

Table 0.1: Simulations results, 10,000 iterations, $\lambda_Z = 1$. 10 December 2020.

model	n=100					n=500					n=1000					n=2000				
	bias	MAE	RMSE	Cov. rate	Quantile .95	bias	MAE	RMSE	Cov. rate	Quantile .95	bias	MAE	RMSE	Cov. rate	Quantile .95	bias	MAE	RMSE	Cov. rate	Quantile .95
	$\lambda_X=0.2, \alpha_Y=6 - b_2 + d_2=0.97$																			
standard	-4.2	4.2	0.258	0.0	-37.083	-3.985	3.985	0.236	0.0	-79.334	-3.888	3.888	0.231	0.0	-109.227	-3.812	3.812	0.207	0.0	-152.782
smoothed	-4.224	4.224	0.246	0.094	-37.607	-4.008	4.008	0.224	0.31	-80.355	-3.911	3.911	0.221	0.444	-110.655	-3.833	3.833	0.199	0.554	-154.56
	$\lambda_X=0.2, \alpha_Y=7 - b_2 + d_2=0.94$																			
standard	-1.852	1.853	0.207	0.001	-14.835	-1.693	1.693	0.18	0.001	-30.582	-1.63	1.63	0.166	0.0	-41.88	-1.57	1.57	0.148	0.0	-57.454
smoothed	-1.87	1.871	0.198	0.1	-15.201	-1.71	1.71	0.171	0.294	-31.345	-1.646	1.646	0.159	0.402	-42.851	-1.585	1.585	0.142	0.531	-58.711
	$\lambda_X=0.2, \alpha_Y=10 - b_2 + d_2=0.9$																			
standard	-0.596	0.597	0.107	0.005	-4.002	-0.508	0.508	0.09	0.002	-7.606	-0.473	0.474	0.086	0.002	-9.939	-0.444	0.444	0.076	0.002	-13.472
smoothed	-0.607	0.607	0.103	0.09	-4.209	-0.518	0.518	0.086	0.26	-7.976	-0.482	0.482	0.083	0.347	-10.452	-0.452	0.452	0.073	0.449	-14.173
	$\lambda_X=0.3, \alpha_Y=4 - b_2 + d_2=0.95$																			
standard	-3.827	3.828	0.446	0.002	-30.258	-3.537	3.538	0.399	0.001	-62.94	-3.439	3.439	0.344	0.0	-88.372	-3.347	3.347	0.283	0.0	-125.987
smoothed	-3.875	3.876	0.416	0.158	-31.218	-3.582	3.583	0.376	0.448	-65.176	-3.48	3.48	0.325	0.592	-91.142	-3.385	3.385	0.269	0.724	-128.938
	$\lambda_X=0.3, \alpha_Y=6 - b_2 + d_2=0.87$																			
standard	-0.619	0.625	0.189	0.036	-2.794	-0.506	0.51	0.147	0.022	-5.403	-0.462	0.464	0.131	0.019	-6.908	-0.425	0.426	0.112	0.011	-9.783
smoothed	-0.641	0.645	0.18	0.17	-3.189	-0.524	0.527	0.14	0.382	-6.217	-0.479	0.481	0.124	0.498	-7.867	-0.439	0.44	0.107	0.626	-10.899
	$\lambda_X=0.3, \alpha_Y=7 - b_2 + d_2=0.84$																			
standard	-0.401	0.406	0.141	0.055	-1.457	-0.313	0.316	0.103	0.036	-2.818	-0.28	0.283	0.096	0.034	-3.329	-0.255	0.257	0.08	0.025	-4.674
smoothed	-0.417	0.422	0.133	0.172	-1.769	-0.327	0.329	0.098	0.371	-3.326	-0.293	0.295	0.091	0.486	-4.018	-0.266	0.267	0.077	0.584	-5.449
	$\lambda_X=0.3, \alpha_Y=10 - b_2 + d_2=0.8$																			
standard	-0.178	0.182	0.078	0.114	-0.334	-0.131	0.134	0.056	0.083	-0.683	-0.113	0.116	0.05	0.079	-0.739	-0.099	0.101	0.041	0.068	-1.092
smoothed	-0.187	0.191	0.074	0.211	-0.5	-0.139	0.141	0.053	0.349	-0.942	-0.12	0.122	0.047	0.429	-1.073	-0.105	0.106	0.039	0.522	-1.516
	$\lambda_X=0.5, \alpha_Y=3 - b_2 + d_2=0.83$																			
standard	-0.788	0.875	0.566	0.169	0.764	-0.62	0.665	0.354	0.132	-0.276	-0.569	0.597	0.3	0.112	-1.823	-0.529	0.542	0.226	0.079	-5.747
smoothed	-0.851	0.916	0.523	0.326	-0.67	-0.669	0.702	0.328	0.609	-2.726	-0.61	0.631	0.283	0.738	-4.171	-0.562	0.572	0.214	0.844	-8.298
	$\lambda_X=0.5, \alpha_Y=4 - b_2 + d_2=0.75$																			
standard	-0.259	0.311	0.239	0.335	1.65	-0.173	0.207	0.157	0.334	2.52	-0.149	0.174	0.129	0.323	2.701	-0.132	0.148	0.1	0.285	2.318
smoothed	-0.291	0.329	0.221	0.436	1.002	-0.196	0.22	0.146	0.632	1.468	-0.168	0.186	0.121	0.723	1.55	-0.148	0.159	0.094	0.806	1.005
	$\lambda_X=0.5, \alpha_Y=6 - b_2 + d_2=0.67$																			
standard	-0.085	0.115	0.106	0.524	1.05	-0.051	0.07	0.064	0.535	1.421	-0.041	0.055	0.05	0.541	1.544	-0.034	0.045	0.04	0.526	1.684
smoothed	-0.099	0.122	0.1	0.576	0.773	-0.061	0.074	0.06	0.68	1.018	-0.049	0.059	0.048	0.744	1.083	-0.04	0.048	0.038	0.795	1.239
	$\lambda_X=0.5, \alpha_Y=7 - b_2 + d_2=0.64$																			
standard	-0.062	0.087	0.082	0.549	0.834	-0.035	0.05	0.049	0.583	1.142	-0.028	0.04	0.038	0.585	1.223	-0.022	0.031	0.029	0.595	1.277
smoothed	-0.073	0.092	0.077	0.594	0.63	-0.042	0.054	0.046	0.704	0.881	-0.034	0.042	0.036	0.754	0.926	-0.027	0.033	0.027	0.807	0.964
	$\lambda_X=0.5, \alpha_Y=10 - b_2 + d_2=0.6$																			
standard	-0.033	0.048	0.047	0.614	0.489	-0.017	0.027	0.027	0.663	0.692	-0.013	0.02	0.021	0.688	0.764	-0.01	0.015	0.016	0.691	0.828
smoothed	-0.04	0.051	0.044	0.642	0.372	-0.021	0.028	0.026	0.747	0.555	-0.016	0.021	0.02	0.792	0.617	-0.012	0.016	0.015	0.831	0.668
	$\lambda_X=0.8, \alpha_Y=1.5 - b_2 + d_2=0.87$																			
standard	-1.897	2.819	3.709	0.257	18.489	-1.52	2.337	4.606	0.219	29.496	-1.6	2.018	2.198	0.187	18.636	-1.577	1.845	1.655	0.153	1.398
smoothed	-2.17	2.878	3.319	0.373	9.591	-1.741	2.399	4.171	0.628	14.718	-1.773	2.092	1.882	0.747	5.547	-1.702	1.928	1.554	0.858	-11.616
	$\lambda_X=0.8, \alpha_Y=2 - b_2 + d_2=0.7$																			
standard	-0.206	0.584	1.097	0.585	9.838	-0.138	0.365	0.55	0.595	14.384	-0.137	0.281	0.352	0.594	13.866	-0.127	0.229	0.299	0.577	13.412
smoothed	-0.296	0.587	1.024	0.621	7.361	-0.197	0.368	0.503	0.757	10.802	-0.181	0.29	0.325	0.829	10.721	-0.159	0.238	0.285	0.887	10.351
	$\lambda_X=0.8, \alpha_Y=3 - b_2 + d_2=0.53$																			

standard	-0.04	0.164	0.238	0.77	3.221	-0.019	0.088	0.118	0.811	3.962	-0.015	0.065	0.083	0.821	4.131	-0.014	0.048	0.059	0.831	4.054
smoothed	-0.069	0.163	0.216	0.778	2.595	-0.034	0.087	0.11	0.868	3.316	-0.026	0.065	0.078	0.901	3.442	-0.021	0.048	0.056	0.931	3.412
	$\lambda_X=0.8, \alpha_Y=4 - b_2 + d_2=0.45$																			
standard	-0.017	0.089	0.117	0.823	1.86	-0.008	0.044	0.056	0.859	1.958	-0.006	0.033	0.041	0.869	2.074	-0.004	0.024	0.03	0.878	2.144
smoothed	-0.032	0.088	0.109	0.833	1.555	-0.016	0.044	0.053	0.894	1.692	-0.011	0.032	0.039	0.919	1.79	-0.008	0.024	0.029	0.941	1.888
	$\lambda_X=0.8, \alpha_Y=6 - b_2 + d_2=0.37$																			
standard	-0.007	0.045	0.058	0.856	0.96	-0.003	0.022	0.027	0.895	1.015	-0.002	0.016	0.02	0.904	1.054	-0.001	0.011	0.014	0.912	1.023
smoothed	-0.014	0.045	0.054	0.864	0.834	-0.006	0.021	0.026	0.92	0.904	-0.004	0.016	0.019	0.934	0.932	-0.003	0.011	0.014	0.95	0.922
	$\lambda_X=0.8, \alpha_Y=7 - b_2 + d_2=0.34$																			
standard	-0.006	0.035	0.045	0.869	0.75	-0.003	0.017	0.021	0.9	0.768	-0.002	0.012	0.015	0.909	0.792	-0.001	0.009	0.011	0.917	0.804
smoothed	-0.011	0.035	0.042	0.875	0.65	-0.005	0.017	0.02	0.917	0.674	-0.003	0.012	0.015	0.933	0.709	-0.002	0.009	0.011	0.949	0.738
	$\lambda_X=0.8, \alpha_Y=10 - b_2 + d_2=0.3$																			
standard	-0.003	0.022	0.027	0.885	0.468	-0.001	0.01	0.013	0.917	0.476	-0.001	0.007	0.009	0.924	0.481	-0.0	0.005	0.007	0.926	0.488
smoothed	-0.006	0.021	0.026	0.89	0.408	-0.002	0.01	0.013	0.93	0.432	-0.001	0.007	0.009	0.942	0.442	-0.001	0.005	0.007	0.95	0.45
	$\lambda_X=0.9, \alpha_Y=1.5 - b_2 + d_2=0.77$																			
standard	-0.347	1.427	4.4	0.511	22.97	-0.312	0.916	1.903	0.518	32.865	-0.341	0.74	1.393	0.502	30.498	-0.243	0.715	7.818	0.474	33.997
smoothed	-0.556	1.401	3.903	0.551	16.864	-0.458	0.908	1.606	0.69	23.666	-0.444	0.756	1.315	0.773	22.425	-0.318	0.735	7.81	0.842	25.293
	$\lambda_X=0.9, \alpha_Y=2 - b_2 + d_2=0.6$																			
standard	-0.06	0.386	0.878	0.732	7.773	-0.04	0.219	0.356	0.755	10.412	-0.037	0.166	0.347	0.765	10.305	-0.036	0.126	0.229	0.766	10.113
smoothed	-0.132	0.373	0.742	0.738	6.064	-0.078	0.214	0.309	0.822	8.219	-0.065	0.165	0.315	0.869	8.577	-0.055	0.127	0.222	0.899	8.387
	$\lambda_X=0.9, \alpha_Y=3 - b_2 + d_2=0.43$																			
standard	-0.012	0.127	0.176	0.841	2.882	-0.006	0.064	0.087	0.87	3.214	-0.004	0.045	0.059	0.893	3.107	-0.003	0.033	0.043	0.892	3.179
smoothed	-0.034	0.123	0.16	0.842	2.416	-0.016	0.062	0.08	0.9	2.721	-0.011	0.045	0.056	0.926	2.711	-0.008	0.033	0.041	0.947	2.822
	$\lambda_X=0.9, \alpha_Y=4 - b_2 + d_2=0.35$																			
standard	-0.006	0.071	0.093	0.873	1.612	-0.002	0.035	0.045	0.896	1.69	-0.002	0.025	0.031	0.911	1.664	-0.001	0.018	0.023	0.913	1.711
smoothed	-0.017	0.069	0.087	0.879	1.389	-0.007	0.034	0.042	0.918	1.49	-0.005	0.024	0.03	0.94	1.49	-0.003	0.018	0.022	0.948	1.559
	$\lambda_X=0.9, \alpha_Y=6 - b_2 + d_2=0.27$																			
standard	-0.002	0.037	0.048	0.897	0.845	-0.001	0.018	0.022	0.918	0.849	-0.001	0.013	0.016	0.924	0.843	-0.0	0.009	0.011	0.93	0.821
smoothed	-0.008	0.036	0.045	0.901	0.735	-0.003	0.017	0.022	0.934	0.766	-0.002	0.012	0.015	0.944	0.785	-0.001	0.009	0.011	0.954	0.767
	$\lambda_X=0.9, \alpha_Y=7 - b_2 + d_2=0.24$																			
standard	-0.003	0.03	0.038	0.901	0.661	-0.001	0.014	0.018	0.922	0.685	-0.0	0.01	0.013	0.929	0.675	-0.0	0.007	0.009	0.931	0.682
smoothed	-0.007	0.03	0.037	0.903	0.587	-0.002	0.014	0.017	0.934	0.625	-0.001	0.01	0.012	0.945	0.626	-0.001	0.007	0.009	0.951	0.639
	$\lambda_X=0.9, \alpha_Y=10 - b_2 + d_2=0.2$																			
standard	-0.001	0.019	0.024	0.909	0.413	-0.0	0.009	0.011	0.927	0.419	-0.0	0.006	0.008	0.933	0.409	-0.0	0.004	0.006	0.937	0.418
smoothed	-0.004	0.018	0.023	0.913	0.367	-0.001	0.009	0.011	0.936	0.388	-0.001	0.006	0.008	0.943	0.383	-0.0	0.004	0.006	0.954	0.396