

West, "Encompassing Tests When No Model is Encompassing"
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Additional Appendix

This Additional Appendix contains material omitted from the submitted paper to save space.

This material is:

Table AA1: Asymptotic Coverage of Nominal 95 Percent Least Squares Confidence Intervals, DGP A (redundantly includes some material also in Table 1).

Table AA2: Actual Coverage of Nominal 95 Percent Confidence Intervals, DGP A, V-Procedure (redundantly includes some material also in Table 2)

Table AA3: Actual Coverage of Nominal 90 Percent Confidence Intervals, DGP A, V-Procedure

Table AA4: Actual Coverage of Nominal 95 Percent Least Squares Confidence Intervals, DGP A, (redundantly includes some material also in Table 3)

Table AA5: Actual Coverage of Nominal 90 Percent Least Squares Confidence Intervals, DGP A

Table AA6: Actual Coverage of Nominal 95 Percent Confidence Intervals, Out of Sample, DGP A, Recursive Scheme, V-Procedure

Table AA7: Actual Coverage of Nominal 95 Percent Least Squares Confidence Intervals, Out of Sample, DGP A, Recursive Scheme

Table AA8: Asymptotic Coverage of Nominal 95 Percent Least Squares Confidence Intervals, DGP B (redundantly includes some material also in Table 4)

Table AA9: Actual Coverage of Nominal 95 Percent Confidence Intervals, DGP B, V-Procedure (redundantly includes some material also in Table 4)

Table AA10: Actual Coverage of Nominal 90 Percent Confidence Intervals, DGP B, V-Procedure

Table AA11: Actual Coverage of Nominal 95 Percent Least Squares Confidence Intervals, DGP B (redundantly includes some material also in Table 4)

Table AA12: Actual Coverage of Nominal 90 Percent Least Squares Confidence Intervals, DGP B

Table AA13: Actual Coverage of Nominal 95 and 90 Percent Confidence Intervals, Bootstrap-V, DGPs A and B

Description of bootstrapping procedure

Table AA1

Asymptotic Coverage of Nominal 95 Percent Least Squares Confidence Intervals, DGP A

θ	ρ	σ_u^2	R_1^2	Coverage of Nominal 95% LS Conf. Int. on α_2					
				In-sample	Out-of-sample				
				$\pi=.2$	$\pi=.5$	$\pi=1$	$\pi=2$	$\pi=5$	
0.5	0.3	0.01	0.64	42.2	70.1	52.9	40.2	29.6	19.2
0.5	0.3	0.10	0.56	90.7	90.8	84.7	76.2	64.3	46.8
0.5	0.3	1.00	0.26	100.0	93.5	91.1	87.2	80.2	65.5
0.5	0.3	10.00	0.04	100.0	93.7	91.7	88.5	82.4	68.8
0.5	0.6	0.01	0.79	64.7	85.0	73.2	60.8	47.5	32.2
0.5	0.6	0.10	0.71	96.6	93.5	91.1	87.3	80.4	65.8
0.5	0.6	1.00	0.36	99.5	94.3	93.3	91.6	88.1	79.0
0.5	0.6	10.00	0.06	99.6	94.4	93.5	92.0	89.0	80.7
0.5	0.9	0.01	0.94	93.8	94.3	93.2	91.4	87.8	78.4
0.5	0.9	0.10	0.86	96.4	94.8	94.6	94.1	93.2	90.4
0.5	0.9	1.00	0.46	96.6	94.9	94.7	94.4	93.7	91.7
0.5	0.9	10.00	0.08	96.6	94.9	94.7	94.4	93.8	91.9
0.8	0.3	0.01	0.94	44.0	72.5	55.6	42.6	31.5	20.5
0.2	0.3	0.01	0.25	74.5	86.4	75.6	63.6	50.4	34.5
0.8	0.3	0.10	0.84	89.6	92.0	87.4	80.5	70.1	52.8
0.2	0.3	0.10	0.22	99.9	92.5	88.6	82.6	73.1	56.3
0.8	0.3	1.00	0.42	99.6	94.3	93.3	91.5	87.9	78.6
0.2	0.3	1.00	0.11	100.0	93.1	90.1	85.4	77.3	61.5
0.8	0.3	10.00	0.07	99.9	94.5	93.8	92.7	90.3	83.5
0.2	0.3	10.00	0.02	100.0	93.1	90.3	85.7	77.8	62.2
0.8	0.6	0.01	0.96	74.6	89.5	81.8	71.8	59.1	41.9
0.2	0.6	0.01	0.52	87.8	90.9	84.9	76.5	64.7	47.3
0.8	0.6	0.10	0.87	96.1	94.3	93.3	91.7	88.3	79.3
0.2	0.6	0.10	0.48	99.5	93.6	91.4	87.8	81.2	67.1
0.8	0.6	1.00	0.45	98.1	94.8	94.6	94.1	93.2	90.4
0.2	0.6	1.00	0.25	99.8	93.8	92.1	89.1	83.5	70.6
0.8	0.6	10.00	0.08	98.2	94.9	94.7	94.3	93.7	91.6
0.2	0.6	10.00	0.04	99.9	93.9	92.1	89.2	83.7	71.0
0.8	0.9	0.01	0.98	94.6	94.7	94.3	93.6	92.2	88.0
0.2	0.9	0.01	0.87	96.0	94.5	93.7	92.4	89.7	82.2
0.8	0.9	0.10	0.90	95.7	95.0	94.9	94.8	94.5	93.8
0.2	0.9	0.10	0.79	96.9	94.7	94.2	93.4	91.8	86.9
0.8	0.9	1.00	0.49	95.8	95.0	94.9	94.9	94.8	94.4
0.2	0.9	1.00	0.43	97.0	94.7	94.3	93.5	92.0	87.4
0.8	0.9	10.00	0.09	95.8	95.0	94.9	94.9	94.8	94.5
0.2	0.9	10.00	0.08	97.0	94.7	94.3	93.5	92.0	87.5
1.0	n.a.	n.a.	n.a.	95.0	95.0	95.0	95.0	95.0	95.0
0.0	0.3	n.a.	n.a.	100.0	92.9	89.6	84.4	75.7	59.5
0.0	0.6	n.a.	n.a.	99.9	93.5	91.2	87.4	80.6	66.1
0.0	0.9	n.a.	n.a.	97.1	94.6	93.9	92.8	90.5	84.0

Table AA2

Actual Coverage of Nominal 95 Percent Confidence Intervals, DGP A, V-Procedure

θ	ρ	σ_u^2	Confidence Interval Coverage on α_2							
			In-Sample		Out of Sample					
			T=100	T=250	R=100			R=250		
				P=50	P=100	P=200	P=50	P=125	P=250	
0.50	0.30	0.01	94.0	94.7	93.6	94.2	94.3	94.8	95.2	95.0
0.50	0.30	0.10	94.3	95.0	93.7	94.6	94.6	94.1	94.9	94.8
0.50	0.30	1.00	93.1	94.6	94.2	94.9	94.6	93.6	94.9	94.9
0.50	0.30	10.00	91.7	94.0	95.3	93.9	92.1	96.0	95.8	94.7
0.50	0.60	0.01	93.7	94.3	93.7	94.0	94.0	94.4	94.4	94.5
0.50	0.60	0.10	93.6	94.2	93.4	94.5	94.4	93.2	94.7	94.8
0.50	0.60	1.00	93.7	95.0	93.6	94.8	94.9	93.3	94.8	95.1
0.50	0.60	10.00	95.7	96.2	96.1	95.7	94.3	95.9	96.5	95.8
0.50	0.90	0.01	93.6	94.6	92.7	94.4	94.6	92.7	94.8	95.0
0.50	0.90	0.10	93.6	94.6	92.3	94.5	95.0	92.9	94.6	94.9
0.50	0.90	1.00	94.5	94.8	92.6	94.8	95.2	93.1	94.6	94.9
0.50	0.90	10.00	97.7	96.8	96.9	97.6	97.1	95.6	96.7	96.7
0.80	0.30	0.01	93.8	94.7	93.8	93.8	93.5	94.8	95.1	94.9
0.20	0.30	0.01	94.1	95.0	93.6	94.1	94.2	94.4	94.4	95.0
0.80	0.30	0.10	94.8	95.2	94.0	94.7	94.2	94.6	95.4	95.4
0.20	0.30	0.10	93.5	94.9	93.3	94.5	94.4	93.5	94.2	94.5
0.80	0.30	1.00	95.7	95.7	95.1	95.3	94.5	94.9	95.9	95.9
0.20	0.30	1.00	91.4	94.1	93.8	94.9	94.8	93.5	94.5	95.0
0.80	0.30	10.00	87.0	91.1	97.9	97.6	95.9	98.2	98.0	97.2
0.20	0.30	10.00	97.7	96.7	94.1	93.5	92.1	95.3	95.5	94.7
0.80	0.60	0.01	94.0	94.6	94.0	94.3	94.1	94.1	94.6	94.8
0.20	0.60	0.01	93.5	94.3	93.7	93.8	94.0	93.5	94.5	94.7
0.80	0.60	0.10	94.0	94.6	93.5	94.6	94.6	93.4	94.9	95.2
0.20	0.60	0.10	92.9	94.6	93.1	94.3	94.5	93.2	94.3	95.0
0.80	0.60	1.00	94.5	95.1	93.8	95.4	95.5	93.7	95.1	95.4
0.20	0.60	1.00	94.1	95.3	93.4	94.8	95.0	93.3	94.7	94.9
0.80	0.60	10.00	92.4	94.3	98.2	98.4	97.8	97.3	98.0	97.9
0.20	0.60	10.00	98.0	96.9	94.8	94.6	93.2	95.4	95.8	95.3
0.80	0.90	0.01	93.8	94.4	92.3	94.5	94.7	92.5	94.3	95.1
0.20	0.90	0.01	93.9	94.3	92.5	94.3	94.7	92.8	94.7	94.9
0.80	0.90	0.10	94.0	94.6	92.1	94.3	94.8	92.9	94.3	95.0
0.20	0.90	0.10	94.1	94.5	92.4	94.3	95.1	93.0	94.6	94.7
0.80	0.90	1.00	94.4	95.0	92.6	94.9	95.0	93.2	94.4	95.0
0.20	0.90	1.00	94.5	94.8	92.7	94.7	95.2	93.2	94.7	94.9
0.80	0.90	10.00	96.6	96.5	97.4	98.2	98.3	95.8	96.9	97.0
0.20	0.90	10.00	97.9	96.8	96.3	96.5	95.9	95.4	96.4	96.2
1.00	0.30	0.01	97.8	96.4	97.3	98.4	98.5	95.3	96.4	96.8
1.00	0.30	0.10	96.8	96.5	97.5	98.5	98.7	95.6	96.8	97.1
1.00	0.30	1.00	92.3	94.2	98.8	99.3	99.5	97.4	98.3	98.5
1.00	0.30	10.00	80.4	87.5	99.9	99.9	100.	99.7	99.8	99.8
1.00	0.60	0.01	94.6	95.0	92.8	95.2	95.6	93.3	94.5	95.2
1.00	0.60	0.10	94.9	95.2	92.9	95.3	95.6	93.4	94.5	95.3
1.00	0.60	1.00	94.2	95.4	94.7	96.5	96.9	94.1	95.1	95.8
1.00	0.60	10.00	90.3	93.2	99.2	99.5	99.7	98.1	98.8	99.0
1.00	0.90	0.01	94.1	94.7	92.2	94.4	94.9	92.9	94.2	95.0
1.00	0.90	0.10	93.9	94.7	92.3	94.5	95.0	92.9	94.2	95.0
1.00	0.90	1.00	94.5	95.0	92.6	95.0	95.3	93.3	94.4	95.3
1.00	0.90	10.00	95.8	96.1	97.4	98.6	98.9	95.9	96.8	97.2

Table AA3

Actual Coverage of Nominal 90 Percent Confidence Intervals, DGP A, V-Procedure

θ	ρ	σ_u^2	Confidence Interval Coverage on α_2							
			In-Sample		Out of Sample					
			T=100	T=250	R=100			R=250		
				P=50	P=100	P=200	P=50	P=125	P=250	
0.50	0.30	0.01	89.7	89.8	89.4	89.6	89.3	89.8	90.2	90.5
0.50	0.30	0.10	90.0	90.2	88.7	90.0	89.9	88.9	89.7	90.6
0.50	0.30	1.00	88.0	89.9	89.4	90.9	91.0	88.6	90.0	90.4
0.50	0.30	10.00	87.8	90.5	92.2	90.7	88.9	92.7	92.8	91.2
0.50	0.60	0.01	88.4	89.3	88.8	89.1	88.9	89.3	90.0	89.5
0.50	0.60	0.10	87.6	89.5	88.0	89.2	89.9	88.1	89.5	89.8
0.50	0.60	1.00	88.5	89.8	88.4	90.8	90.7	88.0	89.7	89.9
0.50	0.60	10.00	92.0	92.5	93.0	92.9	91.0	91.6	92.9	92.5
0.50	0.90	0.01	88.3	88.8	87.5	89.5	90.0	87.5	89.4	90.5
0.50	0.90	0.10	88.4	89.6	86.7	89.2	90.1	87.3	89.3	89.9
0.50	0.90	1.00	88.8	89.8	87.4	89.8	90.4	87.6	89.4	90.1
0.50	0.90	10.00	93.7	92.0	92.7	94.0	94.0	90.1	91.8	92.0
0.80	0.30	0.01	90.1	90.4	90.4	90.5	90.7	90.2	90.6	90.8
0.20	0.30	0.01	89.5	89.9	88.5	89.4	89.5	89.2	90.1	90.2
0.80	0.30	0.10	90.6	90.8	90.1	90.8	91.1	89.1	90.3	91.0
0.20	0.30	0.10	88.5	89.9	88.2	89.4	89.5	88.2	89.7	89.9
0.80	0.30	1.00	91.1	91.1	91.2	91.6	91.2	89.6	91.1	91.4
0.20	0.30	1.00	86.4	89.6	89.1	90.1	90.2	87.9	89.7	90.0
0.80	0.30	10.00	83.0	87.8	96.3	95.1	92.7	95.7	95.6	94.0
0.20	0.30	10.00	93.9	92.5	91.1	90.2	89.2	91.2	92.2	91.2
0.80	0.60	0.01	88.6	89.4	89.2	89.3	89.5	89.3	90.1	89.9
0.20	0.60	0.01	87.9	89.4	88.4	88.6	89.4	88.3	89.7	89.7
0.80	0.60	0.10	88.5	89.5	87.7	90.0	90.1	87.6	89.8	90.1
0.20	0.60	0.10	87.2	89.3	88.2	89.4	89.7	87.8	89.2	89.6
0.80	0.60	1.00	89.4	90.1	88.6	91.0	91.5	87.9	89.9	90.2
0.20	0.60	1.00	88.7	90.2	88.4	90.3	90.2	88.0	89.6	89.9
0.80	0.60	10.00	89.3	91.5	95.7	95.9	95.3	93.2	94.2	93.9
0.20	0.60	10.00	94.5	92.6	91.6	91.4	90.1	90.8	92.3	91.8
0.80	0.90	0.01	88.7	89.5	87.2	89.4	90.5	87.4	89.4	90.4
0.20	0.90	0.01	88.4	89.3	87.2	89.3	89.8	87.7	89.3	90.3
0.80	0.90	0.10	88.2	89.7	87.0	88.9	90.1	87.3	89.4	90.0
0.20	0.90	0.10	88.5	89.5	86.9	89.0	89.7	87.3	89.3	90.0
0.80	0.90	1.00	88.7	89.9	87.5	89.9	90.9	87.4	89.6	90.0
0.20	0.90	1.00	88.8	90.0	87.4	89.7	90.2	87.5	89.5	90.0
0.80	0.90	10.00	93.0	92.4	93.6	95.0	95.1	90.2	92.1	92.6
0.20	0.90	10.00	94.3	91.9	92.0	93.2	92.5	89.9	91.8	91.6
1.00	0.30	0.01	93.9	91.7	92.9	94.7	95.0	89.5	91.6	92.0
1.00	0.30	0.10	92.8	92.3	93.5	95.2	95.1	89.8	91.9	92.3
1.00	0.30	1.00	88.9	91.3	96.1	97.4	97.3	92.8	94.0	94.9
1.00	0.30	10.00	76.3	83.9	99.2	99.5	99.6	98.6	98.9	99.2
1.00	0.60	0.01	89.1	90.3	87.8	90.1	90.8	87.5	89.7	90.1
1.00	0.60	0.10	89.3	90.4	87.9	90.3	90.8	87.6	89.7	90.1
1.00	0.60	1.00	90.5	90.7	89.5	91.7	92.3	88.0	90.4	90.5
1.00	0.60	10.00	87.0	90.4	97.2	98.2	98.3	94.5	95.7	96.1
1.00	0.90	0.01	88.3	89.9	86.9	89.3	90.1	87.3	89.5	89.7
1.00	0.90	0.10	88.3	90.0	87.0	89.4	90.1	87.3	89.5	89.7
1.00	0.90	1.00	88.8	90.3	87.7	89.9	90.6	87.5	89.7	90.0
1.00	0.90	10.00	92.1	92.4	94.0	95.7	95.8	90.3	92.3	92.6

Table AA4

Actual Coverage of Nominal 95 Percent Least Squares Confidence Intervals, DGP A

θ	ρ	σ_u^2	Confidence Interval Coverage on α_2							
			In-Sample		Out of Sample					
			T=100	T=250	R=100			R=250		
				P=50	P=100	P=200	P=50	P=125	P=250	
0.50	0.30	0.01	42.1	42.7	51.8	39.1	29.2	68.8	52.9	39.7
0.50	0.30	0.10	88.9	90.6	80.9	74.7	63.8	88.3	83.8	75.9
0.50	0.30	1.00	99.9	100.	87.9	85.7	79.8	91.1	90.2	86.6
0.50	0.30	10.00	100.	100.	88.7	86.8	81.5	91.4	90.8	87.6
0.50	0.60	0.01	63.0	63.8	70.1	59.3	46.9	82.8	72.5	60.3
0.50	0.60	0.10	95.6	96.3	87.9	85.4	80.6	91.1	89.8	86.7
0.50	0.60	1.00	99.1	99.3	90.2	90.3	87.5	91.7	92.5	91.0
0.50	0.60	10.00	99.4	99.6	90.5	90.9	88.2	91.7	92.6	91.5
0.50	0.90	0.01	92.3	93.0	90.2	90.3	87.8	91.6	92.5	91.4
0.50	0.90	0.10	95.2	95.9	90.2	90.3	87.8	91.6	92.5	91.4
0.50	0.90	1.00	95.9	96.3	91.8	93.4	93.5	92.7	94.0	94.2
0.50	0.90	10.00	95.9	96.3	91.8	93.5	93.4	92.7	93.9	94.2
0.80	0.30	0.01	43.8	44.5	54.0	40.9	31.1	71.1	55.2	42.1
0.20	0.30	0.01	73.3	74.0	72.8	61.8	49.2	83.6	74.9	63.5
0.80	0.30	0.10	88.0	89.5	83.8	79.1	69.3	89.9	86.6	80.8
0.20	0.30	0.10	99.6	99.9	85.5	81.2	72.5	90.1	87.8	82.2
0.80	0.30	1.00	99.2	99.5	90.0	90.1	87.8	92.2	92.3	91.1
0.20	0.30	1.00	100.	100.	86.9	83.6	76.5	90.6	88.9	84.4
0.80	0.30	10.00	99.7	99.9	90.7	91.4	89.9	92.3	92.9	92.3
0.20	0.30	10.00	100.	100.	87.1	84.1	76.7	90.6	89.3	84.8
0.80	0.60	0.01	72.0	74.3	78.6	70.4	58.9	86.9	81.2	71.3
0.20	0.60	0.01	85.9	87.0	81.4	74.9	64.0	88.3	84.1	76.1
0.80	0.60	0.10	94.8	95.5	90.2	90.5	87.7	92.2	92.9	91.2
0.20	0.60	0.10	99.0	99.2	88.5	86.7	80.5	91.0	90.4	86.8
0.80	0.60	1.00	97.6	97.8	91.4	93.0	92.8	92.6	93.9	94.1
0.20	0.60	1.00	99.5	99.8	89.0	87.7	82.8	91.3	91.1	88.3
0.80	0.60	10.00	97.7	98.0	91.7	93.4	93.3	92.7	93.8	94.3
0.20	0.60	10.00	99.5	99.8	89.0	87.8	83.1	91.2	91.2	88.3
0.80	0.90	0.01	93.2	93.8	91.3	92.6	92.1	92.1	93.5	93.6
0.20	0.90	0.01	95.1	95.4	90.4	91.2	89.2	92.0	93.2	92.5
0.80	0.90	0.10	94.8	95.3	91.9	94.0	94.3	92.7	94.2	94.7
0.20	0.90	0.10	96.2	96.7	91.2	92.3	91.4	92.4	93.6	93.4
0.80	0.90	1.00	95.0	95.5	91.9	94.2	94.4	92.8	94.1	94.7
0.20	0.90	1.00	96.3	96.9	91.4	92.4	91.5	92.5	93.5	93.3
0.80	0.90	10.00	95.0	95.6	91.9	94.1	94.3	92.8	94.1	94.7
0.20	0.90	10.00	96.3	96.9	91.3	92.4	91.6	92.5	93.6	93.3
1.00	0.30	0.01	94.0	94.6	92.1	94.3	94.8	92.9	94.1	94.9
1.00	0.30	0.10	94.0	94.6	92.1	94.3	94.8	92.9	94.1	94.9
1.00	0.30	1.00	94.0	94.6	92.1	94.3	94.8	92.9	94.1	94.9
1.00	0.30	10.00	94.0	94.6	92.1	94.3	94.8	92.9	94.1	94.9
1.00	0.60	0.01	94.0	94.6	92.1	94.3	94.8	92.9	94.1	94.9
1.00	0.60	0.10	94.0	94.6	92.1	94.3	94.8	92.9	94.1	94.9
1.00	0.60	1.00	94.0	94.6	92.1	94.3	94.8	92.9	94.1	94.9
1.00	0.60	10.00	94.0	94.6	92.1	94.3	94.8	92.9	94.1	94.9
1.00	0.90	0.01	94.0	94.6	92.1	94.3	94.8	92.9	94.1	94.9
1.00	0.90	0.10	94.0	94.6	92.1	94.3	94.8	92.9	94.1	94.9
1.00	0.90	1.00	94.0	94.6	92.1	94.3	94.8	92.9	94.1	94.9
1.00	0.90	10.00	94.0	94.6	92.1	94.3	94.8	92.9	94.1	94.9

Table AA5

Actual Coverage of Nominal 90 Percent Least Squares Confidence Intervals, DGP A

θ	ρ	σ_u^2	Confidence Interval Coverage on α_2								
			In-Sample		Out of Sample						
			T=100	T=250	R=100			R=250			
		P=50	P=100	P=200	P=50	P=125	P=250				
0.50	0.30	0.01	35.9	35.9	44.5	33.0	24.6	60.7	45.1	33.6	
0.50	0.30	0.10	82.4	84.3	73.6	66.4	55.8	81.4	76.1	67.9	
0.50	0.30	1.00	99.6	99.8	81.5	78.3	71.4	85.1	83.6	79.3	
0.50	0.30	10.00	99.9	100	82.4	79.6	73.7	85.4	84.9	80.7	
0.50	0.60	0.01	55.3	56.2	62.3	52.4	40.4	75.1	64.0	52.8	
0.50	0.60	0.10	90.7	91.9	81.4	78.4	71.9	85.0	83.5	79.6	
0.50	0.60	1.00	97.3	98.0	84.2	83.9	80.4	86.4	86.9	84.5	
0.50	0.60	10.00	97.9	98.3	84.5	84.9	81.4	86.7	87.2	85.4	
0.50	0.90	0.01	86.5	86.9	83.8	83.9	80.7	86.3	86.3	85.1	
0.50	0.90	0.10	90.8	91.6	85.8	87.3	87.3	87.0	88.6	88.4	
0.50	0.90	1.00	91.1	91.9	86.0	87.8	88.3	87.0	88.8	88.6	
0.50	0.90	10.00	91.2	91.9	86.1	87.9	88.3	86.9	88.7	88.7	
0.80	0.30	0.01	37.5	37.8	46.9	35.4	26.6	62.7	47.6	35.9	
0.20	0.30	0.01	64.6	65.9	65.0	54.2	42.7	76.6	67.4	55.5	
0.80	0.30	0.10	80.9	83.0	76.4	70.6	61.7	83.1	79.9	72.4	
0.20	0.30	0.10	98.6	99.1	78.6	73.5	63.9	83.9	80.4	74.0	
0.80	0.30	1.00	98.0	97.9	84.2	83.7	80.4	86.2	86.7	84.8	
0.20	0.30	1.00	99.9	100	80.6	76.4	68.2	84.7	82.7	76.9	
0.80	0.30	10.00	98.9	99.1	84.6	85.5	83.3	86.5	87.4	86.1	
0.20	0.30	10.00	100	100	80.9	76.6	68.7	84.8	83.1	77.3	
0.80	0.60	0.01	64.6	65.6	70.6	62.8	51.1	80.5	73.0	63.4	
0.20	0.60	0.01	78.0	79.9	73.8	67.0	56.5	82.0	76.6	67.7	
0.80	0.60	0.10	89.8	90.7	84.4	83.8	81.4	86.2	86.5	85.0	
0.20	0.60	0.10	97.0	97.8	81.5	79.3	72.4	85.0	84.0	80.0	
0.80	0.60	1.00	94.3	94.6	85.9	87.8	87.1	87.0	88.5	88.1	
0.20	0.60	1.00	98.6	98.9	82.8	80.9	75.1	85.6	85.3	81.7	
0.80	0.60	10.00	94.6	95.2	85.9	88.2	87.9	87.1	88.7	88.6	
0.20	0.60	10.00	98.8	99.0	83.0	81.1	75.1	85.9	85.2	81.6	
0.80	0.90	0.01	87.8	88.9	85.7	87.0	86.4	86.8	88.2	88.0	
0.20	0.90	0.01	89.8	90.4	84.6	85.2	82.5	86.6	86.9	86.1	
0.80	0.90	0.10	89.4	90.6	86.6	88.5	89.5	87.1	89.2	89.6	
0.20	0.90	0.10	91.8	92.5	85.3	86.7	85.4	86.8	87.9	87.4	
0.80	0.90	1.00	89.4	90.8	86.5	88.9	89.9	87.0	89.2	89.6	
0.20	0.90	1.00	91.7	92.6	85.3	86.6	85.8	86.6	88.0	87.2	
0.80	0.90	10.00	89.4	90.8	86.6	89.0	90.0	87.1	89.1	89.6	
0.20	0.90	10.00	91.8	92.6	85.3	86.7	85.8	86.7	88.1	87.3	
1.00	0.30	0.01	88.0	89.9	86.7	89.2	90.0	87.2	89.4	89.6	
1.00	0.30	0.10	88.0	89.9	86.7	89.2	90.0	87.2	89.4	89.6	
1.00	0.30	1.00	88.0	89.9	86.7	89.2	90.0	87.2	89.4	89.6	
1.00	0.30	10.00	88.0	89.9	86.7	89.2	90.0	87.2	89.4	89.6	
1.00	0.60	0.01	88.0	89.9	86.7	89.2	90.0	87.2	89.4	89.6	
1.00	0.60	0.10	88.0	89.9	86.7	89.2	90.0	87.2	89.4	89.6	
1.00	0.60	1.00	88.0	89.9	86.7	89.2	90.0	87.2	89.4	89.6	
1.00	0.60	10.00	88.0	89.9	86.7	89.2	90.0	87.2	89.4	89.6	
1.00	0.90	0.01	88.0	89.9	86.7	89.2	90.0	87.2	89.4	89.6	
1.00	0.90	0.10	88.0	89.9	86.7	89.2	90.0	87.2	89.4	89.6	
1.00	0.90	1.00	88.0	89.9	86.7	89.2	90.0	87.2	89.4	89.6	
1.00	0.90	10.00	88.0	89.9	86.7	89.2	90.0	87.2	89.4	89.6	

Table AA6

Actual Coverage of Nominal 95 Percent Confidence Intervals,
Out of Sample, Recursive Scheme, DGP A, V-Procedure

θ	ρ	σ_u^2	Confidence Interval Coverage on α_2					
			R=100			R=250		
			P=50	P=100	P=200	P=50	P=125	P=250
0.50	0.30	0.01	94.3	94.9	94.5	94.6	95.1	95.0
0.50	0.30	0.10	94.3	94.7	94.6	93.4	94.9	94.9
0.50	0.30	1.00	94.0	95.2	95.3	93.2	95.0	94.8
0.50	0.30	10.00	97.6	96.9	97.0	96.4	97.1	96.8
0.50	0.60	0.01	93.8	94.3	94.9	93.9	94.7	95.2
0.50	0.60	0.10	93.0	94.0	94.5	92.7	94.3	95.2
0.50	0.60	1.00	93.3	94.2	94.1	92.8	94.6	94.7
0.50	0.60	10.00	97.1	97.3	96.8	95.7	96.6	96.5
0.50	0.90	0.01	92.0	93.6	94.3	92.4	94.1	94.5
0.50	0.90	0.10	91.8	93.7	94.0	92.2	94.4	94.9
0.50	0.90	1.00	92.3	94.0	94.0	92.5	94.6	94.8
0.50	0.90	10.00	96.0	96.4	96.1	94.8	95.8	96.0
0.80	0.30	0.01	94.0	94.1	94.4	94.5	95.0	95.1
0.20	0.30	0.01	94.1	94.3	94.5	93.7	95.1	94.7
0.80	0.30	0.10	94.2	95.0	94.9	93.9	95.0	95.1
0.20	0.30	0.10	93.6	94.4	94.6	92.8	94.5	94.8
0.80	0.30	1.00	95.4	96.1	95.5	94.2	95.5	95.6
0.20	0.30	1.00	93.7	95.1	95.1	93.1	94.6	94.8
0.80	0.30	10.00	99.3	99.3	99.0	98.7	99.0	98.9
0.20	0.30	10.00	96.1	95.8	95.8	95.4	96.1	95.9
0.80	0.60	0.01	93.8	94.5	95.0	93.5	94.6	95.3
0.20	0.60	0.01	93.4	94.1	94.6	93.2	94.6	95.4
0.80	0.60	0.10	92.8	94.0	94.3	92.7	94.3	94.9
0.20	0.60	0.10	92.9	94.1	94.3	92.8	94.3	94.7
0.80	0.60	1.00	93.3	94.4	94.5	92.8	94.8	94.7
0.20	0.60	1.00	93.0	94.4	94.2	92.9	94.4	94.8
0.80	0.60	10.00	98.0	98.3	97.8	96.6	97.2	97.5
0.20	0.60	10.00	96.0	96.1	95.9	95.1	96.0	95.9
0.80	0.90	0.01	92.0	93.7	94.2	92.3	94.3	94.8
0.20	0.90	0.01	91.9	93.8	93.7	92.4	94.2	94.6
0.80	0.90	0.10	91.9	93.7	93.9	92.1	94.4	94.9
0.20	0.90	0.10	91.9	93.6	93.8	92.4	94.3	94.7
0.80	0.90	1.00	92.4	93.8	94.1	92.4	94.6	94.8
0.20	0.90	1.00	92.3	93.9	93.9	92.6	94.4	94.6
0.80	0.90	10.00	96.5	96.8	96.4	94.7	96.0	96.1
0.20	0.90	10.00	96.1	96.2	95.8	94.7	95.8	95.9
1.00	0.30	0.01	96.2	96.8	96.2	94.0	95.9	96.1
1.00	0.30	0.10	96.4	96.9	96.4	94.3	95.9	96.2
1.00	0.30	1.00	97.5	97.5	97.1	96.2	96.8	96.8
1.00	0.30	10.00	98.8	98.6	98.2	99.1	98.8	98.3
1.00	0.60	0.01	92.6	94.3	94.3	92.2	94.8	94.9
1.00	0.60	0.10	92.8	94.2	94.3	92.3	94.8	95.0
1.00	0.60	1.00	94.0	94.7	94.9	92.9	95.0	95.1
1.00	0.60	10.00	98.0	97.6	97.2	97.0	97.4	97.0
1.00	0.90	0.01	92.2	93.8	94.0	92.0	94.6	94.7
1.00	0.90	0.10	92.2	93.8	94.0	92.1	94.6	94.8
1.00	0.90	1.00	92.6	93.8	94.2	92.2	94.7	94.9
1.00	0.90	10.00	96.4	96.6	96.3	94.5	96.0	96.1

Table AA7

Actual Coverage of Nominal 95 Percent Least Squares Confidence Intervals,
Out of Sample, Recursive Scheme, DGP A

θ	ρ	σ_u^2	Confidence Interval Coverage on α_2					
			R=100			R=250		
			P=50	P=100	P=200	P=50	P=125	P=250
0.50	0.30	0.01	58.7	50.8	44.9	69.7	58.5	50.7
0.50	0.30	0.10	88.1	86.4	83.1	89.8	89.7	86.9
0.50	0.30	1.00	92.6	94.2	94.6	92.4	94.5	94.7
0.50	0.30	10.00	92.5	94.6	96.0	92.9	94.9	95.8
0.50	0.60	0.01	76.8	71.4	64.7	83.4	77.7	70.9
0.50	0.60	0.10	91.0	91.4	91.6	91.8	93.0	93.1
0.50	0.60	1.00	92.7	94.4	94.7	92.6	94.7	95.3
0.50	0.60	10.00	92.5	94.2	95.2	92.7	94.8	95.7
0.50	0.90	0.01	90.7	92.1	91.6	91.5	93.0	93.1
0.50	0.90	0.10	91.7	93.8	94.2	92.2	94.4	94.9
0.50	0.90	1.00	92.0	94.0	94.3	92.3	94.6	95.1
0.50	0.90	10.00	91.8	93.8	94.2	92.2	94.6	95.1
0.80	0.30	0.01	94.0	94.1	94.4	94.5	95.0	95.1
0.20	0.30	0.01	80.5	75.6	70.5	85.4	81.3	76.2
0.80	0.30	0.10	88.7	87.7	85.5	90.4	90.3	88.5
0.20	0.30	0.10	91.4	92.0	91.6	91.7	93.2	93.0
0.80	0.30	1.00	92.7	94.7	95.1	92.5	94.9	95.4
0.20	0.30	1.00	92.5	94.1	94.2	92.5	94.2	94.7
0.80	0.30	10.00	91.1	93.6	95.0	92.3	95.0	96.0
0.20	0.30	10.00	92.9	94.0	95.1	92.6	94.4	95.2
0.80	0.60	0.01	82.8	79.8	74.3	87.4	84.5	79.9
0.20	0.60	0.01	87.0	84.8	81.7	89.5	89.0	86.2
0.80	0.60	0.10	91.7	92.8	93.1	92.0	93.8	93.8
0.20	0.60	0.10	91.8	92.9	93.3	92.4	93.8	94.2
0.80	0.60	1.00	92.4	94.3	94.9	92.4	94.8	95.4
0.20	0.60	1.00	92.3	94.0	94.4	92.5	94.2	94.8
0.80	0.60	10.00	91.6	93.9	94.8	92.2	94.9	95.6
0.20	0.60	10.00	92.1	93.6	94.5	92.6	94.3	94.9
0.80	0.90	0.01	91.6	93.2	93.4	92.0	94.0	94.1
0.20	0.90	0.01	91.4	93.1	93.0	92.1	93.9	94.1
0.80	0.90	0.10	91.9	93.8	94.1	92.2	94.5	95.0
0.20	0.90	0.10	91.8	93.7	93.8	92.3	94.3	94.8
0.80	0.90	1.00	92.0	93.7	94.3	92.3	94.6	94.9
0.20	0.90	1.00	91.9	93.8	93.8	92.4	94.4	94.6
0.80	0.90	10.00	91.6	93.6	94.1	92.1	94.4	95.0
0.20	0.90	10.00	91.8	93.6	93.8	92.3	94.3	94.5
1.00	0.30	0.01	92.0	93.7	93.9	92.0	94.6	94.7
1.00	0.30	0.10	91.9	93.6	94.0	91.9	94.6	94.7
1.00	0.30	1.00	91.2	93.3	93.9	92.0	94.4	94.8
1.00	0.30	10.00	89.8	92.1	92.4	90.7	93.0	93.7
1.00	0.60	0.01	92.1	93.8	93.9	91.8	94.6	94.8
1.00	0.60	0.10	92.1	93.8	93.9	91.8	94.6	94.8
1.00	0.60	1.00	92.0	93.8	93.9	91.9	94.5	94.8
1.00	0.60	10.00	90.5	92.4	93.4	91.8	94.1	94.5
1.00	0.90	0.01	92.1	93.7	94.0	91.9	94.5	94.7
1.00	0.90	0.10	92.1	93.7	94.0	92.0	94.5	94.7
1.00	0.90	1.00	92.0	93.7	94.1	92.1	94.4	94.7
1.00	0.90	10.00	91.5	93.3	93.8	92.0	94.2	94.8

Table AA9

Coverage of Nominal 95 Percent Confidence Intervals, DGP B, V-Procedure

θ	σ_u^2	In-sample				Out of Sample											
		α_1		α_2		R=100			α_1			R=100			α_2		
		T=100	T=250	T=100	T=250	P=50	P=100	P=200	P=50	P=125	P=250	P=50	P=100	P=200	P=50	P=125	P=250
0.00	0.01	88.7	90.4	88.8	89.7	87.1	88.9	90.7	87.8	88.8	90.0	91.6	93.3	94.0	91.7	93.0	93.5
0.00	0.10	88.9	90.5	89.0	89.7	87.2	89.0	90.7	87.8	88.9	90.0	91.6	93.3	94.0	91.7	93.0	93.5
0.00	1.00	89.8	91.1	89.7	89.9	88.1	89.8	91.5	88.1	89.2	90.4	92.3	93.8	94.2	91.8	93.2	93.6
0.00	10.00	92.3	92.5	94.5	92.0	94.8	96.0	96.4	92.4	93.6	94.3	95.1	94.4	93.3	93.7	94.6	94.3
0.20	0.01	60.1	67.0	86.5	88.6	63.0	59.5	57.9	73.4	69.0	67.5	88.7	87.3	86.5	91.4	90.8	90.0
0.20	0.10	77.5	78.0	90.4	92.3	76.4	71.9	67.2	82.9	79.9	76.0	91.2	92.0	92.1	91.4	92.9	92.9
0.20	1.00	88.0	89.2	90.3	91.9	83.6	83.7	82.6	86.6	86.4	86.9	91.6	93.1	93.5	91.9	93.1	93.4
0.20	10.00	93.0	92.0	92.6	92.5	90.4	90.2	90.3	88.8	90.1	90.8	95.3	95.1	94.6	93.3	94.6	94.5
0.50	0.01	61.1	68.0	86.5	88.8	63.4	61.0	59.8	73.2	69.9	68.4	87.2	86.2	85.6	90.9	89.8	89.6
0.50	0.10	76.0	77.2	89.9	91.7	76.1	72.4	69.1	82.6	79.7	76.5	90.4	90.7	90.6	91.4	92.5	91.9
0.50	1.00	87.6	89.2	90.8	92.3	83.4	84.0	83.9	86.4	86.6	87.3	91.2	92.5	92.7	91.7	93.1	93.2
0.50	10.00	92.6	92.4	93.0	93.6	88.3	88.4	88.9	87.6	89.0	90.2	95.2	95.6	95.5	93.0	94.6	94.4
0.80	0.01	70.0	72.8	88.9	91.1	72.5	68.8	66.2	79.9	75.8	73.2	89.0	88.5	87.9	91.2	91.9	90.9
0.80	0.10	85.6	86.6	90.7	92.6	82.5	82.6	81.8	85.7	85.9	85.3	90.6	91.2	92.1	91.6	92.7	92.6
0.80	1.00	91.0	91.8	92.3	93.3	85.8	87.6	88.6	86.5	88.3	89.9	91.7	93.2	93.3	92.0	93.6	93.3
0.80	10.00	94.1	94.2	93.7	94.3	88.1	89.1	90.3	87.6	89.3	90.8	95.0	95.9	96.5	93.1	94.6	94.8
1.00	0.01	93.6	94.8	93.3	94.1	86.3	88.9	90.3	86.8	89.2	91.2	91.7	94.0	94.5	92.4	93.7	94.0
1.00	0.10	93.5	94.8	93.3	94.2	86.4	88.9	90.4	86.7	89.2	91.0	91.8	94.1	94.5	92.4	93.7	94.0
1.00	1.00	93.7	94.9	93.5	94.4	86.6	88.9	90.7	86.9	89.2	91.1	92.1	94.2	94.8	92.5	93.8	94.1
1.00	10.00	95.0	95.4	93.7	94.8	88.1	89.9	91.3	87.4	89.6	91.2	94.8	96.0	96.6	93.1	94.5	94.9

Table AA10

Actual Coverage of Nominal 90 Percent Confidence Intervals, DGP B, V-Procedure

θ	σ_u^2	In-sample				Out of Sample											
		α_1		α_2		R=100			α_1 R=250			R=100			α_2 R=250		
		T=100	T=250	T=100	T=250	P=50	P=100	P=200	P=50	P=125	P=250	P=50	P=100	P=200	P=50	P=125	P=250
0.00	0.01	82.7	84.6	82.6	83.8	79.9	81.9	84.1	80.4	82.4	83.7	85.7	87.7	88.2	85.8	87.6	87.5
0.00	0.10	82.7	84.4	82.6	83.9	80.1	81.8	84.2	80.4	82.5	83.8	85.8	87.6	88.2	85.8	87.7	87.5
0.00	1.00	83.6	84.5	83.0	84.2	80.8	82.8	85.1	80.7	82.8	84.2	86.1	88.2	89.2	85.9	88.0	87.7
0.00	10.00	88.3	87.6	88.9	86.0	89.3	91.0	91.8	85.1	86.9	87.9	91.0	90.9	90.3	88.4	90.0	90.2
0.20	0.01	52.3	60.8	80.5	83.6	56.0	53.2	51.3	66.1	62.2	60.6	82.2	80.4	79.9	85.8	84.2	84.0
0.20	0.10	68.3	70.5	84.0	86.0	68.7	64.4	60.5	75.9	72.3	69.0	85.2	85.9	86.4	85.8	87.0	87.2
0.20	1.00	81.0	82.5	84.5	86.4	76.6	76.8	75.8	79.4	79.9	80.4	86.1	87.5	88.1	85.4	87.4	87.3
0.20	10.00	87.7	86.4	87.6	86.9	84.4	84.7	84.9	81.6	82.9	84.9	90.5	91.0	91.2	87.8	89.2	89.6
0.50	0.01	53.2	61.1	79.5	82.8	56.3	53.5	52.4	65.5	62.4	61.1	80.3	79.0	78.6	85.0	83.6	83.3
0.50	0.10	67.2	68.8	83.5	85.8	68.7	65.0	61.8	75.4	72.2	68.9	84.2	84.1	83.7	85.4	86.6	85.8
0.50	1.00	80.9	82.4	84.4	87.0	76.8	77.3	76.9	79.4	79.9	80.6	84.9	87.0	87.5	85.6	87.4	87.4
0.50	10.00	87.0	86.4	87.8	88.2	81.2	82.9	83.9	80.4	82.2	84.9	89.5	91.0	91.4	87.2	88.6	88.9
0.80	0.01	61.0	64.9	82.6	84.8	64.9	60.7	58.3	71.7	68.8	65.4	82.6	81.4	81.2	85.3	85.0	84.6
0.80	0.10	78.9	79.2	84.7	86.9	75.4	74.9	73.8	79.1	78.6	78.3	84.4	85.8	85.9	85.5	86.8	86.9
0.80	1.00	85.3	85.8	86.7	87.6	78.3	80.7	82.4	79.7	81.8	84.4	85.5	87.3	88.2	86.0	87.8	88.0
0.80	10.00	88.7	88.5	89.1	89.6	81.4	83.4	85.0	80.2	83.0	85.5	89.0	90.9	91.6	87.0	88.8	88.8
1.00	0.01	88.3	89.3	88.2	89.0	79.8	83.0	84.3	79.8	82.6	85.0	86.1	87.8	89.3	86.0	87.8	88.2
1.00	0.10	88.3	89.4	88.2	88.9	79.7	82.9	84.2	79.8	82.7	84.9	86.1	87.8	89.3	86.0	87.8	88.2
1.00	1.00	88.4	89.4	88.2	89.1	80.1	82.9	84.4	80.0	82.8	85.0	86.4	88.0	89.4	86.0	87.9	88.3
1.00	10.00	89.7	89.8	90.0	90.0	81.4	83.9	85.9	80.4	83.6	86.1	89.1	91.2	92.0	87.1	88.7	89.0

Table AA11

Actual Coverage of Nominal 95 Percent Least Squares Confidence Intervals, DGP B

θ	σ_u^2	In-sample				Out of Sample											
		α_1		α_2		R=100			α_1 R=250			R=100			α_2 R=250		
		T=100	T=250	T=100	T=250	P=50	P=100	P=200	P=50	P=125	P=250	P=50	P=100	P=200	P=50	P=125	P=250
0.00	0.01	87.1	88.6	96.9	98.0	84.7	86.7	88.7	85.5	86.9	88.2	88.4	87.7	83.6	90.3	90.3	87.6
0.00	0.10	87.1	88.6	96.9	98.0	84.7	86.7	88.7	85.5	86.9	88.2	88.4	87.7	83.6	90.3	90.3	87.6
0.00	1.00	87.1	88.6	96.9	98.0	84.7	86.7	88.7	85.5	86.9	88.2	88.4	87.7	83.6	90.3	90.3	87.6
0.00	10.00	87.1	88.6	96.9	98.0	84.7	86.7	88.7	85.5	86.9	88.2	88.4	87.7	83.6	90.3	90.3	87.6
0.20	0.01	20.1	17.7	51.6	46.8	35.3	24.6	16.7	46.3	29.6	21.2	61.8	48.4	35.2	73.9	57.9	44.9
0.20	0.10	65.2	58.1	85.8	86.2	66.6	56.3	45.5	74.6	64.8	54.8	84.4	80.4	72.6	87.8	85.1	78.7
0.20	1.00	86.1	86.5	95.2	96.0	80.1	78.6	75.8	83.8	82.3	80.6	88.8	88.5	85.4	90.4	90.8	88.2
0.20	10.00	89.9	91.8	96.3	97.4	83.4	83.8	83.8	84.8	86.2	86.8	89.3	89.5	88.0	90.9	91.4	89.8
0.50	0.01	17.4	15.8	40.1	36.4	32.5	22.2	15.1	43.0	27.5	19.3	51.6	38.7	27.1	65.3	48.8	35.9
0.50	0.10	61.2	54.0	79.3	77.9	63.5	53.0	42.1	72.4	61.5	50.6	82.0	76.0	66.5	86.1	82.0	74.2
0.50	1.00	86.4	86.3	92.7	93.7	78.3	75.7	71.4	83.0	80.9	77.6	89.1	89.3	87.6	90.8	90.9	89.3
0.50	10.00	91.5	93.3	94.9	96.2	81.9	80.8	78.8	84.1	84.5	84.4	89.8	91.2	91.2	91.3	92.3	91.6
0.80	0.01	41.4	33.6	61.6	57.6	52.2	39.0	28.4	63.0	47.9	35.7	70.9	59.8	45.9	79.8	68.4	55.8
0.80	0.10	80.9	79.5	86.5	87.7	74.7	68.8	61.5	80.8	75.5	69.2	87.1	86.2	82.4	89.7	89.1	86.1
0.80	1.00	90.8	92.2	92.6	93.6	79.9	78.1	74.7	83.7	82.8	82.1	89.8	91.5	91.4	91.2	92.4	91.9
0.80	10.00	92.6	94.8	93.2	94.8	81.0	79.5	76.0	83.9	83.7	83.0	90.2	92.1	93.0	91.4	92.7	92.6
1.00	0.01	92.9	95.5	92.3	93.6	80.6	78.9	75.2	83.5	83.2	82.3	90.3	92.6	93.4	91.5	92.8	93.3
1.00	0.10	92.9	95.5	92.3	93.6	80.6	78.9	75.2	83.5	83.2	82.3	90.3	92.6	93.4	91.5	92.8	93.3
1.00	1.00	92.9	95.5	92.3	93.6	80.6	78.9	75.2	83.5	83.2	82.3	90.3	92.6	93.4	91.5	92.8	93.3
1.00	10.00	92.9	95.5	92.3	93.6	80.6	78.9	75.2	83.5	83.2	82.3	90.3	92.6	93.4	91.5	92.8	93.3

Table AA12

Actual Coverage of Nominal 90 Percent Least Squares Confidence Intervals, DGP B

θ	σ_u^2	In-sample				Out of Sample											
		α_1		α_2		R=100			α_1 R=250			R=100			α_2 R=250		
		T=100	T=250	T=100	T=250	P=50	P=100	P=200	P=50	P=125	P=250	P=50	P=100	P=200	P=50	P=125	P=250
0.00	0.01	80.9	83.3	93.2	94.8	77.5	80.1	82.3	78.6	80.7	82.3	82.1	80.8	76.2	83.9	83.8	80.9
0.00	0.10	80.9	83.3	93.2	94.8	77.5	80.1	82.3	78.6	80.7	82.3	82.1	80.8	76.2	83.9	83.8	80.9
0.00	1.00	80.9	83.3	93.2	94.8	77.5	80.1	82.3	78.6	80.7	82.3	82.1	80.8	76.2	83.9	83.8	80.9
0.00	10.00	80.9	83.3	93.2	94.8	77.5	80.1	82.3	78.6	80.7	82.3	82.1	80.8	76.2	83.9	83.8	80.9
0.20	0.01	16.5	14.7	44.5	40.0	30.1	21.0	14.0	39.7	25.7	17.8	54.5	41.9	30.2	65.8	50.3	38.4
0.20	0.10	56.2	50.1	78.9	78.5	58.8	49.3	39.0	67.3	57.1	47.0	78.0	72.4	64.8	81.7	77.7	71.3
0.20	1.00	79.6	80.2	91.0	92.3	72.9	71.8	68.3	76.7	75.4	73.6	82.8	81.9	79.1	84.3	84.5	82.1
0.20	10.00	84.3	86.9	92.6	94.0	76.3	77.4	77.4	78.1	79.0	80.2	83.4	83.4	81.0	84.7	85.3	83.3
0.50	0.01	14.3	13.2	34.0	30.8	27.8	18.7	12.4	36.9	23.2	16.3	45.5	32.8	22.8	57.3	41.5	30.7
0.50	0.10	53.2	46.0	71.0	70.0	56.2	45.8	35.6	65.2	54.0	43.4	74.9	68.7	58.4	79.8	73.9	66.6
0.50	1.00	80.4	80.8	87.2	89.0	71.2	68.9	63.5	75.8	73.4	69.7	82.9	83.1	81.2	84.4	85.0	83.2
0.50	10.00	86.3	88.8	90.6	91.8	74.0	74.2	71.5	77.1	77.3	77.4	84.0	85.7	85.4	84.8	86.4	85.9
0.80	0.01	33.8	27.9	54.2	49.9	45.3	33.5	24.3	55.6	41.1	30.6	63.6	52.2	38.9	73.2	60.3	49.1
0.80	0.10	74.5	71.7	80.3	81.2	67.2	61.7	54.2	73.1	68.3	61.8	80.6	78.5	74.5	83.0	82.2	78.7
0.80	1.00	85.5	87.2	87.3	88.6	72.7	71.1	66.8	76.4	76.0	74.5	83.9	85.5	85.6	85.0	86.8	86.2
0.80	10.00	87.6	90.3	88.3	89.7	73.3	72.6	69.3	76.9	76.8	76.1	84.4	86.0	87.3	85.2	86.9	87.2
1.00	0.01	88.1	91.0	86.7	88.2	73.0	71.9	68.3	76.8	76.8	75.0	84.4	86.3	87.9	85.2	87.2	87.7
1.00	0.10	88.1	91.0	86.7	88.2	73.0	71.9	68.3	76.8	76.8	75.0	84.4	86.3	87.9	85.2	87.2	87.7
1.00	1.00	88.1	91.0	86.7	88.2	73.0	71.9	68.3	76.8	76.8	75.0	84.4	86.3	87.9	85.2	87.2	87.7
1.00	10.00	88.1	91.0	86.7	88.2	73.0	71.9	68.3	76.8	76.8	75.0	84.4	86.3	87.9	85.2	87.2	87.7

Table AA13: Actual Coverage of Nominal 95 and 90 Percent Confidence Intervals, Bootstrap-V, DGPs A and B

DGP A

θ	ρ	σ_u^2	95% CIs		90% CIs	
			T=100	T=250	T=100	T=250
1.0	0.6	1.0	94.8	95.3	90.4	90.0
0.5	0.6	1.0	94.9	95.2	89.7	90.1
0.8	0.6	1.0	95.3	95.2	89.9	90.1
0.2	0.6	1.0	94.2	95.2	89.1	90.2

DGP B

	θ	σ_u^2	95% CIs		90% CIs	
			T=100	T=250	T=100	T=250
(1) α_1	1.0	0.1	94.9	94.7	89.5	89.5
	0.8	0.1	93.1	94.0	87.9	88.7
	0.5	0.1	92.9	93.4	87.9	88.5
	0.2	0.1	92.8	93.2	87.6	88.5
	0.0	0.1	91.6	91.1	85.6	85.9
(2) α_2	1.0	0.1	95.0	95.4	89.7	89.8
	0.8	0.1	89.7	90.6	83.6	83.6
	0.5	0.1	84.0	83.6	77.0	76.6
	0.2	0.1	84.7	83.4	77.7	76.7
	0.0	0.1	92.3	92.6	86.4	86.9

Description of bootstrapping procedure

For concreteness, consider construction of a confidence interval for α_2 , for DGP A. The procedure for α_1 is identical. For each of 5000 repetitions, the following was done.

1. Generate a sample of size T .
2. (a) Estimate β_1 and β_2 , obtaining $\hat{\beta}_1$ and $\hat{\beta}_2$. Call the least squares residuals \hat{v}_{1t} and \hat{v}_{2t} .
 (b) Use least squares to estimate α_0 , α_1 and α_2 , obtaining $\hat{\alpha}_0$, $\hat{\alpha}_1$, and $\hat{\alpha}_2$.
 (c) Compute the asymptotic standard error on $\hat{\alpha}_2$, call it

$$\hat{\sigma}_2.$$

That is, $\hat{\sigma}_2$ is the square root of the (3,3) element of the estimate of the matrix written out in (3.10)

3. Do the following “M” times, where “M” is the number of bootstrap repetitions. For $b=1$ to M :
 - a. Generate another sample of size T by using the least squares estimates and sampling with replacement the 4×1 vector $(X_{1t}, \hat{v}_{1t}, X_{2t}, \hat{v}_{2t})'$.
 - b. Repeat step 2, estimating the β 's and α 's and the asymptotic variance-covariance matrix. For the b 'th bootstrap repetition, call the result

$$\hat{\alpha}_{2b}, \hat{\sigma}_{2b}.$$

Construct the t-statistic

$$t_b = \sqrt{T}(\hat{\alpha}_{2b} - \hat{\alpha}_2) / \hat{\sigma}_{2b}.$$

4. Let $|t_b|$ be the absolute value of the t-statistic. Sort $|t_b|$ from lowest to highest. Suppose we are looking at 95% confidence intervals. Let t_{b^*} be the value such that 5% of $|t_b|$ are greater than or equal to t_{b^*} . So if the number of bootstrap repetitions $M=500$, $|t_{b^*}|$ is the 25th largest.

5. The confidence interval is

$$(\hat{\alpha}_2 - (\hat{\sigma}_2 / \sqrt{T}) |t_{b^*}|, \hat{\alpha}_2 + (\hat{\sigma}_2 / \sqrt{T}) |t_{b^*}|).$$

I report the percentage of the 5000 repetitions in which the above interval includes the true α_2 .