

Table A.6 Critical values for Dickey–Fuller unit root t tests

Observation	No trend in model		Trend in model	
	5%	1%	5%	1%
10	−3.23	−4.35	−4.00	−5.34
11	−3.19	−4.23	−3.93	−5.15
12	−3.15	−4.14	−3.87	−5.01
13	−3.13	−4.07	−3.83	−4.89
14	−3.10	−4.01	−3.79	−4.80
15	−3.08	−3.96	−3.76	−4.73
16	−3.07	−3.92	−3.73	−4.67
17	−3.05	−3.89	−3.71	−4.62
18	−3.04	−3.86	−3.69	−4.58
19	−3.03	−3.83	−3.67	−4.53
20	−3.02	−3.81	−3.66	−4.50
21	−3.01	−3.79	−3.64	−4.47
22	−3.01	−3.77	−3.63	−4.44
23	−3.00	−3.75	−3.62	−4.42
24	−2.99	−3.74	−3.61	−4.39
25	−2.99	−3.72	−3.60	−4.38
26	−2.98	−3.71	−3.59	−4.36
27	−2.98	−3.70	−3.59	−4.34
28	−2.97	−3.69	−3.58	−4.33
29	−2.97	−3.68	−3.57	−4.31
30	−2.96	−3.67	−3.57	−4.30
35	−2.95	−3.63	−3.54	−4.24
40	−2.94	−3.60	−3.53	−4.20
45	−2.93	−3.58	−3.51	−4.18
50	−2.92	−3.57	−3.50	−4.15
60	−2.91	−3.54	−3.49	−4.12
70	−2.90	−3.53	−3.48	−4.10
80	−2.90	−3.52	−3.47	−4.08
90	−2.89	−3.50	−3.46	−4.06
100	−2.89	−3.50	−3.46	−4.05
120	−2.89	−3.49	−3.45	−4.04
150	−2.88	−3.48	−3.44	−4.02
200	−2.88	−3.46	−3.43	−4.01
250	−2.87	−3.46	−3.43	−4.00
300	−2.87	−3.45	−3.43	−3.99
400	−2.87	−3.45	−3.42	−3.98
500	−2.87	−3.44	−3.42	−3.98
1,000	−2.86	−3.44	−3.41	−3.97

Note: The number of observations is the number in the regression, not the sample. In the original Dickey–Fuller tables, the number refers to the number in the sample. Even allowing for this difference, there are minor unexplained differences.

Table A.7 Critical values for Dickey–Fuller $T(\hat{\beta}_2-1)$ unit root tests

Observation	No trend in model		Trend in model	
	5%	1%	5%	1%
10	-9.86	-12.75	-13.24	-15.70
11	-10.14	-13.22	-13.73	-16.39
12	-10.39	-13.64	-14.18	-17.03
13	-10.61	-14.01	-14.58	-17.61
14	-10.81	-14.34	-14.94	-18.15
15	-10.98	-14.65	-15.27	-18.65
16	-11.13	-14.93	-15.57	-19.09
17	-11.28	-15.19	-15.84	-19.52
18	-11.40	-15.43	-16.09	-19.91
19	-11.52	-15.64	-16.32	-20.26
20	-11.63	-15.83	-16.53	-20.60
21	-11.73	-16.01	-16.73	-20.91
22	-11.83	-16.18	-16.90	-21.20
23	-11.91	-16.34	-17.07	-21.47
24	-11.99	-16.48	-17.24	-21.73
25	-12.06	-16.62	-17.38	-21.97
26	-12.13	-16.76	-17.52	-22.19
27	-12.20	-16.88	-17.65	-22.41
28	-12.26	-17.00	-17.78	-22.61
29	-12.31	-17.10	-17.88	-22.79
30	-12.36	-17.19	-17.99	-22.97
35	-12.58	-17.64	-18.46	-23.73
40	-12.76	-17.96	-18.82	-24.34
45	-12.89	-18.23	-19.10	-24.83
50	-13.00	-18.43	-19.34	-25.22
60	-13.18	-18.79	-19.72	-25.86
70	-13.30	-19.04	-19.97	-26.31
80	-13.40	-19.22	-20.18	-26.68
90	-13.46	-19.35	-20.33	-26.94
100	-13.54	-19.47	-20.46	-27.15
120	-13.63	-19.67	-20.67	-27.50
150	-13.72	-19.85	-20.86	-27.86
200	-13.80	-20.02	-21.06	-28.21
250	-13.86	-20.14	-21.19	-28.43
300	-13.91	-20.24	-21.28	-28.59
400	-13.95	-20.31	-21.39	-28.79
500	-13.97	-20.37	-21.44	-28.90
1,000	-14.04	-20.51	-21.57	-29.12

Table A.8 Critical values for Dickey–Fuller unit root F tests

Observation	No trend in model		Trend in model	
	5%	1%	5%	1%
10	6.529	11.680	9.636	17.183
11	6.278	10.886	9.139	15.662
12	6.072	10.290	8.779	14.591
13	5.919	9.843	8.496	13.773
14	5.793	9.481	8.276	13.170
15	5.688	9.188	8.089	12.674
16	5.600	8.947	7.936	12.265
17	5.524	8.742	7.811	11.948
18	5.463	8.572	7.695	11.664
19	5.407	8.425	7.601	11.403
20	5.356	8.281	7.520	11.197
21	5.310	8.172	7.443	11.018
22	5.272	8.073	7.376	10.853
23	5.239	7.981	7.319	10.716
24	5.205	7.901	7.267	10.581
25	5.176	7.819	7.217	10.469
26	5.153	7.767	7.175	10.356
27	5.131	7.710	7.138	10.271
28	5.109	7.646	7.102	10.194
29	5.086	7.586	7.066	10.104
30	5.067	7.544	7.038	10.029
35	4.989	7.352	6.911	10.732
40	4.935	7.212	6.820	9.525
45	4.889	7.110	6.751	9.377
50	4.859	7.038	6.699	9.244
60	4.809	6.922	6.625	9.077
70	4.775	6.842	6.564	8.954
80	4.752	6.778	6.527	8.868
90	4.730	6.729	6.493	8.787
100	4.716	6.693	6.469	8.735
120	4.692	6.636	6.432	8.661
150	4.670	6.585	6.395	8.580
200	4.645	6.529	6.359	8.496
250	4.634	6.500	6.340	8.455
300	4.626	6.484	6.327	8.426
400	4.615	6.450	6.310	8.390
500	4.607	6.440	6.296	8.363
1,000	4.595	6.413	6.277	8.319