

Tourism Data Analysis

Jan 2020

Log Transformation with 100 observations of training window (ME and MSE calculated over 140 replications)

R.method	Biased	Unbiased (Method 1)	Unbiased (Method 2)
Base	99.98	52.70	140.46
Bottom-up	176.31	64.42	271.73
MinT(Shrink)	74.31	50.50	109.89
OLS	50.73	38.64	65.82
WLS	121.11	57.50	174.35

R.method	Biased	Unbiased (Method 1)	Unbiased (Method 2)
Base	4.47	4.43	4.51
Bottom-up	6.36	5.26	8.06
MinT(Shrink)	4.32	4.16	4.61
OLS	4.34	4.31	4.36
WLS	4.82	4.38	5.43

Log Transformation with 180 observations of training window (ME and MSE calculated over 60 replications)

R.method	Biased	Unbiased (Method 1)	Unbiased (Method 2)
Base	90.45	67.34	109.95
Bottom-up	152.69	98.06	197.11
MinT(Shrink)	64.64	59.36	85.54
OLS	41.62	35.92	47.51
WLS	110.65	79.64	136.58

R.method	Biased	Unbiased (Method 1)	Unbiased (Method 2)
Base	4.89	4.78	5.08
Bottom-up	9.71	6.97	12.70
MinT(Shrink)	4.75	4.63	5.35
OLS	4.67	4.60	4.81
WLS	6.33	5.22	7.58

BoxCox Transformation for $\lambda \in (-0.5, 2)$ with 100 observations of training window (ME and MSE calculated over 140 replications)

R.method	Biased	Unbiased (Method 1)	Unbiased (Method 2)
Base	94.38	59.71	129.50
Bottom-up	163.07	71.22	242.39
MinT(Shrink)	71.10	57.94	96.92
OLS	50.70	43.13	70.16
WLS	113.67	65.49	157.17

R.method	Biased	Unbiased (Method 1)	Unbiased (Method 2)
Base	4.59	4.52	4.78
Bottom-up	6.21	5.31	7.46
MinT(Shrink)	4.29	4.17	4.54
OLS	4.46	4.40	4.63
WLS	4.77	4.42	5.23

BoxCox Transformation for $\lambda \in (-0.5, 2)$ with 180 observations of training window (ME and MSE calculated over 60 replications)

R.method	Biased	Unbiased (Method 1)	Unbiased (Method 2)
Base	88.91	73.25	103.24
Bottom-up	142.37	98.60	178.09
MinT(Shrink)	63.30	62.84	75.61
OLS	47.03	44.71	51.25
WLS	105.78	83.93	124.99

R.method	Biased	Unbiased (Method 1)	Unbiased (Method 2)
Base	4.61	4.58	4.72
Bottom-up	9.17	7.00	11.43
MinT(Shrink)	4.50	4.53	4.82
OLS	4.43	4.43	4.52
WLS	6.24	5.45	7.11