

Mini GE-LEWIE from the Social Accounting Matrix (SAM)

RoadMap of the GAMS code file named Ch3_Appendix_LEWIE_from_SAM	
<u>Map the Social Accounting Matrix (SAM) accounts from Excel into GAMS</u>	Code line
Name model in GAMS	1
Name sets in GAMS from accounts in the SAM	8
Define labor supply elasticity	35
Read the SAM into GAMS*	39
Name subsets of sets (e.g. goods, factors) as tradable or non-tradable for simulations	55
Name model parameters	89
Map names from SAM accounts into GAMS sets	137
Map factors and consumption from SAM into GAMS ("0" suffix)*	163
 <u>Initialize and name model parameters</u>	
Compute marketed surpluses at household and village levels	186
Normalize prices, wages, and rents to 1	196
Initialize and display initial model parameter values*	201
Name base model parameters ("1" suffix)	229
Name "after shock" model parameters ("2" suffix)	255
Name parameters for difference in variables before and after shock ("D" suffix)	278
Name parameters for percent change in variables before and after shock ("PC" suffix)	300
 <u>Solve Mini GE-LEWIE model for no shock</u>	
Name variables to be optimized by the model	324
Initialize variable values from the SAM ("0" suffix; see lines 163-183)	355
Name and define model equations	374
Define "miniLEWIE" model	467
Constrain prices and production and initialize rents and wages to 1*	488
Solve model over 1 iteration (no shock)*	501
 <u>Solve Mini GE-LEWIE model results after shock</u>	
Define base parameters ("1" suffix)	516
Increase exogenous shock to poor by 1 dollar	541
Produce column E from Table 3.6	549
Solve model after shock	561
Record variable values after shock ("2" suffix)*	567
Record difference in variable values before and after shock ("D" suffix)	588
Record percent change in variable values before and after shock ("PC" suffix)	608
Display recorded variable values*	628
Compute parameter values for table	635
Produce column E' from the SAM	672
Produce text file	700

* denotes actions which are displayed in GAMS output