

**Appendix III**  
**GARP violations and goodness-of-fit indices by subject**

ID	# of GARP violations	CCEI	Varian 1991	HM*	ID	# of GARP violations	CCEI	Varian 1991	HM*
1	754	0.761	0.408	15	27	130	0.930	0.740	43
2	2	1.000	0.998	49	28	34	0.905	0.832	42
3	167	0.898	0.635	39	29	717	0.822	0.393	21
4	8	0.984	0.966	46	30	95	0.913	0.770	42
5	80	0.939	0.799	43	31	10	0.951	0.848	48
6	6	0.973	0.911	48	32	68	0.941	0.628	43
7	261	0.834	0.524	29	33	0	1.000	1.000	50
8	2	0.994	0.974	49	34	14	0.935	0.779	45
9	10	0.974	0.960	46	35	54	0.958	0.865	39
10	5	0.979	0.810	49	36	16	0.963	0.925	44
11	0	1.000	1.000	50	37	12	0.980	0.935	46
12	15	0.976	0.920	45	38	124	0.917	0.518	32
13	0	1.000	1.000	50	39	12	0.975	0.934	47
14	0	1.000	1.000	50	40	8	0.980	0.925	46
15	254	0.904	0.485	26	41	64	0.884	0.650	42
16	178	0.852	0.690	36	42	4	0.985	0.952	49
17	7	0.988	0.984	47	43	4	0.992	0.983	49
18	350	0.857	0.605	27	44	2	0.998	0.995	49
19	15	0.986	0.890	45	45	4	0.986	0.924	48
20	58	0.946	0.885	41	46	45	0.854	0.632	45
21	92	0.946	0.797	36	47	30	0.893	0.683	42
22	2	0.997	0.990	49	48	282	0.882	0.614	29
23	43	0.958	0.882	42	49	18	0.959	0.873	44
24	17	0.960	0.942	45	50	14	0.958	0.955	46
25	4	0.995	0.984	49	51	129	0.838	0.616	44
26	2	0.996	0.995	49	52	0	1.000	1.000	50

ID	# of GARP violations	CCEI	Varian 1991	HM*
53	8	0.974	0.921	46
54	464	0.905	0.480	23
55	0	1.000	1.000	50
56	0	1.000	1.000	50
57	4	0.996	0.983	48
58	26	0.938	0.857	47
59	587	0.760	0.438	25
60	151	0.924	0.690	34
61	813	0.772	0.405	14
62	2	0.999	0.983	49
63	4	0.998	0.933	48
64	4	0.985	0.953	49
65	127	0.931	0.705	38
66	11	0.980	0.961	47
67	11	0.969	0.877	46
68	37	0.947	0.876	46
69	81	0.931	0.813	35
70	84	0.943	0.728	36
71	44	0.958	0.751	43
72	59	0.902	0.810	43
73	12	0.933	0.827	48
74	24	0.968	0.802	47
75	17	0.915	0.876	44
76	42	0.860	0.808	44
77	6	0.979	0.960	47
78	4	0.990	0.969	48

ID	# of GARP violations	CCEI	Varian 1991	HM*
79	40	0.955	0.891	46
80	0	1.000	1.000	50
81	19	0.794	0.783	47
82	196	0.790	0.572	34
83	8	0.985	0.981	46
84	6	0.998	0.969	47
85	17	0.957	0.930	46
86	0	1.000	1.000	50
87	205	0.854	0.525	32
88	90	0.932	0.727	38
89	16	0.882	0.867	48
90	104	0.879	0.620	35
91	5	0.998	0.956	49
92	18	0.926	0.892	45
93	564	0.745	0.446	21
94	20	0.978	0.936	44
95	131	0.927	0.659	37
96	2	0.994	0.988	49
97	37	0.976	0.927	39
98	21	0.977	0.921	42
99	80	0.866	0.789	41
100	29	0.884	0.778	45
101	4	0.996	0.987	48
102	35	0.956	0.753	44
103	102	0.946	0.660	37
104	8	0.962	0.900	49

ID	# of GARP violations	CCEI	Varian 1991	HM*
105	2	0.999	0.994	49
106	175	0.902	0.677	37
107	387	0.851	0.496	20
108	46	0.958	0.915	43
109	77	0.933	0.597	45
110	6	0.996	0.859	48
111	2	0.969	0.951	49
112	0	1.000	1.000	50
113	75	0.959	0.788	41
114	4	0.991	0.959	48
115	6	0.971	0.880	47
116	138	0.877	0.668	32
117	0	1.000	1.000	50
118	66	0.941	0.780	37
119	18	0.961	0.897	47
120	9	0.951	0.870	47
121	20	0.936	0.892	43
122	164	0.921	0.798	32
123	73	0.831	0.825	39
124	13	0.972	0.928	46
125	2	0.990	0.942	49
126	16	0.975	0.901	46
127	14	0.983	0.930	48
128	4	0.986	0.979	48
129	112	0.952	0.685	39

ID	# of GARP violations	CCEI	Varian 1991	HM*
130	0	1.000	1.000	50
131	64	0.963	0.842	37
132	50	0.903	0.719	43
133	4	0.988	0.986	48
134	399	0.895	0.497	36
135	21	0.950	0.922	45
136	2	1.000	0.997	49
137	6	0.966	0.946	49
138	93	0.906	0.734	40
139	6	0.983	0.961	47
140	13	0.966	0.944	46
141	0	1.000	1.000	50
142	18	0.990	0.980	46
143	34	0.923	0.860	44
144	88	0.909	0.690	37
145	32	0.987	0.745	45
146	4	0.999	0.987	48
147	4	0.980	0.958	48
148	0	1.000	1.000	50
149	82	0.861	0.818	37
150	63	0.931	0.673	44
151	7	0.990	0.961	49
152	2	0.999	0.999	49
153	23	0.979	0.956	43
154	0	1.000	1.000	50

\* The test proposed by Houtman and Maks (1985) (HM), finds the largest subset of choices that is consistent with GARP. This method is computationally very intensive. As a result, we were unable to calculate the HM indices for a small number of subjects who often violated GARP, and we therefore report only lower bounds. The Varian (1991) index is a lower bound on the CCEI. The reasons for this discrepancy are discussed in CFGKb.