

Appendix: Individual Level Revealed Preference Tests for Rationality and Homotheticity

This appendix is supplementary to the non-parametric revealed preference tests for individual rationality and homotheticity. We report the efficiency indexes, CCEI and HEI for Risk and VoI problems separately. In addition, we report the Houtman-Maks index (HMI) due to Houtman and Maks (1985). This index is another commonly used measure for individual rationality, describing the largest subset of choices which still satisfies GARP. In our experiment setting, it is calculated as forty minus the smallest number of choices that has to be removed in order to achieve consistency with GARP.

Table 1: Individual test for rationality and homotheticity

ID	CCEI.Risk	CCEI.VoI	HEI.Risk	HEI.VoI	HMI.Risk	HMI.VoI
1	0.952	1.000	0.816	0.842	35	40
2	0.862	0.781	0.734	0.750	37	34
3	0.997	0.886	0.874	0.753	39	36
4	0.973	0.984	0.690	0.932	38	37
5	0.983	0.945	0.889	0.929	38	38
6	0.994	0.994	0.769	0.663	39	39
7	0.982	0.935	0.927	0.901	38	38
8	0.971	0.980	0.894	0.869	35	37
9	0.991	0.996	0.951	0.988	38	39
10	0.949	0.973	0.849	0.905	36	36
11	0.790	0.974	0.693	0.910	33	38
12	0.870	1.000	0.776	1.000	38	40
13	1.000	1.000	0.970	0.993	40	39
14	0.960	0.991	0.800	0.908	35	39
15	1.000	0.998	0.910	0.850	39	39
16	0.948	0.980	0.761	0.823	35	39
17	1.000	0.991	0.930	0.906	40	39
18	0.997	0.797	0.811	0.723	39	36
19	0.960	0.991	0.870	0.663	36	39
20	0.991	0.824	0.797	0.791	39	36
21	0.910	0.955	0.860	0.889	33	34
22	1.000	1.000	1.000	0.995	40	39
23	0.977	0.977	0.822	0.777	37	39
24	0.993	0.952	0.956	0.885	39	37
25	0.986	0.902	0.907	0.816	36	34
26	0.830	0.873	0.713	0.657	33	31
27	0.973	0.894	0.812	0.792	35	37
28	0.986	0.829	0.931	0.739	39	37
29	0.990	0.985	0.884	0.913	39	39
30	0.990	0.981	0.924	0.924	38	39
31	1.000	0.989	0.938	0.901	40	38
32	0.986	0.997	0.859	0.926	39	39
33	0.996	0.995	0.832	0.872	37	39
34	1.000	1.000	0.811	0.781	40	38
35	0.930	0.727	0.786	0.674	38	36
36	0.962	0.830	0.866	0.632	36	32
37	1.000	1.000	0.820	0.714	38	39
38	0.980	0.990	0.951	0.877	39	38
39	1.000	0.998	0.931	0.971	40	39
40	0.862	1.000	0.810	0.989	37	40

Table 2: Individual test for rationality and homotheticity (cnt)

ID	CCEI.Risk	CCEI.VoI	HEI.Risk	HEI.VoI	HMI.Risk	HMI.VoI
41	0.821	0.975	0.674	0.791	38	33
42	0.982	0.969	0.890	0.940	38	37
43	1.000	1.000	0.757	0.781	40	40
44	0.989	0.997	0.943	0.974	38	37
45	0.883	0.986	0.838	0.917	36	39
46	0.998	0.952	0.917	0.903	39	34
47	0.996	0.965	0.747	0.762	38	38
48	0.994	0.977	0.956	0.859	38	36
49	0.992	0.954	0.900	0.808	37	36
50	0.982	0.966	0.934	0.896	38	34
51	0.989	0.972	0.961	0.871	39	39
52	0.991	0.922	0.807	0.776	37	37
53	0.997	0.974	0.892	0.842	39	38
54	0.993	0.994	0.905	0.940	39	38
55	0.929	1.000	0.841	0.918	35	40
56	0.999	1.000	0.948	0.944	39	39
57	0.959	0.998	0.946	0.976	39	39
58	0.877	0.999	0.848	0.886	36	39
59	1.000	1.000	0.943	0.962	40	40
60	0.904	1.000	0.782	1.000	37	40
61	0.864	1.000	0.753	0.764	37	40
62	0.921	0.996	0.798	0.851	37	38
63	0.985	0.920	0.759	0.841	39	36
64	1.000	0.976	0.840	0.937	40	37
65	0.933	0.967	0.926	0.769	37	37
66	0.911	0.958	0.768	0.866	35	37
67	0.962	0.914	0.881	0.791	35	36
68	0.963	0.890	0.735	0.707	35	35
69	1.000	1.000	0.877	0.871	39	39
70	0.999	0.998	0.928	0.932	38	39
71	0.997	0.773	0.884	0.753	39	37
72	0.909	0.875	0.713	0.800	36	36
73	0.975	1.000	0.866	0.869	38	39
74	1.000	1.000	1.000	1.000	40	40
75	0.946	0.968	0.632	0.683	38	35
76	0.841	0.987	0.734	0.806	36	38
77	0.966	0.956	0.857	0.895	37	36
78	0.846	0.824	0.668	0.721	34	36
79	0.917	0.964	0.754	0.668	39	36
80	0.954	1.000	0.723	0.899	38	39
81	0.997	0.998	0.928	0.820	39	39
82	0.968	0.960	0.884	0.837	37	36
83	0.984	1.000	0.781	0.921	39	40
84	0.978	0.949	0.843	0.830	35	36
85	0.982	0.925	0.856	0.837	38	35
86	0.883	0.911	0.799	0.832	39	36
87	1.000	0.860	1.000	0.750	40	39
88	0.969	0.966	0.808	0.917	36	35
89	1.000	1.000	1.000	0.990	40	40
90	0.971	0.994	0.863	0.892	37	39
91	0.984	0.948	0.868	0.895	37	37
92	0.923	0.727	0.820	0.577	38	37