

Augmented Table 1 for "Testing for Cointegration When Some of the Cointegrating Vectors are Known" by Michael T.K. Horvath and Mark W. Watson

Table 1.1 -- Augmented
Critical Values for Tests for Cointegration

n-r	r _{ou}	r _{ok}	r _{ak}	r _{au}	----- Case 1 -----			----- Case 2 -----			----- Case 3 -----		
					1%	5%	10%	1%	5%	10%	1%	5%	10%
1	0	0	1		7.26	4.12	2.95	12.18	8.47	6.63	6.84	3.98	2.73
1	0	1	0		7.26	4.12	2.95	12.18	8.47	6.63	12.18	8.47	6.63
2	0	0	1		14.83	11.03	9.35	19.14	14.93	13.01	18.13	14.18	12.36
2	0	0	2		16.10	12.21	10.45	22.43	18.17	15.87	19.66	15.41	13.54
2	0	1	0		9.43	6.28	4.73	13.73	10.18	8.30	13.73	10.18	8.30
2	0	1	1		16.10	12.21	10.45	22.43	18.17	15.87	19.66	15.41	13.54
2	0	2	0		16.10	12.21	10.45	22.43	18.17	15.87	22.43	18.17	15.87
2	1	0	1		9.43	6.28	4.73	13.73	10.18	8.30	8.94	6.02	4.64
2	1	1	0		9.43	6.28	4.73	13.73	10.18	8.30	13.73	10.18	8.30
3	0	0	1		22.25	17.51	15.42	25.93	21.19	19.12	26.17	21.14	18.62
3	0	0	2		28.02	23.28	20.81	35.98	29.46	26.79	34.84	28.75	26.08
3	0	0	3		29.31	23.91	21.52	37.72	31.66	28.82	35.83	29.62	27.05
3	0	1	0		11.44	7.94	6.43	15.41	11.62	9.72	15.41	11.62	9.72
3	0	1	1		24.91	20.30	18.05	31.42	26.08	23.67	30.67	25.70	23.04
3	0	1	2		29.31	23.91	21.52	37.72	31.66	28.82	35.83	29.62	27.05
3	0	2	0		19.75	15.20	13.04	25.35	20.74	18.51	25.35	20.74	18.51
3	0	2	1		29.31	23.91	21.52	37.72	31.66	28.82	35.83	29.62	27.05
3	0	3	0		29.31	23.91	21.52	37.72	31.66	28.82	37.72	31.66	28.82
3	1	0	1		16.84	12.89	11.03	21.62	16.65	14.51	20.36	15.93	13.93
3	1	0	2		19.75	15.20	13.04	25.35	20.74	18.51	22.90	18.18	16.25
3	1	1	0		11.44	7.94	6.43	15.41	11.62	9.72	15.41	11.62	9.72
3	1	1	1		19.75	15.20	13.04	25.35	20.74	18.51	22.90	18.18	16.25
3	1	2	0		19.75	15.20	13.04	25.35	20.74	18.51	25.35	20.74	18.51
3	2	0	1		11.44	7.94	6.43	15.41	11.62	9.72	11.39	7.87	6.36
3	2	1	0		11.44	7.94	6.43	15.41	11.62	9.72	15.41	11.62	9.72
4	0	0	1		28.33	23.82	21.51	32.35	27.40	24.94	32.19	27.07	24.84
4	0	0	2		40.14	34.35	31.63	47.03	40.50	37.78	46.00	40.27	37.17
4	0	0	3		44.62	39.17	35.90	54.25	47.31	44.03	53.14	46.30	43.32
4	0	0	4		45.66	39.91	36.58	56.17	49.16	45.61	54.34	47.33	44.09
4	0	1	0		13.60	9.73	7.93	17.16	13.20	11.16	17.16	13.20	11.16
4	0	1	1		32.75	27.86	25.43	39.55	33.55	30.73	39.47	33.22	30.45
4	0	1	2		42.47	36.93	33.81	51.82	44.98	41.45	50.96	43.78	40.94
4	0	1	3		45.66	39.91	36.58	56.17	49.16	45.61	54.34	47.33	44.09
4	0	2	0		22.85	17.92	15.81	28.62	23.41	21.10	28.62	23.41	21.10
4	0	2	1		38.43	33.36	30.69	47.26	40.98	38.11	46.82	40.76	37.50
4	0	2	2		45.66	39.91	36.58	56.17	49.16	45.61	54.34	47.33	44.09
4	0	3	0		33.53	27.80	25.24	41.08	35.33	32.33	41.08	35.33	32.33
4	0	3	1		45.66	39.91	36.58	56.17	49.16	45.61	54.34	47.33	44.09
4	0	4	0		45.66	39.91	36.58	56.17	49.16	45.61	56.17	49.16	45.61
4	1	0	1		24.15	19.28	17.30	27.09	22.73	20.61	28.06	22.74	20.36

Table 1.1 (Continued)
Critical Values for Tests for Cointegration

n-r	r _{cu}	r _{ok}	r _{ak}	r _{au}	----- Case 1 -----			----- Case 2 -----			----- Case 3 -----		
					1%	5%	10%	1%	5%	10%	1%	5%	10%
4	1	0	2	31.30	26.19	23.82	37.76	32.45	29.49	38.01	31.74	28.65	
4	1	0	3	33.53	27.80	25.24	41.08	35.33	32.33	40.07	33.57	30.41	
4	1	1	0	13.60	9.73	7.93	17.16	13.20	11.16	17.16	13.20	11.16	
4	1	1	1	28.04	23.19	20.82	33.83	28.87	26.10	33.45	28.25	25.73	
4	1	1	2	33.53	27.80	25.24	41.08	35.33	32.33	40.07	33.57	30.41	
4	1	2	0	22.85	17.92	15.81	28.62	23.41	21.10	28.62	23.41	21.10	
4	1	2	1	33.53	27.80	25.24	41.08	35.33	32.33	40.07	33.57	30.41	
4	1	3	0	33.53	27.80	25.24	41.08	35.33	32.33	41.08	35.33	32.33	
4	2	0	1	18.59	14.60	12.78	23.09	18.37	16.12	21.92	17.52	15.51	
4	2	0	2	22.85	17.92	15.81	28.62	23.41	21.10	25.82	21.00	18.74	
4	2	1	0	13.60	9.73	7.93	17.16	13.20	11.16	17.16	13.20	11.16	
4	2	1	1	22.85	17.92	15.81	28.62	23.41	21.10	25.82	21.00	18.74	
4	2	2	0	22.85	17.92	15.81	28.62	23.41	21.10	28.62	23.41	21.10	
4	3	0	1	13.60	9.73	7.93	17.16	13.20	11.16	12.81	9.54	7.85	
4	3	1	0	13.60	9.73	7.93	17.16	13.20	11.16	17.16	13.20	11.16	
5	0	0	1	35.29	30.51	27.76	39.10	33.87	31.08	38.95	33.51	30.89	
5	0	0	2	51.50	45.84	42.75	59.27	52.05	48.77	57.99	51.53	48.24	
5	0	0	3	61.05	54.42	51.22	70.75	63.29	59.44	70.30	62.45	58.82	
5	0	0	4	65.54	58.65	55.23	77.46	69.37	65.20	75.64	67.89	64.37	
5	0	0	5	66.00	59.39	55.80	78.85	70.93	66.58	76.36	68.62	65.15	
5	0	1	0	15.32	11.41	9.46	19.00	14.53	12.49	19.00	14.53	12.49	
5	0	1	1	41.09	35.77	32.98	47.18	41.36	38.44	46.58	40.78	38.15	
5	0	1	2	56.00	49.75	46.41	64.19	57.55	53.98	63.59	56.60	53.43	
5	0	1	3	63.52	56.83	53.56	74.61	66.88	63.00	73.49	65.73	62.31	
5	0	1	4	66.00	59.39	55.80	78.85	70.93	66.58	76.36	68.62	65.15	
5	0	2	0	26.01	20.92	18.55	31.26	26.15	23.51	31.26	26.15	23.51	
5	0	2	1	48.36	42.54	39.54	56.90	50.15	46.93	56.23	49.55	46.51	
5	0	2	2	60.54	54.27	50.93	71.63	64.20	60.46	70.31	62.86	59.64	
5	0	2	3	66.00	59.39	55.80	78.85	70.93	66.58	76.36	68.62	65.15	
5	0	3	0	37.35	31.75	28.94	44.87	39.03	36.03	44.87	39.03	36.03	
5	0	3	1	57.01	50.44	47.36	67.41	60.14	56.68	66.72	59.62	55.85	
5	0	3	2	66.00	59.39	55.80	78.85	70.93	66.58	76.36	68.62	65.15	
5	0	4	0	50.02	44.42	41.43	61.04	53.88	50.14	61.04	53.88	50.14	
5	0	4	1	66.00	59.39	55.80	78.85	70.93	66.58	76.36	68.62	65.15	
5	0	5	0	66.00	59.39	55.80	78.85	70.93	66.58	78.85	70.93	66.58	
5	1	0	1	30.10	25.62	23.21	34.36	29.09	26.61	33.87	28.72	26.37	
5	1	0	2	42.91	37.30	34.70	50.23	43.52	40.60	49.21	42.92	40.02	
5	1	0	3	48.63	42.91	40.13	58.91	51.22	47.80	57.59	50.31	47.15	
5	1	0	4	50.02	44.42	41.43	61.04	53.88	50.14	59.39	51.95	48.67	
5	1	1	0	15.32	11.41	9.46	19.00	14.53	12.49	19.00	14.53	12.49	
5	1	1	1	36.01	30.74	28.25	41.68	36.30	33.62	41.37	35.94	33.11	
5	1	1	2	46.54	40.78	37.76	55.99	48.54	45.25	54.54	47.42	44.73	
5	1	1	3	50.02	44.42	41.43	61.04	53.88	50.14	59.39	51.95	48.67	
5	1	2	0	26.01	20.92	18.55	31.26	26.15	23.51	31.26	26.15	23.51	
5	1	2	1	42.58	37.40	34.60	50.71	44.76	41.71	50.25	44.34	41.27	
5	1	2	2	50.02	44.42	41.43	61.04	53.88	50.14	59.39	51.95	48.67	

Table 1.1 (Continued)
Critical Values for Tests for Cointegration

n-r	r _{ou}	r _{ok}	r _{ak}	r _{au}	----- Case 1 -----			----- Case 2 -----			----- Case 3 -----		
					1%	5%	10%	1%	5%	10%	1%	5%	10%
5	1	3	0		37.35	31.75	28.94	44.87	39.03	36.03	44.87	39.03	36.03
5	1	3	1		50.02	44.42	41.43	61.04	53.88	50.14	59.39	51.95	48.67
5	1	4	0		50.02	44.42	41.43	61.04	53.88	50.14	61.04	53.88	50.14
5	2	0	1		25.44	20.91	18.95	28.77	24.48	22.09	29.62	24.41	21.83
5	2	0	2		34.64	29.41	26.66	40.57	35.03	32.20	40.73	34.50	31.42
5	2	0	3		37.35	31.75	28.94	44.87	39.03	36.03	43.65	37.21	34.13
5	2	1	0		15.32	11.41	9.46	19.00	14.53	12.49	19.00	14.53	12.49
5	2	1	1		31.01	25.99	23.64	36.35	31.39	28.72	36.34	30.99	28.34
5	2	1	2		37.35	31.75	28.94	44.87	39.03	36.03	43.65	37.21	34.13
5	2	2	0		26.01	20.92	18.55	31.26	26.15	23.51	31.26	26.15	23.51
5	2	2	1		37.35	31.75	28.94	44.87	39.03	36.03	43.65	37.21	34.13
5	2	3	0		37.35	31.75	28.94	44.87	39.03	36.03	44.87	39.03	36.03
5	3	0	1		20.52	16.39	14.39	24.46	19.95	17.70	23.82	19.16	16.94
5	3	0	2		26.01	20.92	18.55	31.26	26.15	23.51	28.71	23.83	21.25
5	3	1	0		15.32	11.41	9.46	19.00	14.53	12.49	19.00	14.53	12.49
5	3	1	1		26.01	20.92	18.55	31.26	26.15	23.51	28.71	23.83	21.25
5	3	2	0		26.01	20.92	18.55	31.26	26.15	23.51	31.26	26.15	23.51
5	4	0	1		15.32	11.41	9.46	19.00	14.53	12.49	15.02	11.23	9.31
5	4	1	0		15.32	11.41	9.46	19.00	14.53	12.49	19.00	14.53	12.49
6	0	0	1		41.87	36.40	33.80	46.53	39.89	37.19	45.79	39.98	37.26
6	0	0	2		64.13	56.97	53.63	70.61	63.53	59.87	70.99	63.42	59.76
6	0	0	3		78.25	70.32	66.50	87.58	79.28	75.17	86.98	79.08	74.90
6	0	0	4		86.73	78.46	74.35	98.60	89.27	84.97	96.07	88.81	84.29
6	0	0	5		91.97	82.61	78.20	104.67	94.75	90.33	102.39	94.18	89.42
6	0	0	6		92.35	83.33	78.75	106.26	95.89	91.73	103.39	94.69	90.21
6	0	1	0		17.49	12.91	10.88	20.65	15.86	13.83	20.65	15.86	13.83
6	0	1	1		49.31	43.13	40.07	55.12	48.47	45.45	55.30	48.54	45.32
6	0	1	2		69.53	62.06	58.64	78.89	69.81	66.47	78.06	70.00	66.47
6	0	1	3		81.57	74.10	70.32	93.03	84.25	80.24	92.49	83.79	79.93
6	0	1	4		89.59	80.68	76.62	102.13	92.67	88.29	100.43	91.90	87.57
6	0	1	5		92.35	83.33	78.75	106.26	95.89	91.73	103.39	94.69	90.21
6	0	2	0		28.81	23.73	21.10	34.08	28.85	25.97	34.08	28.85	25.97
6	0	2	1		58.06	51.10	48.17	65.54	58.85	55.31	66.21	58.84	55.14
6	0	2	2		75.73	67.99	64.67	85.77	78.46	74.13	85.90	78.30	73.91
6	0	2	3		87.06	78.66	74.48	99.39	90.36	86.03	97.36	89.59	85.46
6	0	2	4		92.35	83.33	78.75	106.26	95.89	91.73	103.39	94.69	90.21
6	0	3	0		41.84	35.68	32.77	49.13	42.66	39.41	49.13	42.66	39.41
6	0	3	1		68.06	60.75	57.23	78.20	70.37	66.29	78.15	70.26	66.22
6	0	3	2		84.09	75.65	71.65	96.19	87.33	82.94	95.56	86.71	82.52
6	0	3	3		92.35	83.33	78.75	106.26	95.89	91.73	103.39	94.69	90.21
6	0	4	0		56.31	49.81	46.16	67.02	58.70	54.73	67.02	58.70	54.73
6	0	4	1		79.68	72.22	67.90	92.23	83.10	78.78	91.25	82.81	78.39
6	0	4	2		92.35	83.33	78.75	106.26	95.89	91.73	103.39	94.69	90.21
6	0	5	0		72.86	65.00	61.54	85.33	76.51	72.39	85.33	76.51	72.39
6	0	5	1		92.35	83.33	78.75	106.26	95.89	91.73	103.39	94.69	90.21
6	0	6	0		92.35	83.33	78.75	106.26	95.89	91.73	106.26	95.89	91.73

Table 1.1 (Continued)
Critical Values for Tests for Cointegration

n-r	r _{ou}	r _{ok}	r _{ak}	r _{au}	----- Case 1 -----			----- Case 2 -----			----- Case 3 -----		
					1%	5%	10%	1%	5%	10%	1%	5%	10%
6	1	0	1	37.11	32.19	29.36	40.88	35.73	32.77	40.56	35.28	32.57	
6	1	0	2	55.50	48.91	45.95	62.04	55.24	51.72	61.26	54.48	51.26	
6	1	0	3	66.07	58.66	55.54	75.70	67.56	63.52	74.15	66.70	62.92	
6	1	0	4	71.53	63.76	60.30	82.91	74.28	70.17	81.25	73.11	69.02	
6	1	0	5	72.86	65.00	61.54	85.33	76.51	72.39	82.94	74.75	70.40	
6	1	1	0	17.49	12.91	10.88	20.65	15.86	13.83	20.65	15.86	13.83	
6	1	1	1	44.06	38.96	35.81	50.94	44.37	41.34	49.24	43.56	40.76	
6	1	1	2	60.40	53.65	50.59	68.87	61.81	57.94	67.67	60.69	57.36	
6	1	1	3	69.35	61.78	58.49	79.78	71.84	67.90	78.51	70.76	66.94	
6	1	1	4	72.86	65.00	61.54	85.33	76.51	72.39	82.94	74.75	70.40	
6	1	2	0	28.81	23.73	21.10	34.08	28.85	25.97	34.08	28.85	25.97	
6	1	2	1	52.34	46.63	43.54	61.10	53.96	50.57	60.38	53.43	50.14	
6	1	2	2	66.40	59.39	56.07	76.69	68.79	65.43	75.99	67.78	64.19	
6	1	2	3	72.86	65.00	61.54	85.33	76.51	72.39	82.94	74.75	70.40	
6	1	3	0	41.84	35.68	32.77	49.13	42.66	39.41	49.13	42.66	39.41	
6	1	3	1	62.35	55.63	52.34	72.96	65.21	61.17	72.48	64.03	60.42	
6	1	3	2	72.86	65.00	61.54	85.33	76.51	72.39	82.94	74.75	70.40	
6	1	4	0	56.31	49.81	46.16	67.02	58.70	54.73	67.02	58.70	54.73	
6	1	4	1	72.86	65.00	61.54	85.33	76.51	72.39	82.94	74.75	70.40	
6	1	5	0	72.86	65.00	61.54	85.33	76.51	72.39	85.33	76.51	72.39	
6	2	0	1	31.81	27.27	25.07	36.15	30.53	28.14	35.33	30.55	27.95	
6	2	0	2	46.26	40.76	37.78	53.27	46.71	43.54	52.14	45.73	42.82	
6	2	0	3	54.02	47.60	44.09	63.07	55.22	51.74	61.96	54.12	50.97	
6	2	0	4	56.31	49.81	46.16	67.02	58.70	54.73	65.26	56.56	53.19	
6	2	1	0	17.49	12.91	10.88	20.65	15.86	13.83	20.65	15.86	13.83	
6	2	1	1	39.24	33.80	31.00	45.66	39.10	36.02	44.62	38.71	35.95	
6	2	1	2	50.84	45.09	41.93	60.15	52.58	49.08	58.49	51.42	48.19	
6	2	1	3	56.31	49.81	46.16	67.02	58.70	54.73	65.26	56.56	53.19	
6	2	2	0	28.81	23.73	21.10	34.08	28.85	25.97	34.08	28.85	25.97	
6	2	2	1	47.53	41.51	38.46	55.34	48.67	45.33	54.92	47.72	44.86	
6	2	2	2	56.31	49.81	46.16	67.02	58.70	54.73	65.26	56.56	53.19	
6	2	3	0	41.84	35.68	32.77	49.13	42.66	39.41	49.13	42.66	39.41	
6	2	3	1	56.31	49.81	46.16	67.02	58.70	54.73	65.26	56.56	53.19	
6	2	4	0	56.31	49.81	46.16	67.02	58.70	54.73	67.02	58.70	54.73	
6	3	0	1	27.15	22.60	20.54	30.58	25.90	23.79	31.46	25.99	23.44	
6	3	0	2	38.36	32.47	29.49	43.75	37.73	34.79	43.78	37.52	34.16	
6	3	0	3	41.84	35.68	32.77	49.13	42.66	39.41	47.61	41.15	37.56	
6	3	1	0	17.49	12.91	10.88	20.65	15.86	13.83	20.65	15.86	13.83	
6	3	1	1	34.16	29.01	26.24	39.23	34.14	31.33	39.94	33.70	30.95	
6	3	1	2	41.84	35.68	32.77	49.13	42.66	39.41	47.61	41.15	37.56	
6	3	2	0	28.81	23.73	21.10	34.08	28.85	25.97	34.08	28.85	25.97	
6	3	2	1	41.84	35.68	32.77	49.13	42.66	39.41	47.61	41.15	37.56	
6	3	3	0	41.84	35.68	32.77	49.13	42.66	39.41	49.13	42.66	39.41	
6	4	0	1	22.57	18.06	16.01	26.59	21.50	19.24	25.51	20.67	18.28	
6	4	0	2	28.81	23.73	21.10	34.08	28.85	25.97	31.68	26.31	23.75	
6	4	1	0	17.49	12.91	10.88	20.65	15.86	13.83	20.65	15.86	13.83	
6	4	1	1	28.81	23.73	21.10	34.08	28.85	25.97	31.68	26.31	23.75	

Table 1.1 (Continued)
Critical Values for Tests for Cointegration

n	r _{ou}	r _{ok}	r _{ak}	r _{au}	----- Case 1 -----			----- Case 2 -----			----- Case 3 -----		
					1%	5%	10%	1%	5%	10%	1%	5%	10%
6	4	2	0		28.81	23.73	21.10	34.08	28.85	25.97	34.08	28.85	25.97
6	5	0	1		17.49	12.91	10.88	20.65	15.86	13.83	16.57	12.61	10.81
6	5	1	0		17.49	12.91	10.88	20.65	15.86	13.83	20.65	15.86	13.83
7	0	0	1		49.47	42.36	39.48	51.94	46.35	42.97	51.56	45.91	42.96
7	0	0	2		76.95	68.38	64.69	83.27	74.79	70.99	82.40	74.86	70.87
7	0	0	3		95.26	86.55	81.99	104.32	95.62	90.88	103.32	95.04	90.39
7	0	0	4		107.80	98.57	94.05	119.56	110.08	104.57	118.28	109.16	104.16
7	0	0	5		116.34	106.41	101.47	129.21	119.30	113.79	128.32	118.25	113.37
7	0	0	6		120.27	110.41	105.68	135.52	124.53	119.05	134.43	123.74	118.63
7	0	0	7		121.54	110.90	106.17	136.45	125.82	120.29	134.83	124.45	119.18
7	0	1	0		18.47	14.50	12.13	22.28	17.16	14.98	22.28	17.16	14.98
7	0	1	1		57.03	50.40	47.34	62.86	56.29	52.42	62.62	56.05	52.44
7	0	1	2		82.99	74.81	70.82	91.64	82.89	78.66	91.05	82.79	78.69
7	0	1	3		100.34	91.63	87.25	111.30	101.70	97.32	110.63	101.54	96.94
7	0	1	4		112.21	102.67	97.97	124.78	114.70	109.68	123.37	114.19	109.28
7	0	1	5		118.45	108.82	104.04	132.78	122.85	117.32	132.09	121.45	116.86
7	0	1	6		121.54	110.90	106.17	136.45	125.82	120.29	134.83	124.45	119.18
7	0	2	0		31.34	26.27	23.65	36.43	31.34	28.32	36.43	31.34	28.32
7	0	2	1		67.32	59.68	56.50	74.30	67.05	63.66	75.10	67.24	63.71
7	0	2	2		90.94	82.05	78.53	102.51	92.63	88.00	100.54	92.27	87.94
7	0	2	3		106.94	97.48	92.92	120.66	109.69	104.48	118.63	108.86	104.15
7	0	2	4		116.19	106.86	102.07	131.11	120.59	115.36	129.19	119.45	114.61
7	0	2	5		121.54	110.90	106.17	136.45	125.82	120.29	134.83	124.45	119.18
7	0	3	0		45.55	39.33	36.24	52.67	45.93	42.78	52.67	45.93	42.78
7	0	3	1		78.07	70.51	66.72	87.90	80.34	76.08	88.19	79.61	75.82
7	0	3	2		100.41	91.27	86.92	112.91	102.90	98.25	112.23	102.65	97.73
7	0	3	3		114.02	104.09	99.80	128.17	118.09	112.42	126.69	117.09	112.00
7	0	3	4		121.54	110.90	106.17	136.45	125.82	120.29	134.83	124.45	119.18
7	0	4	0		61.22	54.27	50.85	71.84	63.08	59.37	71.84	63.08	59.37
7	0	4	1		90.65	83.53	79.18	103.24	94.60	89.85	103.56	94.02	89.45
7	0	4	2		110.12	101.35	96.57	124.30	114.53	109.23	123.99	113.69	108.98
7	0	4	3		121.54	110.90	106.17	136.45	125.82	120.29	134.83	124.45	119.18
7	0	5	0		79.52	71.35	66.91	91.79	82.32	78.02	91.79	82.32	78.02
7	0	5	1		106.61	97.07	92.51	120.40	109.97	105.00	118.53	109.76	104.53
7	0	5	2		121.54	110.90	106.17	136.45	125.82	120.29	134.83	124.45	119.18
7	0	6	0		99.65	90.10	85.63	112.77	103.02	98.48	112.77	103.02	98.48
7	0	6	1		121.54	110.90	106.17	136.45	125.82	120.29	134.83	124.45	119.18
7	0	7	0		121.54	110.90	106.17	136.45	125.82	120.29	136.45	125.82	120.29
7	1	0	1		44.62	38.26	35.41	48.02	41.72	38.83	47.91	41.61	38.98
7	1	0	2		67.74	60.45	56.93	73.73	66.86	63.01	74.47	66.55	62.85
7	1	0	3		83.21	74.94	71.02	92.48	83.75	79.62	92.07	83.10	79.16
7	1	0	4		93.50	84.13	79.74	104.51	94.74	90.43	103.13	93.79	89.75
7	1	0	5		98.70	89.08	84.62	110.71	101.12	96.35	109.77	100.27	95.81
7	1	0	6		99.65	90.10	85.63	112.77	103.02	98.48	111.38	101.47	96.97
7	1	1	0		18.47	14.50	12.13	22.28	17.16	14.98	22.28	17.16	14.98
7	1	1	1		52.69	46.21	42.79	57.81	51.79	48.25	58.45	51.44	48.29

Table 1.1 (Continued)
Critical Values for Tests for Cointegration

n-r	r _{ou}	r _{ok}	r _{ak}	r _{au}	----- Case 1 -----			----- Case 2 -----			----- Case 3 -----		
					1%	5%	10%	1%	5%	10%	1%	5%	10%
7	1	1	2	73.92	66.45	62.76	82.75	74.41	70.68	82.37	74.43	70.48	
7	1	1	3	87.94	79.59	75.76	98.42	89.77	85.57	97.93	89.04	85.08	
7	1	1	4	96.20	87.24	82.75	108.68	99.08	94.45	107.45	98.13	93.74	
7	1	1	5	99.65	90.10	85.63	112.77	103.02	98.48	111.38	101.47	96.97	
7	1	2	0	31.34	26.27	23.65	36.43	31.34	28.32	36.43	31.34	28.32	
7	1	2	1	61.74	55.25	51.84	69.48	62.84	59.06	70.11	62.76	59.10	
7	1	2	2	81.58	73.35	69.72	91.67	83.43	79.27	91.49	83.74	79.03	
7	1	2	3	93.49	84.82	80.63	106.11	96.74	91.86	104.62	95.57	91.14	
7	1	2	4	99.65	90.10	85.63	112.77	103.02	98.48	111.38	101.47	96.97	
7	1	3	0	45.55	39.33	36.24	52.67	45.93	42.78	52.67	45.93	42.78	
7	1	3	1	73.43	65.76	62.15	83.98	75.30	71.01	83.98	74.84	71.05	
7	1	3	2	90.11	82.16	77.54	102.72	93.47	88.51	101.85	92.86	88.40	
7	1	3	3	99.65	90.10	85.63	112.77	103.02	98.48	111.38	101.47	96.97	
7	1	4	0	61.22	54.27	50.85	71.84	63.08	59.37	71.84	63.08	59.37	
7	1	4	1	85.73	77.92	73.68	97.86	88.87	84.57	97.82	88.64	84.11	
7	1	4	2	99.65	90.10	85.63	112.77	103.02	98.48	111.38	101.47	96.97	
7	1	5	0	79.52	71.35	66.91	91.79	82.32	78.02	91.79	82.32	78.02	
7	1	5	1	99.65	90.10	85.63	112.77	103.02	98.48	111.38	101.47	96.97	
7	1	6	0	99.65	90.10	85.63	112.77	103.02	98.48	112.77	103.02	98.48	
7	2	0	1	39.13	33.88	31.21	43.06	37.48	34.48	42.23	36.81	34.32	
7	2	0	2	58.92	52.03	48.71	65.86	58.33	54.81	63.97	57.64	54.07	
7	2	0	3	70.47	62.95	59.49	79.75	71.56	67.75	78.15	70.86	66.89	
7	2	0	4	77.47	69.26	65.06	88.36	79.49	75.26	86.57	78.25	74.11	
7	2	0	5	79.52	71.35	66.91	91.79	82.32	78.02	89.07	80.37	76.01	
7	2	1	0	18.47	14.50	12.13	22.28	17.16	14.98	22.28	17.16	14.98	
7	2	1	1	47.49	41.51	38.57	53.97	46.97	43.93	52.53	46.52	43.55	
7	2	1	2	64.36	57.64	54.48	73.19	65.74	61.88	71.63	64.77	61.28	
7	2	1	3	74.73	67.16	63.20	85.96	77.00	72.85	83.87	75.79	71.82	
7	2	1	4	79.52	71.35	66.91	91.79	82.32	78.02	89.07	80.37	76.01	
7	2	2	0	31.34	26.27	23.65	36.43	31.34	28.32	36.43	31.34	28.32	
7	2	2	1	56.97	50.60	47.23	65.23	57.91	54.34	63.84	57.46	53.86	
7	2	2	2	72.12	64.44	60.71	82.01	73.87	69.95	80.20	72.99	69.26	
7	2	2	3	79.52	71.35	66.91	91.79	82.32	78.02	89.07	80.37	76.01	
7	2	3	0	45.55	39.33	36.24	52.67	45.93	42.78	52.67	45.93	42.78	
7	2	3	1	68.33	60.45	56.88	78.31	69.92	65.66	76.87	69.08	65.10	
7	2	3	2	79.52	71.35	66.91	91.79	82.32	78.02	89.07	80.37	76.01	
7	2	4	0	61.22	54.27	50.85	71.84	63.08	59.37	71.84	63.08	59.37	
7	2	4	1	79.52	71.35	66.91	91.79	82.32	78.02	89.07	80.37	76.01	
7	2	5	0	79.52	71.35	66.91	91.79	82.32	78.02	91.79	82.32	78.02	
7	3	0	1	33.72	28.91	26.74	37.63	32.22	29.76	37.18	31.94	29.44	
7	3	0	2	49.84	43.28	40.68	56.61	49.78	46.23	54.84	48.73	45.68	
7	3	0	3	58.31	51.51	48.14	67.18	59.42	55.54	66.52	57.86	54.54	
7	3	0	4	61.22	54.27	50.85	71.84	63.08	59.37	69.74	61.00	57.60	
7	3	1	0	18.47	14.50	12.13	22.28	17.16	14.98	22.28	17.16	14.98	
7	3	1	1	41.62	36.72	33.76	48.28	41.59	38.79	47.74	41.17	38.41	
7	3	1	2	54.66	48.81	45.55	64.10	56.39	52.83	62.20	55.04	51.79	
7	3	1	3	61.22	54.27	50.85	71.84	63.08	59.37	69.74	61.00	57.60	

Table 1.1 (Continued)
 Critical Values for Tests for Cointegration

n-r	r _{ou}	r _{ok}	r _{ak}	r _{au}	----- Case 1 -----			----- Case 2 -----			----- Case 3 -----		
					1%	5%	10%	1%	5%	10%	1%	5%	10%
7	3	2	0		31.34	26.27	23.65	36.43	31.34	28.32	36.43	31.34	28.32
7	3	2	1		51.52	45.20	42.07	59.18	52.29	48.86	57.73	51.63	48.27
7	3	2	2		61.22	54.27	50.85	71.84	63.08	59.37	69.74	61.00	57.60
7	3	3	0		45.55	39.33	36.24	52.67	45.93	42.78	52.67	45.93	42.78
7	3	3	1		61.22	54.27	50.85	71.84	63.08	59.37	69.74	61.00	57.60
7	3	4	0		61.22	54.27	50.85	71.84	63.08	59.37	71.84	63.08	59.37
7	4	0	1		29.27	24.29	22.06	32.15	27.49	25.21	33.01	27.59	25.00
7	4	0	2		40.87	35.33	32.37	46.50	40.23	37.48	46.89	40.01	36.82
7	4	0	3		45.55	39.33	36.24	52.67	45.93	42.78	51.47	44.61	41.23
7	4	1	0		18.47	14.50	12.13	22.28	17.16	14.98	22.28	17.16	14.98
7	4	1	1		36.81	31.67	28.98	42.13	36.44	33.87	42.49	36.31	33.35
7	4	1	2		45.55	39.33	36.24	52.67	45.93	42.78	51.47	44.61	41.23
7	4	2	0		31.34	26.27	23.65	36.43	31.34	28.32	36.43	31.34	28.32
7	4	2	1		45.55	39.33	36.24	52.67	45.93	42.78	51.47	44.61	41.23
7	4	3	0		45.55	39.33	36.24	52.67	45.93	42.78	52.67	45.93	42.78
7	5	0	1		24.32	19.52	17.44	27.63	23.13	20.59	27.23	22.19	19.82
7	5	0	2		31.34	26.27	23.65	36.43	31.34	28.32	34.16	28.78	26.14
7	5	1	0		18.47	14.50	12.13	22.28	17.16	14.98	22.28	17.16	14.98
7	5	1	1		31.34	26.27	23.65	36.43	31.34	28.32	34.16	28.78	26.14
7	5	2	0		31.34	26.27	23.65	36.43	31.34	28.32	36.43	31.34	28.32
7	6	0	1		18.47	14.50	12.13	22.28	17.16	14.98	18.58	14.16	12.14
7	6	1	0		18.47	14.50	12.13	22.28	17.16	14.98	22.28	17.16	14.98
8	0	0	1		55.38	48.56	45.71	58.26	52.29	49.05	58.43	52.20	48.92
8	0	0	2		87.50	79.42	75.66	94.58	86.35	82.05	94.28	86.07	82.17
8	0	0	3		111.27	102.08	97.88	120.50	111.07	106.45	119.68	111.15	106.18
8	0	0	4		128.79	118.31	113.58	139.97	129.78	124.75	138.98	129.71	124.59
8	0	0	5		140.45	129.60	124.96	153.90	143.45	137.94	152.89	142.93	137.72
8	0	0	6		147.52	137.22	132.32	163.77	152.26	146.90	162.54	151.71	146.44
8	0	0	7		152.04	141.11	136.43	169.73	157.63	152.04	167.88	157.13	151.39
8	0	0	8		152.17	142.10	136.77	170.88	158.70	153.32	168.75	157.82	152.05
8	0	1	0		20.01	15.82	13.63	23.87	18.65	16.20	23.87	18.65	16.20
8	0	1	1		64.66	57.75	54.17	70.43	63.70	60.02	70.22	63.57	59.84
8	0	1	2		94.90	87.22	82.74	103.98	95.78	91.17	103.54	95.85	91.11
8	0	1	3		117.74	108.70	103.62	128.23	119.32	114.39	128.04	119.47	114.07
8	0	1	4		134.56	123.81	118.60	147.06	136.71	131.04	146.67	136.49	130.87
8	0	1	5		144.66	133.66	129.08	159.16	148.48	142.85	157.88	148.46	142.64
8	0	1	6		150.89	139.74	134.87	167.90	156.19	150.41	166.04	155.58	149.63
8	0	1	7		152.17	142.10	136.77	170.88	158.70	153.32	168.75	157.82	152.05
8	0	2	0		34.38	28.70	26.10	39.41	33.82	30.66	39.41	33.82	30.66
8	0	2	1		75.80	68.10	64.26	83.13	75.66	71.86	83.05	75.30	71.78
8	0	2	2		104.76	95.79	91.64	115.09	106.25	101.40	115.02	106.12	101.63
8	0	2	3		125.64	115.99	111.14	138.57	128.17	123.25	137.86	128.17	122.94
8	0	2	4		139.92	129.68	124.81	154.60	143.79	138.38	154.01	143.13	137.82
8	0	2	5		148.34	138.32	132.98	165.34	153.94	148.58	163.93	153.25	147.61
8	0	2	6		152.17	142.10	136.77	170.88	158.70	153.32	168.75	157.82	152.05
8	0	3	0		49.37	43.09	39.75	56.28	49.62	46.24	56.28	49.62	46.24

Table 1.1 (Continued)
Critical Values for Tests for Cointegration

n-r	r _{ou}	r _{ok}	r _{ak}	r _{au}	----- Case 1 -----			----- Case 2 -----			----- Case 3 -----		
					1%	5%	10%	1%	5%	10%	1%	5%	10%
8	0	3	1		87.11	80.30	76.00	97.36	89.96	85.82	96.62	89.39	85.18
8	0	3	2		114.80	106.17	101.60	126.91	118.59	113.41	127.00	118.39	113.43
8	0	3	3		134.14	124.49	119.44	148.73	138.28	133.06	148.09	138.17	132.55
8	0	3	4		146.13	135.85	131.13	161.99	151.65	146.29	160.68	151.15	145.13
8	0	3	5		152.17	142.10	136.77	170.88	158.70	153.32	168.75	157.82	152.05
8	0	4	0		66.26	59.14	55.43	76.04	67.69	63.84	76.04	67.69	63.84
8	0	4	1		101.40	93.90	89.58	114.80	105.44	101.01	114.12	105.40	100.60
8	0	4	2		127.41	117.59	112.78	140.50	131.60	126.41	141.31	131.23	125.77
8	0	4	3		143.79	133.19	128.30	159.59	148.71	143.40	158.94	148.20	142.47
8	0	4	4		152.17	142.10	136.77	170.88	158.70	153.32	168.75	157.82	152.05
8	0	5	0		85.45	76.75	72.98	97.61	87.62	83.66	97.61	87.62	83.66
8	0	5	1		117.66	109.05	104.44	132.87	122.68	117.35	131.47	122.45	117.53
8	0	5	2		139.58	129.57	125.03	156.08	145.30	140.02	155.07	144.85	139.47
8	0	5	3		152.17	142.10	136.77	170.88	158.70	153.32	168.75	157.82	152.05
8	0	6	0		106.69	97.52	92.22	120.79	110.09	105.14	120.79	110.09	105.14
8	0	6	1		135.41	125.23	120.55	151.69	141.21	135.15	151.02	140.37	134.72
8	0	6	2		152.17	142.10	136.77	170.88	158.70	153.32	168.75	157.82	152.05
8	0	7	0		128.56	119.12	114.13	144.86	134.26	127.93	144.86	134.26	127.93
8	0	7	1		152.17	142.10	136.77	170.88	158.70	153.32	168.75	157.82	152.05
8	0	8	0		152.17	142.10	136.77	170.88	158.70	153.32	170.88	158.70	153.32
8	1	0	1		51.05	44.43	41.31	54.39	47.99	44.64	53.71	47.66	44.63
8	1	0	2		79.67	71.82	68.14	87.02	78.13	73.69	85.52	78.22	74.01
8	1	0	3		99.85	91.26	86.89	108.63	100.22	95.32	107.86	99.88	95.13
8	1	0	4		112.93	104.56	99.67	124.22	115.24	110.54	124.59	114.80	110.17
8	1	0	5		122.35	113.15	108.13	135.46	125.78	120.70	134.82	124.89	119.94
8	1	0	6		127.69	117.97	112.92	142.12	132.08	126.40	141.34	130.93	125.76
8	1	0	7		128.56	119.12	114.13	144.86	134.26	127.93	143.10	132.37	126.89
8	1	1	0		20.01	15.82	13.63	23.87	18.65	16.20	23.87	18.65	16.20
8	1	1	1		60.60	53.57	50.10	65.79	59.28	55.47	66.29	58.94	55.52
8	1	1	2		87.00	79.06	75.18	96.60	87.38	82.81	95.39	86.99	83.05
8	1	1	3		106.07	97.27	92.52	117.44	107.67	102.48	115.25	107.19	102.37
8	1	1	4		118.15	109.14	104.31	131.16	121.57	116.15	130.60	120.70	115.73
8	1	1	5		126.09	116.13	111.30	140.38	130.46	124.59	139.40	128.80	123.92
8	1	1	6		128.56	119.12	114.13	144.86	134.26	127.93	143.10	132.37	126.89
8	1	2	0		34.38	28.70	26.10	39.41	33.82	30.66	39.41	33.82	30.66
8	1	2	1		71.44	63.65	60.03	78.91	71.02	67.29	78.33	70.87	67.56
8	1	2	2		95.80	87.60	83.45	107.67	97.65	93.06	106.31	97.59	92.83
8	1	2	3		112.71	103.92	99.28	126.00	115.98	110.95	124.30	115.37	110.31
8	1	2	4		123.60	114.15	109.35	138.00	127.79	122.35	136.54	126.80	121.49
8	1	2	5		128.56	119.12	114.13	144.86	134.26	127.93	143.10	132.37	126.89
8	1	3	0		49.37	43.09	39.75	56.28	49.62	46.24	56.28	49.62	46.24
8	1	3	1		82.85	75.46	71.59	92.85	84.95	80.50	93.54	84.62	80.66
8	1	3	2		106.33	97.28	92.99	118.50	109.36	104.16	118.37	109.10	103.92
8	1	3	3		120.96	111.54	106.87	135.57	125.39	119.60	134.43	124.09	119.13
8	1	3	4		128.56	119.12	114.13	144.86	134.26	127.93	143.10	132.37	126.89
8	1	4	0		66.26	59.14	55.43	76.04	67.69	63.84	76.04	67.69	63.84
8	1	4	1		97.40	89.04	84.99	109.79	100.42	95.57	109.67	100.29	95.29

Table 1.1 (Continued)
Critical Values for Tests for Cointegration

n-r	r _{ou}	r _{ok}	r _{ak}	r _{au}	----- Case 1 -----			----- Case 2 -----			----- Case 3 -----		
					1%	5%	10%	1%	5%	10%	1%	5%	10%
8	1	4	2		117.16	108.60	103.49	131.55	122.23	116.10	131.10	120.71	115.83
8	1	4	3		128.56	119.12	114.13	144.86	134.26	127.93	143.10	132.37	126.89
8	1	5	0		85.45	76.75	72.98	97.61	87.62	83.66	97.61	87.62	83.66
8	1	5	1		113.28	103.98	99.27	126.73	117.03	111.73	126.52	116.62	111.61
8	1	5	2		128.56	119.12	114.13	144.86	134.26	127.93	143.10	132.37	126.89
8	1	6	0		106.69	97.52	92.22	120.79	110.09	105.14	120.79	110.09	105.14
8	1	6	1		128.56	119.12	114.13	144.86	134.26	127.93	143.10	132.37	126.89
8	1	7	0		128.56	119.12	114.13	144.86	134.26	127.93	144.86	134.26	127.93
8	2	0	1		46.45	40.15	37.17	50.30	43.50	40.46	49.75	43.42	40.38
8	2	0	2		71.29	63.82	59.86	78.63	70.01	66.01	77.35	69.76	65.94
8	2	0	3		87.70	79.50	75.20	97.60	88.34	83.76	96.48	87.45	83.35
8	2	0	4		98.11	89.94	85.00	110.26	100.04	95.64	108.84	99.27	94.81
8	2	0	5		104.54	95.75	90.50	117.72	107.49	102.63	115.60	106.08	101.61
8	2	0	6		106.69	97.52	92.22	120.79	110.09	105.14	118.03	108.07	103.58
8	2	1	0		20.01	15.82	13.63	23.87	18.65	16.20	23.87	18.65	16.20
8	2	1	1		56.24	49.18	45.60	61.23	54.65	50.87	62.00	54.26	50.94
8	2	1	2		78.19	70.62	66.65	87.38	78.75	74.52	86.18	78.34	74.30
8	2	1	3		93.51	85.19	80.60	104.49	94.83	90.71	102.76	94.59	89.90
8	2	1	4		102.55	93.67	88.76	115.30	105.17	100.37	113.11	104.00	99.57
8	2	1	5		106.69	97.52	92.22	120.79	110.09	105.14	118.03	108.07	103.58
8	2	2	0		34.38	28.70	26.10	39.41	33.82	30.66	39.41	33.82	30.66
8	2	2	1		66.00	59.10	55.40	73.86	66.51	62.95	73.58	66.28	62.85
8	2	2	2		86.29	78.98	74.53	96.61	88.49	84.00	96.83	88.13	83.95
8	2	2	3		99.86	90.97	86.76	112.69	102.58	97.95	110.92	101.70	96.88
8	2	2	4		106.69	97.52	92.22	120.79	110.09	105.14	118.03	108.07	103.58
8	2	3	0		49.37	43.09	39.75	56.28	49.62	46.24	56.28	49.62	46.24
8	2	3	1		78.99	70.72	66.94	88.82	80.07	75.80	88.11	79.70	75.91
8	2	3	2		96.52	88.08	83.42	108.84	99.44	94.57	108.11	98.49	93.97
8	2	3	3		106.69	97.52	92.22	120.79	110.09	105.14	118.03	108.07	103.58
8	2	4	0		66.26	59.14	55.43	76.04	67.69	63.84	76.04	67.69	63.84
8	2	4	1		92.00	83.86	79.33	104.11	95.03	90.03	103.92	94.29	89.74
8	2	4	2		106.69	97.52	92.22	120.79	110.09	105.14	118.03	108.07	103.58
8	2	5	0		85.45	76.75	72.98	97.61	87.62	83.66	97.61	87.62	83.66
8	2	5	1		106.69	97.52	92.22	120.79	110.09	105.14	118.03	108.07	103.58
8	2	6	0		106.69	97.52	92.22	120.79	110.09	105.14	120.79	110.09	105.14
8	3	0	1		40.76	35.58	32.81	44.74	39.21	36.17	44.14	38.47	35.95
8	3	0	2		61.63	55.09	51.87	68.98	61.44	57.71	67.30	60.45	57.08
8	3	0	3		74.90	67.34	63.57	84.49	75.48	71.75	82.42	75.18	70.90
8	3	0	4		82.07	74.44	70.34	93.94	84.29	80.06	91.34	83.56	78.84
8	3	0	5		85.45	76.75	72.98	97.61	87.62	83.66	94.06	86.61	81.63
8	3	1	0		20.01	15.82	13.63	23.87	18.65	16.20	23.87	18.65	16.20
8	3	1	1		50.10	44.22	41.37	56.94	49.70	46.48	55.05	48.96	46.06
8	3	1	2		68.63	61.62	58.34	77.34	69.96	65.79	76.10	68.44	65.12
8	3	1	3		79.57	72.24	68.19	90.83	81.96	77.47	88.57	81.07	76.52
8	3	1	4		85.45	76.75	72.98	97.61	87.62	83.66	94.06	86.61	81.63
8	3	2	0		34.38	28.70	26.10	39.41	33.82	30.66	39.41	33.82	30.66
8	3	2	1		60.83	54.42	50.94	68.81	61.67	57.73	67.54	61.26	57.59

Table 1.1 (Continued)
Critical Values for Tests for Cointegration

n-r	r _{ou}	r _{ok}	r _{ak}	r _{au}	----- Case 1 -----			----- Case 2 -----			----- Case 3 -----		
					1%	5%	10%	1%	5%	10%	1%	5%	10%
8	3	2	2		76.80	69.25	65.67	87.39	78.79	74.57	85.24	77.59	73.91
8	3	2	3		85.45	76.75	72.98	97.61	87.62	83.66	94.06	86.61	81.63
8	3	3	0		49.37	43.09	39.75	56.28	49.62	46.24	56.28	49.62	46.24
8	3	3	1		73.27	65.25	61.44	83.43	74.51	70.20	81.29	74.02	69.74
8	3	3	2		85.45	76.75	72.98	97.61	87.62	83.66	94.06	86.61	81.63
8	3	4	0		66.26	59.14	55.43	76.04	67.69	63.84	76.04	67.69	63.84
8	3	4	1		85.45	76.75	72.98	97.61	87.62	83.66	94.06	86.61	81.63
8	3	5	0		85.45	76.75	72.98	97.61	87.62	83.66	97.61	87.62	83.66
8	4	0	1		35.54	30.65	28.23	39.30	34.03	31.42	39.04	33.64	31.03
8	4	0	2		52.78	46.59	43.34	60.18	52.58	49.42	58.50	51.78	48.56
8	4	0	3		62.19	55.53	51.98	71.24	63.19	59.41	69.82	62.02	58.31
8	4	0	4		66.26	59.14	55.43	76.04	67.69	63.84	74.15	66.17	62.31
8	4	1	0		20.01	15.82	13.63	23.87	18.65	16.20	23.87	18.65	16.20
8	4	1	1		44.64	39.29	36.29	50.70	44.56	41.52	51.02	44.27	40.95
8	4	1	2		59.01	52.91	49.39	68.19	60.10	56.38	66.22	59.04	55.71
8	4	1	3		66.26	59.14	55.43	76.04	67.69	63.84	74.15	66.17	62.31
8	4	2	0		34.38	28.70	26.10	39.41	33.82	30.66	39.41	33.82	30.66
8	4	2	1		55.27	49.18	45.55	63.30	56.10	52.51	61.60	55.33	51.79
8	4	2	2		66.26	59.14	55.43	76.04	67.69	63.84	74.15	66.17	62.31
8	4	3	0		49.37	43.09	39.75	56.28	49.62	46.24	56.28	49.62	46.24
8	4	3	1		66.26	59.14	55.43	76.04	67.69	63.84	74.15	66.17	62.31
8	4	4	0		66.26	59.14	55.43	76.04	67.69	63.84	76.04	67.69	63.84
8	5	0	1		31.16	25.98	23.55	34.21	28.99	26.71	34.82	29.26	26.40
8	5	0	2		43.92	38.09	34.95	49.81	43.28	40.13	49.29	42.83	39.43
8	5	0	3		49.37	43.09	39.75	56.28	49.62	46.24	55.20	48.22	44.60
8	5	1	0		20.01	15.82	13.63	23.87	18.65	16.20	23.87	18.65	16.20
8	5	1	1		39.42	34.14	31.57	44.88	39.38	36.34	45.09	38.74	35.96
8	5	1	2		49.37	43.09	39.75	56.28	49.62	46.24	55.20	48.22	44.60
8	5	2	0		34.38	28.70	26.10	39.41	33.82	30.66	39.41	33.82	30.66
8	5	2	1		49.37	43.09	39.75	56.28	49.62	46.24	55.20	48.22	44.60
8	5	3	0		49.37	43.09	39.75	56.28	49.62	46.24	56.28	49.62	46.24
8	6	0	1		26.01	21.06	18.99	29.16	24.64	22.00	28.92	23.56	21.16
8	6	0	2		34.38	28.70	26.10	39.41	33.82	30.66	37.06	31.44	28.49
8	6	1	0		20.01	15.82	13.63	23.87	18.65	16.20	23.87	18.65	16.20
8	6	1	1		34.38	28.70	26.10	39.41	33.82	30.66	37.06	31.44	28.49
8	6	2	0		34.38	28.70	26.10	39.41	33.82	30.66	39.41	33.82	30.66
8	7	0	1		20.01	15.82	13.63	23.87	18.65	16.20	20.00	15.55	13.38
8	7	1	0		20.01	15.82	13.63	23.87	18.65	16.20	23.87	18.65	16.20
9	0	0	1		60.55	54.50	51.56	63.91	58.17	54.81	64.04	58.12	55.02
9	0	0	2		99.19	91.08	86.76	105.71	97.30	92.92	106.38	97.33	93.11
9	0	0	3		127.77	118.16	113.49	136.45	127.43	121.95	137.45	127.33	122.30
9	0	0	4		150.02	139.20	133.77	161.24	150.53	144.61	161.47	150.58	145.02
9	0	0	5		165.97	154.86	149.04	178.67	167.53	162.01	178.96	167.71	162.11
9	0	0	6		177.10	165.46	159.66	192.81	180.32	174.62	192.24	180.55	174.39
9	0	0	7		184.60	173.16	166.90	202.04	189.23	183.65	201.23	189.17	182.88
9	0	0	8		189.30	177.15	171.13	207.34	194.32	188.85	206.71	194.36	187.97

Table 1.1 (Continued)
 Critical Values for Tests for Cointegration

n-r	r _{ou}	r _{ok}	r _{ak}	r _{au}	----- Case 1 -----			----- Case 2 -----			----- Case 3 -----		
					1%	5%	10%	1%	5%	10%	1%	5%	10%
9	0	0	9	189.82	177.56	171.64	208.59	195.57	190.16	207.07	195.07	188.53	
9	0	1	0	22.11	17.20	14.91	25.71	19.95	17.54	25.71	19.95	17.54	
9	0	1	1	71.95	64.85	61.46	78.02	70.62	66.69	77.78	70.91	66.96	
9	0	1	2	108.57	99.92	95.25	116.85	107.55	103.21	117.32	107.83	103.24	
9	0	1	3	135.69	126.03	120.80	147.23	136.32	130.71	147.26	136.55	131.16	
9	0	1	4	157.07	145.42	140.02	168.73	158.33	152.34	169.08	158.41	152.60	
9	0	1	5	171.29	159.81	154.22	185.74	173.89	168.40	185.54	174.47	168.29	
9	0	1	6	181.83	169.62	163.78	197.86	185.52	179.75	197.52	185.70	179.06	
9	0	1	7	188.61	175.54	169.71	205.83	193.01	187.13	204.34	192.48	186.33	
9	0	1	8	189.82	177.56	171.64	208.59	195.57	190.16	207.07	195.07	188.53	
9	0	2	0	37.55	31.17	28.29	42.42	36.32	33.11	42.42	36.32	33.11	
9	0	2	1	83.72	76.74	72.50	92.30	83.84	79.77	91.62	83.77	79.89	
9	0	2	2	118.41	109.75	105.42	129.36	119.58	114.80	129.46	119.77	114.89	
9	0	2	3	144.88	134.45	129.17	158.11	146.67	141.27	156.80	146.79	141.29	
9	0	2	4	163.38	152.81	147.13	178.85	166.69	160.66	177.90	166.70	161.03	
9	0	2	5	177.36	165.23	159.85	194.15	181.54	175.30	192.92	180.98	175.21	
9	0	2	6	186.72	173.87	168.07	204.87	191.20	185.29	202.99	190.94	184.28	
9	0	2	7	189.82	177.56	171.64	208.59	195.57	190.16	207.07	195.07	188.53	
9	0	3	0	53.67	46.34	43.26	60.14	53.35	49.67	60.14	53.35	49.67	
9	0	3	1	97.69	89.59	85.45	107.43	98.99	94.79	107.40	99.44	94.76	
9	0	3	2	130.35	120.95	116.52	143.29	133.10	127.85	142.55	133.10	128.05	
9	0	3	3	154.24	144.08	139.00	169.49	158.14	152.38	168.70	158.31	152.75	
9	0	3	4	172.12	160.99	155.29	188.29	175.99	170.53	187.86	176.57	170.38	
9	0	3	5	183.33	171.90	166.31	201.09	188.73	183.11	200.30	188.64	182.34	
9	0	3	6	189.82	177.56	171.64	208.59	195.57	190.16	207.07	195.07	188.53	
9	0	4	0	71.53	63.54	59.76	81.70	72.73	68.40	81.70	72.73	68.40	
9	0	4	1	113.43	104.02	99.92	125.21	115.73	111.27	125.42	116.26	111.07	
9	0	4	2	144.41	134.17	129.01	157.44	147.79	142.31	158.55	148.22	142.23	
9	0	4	3	166.16	155.15	149.76	181.82	171.03	165.10	181.77	170.68	164.55	
9	0	4	4	181.07	169.58	163.85	198.18	186.71	180.46	197.68	186.35	179.65	
9	0	4	5	189.82	177.56	171.64	208.59	195.57	190.16	207.07	195.07	188.53	
9	0	5	0	90.01	82.85	78.57	103.52	93.14	89.23	103.52	93.14	89.23	
9	0	5	1	130.80	121.19	116.07	145.01	134.25	128.89	145.13	134.34	129.17	
9	0	5	2	159.32	147.72	142.92	175.39	163.47	157.70	174.42	163.50	157.23	
9	0	5	3	178.30	166.51	160.95	195.78	183.54	177.65	195.02	183.52	177.01	
9	0	5	4	189.82	177.56	171.64	208.59	195.57	190.16	207.07	195.07	188.53	
9	0	6	0	114.17	104.35	98.98	128.41	117.18	111.82	128.41	117.18	111.82	
9	0	6	1	150.35	139.74	133.97	165.77	154.24	148.65	165.62	154.37	148.88	
9	0	6	2	174.62	163.00	157.34	192.12	180.02	174.04	191.46	179.62	174.01	
9	0	6	3	189.82	177.56	171.64	208.59	195.57	190.16	207.07	195.07	188.53	
9	0	7	0	137.65	127.43	121.71	152.73	141.92	136.17	152.73	141.92	136.17	
9	0	7	1	169.56	159.20	152.82	186.42	175.48	169.39	186.23	175.07	169.33	
9	0	7	2	189.82	177.56	171.64	208.59	195.57	190.16	207.07	195.07	188.53	
9	0	8	0	162.39	151.36	145.31	179.35	168.34	161.74	179.35	168.34	161.74	
9	0	8	1	189.82	177.56	171.64	208.59	195.57	190.16	207.07	195.07	188.53	
9	0	9	0	189.82	177.56	171.64	208.59	195.57	190.16	208.59	195.57	190.16	
9	1	0	1	57.12	50.29	47.36	60.39	54.09	50.58	60.27	53.86	50.65	

Table 1.1 (Continued)
Critical Values for Tests for Cointegration

n-r	r _{ou}	r _{ok}	r _{ak}	r _{au}	----- Case 1 -----			----- Case 2 -----			----- Case 3 -----		
					1%	5%	10%	1%	5%	10%	1%	5%	10%
9	1	0	2	90.83	82.80	78.88	97.92	89.34	85.27	97.90	89.40	85.33	
9	1	0	3	116.47	106.98	102.46	125.53	115.74	111.09	124.82	116.16	110.90	
9	1	0	4	135.42	124.41	119.60	146.26	135.74	130.33	145.99	136.10	130.08	
9	1	0	5	147.93	136.63	131.63	160.60	150.32	144.68	161.19	149.95	143.96	
9	1	0	6	156.25	145.52	139.58	171.07	160.53	154.30	171.38	159.99	153.55	
9	1	0	7	161.29	150.23	144.20	177.49	166.74	160.36	178.36	166.05	159.27	
9	1	0	8	162.39	151.36	145.31	179.35	168.34	161.74	180.01	167.10	160.62	
9	1	1	0	22.11	17.20	14.91	25.71	19.95	17.54	25.71	19.95	17.54	
9	1	1	1	67.95	60.66	57.15	73.62	66.38	62.81	72.92	66.52	62.70	
9	1	1	2	99.66	91.35	87.14	108.66	99.87	95.35	108.66	100.08	95.30	
9	1	1	3	124.50	113.92	109.53	134.77	124.73	119.82	134.09	124.72	119.51	
9	1	1	4	140.91	130.65	125.31	153.59	143.10	137.66	153.62	143.20	137.30	
9	1	1	5	152.79	141.76	135.97	166.67	155.75	150.26	167.23	156.14	149.72	
9	1	1	6	160.01	148.76	142.67	175.61	164.72	158.45	176.01	164.19	157.69	
9	1	1	7	162.39	151.36	145.31	179.35	168.34	161.74	180.01	167.10	160.62	
9	1	2	0	37.55	31.17	28.29	42.42	36.32	33.11	42.42	36.32	33.11	
9	1	2	1	79.84	72.04	68.11	87.46	79.43	75.76	87.00	79.24	75.68	
9	1	2	2	110.68	100.85	96.65	120.98	111.13	106.62	120.46	111.40	106.64	
9	1	2	3	132.84	122.19	117.40	145.55	134.59	129.38	145.34	134.51	129.05	
9	1	2	4	147.92	137.31	131.79	162.28	151.40	145.47	161.58	151.23	145.37	
9	1	2	5	157.72	146.39	140.98	173.56	162.39	156.46	173.99	162.35	155.66	
9	1	2	6	162.39	151.36	145.31	179.35	168.34	161.74	180.01	167.10	160.62	
9	1	3	0	53.67	46.34	43.26	60.14	53.35	49.67	60.14	53.35	49.67	
9	1	3	1	92.53	85.28	81.03	102.32	94.88	90.16	102.77	94.53	90.02	
9	1	3	2	121.71	112.20	107.41	133.16	124.14	119.43	134.12	124.23	119.37	
9	1	3	3	142.00	131.74	126.43	156.26	145.35	140.14	156.20	145.36	139.92	
9	1	3	4	154.68	144.24	138.86	170.73	160.09	154.27	170.78	159.79	153.41	
9	1	3	5	162.39	151.36	145.31	179.35	168.34	161.74	180.01	167.10	160.62	
9	1	4	0	71.53	63.54	59.76	81.70	72.73	68.40	81.70	72.73	68.40	
9	1	4	1	108.39	99.46	95.26	120.84	111.32	106.96	120.97	111.31	106.36	
9	1	4	2	133.81	124.71	119.91	148.80	138.76	133.40	149.14	138.42	133.09	
9	1	4	3	152.34	141.58	136.28	167.37	157.32	151.50	168.60	156.48	150.41	
9	1	4	4	162.39	151.36	145.31	179.35	168.34	161.74	180.01	167.10	160.62	
9	1	5	0	90.01	82.85	78.57	103.52	93.14	89.23	103.52	93.14	89.23	
9	1	5	1	125.26	115.81	111.24	140.43	129.37	123.93	139.48	129.64	124.21	
9	1	5	2	149.00	137.87	132.67	164.96	153.53	147.74	164.90	152.87	147.29	
9	1	5	3	162.39	151.36	145.31	179.35	168.34	161.74	180.01	167.10	160.62	
9	1	6	0	114.17	104.35	98.98	128.41	117.18	111.82	128.41	117.18	111.82	
9	1	6	1	143.46	133.50	128.25	160.01	149.17	143.32	159.50	148.78	142.44	
9	1	6	2	162.39	151.36	145.31	179.35	168.34	161.74	180.01	167.10	160.62	
9	1	7	0	137.65	127.43	121.71	152.73	141.92	136.17	152.73	141.92	136.17	
9	1	7	1	162.39	151.36	145.31	179.35	168.34	161.74	180.01	167.10	160.62	
9	1	8	0	162.39	151.36	145.31	179.35	168.34	161.74	179.35	168.34	161.74	
9	2	0	1	53.05	46.45	43.13	56.18	49.60	46.46	56.30	49.64	46.37	
9	2	0	2	83.65	75.45	71.40	89.93	81.38	77.19	89.35	81.79	77.00	
9	2	0	3	104.86	95.81	91.30	114.15	104.33	99.69	113.47	104.30	99.37	
9	2	0	4	119.53	110.39	105.08	131.22	121.10	115.97	131.35	120.58	115.36	

Table 1.1 (Continued)
Critical Values for Tests for Cointegration

n-r	r _{ou}	r _{ok}	r _{ak}	r _{au}	----- Case 1 -----			----- Case 2 -----			----- Case 3 -----		
					1%	5%	10%	1%	5%	10%	1%	5%	10%
9	3	2	4	114.17	104.35	98.98	128.41	117.18	111.82	125.02	115.34	110.19	
9	3	3	0	53.67	46.34	43.26	60.14	53.35	49.67	60.14	53.35	49.67	
9	3	3	1	84.53	75.94	71.82	94.56	85.15	80.50	93.71	84.52	80.44	
9	3	3	2	102.54	94.00	89.18	115.67	105.70	100.60	114.32	104.78	99.70	
9	3	3	3	114.17	104.35	98.98	128.41	117.18	111.82	125.02	115.34	110.19	
9	3	4	0	71.53	63.54	59.76	81.70	72.73	68.40	81.70	72.73	68.40	
9	3	4	1	97.77	89.65	85.25	111.08	100.93	95.91	109.91	100.10	95.53	
9	3	4	2	114.17	104.35	98.98	128.41	117.18	111.82	125.02	115.34	110.19	
9	3	5	0	90.01	82.85	78.57	103.52	93.14	89.23	103.52	93.14	89.23	
9	3	5	1	114.17	104.35	98.98	128.41	117.18	111.82	125.02	115.34	110.19	
9	3	6	0	114.17	104.35	98.98	128.41	117.18	111.82	128.41	117.18	111.82	
9	4	0	1	42.91	37.41	34.54	46.94	40.62	37.76	45.38	40.11	37.47	
9	4	0	2	64.67	58.28	54.74	71.63	64.57	60.82	70.24	63.52	60.21	
9	4	0	3	79.60	71.88	67.66	88.61	79.73	75.97	86.96	79.33	74.95	
9	4	0	4	87.35	79.68	75.33	98.82	89.40	85.20	96.50	88.46	83.91	
9	4	0	5	90.01	82.85	78.57	103.52	93.14	89.23	100.57	92.06	87.65	
9	4	1	0	22.11	17.20	14.91	25.71	19.95	17.54	25.71	19.95	17.54	
9	4	1	1	53.95	46.98	44.03	59.67	52.46	49.23	58.45	51.90	48.50	
9	4	1	2	73.21	65.88	62.13	81.44	73.87	69.99	80.91	72.65	69.02	
9	4	1	3	85.09	77.31	73.11	96.21	86.67	82.67	93.89	86.38	81.39	
9	4	1	4	90.01	82.85	78.57	103.52	93.14	89.23	100.57	92.06	87.65	
9	4	2	0	37.55	31.17	28.29	42.42	36.32	33.11	42.42	36.32	33.11	
9	4	2	1	65.14	58.09	54.56	73.06	65.64	61.45	71.88	64.84	61.30	
9	4	2	2	82.34	74.20	70.39	92.74	83.90	79.55	90.17	82.81	78.59	
9	4	2	3	90.01	82.85	78.57	103.52	93.14	89.23	100.57	92.06	87.65	
9	4	3	0	53.67	46.34	43.26	60.14	53.35	49.67	60.14	53.35	49.67	
9	4	3	1	78.19	70.41	65.99	89.21	79.56	75.03	87.55	78.79	74.45	
9	4	3	2	90.01	82.85	78.57	103.52	93.14	89.23	100.57	92.06	87.65	
9	4	4	0	71.53	63.54	59.76	81.70	72.73	68.40	81.70	72.73	68.40	
9	4	4	1	90.01	82.85	78.57	103.52	93.14	89.23	100.57	92.06	87.65	
9	4	5	0	90.01	82.85	78.57	103.52	93.14	89.23	103.52	93.14	89.23	
9	5	0	1	37.54	32.34	29.81	41.69	35.65	32.90	41.16	35.38	32.51	
9	5	0	2	56.36	49.52	46.20	62.64	55.54	52.16	61.14	54.92	51.34	
9	5	0	3	67.12	59.36	55.66	75.62	67.20	63.23	74.35	65.92	62.33	
9	5	0	4	71.53	63.54	59.76	81.70	72.73	68.40	79.31	70.82	66.85	
9	5	1	0	22.11	17.20	14.91	25.71	19.95	17.54	25.71	19.95	17.54	
9	5	1	1	47.73	42.02	39.07	53.51	47.43	44.01	53.69	46.77	43.41	
9	5	1	2	63.21	56.64	53.04	71.83	64.12	60.13	70.49	63.00	59.42	
9	5	1	3	71.53	63.54	59.76	81.70	72.73	68.40	79.31	70.82	66.85	
9	5	2	0	37.55	31.17	28.29	42.42	36.32	33.11	42.42	36.32	33.11	
9	5	2	1	59.51	53.00	49.09	67.00	59.78	56.39	65.56	59.35	55.34	
9	5	2	2	71.53	63.54	59.76	81.70	72.73	68.40	79.31	70.82	66.85	
9	5	3	0	53.67	46.34	43.26	60.14	53.35	49.67	60.14	53.35	49.67	
9	5	3	1	71.53	63.54	59.76	81.70	72.73	68.40	79.31	70.82	66.85	
9	5	4	0	71.53	63.54	59.76	81.70	72.73	68.40	81.70	72.73	68.40	
9	6	0	1	32.79	27.73	25.09	35.93	30.70	28.27	36.36	30.64	28.09	
9	6	0	2	47.85	40.88	37.51	52.94	46.12	42.77	52.26	45.11	42.12	

Table 1.1 (Continued)
Critical Values for Tests for Cointegration

n-r	r _{ou}	r _{ok}	r _{ak}	r _{au}	----- Case 1 -----			----- Case 2 -----			----- Case 3 -----		
					1%	5%	10%	1%	5%	10%	1%	5%	10%
9	2	0	5	129.63	120.02	114.64	142.34	132.08	127.13	142.80	131.33	126.29	
9	2	0	6	135.10	125.70	120.07	150.32	139.31	133.79	149.84	138.02	132.83	
9	2	0	7	137.65	127.43	121.71	152.73	141.92	136.17	151.15	139.98	134.73	
9	2	1	0	22.11	17.20	14.91	25.71	19.95	17.54	25.71	19.95	17.54	
9	2	1	1	64.04	56.63	52.78	69.31	62.11	58.25	69.51	61.92	58.19	
9	2	1	2	92.34	83.64	79.31	101.17	91.63	87.05	99.97	91.30	86.99	
9	2	1	3	112.07	102.84	97.96	122.76	112.93	107.77	122.36	112.95	107.48	
9	2	1	4	125.64	115.60	110.76	138.15	127.77	122.57	137.53	127.22	121.80	
9	2	1	5	134.11	123.46	118.50	147.46	137.65	131.84	147.89	136.15	131.00	
9	2	1	6	137.65	127.43	121.71	152.73	141.92	136.17	151.15	139.98	134.73	
9	2	2	0	37.55	31.17	28.29	42.42	36.32	33.11	42.42	36.32	33.11	
9	2	2	1	75.77	67.62	63.94	82.82	75.00	71.26	83.43	74.78	71.31	
9	2	2	2	102.65	93.06	88.34	112.92	102.56	98.19	111.33	102.46	97.95	
9	2	2	3	120.63	110.42	105.46	133.26	122.44	117.00	131.28	121.79	116.52	
9	2	2	4	131.08	121.40	116.22	146.02	135.14	129.43	144.36	134.21	128.62	
9	2	2	5	137.65	127.43	121.71	152.73	141.92	136.17	151.15	139.98	134.73	
9	2	3	0	53.67	46.34	43.26	60.14	53.35	49.67	60.14	53.35	49.67	
9	2	3	1	88.62	80.30	76.31	98.29	89.94	85.43	98.75	89.63	85.29	
9	2	3	2	112.76	103.76	98.97	126.06	115.55	110.03	125.19	115.26	109.52	
9	2	3	3	128.30	118.95	113.52	142.78	132.29	126.80	142.00	131.22	125.89	
9	2	3	4	137.65	127.43	121.71	152.73	141.92	136.17	151.15	139.98	134.73	
9	2	4	0	71.53	63.54	59.76	81.70	72.73	68.40	81.70	72.73	68.40	
9	2	4	1	103.83	94.79	90.78	116.32	106.66	101.43	116.27	106.14	101.26	
9	2	4	2	124.54	115.67	110.53	139.11	128.96	123.27	138.45	127.97	122.56	
9	2	4	3	137.65	127.43	121.71	152.73	141.92	136.17	151.15	139.98	134.73	
9	2	5	0	90.01	82.85	78.57	103.52	93.14	89.23	103.52	93.14	89.23	
9	2	5	1	120.25	110.88	106.23	135.08	123.91	118.77	133.90	123.40	118.32	
9	2	5	2	137.65	127.43	121.71	152.73	141.92	136.17	151.15	139.98	134.73	
9	2	6	0	114.17	104.35	98.98	128.41	117.18	111.82	128.41	117.18	111.82	
9	2	6	1	137.65	127.43	121.71	152.73	141.92	136.17	151.15	139.98	134.73	
9	2	7	0	137.65	127.43	121.71	152.73	141.92	136.17	152.73	141.92	136.17	
9	3	0	1	48.82	41.69	38.82	51.83	45.11	42.18	51.52	44.77	42.04	
9	3	0	2	75.05	66.54	63.31	82.10	72.86	69.12	80.34	72.91	69.05	
9	3	0	3	92.58	83.70	79.46	102.62	92.49	87.87	100.72	91.77	87.74	
9	3	0	4	104.26	95.17	90.48	116.57	105.48	100.62	114.24	104.71	100.03	
9	3	0	5	111.87	101.97	96.83	125.56	113.56	108.53	122.43	112.95	107.43	
9	3	0	6	114.17	104.35	98.98	128.41	117.18	111.82	125.02	115.34	110.19	
9	3	1	0	22.11	17.20	14.91	25.71	19.95	17.54	25.71	19.95	17.54	
9	3	1	1	59.05	52.16	48.61	64.67	57.53	53.77	63.84	57.09	53.66	
9	3	1	2	82.81	75.06	70.74	92.14	82.67	78.54	91.00	82.43	78.52	
9	3	1	3	98.84	90.54	85.69	110.68	100.15	95.62	109.11	99.64	95.00	
9	3	1	4	109.43	99.81	94.75	122.47	111.45	106.40	119.38	110.80	105.33	
9	3	1	5	114.17	104.35	98.98	128.41	117.18	111.82	125.02	115.34	110.19	
9	3	2	0	37.55	31.17	28.29	42.42	36.32	33.11	42.42	36.32	33.11	
9	3	2	1	71.05	63.28	59.07	78.35	70.43	66.68	77.31	70.20	66.56	
9	3	2	2	92.48	83.78	79.72	103.24	93.62	89.27	101.85	93.28	88.94	
9	3	2	3	106.19	97.06	92.66	119.23	108.53	103.67	116.86	108.06	102.92	

Table 1.1 (Continued)
 Critical Values for Tests for Cointegration

n-r	r _{ou}	r _{ok}	r _{ak}	r _{au}	----- Case 1 -----			----- Case 2 -----			----- Case 3 -----		
					1%	5%	10%	1%	5%	10%	1%	5%	10%
9	6	0	3	53.67	46.34	43.26	60.14	53.35	49.67	58.96	51.67	48.23	
9	6	1	0	22.11	17.20	14.91	25.71	19.95	17.54	25.71	19.95	17.54	
9	6	1	1	42.66	36.94	33.89	47.80	41.90	38.86	47.86	41.48	38.29	
9	6	1	2	53.67	46.34	43.26	60.14	53.35	49.67	58.96	51.67	48.23	
9	6	2	0	37.55	31.17	28.29	42.42	36.32	33.11	42.42	36.32	33.11	
9	6	2	1	53.67	46.34	43.26	60.14	53.35	49.67	58.96	51.67	48.23	
9	6	3	0	53.67	46.34	43.26	60.14	53.35	49.67	60.14	53.35	49.67	
9	7	0	1	28.16	22.72	20.26	30.70	26.09	23.54	30.51	25.22	22.67	
9	7	0	2	37.55	31.17	28.29	42.42	36.32	33.11	39.64	34.05	30.96	
9	7	1	0	22.11	17.20	14.91	25.71	19.95	17.54	25.71	19.95	17.54	
9	7	1	1	37.55	31.17	28.29	42.42	36.32	33.11	39.64	34.05	30.96	
9	7	2	0	37.55	31.17	28.29	42.42	36.32	33.11	42.42	36.32	33.11	
9	8	0	1	22.11	17.20	14.91	25.71	19.95	17.54	21.82	16.93	14.78	
9	8	1	0	22.11	17.20	14.91	25.71	19.95	17.54	25.71	19.95	17.54	