

Table 1: Model Specification Tests Based on GMM Estimation.
FACGOPHES System
MOR0, MOR1 and MOR2 Households.

Tests Based on Estimation with Four-Region Data, 1980–1992.

Data	Excluding Q		Excluding A		Excluding L	
	Test Statistic	Prob. Value	Test Statistic	Prob. Value	Test Statistic	Prob. Value
MOR0	47.766	0.282E-06	130.797	0.000E+00	118.993	0.610E-11
MOR1	80.950	0.105E-12	146.830	0.000E+00	165.133	0.000E+00
MOR2	41.785	0.360E-05	138.003	0.000E+00	172.876	0.000E+00

Data	Excluding C		Excluding V		Excluding T	
	Test Statistic	Prob. Value	Test Statistic	Prob. Value	Test Statistic	Prob. Value
MOR0	81.393	0.932E-10	73.780	0.215E-08	38.088	0.147E-02
MOR1	192.684	0.000E+00	114.966	0.000E+00	160.252	0.000E+00
MOR2	116.640	0.000E+00	69.413	0.126E-07	23.983	0.899E-01

Tests Based on Estimation with Four-Region Data, 1980–1985.

Data	Excluding Q		Excluding A		Excluding L	
	Test Statistic	Prob. Value	Test Statistic	Prob. Value	Test Statistic	Prob. Value
MOR0	24.520	0.355E-02	81.655	0.836E-10	107.109	0.496E-09
MOR1	5.794	0.760E+00	232.062	0.000E+00	293.640	0.000E+00
MOR2	10.971	0.278E+00	114.312	0.111E-15	209.618	0.000E+00

Data	Excluding C		Excluding V		Excluding T	
	Test Statistic	Prob. Value	Test Statistic	Prob. Value	Test Statistic	Prob. Value
MOR0	142.743	0.000E+00	32.188	0.945E-02	30.725	0.146E-01
MOR1	72.610	0.347E-08	51.940	0.112E-04	40.690	0.617E-03
MOR2	108.207	0.999E-15	45.171	0.131E-03	58.827	0.824E-06

Tests Based on Estimation with Three-Region Data, 1980–1992.

Data	Excluding Q		Excluding A		Excluding L	
	Test Statistic	Prob. Value	Test Statistic	Prob. Value	Test Statistic	Prob. Value
MOR0	84.927	0.169E-13	200.093	0.000E+00	99.622	0.727E-08
MOR1	11.328	0.254E+00	166.339	0.000E+00	168.728	0.000E+00
MOR2	12.929	0.166E+00	177.227	0.000E+00	95.462	0.312E-07

Data	Excluding C		Excluding V		Excluding T	
	Test Statistic	Prob. Value	Test Statistic	Prob. Value	Test Statistic	Prob. Value
MOR0	31.216	0.126E-01	88.743	0.426E-11	65.060	0.719E-07
MOR1	100.376	0.294E-13	55.765	0.266E-05	51.185	0.148E-04
MOR2	45.511	0.116E-03	48.402	0.411E-04	36.522	0.245E-02

Table 2: Model Specification Tests Based on GMM Estimation.
FACGOPHES System
 REN0, REN1 and REN2 Households.

Tests Based on Estimation with Four-Region Data, 1980–1992.

Data	Excluding Q		Excluding A		Excluding L	
	Test Statistic	Prob. Value	Test Statistic	Prob. Value	Test Statistic	Prob. Value
REN0	125.164	0.000E+00	121.758	0.000E+00	385.489	0.000E+00
REN1	95.330	0.111E-15	80.694	0.125E-09	185.985	0.000E+00
REN2	221.531	0.000E+00	788.333	0.000E+00	547.868	0.000E+00

Data	Excluding C		Excluding V		Excluding T	
	Test Statistic	Prob. Value	Test Statistic	Prob. Value	Test Statistic	Prob. Value
REN0	119.640	0.000E+00	227.570	0.000E+00	130.850	0.000E+00
REN1	40.973	0.560E-03	115.840	0.000E+00	90.674	0.188E-11
REN2	236.154	0.000E+00	376.419	0.000E+00	238.552	0.000E+00

Tests Based on Estimation with Four-Region Data, 1980–1985.

Data	Excluding Q		Excluding A		Excluding L	
	Test Statistic	Prob. Value	Test Statistic	Prob. Value	Test Statistic	Prob. Value
REN0	10.299	0.327E+00	13.668	0.623E+00	43.854	0.790E-01
REN1	0.254	0.100E+01	17.575	0.349E+00	52.073	0.139E-01
REN2	9.271	0.413E+00	36.716	0.230E-02	53.643	0.963E-02

Data	Excluding C		Excluding V		Excluding T	
	Test Statistic	Prob. Value	Test Statistic	Prob. Value	Test Statistic	Prob. Value
REN0	11.228	0.795E+00	22.067	0.141E+00	34.750	0.430E-02
REN1	4.191	0.999E+00	23.162	0.109E+00	16.012	0.452E+00
REN2	15.674	0.476E+00	48.500	0.396E-04	22.116	0.139E+00

Tests Based on Estimation with Three-Region Data, 1980–1992.

Data	Excluding Q		Excluding A		Excluding L	
	Test Statistic	Prob. Value	Test Statistic	Prob. Value	Test Statistic	Prob. Value
REN0	14.935	0.927E-01	41.535	0.463E-03	74.963	0.265E-04
REN1	9.440	0.398E+00	13.606	0.628E+00	48.644	0.300E-01
REN2	48.032	0.252E-06	20.027	0.219E+00	110.419	0.148E-09

Data	Excluding C		Excluding V		Excluding T	
	Test Statistic	Prob. Value	Test Statistic	Prob. Value	Test Statistic	Prob. Value
REN0	24.207	0.851E-01	43.052	0.274E-03	42.464	0.336E-03
REN1	14.252	0.580E+00	7.234	0.968E+00	18.380	0.302E+00
REN2	24.546	0.782E-01	64.420	0.927E-07	26.164	0.518E-01

Table 3: Model Specification Tests Based on GMM Estimation
FAC System
MOR0, MOR1 and MOR2 Households.

Tests Based on Estimation with Four-Region Data, 1980–1992.

Data	Excluding Q		Excluding A		Excluding L	
	Test Statistic	Prob. Value	Test Statistic	Prob. Value	Test Statistic	Prob. Value
MOR0	22.821	0.440E-04	15.300	0.412E-02	82.622	0.145E-13
MOR1	1.765	0.623E+00	9.706	0.457E-01	3.009	0.934E+00
MOR2	12.689	0.536E-02	20.496	0.399E-03	7.822	0.451E+00

Data	Excluding C		Excluding V		Excluding T	
	Test Statistic	Prob. Value	Test Statistic	Prob. Value	Test Statistic	Prob. Value
MOR0	18.491	0.989E-03	43.104	0.985E-08	2.723	0.605E+00
MOR1	19.017	0.780E-03	12.468	0.142E-01	3.033	0.552E+00
MOR2	14.883	0.495E-02	2.090	0.719E+00	.695	0.952E+00

Tests Based on Estimation with Four-Region Data, 1980–1985.

Data	Excluding Q		Excluding A		Excluding L	
	Test Statistic	Prob. Value	Test Statistic	Prob. Value	Test Statistic	Prob. Value
MOR0	0.956	0.812E+00	3.478	0.481E+00	15.926	0.435E-01
MOR1	0.041	0.998E+00	4.422	0.352E+00	9.840	0.276E+00
MOR2	0.055	0.997E+00	0.882	0.927E+00	11.855	0.158E+00

Data	Excluding C		Excluding V		Excluding T	
	Test Statistic	Prob. Value	Test Statistic	Prob. Value	Test Statistic	Prob. Value
MOR0	4.406	0.354E+00	0.996	0.910E+00	3.054	0.549E+00
MOR1	2.702	0.609E+00	1.323	0.857E+00	0.626	0.960E+00
MOR2	12.475	0.141E-01	0.935	0.920E+00	5.615	0.230E+00

Tests Based on Estimation with Three-Region Data, 1980–1992.

Data	Excluding Q		Excluding A		Excluding L	
	Test Statistic	Prob. Value	Test Statistic	Prob. Value	Test Statistic	Prob. Value
MOR0	3.559	0.313E+00	5.199	0.267E+00	31.860	0.987E-04
MOR1	8.568	0.356E-01	30.727	0.348E-05	17.994	0.213E-01
MOR2	11.926	0.764E-02	7.847	0.973E-01	15.350	0.527E-01

Data	Excluding C		Excluding V		Excluding T	
	Test Statistic	Prob. Value	Test Statistic	Prob. Value	Test Statistic	Prob. Value
MOR0	4.040	0.401E+00	20.569	0.385E-03	10.684	0.304E-01
MOR1	3.813	0.432E+00	7.237	0.124E+00	20.356	0.425E-03
MOR2	10.941	0.272E-01	7.388	0.117E+00	12.234	0.157E-01

Table 4: Model Specification Tests Based on GMM Estimation.
FAC System
 REN0, REN1 and REN2 Households.

Tests Based on Estimation with Four-Region Data, 1980–1992.

Data	Excluding Q		Excluding A		Excluding L	
	Test Statistic	Prob. Value	Test Statistic	Prob. Value	Test Statistic	Prob. Value
REN0	13.596	0.351E-02	3.441	0.487E+00	13.981	0.823E-01
REN1	18.318	0.378E-03	11.310	0.233E-01	18.800	0.160E-01
REN2	8.044	0.451E-01	31.298	0.266E-05	15.506	0.500E-01

Data	Excluding C		Excluding V		Excluding T	
	Test Statistic	Prob. Value	Test Statistic	Prob. Value	Test Statistic	Prob. Value
REN0	1.298	0.862E+00	23.090	0.121E-03	7.303	0.121E+00
REN1	5.062	0.281E+00	2.703	0.609E+00	3.534	0.473E+00
REN2	12.109	0.166E-01	32.249	0.170E-05	3.485	0.480E+00

Tests Based on Estimation with Four-Region Data, 1980–1985.

Data	Excluding Q		Excluding A		Excluding L	
	Test Statistic	Prob. Value	Test Statistic	Prob. Value	Test Statistic	Prob. Value
REN0	1.106	0.776E+00	15.400	0.394E-02	10.818	0.212E+00
REN1	5.058	0.168E+00	30.230	0.439E-05	9.637	0.291E+00
REN2	14.996	0.182E-02	5.052	0.282E+00	46.558	0.186E-06

Data	Excluding C		Excluding V		Excluding T	
	Test Statistic	Prob. Value	Test Statistic	Prob. Value	Test Statistic	Prob. Value
REN0	8.370	0.789E-01	14.202	0.668E-02	4.670	0.323E+00
REN1	4.558	0.336E+00	4.600	0.331E+00	7.729	0.102E+00
REN2	5.819	0.213E+00	43.253	0.917E-08	4.915	0.296E+00

Tests Based on Estimation with Three-Region Data, 1980–1992.

Data	Excluding Q		Excluding A		Excluding L	
	Test Statistic	Prob. Value	Test Statistic	Prob. Value	Test Statistic	Prob. Value
REN0	8.919	0.304E-01	16.106	0.288E-02	14.351	0.731E-01
REN1	2.274	0.518E+00	16.337	0.260E-02	14.434	0.711E-01
REN2	2.376	0.498E+00	12.321	0.151E-01	46.041	0.233E-06

Data	Excluding C		Excluding V		Excluding T	
	Test Statistic	Prob. Value	Test Statistic	Prob. Value	Test Statistic	Prob. Value
REN0	6.335	0.175E+00	1.968	0.742E+00	4.376	0.357E+00
REN1	4.266	0.371E+00	1.214	0.876E+00	1.464	0.833E+00
REN2	12.927	0.116E-01	3.694	0.449E+00	7.792	0.995E-01

Table 5: Model Specification Tests Based on GMM Estimation.
FACGOPHES System, Regional Price Data
MOR0–MOR2 and REN0–REN2 Households.

Tests Based on Estimation with Three-Region Data, 1980–1992, Regional Prices.

Data	Excluding Q		Excluding A		Excluding L	
	Test Statistic	Prob. Value	Test Statistic	Prob. Value	Test Statistic	Prob. Value
MOR0	33.490	0.110E-03	64.711	0.826E-07	140.587	0.144E-14
MOR1	93.247	0.333E-15	126.949	0.000E+00	243.990	0.000E+00
MOR2	60.429	0.111E-08	255.941	0.000E+00	178.953	0.000E+00

Data	Excluding C		Excluding V		Excluding T	
	Test Statistic	Prob. Value	Test Statistic	Prob. Value	Test Statistic	Prob. Value
MOR0	36.272	0.265E-02	59.638	0.602E-06	28.816	0.252E-01
MOR1	118.489	0.000E+00	56.925	0.171E-05	137.754	0.000E+00
MOR2	156.701	0.000E+00	252.498	0.000E+00	106.878	0.178E-14

Tests Based on Estimation with Three-Region Data, 1980–1992, Regional Prices.

Data	Excluding Q		Excluding A		Excluding L	
	Test Statistic	Prob. Value	Test Statistic	Prob. Value	Test Statistic	Prob. Value
REN0	11.764	0.227E+00	35.430	0.347E-02	65.073	0.489E-03
REN1	39.735	0.849E-05	22.288	0.134E+00	85.836	0.819E-06
REN2	19.174	0.238E-01	42.344	0.351E-03	91.025	0.144E-06

Data	Excluding C		Excluding V		Excluding T	
	Test Statistic	Prob. Value	Test Statistic	Prob. Value	Test Statistic	Prob. Value
REN0	31.288	0.124E-01	40.600	0.636E-03	37.466	0.180E-02
REN1	38.465	0.130E-02	29.952	0.183E-01	38.677	0.121E-02
REN2	43.560	0.230E-03	51.777	0.119E-04	71.673	0.507E-08

Notes to Tables 1–5

1. In the headings to the test statistics, “Excluding Q” and so on indicates the variables being excluded are: Q, quadratic terms in total expenditures; A, age of head; L, labour force variables; C, other expenditures conditioning good; V, vehicle ownership; and T, tobacco consumption dummy.
2. All test statistics are distributed as χ^2 under the null hypothesis.
3. The degrees of freedom for the nine equation system (FACGOPHES) tests are 32 for L; 16 for A, C, V and T; and 9 for Q.
4. The degrees of freedom for the three-equation system (FAC) tests are: 8 for L; 4 for A, C, V and T; and 3 for Q.