUB	Share of subsidies over production		
stHOSAV	household savings	stCAP					
stGOVSAV	government savings	stVA					
stFSAV	foreign savings	EXP-OUTshr					
stDEPREC	depreciation	IMP-DEMshr					
stMTAX	Import tariff revenue						
stETAX	Export tax revenue						
stSTAX	Sales tax revenue						
stSSTAX	Sales tax 2 revenue						
stVTAX	Value Added tax revenue						
stEXTAX	Excise tax revenue						
stITAX	Indirect tax revenue						
stFTAX	Factor use tax revenue						
stFYTAX	Factor income tax revenue						
stDTAX	Direct or income tax revenue						
stTOTTAX	Total tax revenue						

map | stab_sets | controls | sam | factuse | popn | ue_rate | comelast | actelast | elastf | hoelast | friscl ...

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STAGE

Data entry

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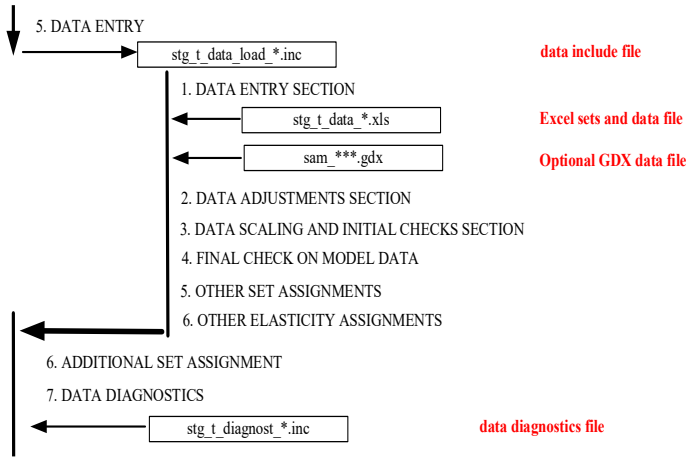
STAGE_t Code Structure



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Data Entry 1

In the model programme file

```
*################ 5. DATA ENTRY ##############################

*  ------- Data load include file ------------------------
$ontext
All data and sets are read in using an include file

The output filename - data_in.gdx - should NOT be changed since
it is used in several places.

Adjustments to the data are also made in this file.
$offtext

$INCLUDE 1_1_Model_data\stg_t_data_load.inc
```


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Data Entry 2

In the data include file

trace= 0 to 4

```
*---- 1a. Excel workbook sets and data converted to gdx here

$CALL "GDXXRW i=1_1_Model_data/%mod_data%.xlsx
                  o=1_1_Model_data/data_in.gdx index=Layout!A4 trace=3"

$if errorLevel 1 $abort problems with GDXXRW

*---- 1b. All data, elasticities and sets from excel are assigned here

$GDXIN 1_1_Model_data/data_in.gdx
```


Data Entry 3

In the data include file

```
$GDXIN 1_1_Model_data/data_in.gdx

* Sets
$LOADdc sac
$LOADdc c cagr cnat cfd cind cuti ccon cser cagg
$LOADdc m
$LOADdc a aagr anat afd aind auti acon aser aagg anch anchN aleon
$LOADdc ff f f2 fag l ls lm k kfx n
$LOADdc insa insw insg ins
$LOADdc h
$LOADdc g gt tff
$LOADdc e
$LOADdc i in
$LOADdc w

$LOADdc ss
$LOADdc ppn

$LOAD mcons

* Results sets
$LOADdc adjres scalres


* Maps for production nesting
$LOADdc map_va_ff map_fagg_ff


$GDXIN
```

SAM Data Entry

```
* 1bi. Loading other data from Excel via GDX

$GDXIN 1_1_Model_data/data_in.gdx

* Transactions data
$LOADdc sam

* Elasticities data
$LOADdc elastc elastx elastf elasty elastmu

* Factor quantities

$LOADdc factuse
$LOADdc factins

* Population
$LOADdc popn

* Control data
$LOADdc mod_cont

$GDXIN
```


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STAGE_t Model Database

The End

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