Implementing the Econometric Methods in "Efficient Tests of Stock Return Predictability"

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Abstract

Section 1 is a user guide for constructing confidence intervals for the largest autoregressive root of a time series using the DF-GLS statistic. Section 2 is a user guide for implementing the Bonferroni Q-test, used to test the predictability of stock returns in Campbell and Yogo (2005).

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1 DF-GLS Confidence Interval for the Largest Autoregressive Root

Let Δ be the first difference operator, and let L be the lag operator. That is, $\Delta x_t = x_t - x_{t-1}$, and $L^i x_t = x_{t-i}$ for any time series x_t $(t = 1, \ldots, T)$. Consider the linear model

$$x_t = \gamma + \rho x_{t-1} + v_t, \tag{1}$$

$$b(L)v_t = e_t, \tag{2}$$

where $b(L) = \sum_{i=0}^{p-1} b_i L^i$ with $b_0 = 1$ and $b(1) \neq 0$. The parameter ρ is the the largest autoregressive root of the variable x_t. All the roots of $b(L)$ are assumed to be fixed and less than one in absolute value. Equations (1) and (2) together imply that

$$\Delta x_t = \tau + \theta x_{t-1} + \sum_{i=1}^{p-1} \psi_i \Delta x_{t-i} + e_t, \tag{3}$$

where $\theta = (\rho-1)b(1)$, $\psi_i = -\sum_{j=i}^{p-1} a_j$, and $a(L) = L^{-1}[1-(1-\rho L)b(L)]$. In other words, the dynamics of the variable are captured by an AR(p), which is written here in the augmented Dickey-Fuller form.

To construct confidence intervals for ρ, first compute the DF-GLS statistic as follows Elliott et al. (1996).

1. Regress $(x_0, x_1 - \rho_{GLS}x_0, \ldots, x_T - \rho_{GLS}x_{T-1})'$ onto $(1, 1 - \rho_{GLS}, \ldots, 1 - \rho_{GLS})'$, where $\rho_{GLS} = 1 - 7/T$, to obtain the coefficient μ_{GLS}.

2. Let $\overline{x}_t = x_t - \mu_{GLS}$. Run the regression *without the intercept*

$$\Delta \overline{x}_t = \theta \overline{x}_{t-1} + \sum_{i=1}^{p-1} \psi_i \Delta \overline{x}_{t-i} + e_t.$$

The t-statistic for θ is the DF-GLS statistic.

Table 1 is a lookup table for constructing equal-tailed 95%, 90%, and 80% confidence intervals for $c = T(\rho - 1)$, based on the DF-GLS statistic. The corresponding confidence interval for ρ can be computed as $[\underline{\rho}, \overline{\rho}] = [1 + \underline{c}/T, 1 + \overline{c}/T]$.

2 Implementing the Bonferroni Q-test

2.1 When the Predictor Variable is an AR(1)

Suppose the regression model is

$$r_t = \alpha + \beta x_{t-1} + u_t, \tag{4}$$

$$x_t = \gamma + \rho x_{t-1} + e_t, \tag{5}$$

with observations $t = 1, \ldots, T$. A valid confidence interval for β can be constructed through the following steps.

1. Run regression (4) to obtain the standard error for $\widehat{\beta}$, denoted as SE$(\widehat{\beta})$. Run regression (5) to obtain the standard error for $\widehat{\rho}$, denoted as SE$(\widehat{\rho})$. Using the OLS residuals $\widehat{u}_t$ and $\widehat{e}_t$, compute

$$\widehat{\sigma}_u^2 = \frac{1}{T-2} \sum_{t=1}^{T} \widehat{u}_t^2, \tag{6}$$

$$\widehat{\sigma}_e^2 = \frac{1}{T-2} \sum_{t=1}^{T} \widehat{e}_t^2, \tag{7}$$

$$\widehat{\sigma}_{ue} = \frac{1}{T-2} \sum_{t=1}^{T} \widehat{u}_t \widehat{e}_t, \tag{8}$$

$$\widehat{\delta} = \frac{\widehat{\sigma}_{ue}}{\widehat{\sigma}_u \widehat{\sigma}_e}. \tag{9}$$

2. Compute the DF-GLS statistic as follows. Regress $(x_0, x_1 - \rho_{GLS}x_0, \ldots, x_T - \rho_{GLS}x_{T-1})'$ onto $(1, 1 - \rho_{GLS}, \ldots, 1 - \rho_{GLS})'$, where $\rho_{GLS} = 1 - 7/T$, to obtain the coefficient μ_{GLS}.

3

Let $\overline{x}_t = x_t - \mu_{GLS}$. Run the regression *without the intercept*

$$\Delta \overline{x}_t = \theta \overline{x}_{t-1} + e_t.$$

The t-statistic for θ is the DF-GLS statistic.

3. Given the value of the DF-GLS statistic and $\widehat{\delta}$, use Tables 2–11 to find the appropriate confidence interval $[\underline{c}, \overline{c}]$ for c. The confidence interval for ρ is $[\underline{\rho}, \overline{\rho}] = [1 + \underline{c}/T, 1 + \overline{c}/T]$.

4. For each of the two values $\rho = \{\underline{\rho}, \overline{\rho}\}$, compute an equal-tailed 90% confidence interval for β given ρ as follows. Run regression (4) replacing r_t with $r_t - \widehat{\sigma}_{ue}\widehat{\sigma}_e^{-2}(x_t - \rho x_{t-1})$. Let $\widehat{\beta}(\rho)$ denote the coefficient on x_{t-1}. The confidence interval for β given ρ is $[\underline{\beta}(\rho), \overline{\beta}(\rho)]$, where

$$
\begin{aligned}
\underline{\beta}(\rho) &= \widehat{\beta}(\rho) - 1.645(1 - \widehat{\delta}^2)^{1/2}\text{SE}(\widehat{\beta}), \\
\overline{\beta}(\rho) &= \widehat{\beta}(\rho) + 1.645(1 - \widehat{\delta}^2)^{1/2}\text{SE}(\widehat{\beta}).
\end{aligned}
$$

5. The 90% Bonferroni confidence interval $[\underline{\beta}(\overline{\rho}), \overline{\beta}(\underline{\rho})]$ corresponds to a 10% two-sided test or a 5% one-sided test of the null hypothesis $\beta = 0$.

6. For graphical output like Campbell and Yogo (2005, Figure 4), plot $[\underline{\beta}(\rho), \overline{\beta}(\rho)]$ against $\rho = \{\underline{\rho}, \overline{\rho}\}$.

2.2   When the Predictor Variable is an AR(p)

Suppose the dynamics of the predictor variable (5) is generalized to the linear model (1)–(2). A valid confidence interval for β can be constructed through the following steps.

1. Run regression (4) to obtain the standard error for $\widehat{\beta}$, denoted as $\text{SE}(\widehat{\beta})$. Run regression (3) to obtain the coefficients $\widehat{\psi}_i$ $(i = 1, \ldots, p - 1)$. (The autoregressive lag length p

can either be chosen by the user or estimated consistently by BIC.) Using the OLS residuals $\widehat{u}_t$ and $\widehat{e}_t$, compute (6)–(9) and $\widehat{\omega}^2 = \widehat{\sigma}_e^2/(1 - \sum_{i=1}^{p-1} \widehat{\psi}_i)^2$.

2. Run regression (1) to obtain the standard error for $\widehat{\rho}$, denoted as SE$(\widehat{\rho})$. Using the OLS residuals $\widehat{v}_t$, compute $\widehat{\sigma}_v^2 = (T - 2)^{-1} \sum_{t=1}^{T} \widehat{v}_t^2$.

3. Compute the DF-GLS statistic as follows. Regress $(x_0, x_1 - \rho_{GLS}x_0, \ldots, x_T - \rho_{GLS}x_{T-1})'$ onto $(1, 1 - \rho_{GLS}, \ldots, 1 - \rho_{GLS})'$, where $\rho_{GLS} = 1 - 7/T$, to obtain the coefficient μ_{GLS}. Let $\overline{x}_t = x_t - \mu_{GLS}$. Run the regression *without the intercept*

$$\Delta\overline{x}_t = \theta\overline{x}_{t-1} + \sum_{i=1}^{p-1} \psi_i\Delta\overline{x}_{t-i} + e_t,$$

The t-statistic for θ is the DF-GLS statistic.

4. Given the value of the DF-GLS statistic and $\widehat{\delta}$, use Tables 2–11 to find the appropriate confidence interval $[\underline{c}, \overline{c}]$ for c. The confidence interval for ρ is $[\underline{\rho}, \overline{\rho}] = [1 + \underline{c}/T, 1 + \overline{c}/T]$.

5. For each of the two values $\rho = \{\underline{\rho}, \overline{\rho}\}$, compute an equal-tailed 90% confidence interval for β given ρ as follows. Run regression (4) replacing r_t with $r_t - \widehat{\sigma}_{ue}(\widehat{\sigma}_e\widehat{\omega})^{-1}(x_t - \rho x_{t-1})$. Let $\widehat{\beta}(\rho)$ denote the coefficient on x_{t-1}. The confidence interval for β given ρ is $[\underline{\beta}(\rho), \overline{\beta}(\rho)]$, where

$$\begin{aligned}
\underline{\beta}(\rho) &= \widehat{\beta}(\rho) + \frac{T-2}{2}\frac{\widehat{\sigma}_{ue}}{\widehat{\sigma}_e\widehat{\omega}}\left(\frac{\widehat{\omega}^2}{\widehat{\sigma}_v^2} - 1\right)\text{SE}(\widehat{\rho})^2 - 1.645(1 - \widehat{\delta}^2)^{1/2}\text{SE}(\widehat{\beta}), \\
\overline{\beta}(\rho) &= \widehat{\beta}(\rho) + \frac{T-2}{2}\frac{\widehat{\sigma}_{ue}}{\widehat{\sigma}_e\widehat{\omega}}\left(\frac{\widehat{\omega}^2}{\widehat{\sigma}_v^2} - 1\right)\text{SE}(\widehat{\rho})^2 + 1.645(1 - \widehat{\delta}^2)^{1/2}\text{SE}(\widehat{\beta}).
\end{aligned}$$

6. The 90% Bonferroni confidence interval $[\underline{\beta}(\overline{\rho}), \overline{\beta}(\underline{\rho})]$ corresponds to a 10% two-sided test or a 5% one-sided test of the null hypothesis $\beta = 0$.

7. For graphical output like Campbell and Yogo (2005, Figure 4), plot $[\underline{\beta}(\rho), \overline{\beta}(\rho)]$ against $\rho = \{\underline{\rho}, \overline{\rho}\}$.

5

References

Campbell, J. Y., Yogo, M., 2005. Efficient tests of stock return predictability. Unpublished Working Paper, University of Pennsylvania.

Elliott, G., Rothenberg, T. J., Stock, J. H., 1996. Efficient tests for an autoregressive unit root. Econometrica 64, 813–836.

Table 1: Confidence Interval for c Based on the DF-GLS Statistic

DF-GLS	95%		90%		80%	
	$\underline{c}$	$\overline{c}$	$\underline{c}$	$\overline{c}$	$\underline{c}$	$\overline{c}$
1.0	-0.627	4.992	-0.282	4.260	0.106	3.462
0.9	-0.753	4.954	-0.395	4.222	0.021	3.418
0.8	-0.892	4.916	-0.509	4.177	-0.084	3.373
0.7	-1.036	4.879	-0.639	4.132	-0.196	3.328
0.6	-1.196	4.841	-0.771	4.088	-0.314	3.284
0.5	-1.371	4.803	-0.919	4.043	-0.439	3.238
0.4	-1.560	4.765	-1.080	3.999	-0.577	3.188
0.3	-1.763	4.723	-1.255	3.948	-0.729	3.139
0.2	-2.005	4.678	-1.440	3.896	-0.887	3.089
0.1	-2.221	4.632	-1.653	3.845	-1.053	3.040
0.0	-2.534	4.587	-1.894	3.794	-1.239	2.986
-0.1	-2.819	4.542	-2.142	3.741	-1.451	2.914
-0.2	-3.116	4.495	-2.430	3.675	-1.692	2.841
-0.3	-3.463	4.436	-2.732	3.609	-1.970	2.769
-0.4	-3.876	4.376	-3.051	3.543	-2.248	2.683
-0.5	-4.289	4.316	-3.442	3.470	-2.587	2.593
-0.6	-4.758	4.256	-3.870	3.385	-2.944	2.502
-0.7	-5.293	4.166	-4.332	3.299	-3.374	2.375
-0.8	-5.779	4.072	-4.861	3.199	-3.840	2.246
-0.9	-6.415	3.967	-5.423	3.080	-4.369	2.062
-1.0	-7.122	3.827	-6.031	2.935	-4.940	1.884
-1.1	-7.836	3.683	-6.720	2.738	-5.559	1.695
-1.2	-8.528	3.532	-7.450	2.541	-6.239	1.437
-1.3	-9.362	3.352	-8.209	2.270	-6.961	1.133
-1.4	-10.199	3.132	-9.048	2.000	-7.761	0.795
-1.5	-11.147	2.870	-9.895	1.762	-8.493	0.429
-1.6	-12.102	2.583	-10.801	1.384	-9.368	0.035
-1.7	-13.124	2.203	-11.733	1.018	-10.236	-0.412
-1.8	-14.155	1.884	-12.721	0.598	-11.184	-0.823
-1.9	-15.242	1.492	-13.732	0.152	-12.142	-1.348
[continued on the next page]						

DF-GLS	95%		90%		80%	
	$\underline{c}$	$\overline{c}$	$\underline{c}$	$\overline{c}$	$\underline{c}$	$\overline{c}$
-2.0	-16.365	1.087	-14.833	-0.312	-13.158	-1.887
-2.1	-17.574	0.594	-15.966	-0.793	-14.191	-2.465
-2.2	-18.783	0.104	-17.135	-1.377	-15.298	-3.075
-2.3	-19.991	-0.413	-18.319	-1.981	-16.427	-3.742
-2.4	-21.328	-1.020	-19.541	-2.598	-17.593	-4.420
-2.5	-22.704	-1.510	-20.838	-3.242	-18.818	-5.118
-2.6	-24.112	-2.243	-22.188	-3.970	-20.076	-5.924
-2.7	-25.457	-2.846	-23.586	-4.711	-21.357	-6.690
-2.8	-26.912	-3.609	-24.961	-5.410	-22.695	-7.544
-2.9	-28.436	-4.304	-26.359	-6.214	-24.090	-8.420
-3.0	-29.943	-5.118	-27.860	-7.041	-25.472	-9.247
-3.1	-31.536	-5.936	-29.298	-8.066	-26.894	-10.253
-3.2	-33.097	-6.837	-30.832	-8.836	-28.342	-11.226
-3.3	-34.717	-7.833	-32.450	-9.830	-29.799	-12.225
-3.4	-36.430	-8.621	-34.036	-10.826	-31.332	-13.331
-3.5	-38.121	-9.597	-35.669	-11.803	-32.926	-14.434
-3.6	-39.948	-10.627	-37.388	-12.916	-34.559	-15.535
-3.7	-41.707	-11.626	-39.168	-14.057	-36.197	-16.676
-3.8	-43.497	-12.720	-40.906	-15.110	-37.834	-17.847
-3.9	-45.364	-13.870	-42.639	-16.190	-39.660	-19.036
-4.0	-47.207	-14.964	-44.481	-17.412	-41.379	-20.263
-4.1	-49.147	-16.058	-46.362	-18.624	-43.127	-21.640
-4.2	-51.119	-17.293	-48.211	-19.827	-44.920	-22.950
-4.3	-53.097	-18.514	-50.144	-21.166	-46.779	-24.251
-4.4	-55.107	-19.717	-52.078	-22.513	-48.674	-25.623
-4.5	-57.120	-21.067	-54.094	-23.837	-50.534	-27.018
-4.6	-59.173	-22.422	-56.039	-25.237	-52.521	-28.458
-4.7	-61.304	-23.698	-58.063	-26.666	-54.518	-29.985
-4.8	-63.574	-25.123	-60.181	-28.113	-56.448	-31.511
-4.9	-65.635	-26.584	-62.272	-29.528	-58.491	-33.053
-5.0	-67.777	-28.030	-64.454	-31.057	-60.606	-34.615

Table 2: Confidence Interval for c in the Bonferroni Q-test: $\delta \in (-1.0, -0.9)$

DF-GLS	$\delta = -0.999$		$\delta = -0.975$		$\delta = -0.950$		$\delta = -0.925$	
	$\underline{c}$	$\overline{c}$	$\underline{c}$	$\overline{c}$	$\underline{c}$	$\overline{c}$	$\underline{c}$	$\overline{c}$
1.0	-0.282	4.148	-0.228	3.720	-0.228	3.462	-0.228	3.294
0.9	-0.395	4.106	-0.340	3.676	-0.340	3.418	-0.340	3.254
0.8	-0.509	4.063	-0.455	3.632	-0.455	3.373	-0.455	3.211
0.7	-0.639	4.021	-0.580	3.588	-0.580	3.328	-0.580	3.168
0.6	-0.771	3.977	-0.712	3.544	-0.712	3.284	-0.712	3.124
0.5	-0.919	3.931	-0.855	3.500	-0.855	3.238	-0.855	3.080
0.4	-1.080	3.885	-1.004	3.451	-1.004	3.188	-1.004	3.037
0.3	-1.255	3.840	-1.178	3.400	-1.178	3.139	-1.178	2.991
0.2	-1.440	3.794	-1.364	3.350	-1.364	3.089	-1.364	2.930
0.1	-1.653	3.747	-1.567	3.300	-1.567	3.040	-1.567	2.869
0.0	-1.894	3.684	-1.799	3.250	-1.799	2.986	-1.799	2.808
-0.1	-2.142	3.620	-2.062	3.184	-2.062	2.914	-2.062	2.747
-0.2	-2.430	3.557	-2.322	3.117	-2.322	2.841	-2.322	2.664
-0.3	-2.732	3.493	-2.637	3.051	-2.637	2.769	-2.637	2.580
-0.4	-3.051	3.421	-2.949	2.977	-2.949	2.683	-2.949	2.497
-0.5	-3.442	3.350	-3.308	2.884	-3.308	2.593	-3.308	2.398
-0.6	-3.870	3.279	-3.749	2.790	-3.749	2.502	-3.749	2.298
-0.7	-4.332	3.187	-4.209	2.682	-4.209	2.375	-4.209	2.174
-0.8	-4.861	3.081	-4.735	2.565	-4.735	2.246	-4.735	2.026
-0.9	-5.423	2.958	-5.293	2.413	-5.293	2.062	-5.293	1.869
-1.0	-6.031	2.784	-5.883	2.217	-5.883	1.884	-5.883	1.695
-1.1	-6.720	2.604	-6.562	1.999	-6.562	1.695	-6.562	1.472
-1.2	-7.450	2.384	-7.319	1.805	-7.319	1.437	-7.319	1.176
-1.3	-8.209	2.112	-8.065	1.552	-8.065	1.133	-8.065	0.870
-1.4	-9.048	1.870	-8.883	1.216	-8.883	0.795	-8.883	0.521
-1.5	-9.895	1.581	-9.723	0.891	-9.723	0.429	-9.723	0.148
-1.6	-10.801	1.200	-10.619	0.500	-10.619	0.035	-10.619	-0.259
-1.7	-11.733	0.849	-11.551	0.064	-11.551	-0.412	-11.551	-0.677
-1.8	-12.721	0.402	-12.527	-0.390	-12.527	-0.823	-12.527	-1.177
-1.9	-13.732	-0.036	-13.546	-0.815	-13.546	-1.348	-13.546	-1.697

DF-GLS	$\delta = -0.999$		$\delta = -0.975$		$\delta = -0.950$		$\delta = -0.925$	
	$\underline{c}$	$\overline{c}$	$\underline{c}$	$\overline{c}$	$\underline{c}$	$\overline{c}$	$\underline{c}$	$\overline{c}$
-2.0	-14.833	-0.537	-14.618	-1.360	-14.618	-1.887	-14.618	-2.221
-2.1	-15.966	-1.035	-15.733	-1.908	-15.733	-2.465	-15.733	-2.834
-2.2	-17.135	-1.565	-16.894	-2.509	-16.894	-3.075	-16.894	-3.483
-2.3	-18.319	-2.176	-18.072	-3.119	-18.072	-3.742	-18.072	-4.111
-2.4	-19.541	-2.800	-19.301	-3.802	-19.301	-4.420	-19.301	-4.853
-2.5	-20.838	-3.505	-20.571	-4.503	-20.571	-5.118	-20.571	-5.578
-2.6	-22.188	-4.177	-21.895	-5.214	-21.895	-5.924	-21.895	-6.333
-2.7	-23.586	-4.963	-23.311	-6.004	-23.311	-6.690	-23.311	-7.147
-2.8	-24.961	-5.694	-24.699	-6.799	-24.699	-7.544	-24.699	-8.057
-2.9	-26.359	-6.496	-26.059	-7.752	-26.059	-8.420	-26.059	-8.869
-3.0	-27.860	-7.388	-27.543	-8.547	-27.543	-9.247	-27.543	-9.811
-3.1	-29.298	-8.255	-28.992	-9.509	-28.992	-10.253	-28.992	-10.767
-3.2	-30.832	-9.108	-30.478	-10.437	-30.478	-11.226	-30.478	-11.730
-3.3	-32.450	-10.143	-32.089	-11.401	-32.089	-12.225	-32.089	-12.802
-3.4	-34.036	-11.135	-33.704	-12.429	-33.704	-13.331	-33.704	-13.917
-3.5	-35.669	-12.144	-35.327	-13.561	-35.327	-14.434	-35.327	-15.001
-3.6	-37.388	-13.271	-37.006	-14.652	-37.006	-15.535	-37.006	-16.091
-3.7	-39.168	-14.373	-38.773	-15.715	-38.773	-16.676	-38.773	-17.273
-3.8	-40.906	-15.428	-40.552	-16.878	-40.552	-17.847	-40.552	-18.464
-3.9	-42.639	-16.565	-42.239	-18.078	-42.239	-19.036	-42.239	-19.670
-4.0	-44.481	-17.799	-44.044	-19.284	-44.044	-20.263	-44.044	-20.977
-4.1	-46.362	-18.993	-45.908	-20.555	-45.908	-21.640	-45.908	-22.309
-4.2	-48.211	-20.204	-47.797	-21.920	-47.797	-22.950	-47.797	-23.597
-4.3	-50.144	-21.555	-49.710	-23.229	-49.710	-24.251	-49.710	-24.939
-4.4	-52.078	-22.911	-51.663	-24.565	-51.663	-25.623	-51.663	-26.312
-4.5	-54.094	-24.274	-53.659	-25.947	-53.659	-27.018	-53.659	-27.702
-4.6	-56.039	-25.659	-55.614	-27.379	-55.614	-28.458	-55.614	-29.222
-4.7	-58.063	-27.094	-57.614	-28.836	-57.614	-29.985	-57.614	-30.760
-4.8	-60.181	-28.531	-59.710	-30.326	-59.710	-31.511	-59.710	-32.288
-4.9	-62.272	-29.945	-61.771	-31.868	-61.771	-33.053	-61.771	-33.854
-5.0	-64.454	-31.539	-63.942	-33.403	-63.942	-34.615	-63.942	-35.419

Table 3: Confidence Interval for c in the Bonferroni Q-test: $\delta \in [-0.9, -0.8)$

DF-GLS	$\delta = -0.900$		$\delta = -0.875$		$\delta = -0.850$		$\delta = -0.825$	
	$\underline{c}$	$\overline{c}$	$\underline{c}$	$\overline{c}$	$\underline{c}$	$\overline{c}$	$\underline{c}$	$\overline{c}$
1.0	-0.183	3.161	-0.183	3.083	-0.183	3.013	-0.183	2.936
0.9	-0.290	3.121	-0.290	3.046	-0.290	2.969	-0.290	2.888
0.8	-0.406	3.081	-0.406	3.008	-0.406	2.919	-0.406	2.840
0.7	-0.524	3.041	-0.524	2.959	-0.524	2.870	-0.524	2.791
0.6	-0.658	3.002	-0.658	2.906	-0.658	2.821	-0.658	2.742
0.5	-0.797	2.947	-0.797	2.854	-0.797	2.772	-0.797	2.685
0.4	-0.945	2.892	-0.945	2.801	-0.945	2.716	-0.945	2.628
0.3	-1.111	2.837	-1.111	2.748	-1.111	2.654	-1.111	2.571
0.2	-1.294	2.782	-1.294	2.682	-1.294	2.593	-1.294	2.515
0.1	-1.493	2.719	-1.493	2.615	-1.493	2.531	-1.493	2.450
0.0	-1.717	2.646	-1.717	2.549	-1.717	2.465	-1.717	2.383
-0.1	-1.980	2.573	-1.980	2.479	-1.980	2.394	-1.980	2.316
-0.2	-2.232	2.499	-2.232	2.403	-2.232	2.323	-2.232	2.248
-0.3	-2.535	2.416	-2.535	2.327	-2.535	2.251	-2.535	2.146
-0.4	-2.862	2.333	-2.862	2.251	-2.862	2.142	-2.862	2.045
-0.5	-3.199	2.250	-3.199	2.136	-3.199	2.032	-3.199	1.941
-0.6	-3.632	2.122	-3.632	2.021	-3.632	1.919	-3.632	1.837
-0.7	-4.084	1.993	-4.084	1.894	-4.084	1.804	-4.084	1.723
-0.8	-4.591	1.852	-4.591	1.763	-4.591	1.658	-4.591	1.560
-0.9	-5.156	1.696	-5.156	1.583	-5.156	1.478	-5.156	1.355
-1.0	-5.758	1.499	-5.758	1.358	-5.758	1.235	-5.758	1.114
-1.1	-6.420	1.230	-6.420	1.091	-6.420	0.968	-6.420	0.857
-1.2	-7.185	0.945	-7.185	0.814	-7.185	0.684	-7.185	0.548
-1.3	-7.930	0.634	-7.930	0.478	-7.930	0.334	-7.930	0.203
-1.4	-8.712	0.273	-8.712	0.125	-8.712	-0.003	-8.712	-0.149
-1.5	-9.543	-0.099	-9.543	-0.274	-9.543	-0.429	-9.543	-0.565
-1.6	-10.452	-0.535	-10.452	-0.675	-10.452	-0.831	-10.452	-1.005
-1.7	-11.386	-0.978	-11.386	-1.143	-11.386	-1.302	-11.386	-1.467
-1.8	-12.346	-1.460	-12.346	-1.658	-12.346	-1.829	-12.346	-1.998
-1.9	-13.359	-2.000	-13.359	-2.175	-13.359	-2.373	-13.359	-2.558

DF-GLS	$\delta = -0.900$		$\delta = -0.875$		$\delta = -0.850$		$\delta = -0.825$	
	$\underline{c}$	$\overline{c}$	$\underline{c}$	$\overline{c}$	$\underline{c}$	$\overline{c}$	$\underline{c}$	$\overline{c}$
-2.0	-14.409	-2.563	-14.409	-2.754	-14.409	-2.957	-14.409	-3.135
-2.1	-15.524	-3.166	-15.524	-3.380	-15.524	-3.589	-15.524	-3.783
-2.2	-16.676	-3.830	-16.676	-4.043	-16.676	-4.216	-16.676	-4.429
-2.3	-17.855	-4.503	-17.855	-4.771	-17.855	-4.953	-17.855	-5.127
-2.4	-19.074	-5.185	-19.074	-5.439	-19.074	-5.660	-19.074	-5.864
-2.5	-20.322	-5.958	-20.322	-6.175	-20.322	-6.429	-20.322	-6.632
-2.6	-21.643	-6.723	-21.643	-6.963	-21.643	-7.246	-21.643	-7.463
-2.7	-23.032	-7.583	-23.032	-7.882	-23.032	-8.111	-23.032	-8.327
-2.8	-24.429	-8.435	-24.429	-8.695	-24.429	-8.954	-24.429	-9.157
-2.9	-25.790	-9.269	-25.790	-9.606	-25.790	-9.864	-25.790	-10.106
-3.0	-27.246	-10.264	-27.246	-10.554	-27.246	-10.815	-27.246	-11.065
-3.1	-28.706	-11.226	-28.706	-11.514	-28.706	-11.771	-28.706	-12.027
-3.2	-30.170	-12.218	-30.170	-12.548	-30.170	-12.848	-30.170	-13.131
-3.3	-31.773	-13.337	-31.773	-13.660	-31.773	-13.963	-31.773	-14.227
-3.4	-33.380	-14.435	-33.380	-14.739	-33.380	-15.025	-33.380	-15.294
-3.5	-34.994	-15.503	-34.994	-15.803	-34.994	-16.095	-34.994	-16.402
-3.6	-36.650	-16.631	-36.650	-16.963	-36.650	-17.287	-36.650	-17.589
-3.7	-38.396	-17.811	-38.396	-18.149	-38.396	-18.487	-38.396	-18.796
-3.8	-40.222	-19.013	-40.222	-19.359	-40.222	-19.698	-40.222	-20.015
-3.9	-41.891	-20.245	-41.891	-20.626	-41.891	-20.994	-41.891	-21.330
-4.0	-43.681	-21.594	-43.681	-21.958	-43.681	-22.307	-43.681	-22.630
-4.1	-45.507	-22.894	-45.507	-23.247	-45.507	-23.587	-45.507	-23.913
-4.2	-47.393	-24.185	-47.393	-24.569	-47.393	-24.929	-47.393	-25.256
-4.3	-49.294	-25.558	-49.294	-25.939	-49.294	-26.310	-49.294	-26.646
-4.4	-51.229	-26.947	-51.229	-27.341	-51.229	-27.722	-51.229	-28.090
-4.5	-53.225	-28.377	-53.225	-28.803	-53.225	-29.205	-53.225	-29.588
-4.6	-55.187	-29.912	-55.187	-30.325	-55.187	-30.724	-55.187	-31.116
-4.7	-57.180	-31.436	-57.180	-31.868	-57.180	-32.267	-57.180	-32.662
-4.8	-59.253	-32.992	-59.253	-33.425	-59.253	-33.828	-59.253	-34.221
-4.9	-61.330	-34.560	-61.330	-34.991	-61.330	-35.401	-61.330	-35.797
-5.0	-63.478	-36.123	-63.478	-36.593	-63.478	-37.029	-63.478	-37.451

Table 4: Confidence Interval for c in the Bonferroni Q-test: $\delta \in [-0.8, -0.7)$

DF-GLS	$\delta = -0.800$		$\delta = -0.775$		$\delta = -0.750$		$\delta = -0.725$	
	$\underline{c}$	$\bar{c}$	$\underline{c}$	$\bar{c}$	$\underline{c}$	$\bar{c}$	$\underline{c}$	$\bar{c}$
1.0	-0.140	2.859	-0.140	2.792	-0.140	2.728	-0.140	2.695
0.9	-0.243	2.814	-0.243	2.749	-0.243	2.678	-0.243	2.646
0.8	-0.359	2.769	-0.359	2.697	-0.359	2.628	-0.359	2.597
0.7	-0.475	2.719	-0.475	2.646	-0.475	2.578	-0.475	2.548
0.6	-0.607	2.664	-0.607	2.594	-0.607	2.529	-0.607	2.499
0.5	-0.743	2.610	-0.743	2.542	-0.743	2.475	-0.743	2.441
0.4	-0.893	2.555	-0.893	2.489	-0.893	2.416	-0.893	2.384
0.3	-1.050	2.501	-1.050	2.428	-1.050	2.358	-1.050	2.327
0.2	-1.227	2.436	-1.227	2.367	-1.227	2.300	-1.227	2.270
0.1	-1.428	2.372	-1.428	2.306	-1.428	2.238	-1.428	2.199
0.0	-1.647	2.307	-1.647	2.243	-1.647	2.157	-1.647	2.120
-0.1	-1.900	2.240	-1.900	2.155	-1.900	2.075	-1.900	2.041
-0.2	-2.161	2.149	-2.161	2.067	-2.161	1.994	-2.161	1.960
-0.3	-2.442	2.057	-2.442	1.979	-2.442	1.909	-2.442	1.878
-0.4	-2.785	1.964	-2.785	1.889	-2.785	1.824	-2.785	1.795
-0.5	-3.109	1.867	-3.109	1.799	-3.109	1.732	-3.109	1.691
-0.6	-3.519	1.770	-3.519	1.685	-3.519	1.598	-3.519	1.561
-0.7	-3.962	1.625	-3.962	1.540	-3.962	1.450	-3.962	1.404
-0.8	-4.460	1.457	-4.460	1.353	-4.460	1.262	-4.460	1.218
-0.9	-5.031	1.244	-5.031	1.139	-5.031	1.044	-5.031	0.999
-1.0	-5.639	1.007	-5.639	0.905	-5.639	0.810	-5.639	0.768
-1.1	-6.292	0.751	-6.292	0.633	-6.292	0.523	-6.292	0.473
-1.2	-7.018	0.421	-7.018	0.305	-7.018	0.204	-7.018	0.153
-1.3	-7.796	0.095	-7.796	-0.013	-7.796	-0.128	-7.796	-0.185
-1.4	-8.542	-0.282	-8.542	-0.413	-8.542	-0.537	-8.542	-0.590
-1.5	-9.395	-0.680	-9.395	-0.812	-9.395	-0.965	-9.395	-1.028
-1.6	-10.289	-1.139	-10.289	-1.262	-10.289	-1.409	-10.289	-1.473
-1.7	-11.227	-1.628	-11.227	-1.768	-11.227	-1.916	-11.227	-1.987
-1.8	-12.178	-2.149	-12.178	-2.298	-12.178	-2.457	-12.178	-2.534
-1.9	-13.191	-2.711	-13.191	-2.879	-13.191	-3.038	-13.191	-3.111

DF-GLS	$\delta = -0.800$		$\delta = -0.775$		$\delta = -0.750$		$\delta = -0.725$	
	$\underline{c}$	$\overline{c}$	$\underline{c}$	$\overline{c}$	$\underline{c}$	$\overline{c}$	$\underline{c}$	$\overline{c}$
-2.0	-14.222	-3.304	-14.222	-3.487	-14.222	-3.656	-14.222	-3.747
-2.1	-15.328	-3.976	-15.328	-4.125	-15.328	-4.263	-15.328	-4.350
-2.2	-16.461	-4.662	-16.461	-4.839	-16.461	-4.990	-16.461	-5.060
-2.3	-17.635	-5.303	-17.635	-5.520	-17.635	-5.695	-17.635	-5.778
-2.4	-18.852	-6.062	-18.852	-6.240	-18.852	-6.471	-18.852	-6.560
-2.5	-20.095	-6.835	-20.095	-7.045	-20.095	-7.269	-20.095	-7.362
-2.6	-21.406	-7.713	-21.406	-7.920	-21.406	-8.119	-21.406	-8.223
-2.7	-22.774	-8.542	-22.774	-8.754	-22.774	-8.983	-22.774	-9.060
-2.8	-24.181	-9.416	-24.181	-9.647	-24.181	-9.861	-24.181	-9.964
-2.9	-25.546	-10.349	-25.546	-10.579	-25.546	-10.808	-25.546	-10.914
-3.0	-26.983	-11.303	-26.983	-11.526	-26.983	-11.754	-26.983	-11.866
-3.1	-28.446	-12.297	-28.446	-12.551	-28.446	-12.813	-28.446	-12.943
-3.2	-29.887	-13.398	-29.887	-13.656	-29.887	-13.913	-29.887	-14.040
-3.3	-31.471	-14.485	-31.471	-14.740	-31.471	-14.986	-31.471	-15.105
-3.4	-33.080	-15.557	-33.080	-15.815	-33.080	-16.061	-33.080	-16.188
-3.5	-34.693	-16.694	-34.693	-16.977	-34.693	-17.233	-34.693	-17.358
-3.6	-36.321	-17.876	-36.321	-18.160	-36.321	-18.420	-36.321	-18.551
-3.7	-38.031	-19.086	-38.031	-19.370	-38.031	-19.637	-38.031	-19.770
-3.8	-39.856	-20.322	-39.856	-20.623	-39.856	-20.908	-39.856	-21.043
-3.9	-41.580	-21.629	-41.580	-21.925	-41.580	-22.211	-41.580	-22.347
-4.0	-43.334	-22.932	-43.334	-23.252	-43.334	-23.559	-43.334	-23.701
-4.1	-45.143	-24.242	-45.143	-24.580	-45.143	-24.885	-45.143	-25.026
-4.2	-47.012	-25.589	-47.012	-25.907	-47.012	-26.221	-47.012	-26.377
-4.3	-48.910	-27.002	-48.910	-27.344	-48.910	-27.676	-48.910	-27.821
-4.4	-50.839	-28.456	-50.839	-28.806	-50.839	-29.145	-50.839	-29.300
-4.5	-52.841	-29.941	-52.841	-30.293	-52.841	-30.648	-52.841	-30.817
-4.6	-54.807	-31.474	-54.807	-31.833	-54.807	-32.191	-54.807	-32.364
-4.7	-56.749	-33.024	-56.749	-33.393	-56.749	-33.740	-56.749	-33.915
-4.8	-58.834	-34.594	-58.834	-34.964	-58.834	-35.312	-58.834	-35.483
-4.9	-60.918	-36.194	-60.918	-36.573	-60.918	-36.946	-60.918	-37.129
-5.0	-63.033	-37.855	-63.033	-38.238	-63.033	-38.611	-63.033	-38.789

Table 5: Confidence Interval for c in the Bonferroni Q-test: $\delta \in [-0.7, -0.6)$

DF-GLS	$\delta = -0.700$		$\delta = -0.675$		$\delta = -0.650$		$\delta = -0.625$	
	$\underline{c}$	$\bar{c}$	$\underline{c}$	$\bar{c}$	$\underline{c}$	$\bar{c}$	$\underline{c}$	$\bar{c}$
1.0	-0.096	2.633	-0.096	2.577	-0.096	2.524	-0.052	2.499
0.9	-0.203	2.586	-0.203	2.531	-0.203	2.476	-0.161	2.448
0.8	-0.315	2.540	-0.315	2.483	-0.315	2.425	-0.272	2.398
0.7	-0.432	2.492	-0.432	2.429	-0.432	2.373	-0.390	2.347
0.6	-0.557	2.436	-0.557	2.376	-0.557	2.321	-0.509	2.297
0.5	-0.696	2.380	-0.696	2.322	-0.696	2.270	-0.646	2.245
0.4	-0.843	2.325	-0.843	2.268	-0.843	2.208	-0.789	2.178
0.3	-0.995	2.269	-0.995	2.204	-0.995	2.139	-0.947	2.112
0.2	-1.172	2.202	-1.172	2.133	-1.172	2.071	-1.118	2.045
0.1	-1.362	2.128	-1.362	2.062	-1.362	2.003	-1.301	1.976
0.0	-1.574	2.054	-1.574	1.991	-1.574	1.930	-1.503	1.904
-0.1	-1.819	1.978	-1.819	1.915	-1.819	1.858	-1.741	1.832
-0.2	-2.086	1.898	-2.086	1.839	-2.086	1.785	-2.021	1.760
-0.3	-2.356	1.819	-2.356	1.763	-2.356	1.694	-2.277	1.659
-0.4	-2.702	1.734	-2.702	1.656	-2.702	1.585	-2.603	1.553
-0.5	-3.019	1.613	-3.019	1.541	-3.019	1.468	-2.942	1.430
-0.6	-3.420	1.489	-3.420	1.399	-3.420	1.322	-3.330	1.289
-0.7	-3.875	1.320	-3.875	1.238	-3.875	1.157	-3.785	1.121
-0.8	-4.367	1.127	-4.367	1.045	-4.367	0.972	-4.277	0.931
-0.9	-4.920	0.911	-4.920	0.830	-4.920	0.753	-4.824	0.707
-1.0	-5.522	0.669	-5.522	0.572	-5.522	0.482	-5.417	0.435
-1.1	-6.166	0.373	-6.166	0.279	-6.166	0.185	-6.043	0.140
-1.2	-6.890	0.059	-6.890	-0.044	-6.890	-0.140	-6.769	-0.188
-1.3	-7.644	-0.307	-7.644	-0.429	-7.644	-0.533	-7.484	-0.576
-1.4	-8.396	-0.696	-8.396	-0.811	-8.396	-0.935	-8.259	-0.994
-1.5	-9.250	-1.142	-9.250	-1.258	-9.250	-1.377	-9.117	-1.437
-1.6	-10.134	-1.606	-10.134	-1.718	-10.134	-1.844	-9.985	-1.906
-1.7	-11.075	-2.116	-11.075	-2.253	-11.075	-2.383	-10.923	-2.447
-1.8	-12.018	-2.671	-12.018	-2.809	-12.018	-2.940	-11.864	-3.005
-1.9	-13.026	-3.248	-13.026	-3.396	-13.026	-3.548	-12.871	-3.620
[continued on the next page]								

DF-GLS	$\delta = -0.700$		$\delta = -0.675$		$\delta = -0.650$		$\delta = -0.625$	
	$\underline{c}$	$\overline{c}$	$\underline{c}$	$\overline{c}$	$\underline{c}$	$\overline{c}$	$\underline{c}$	$\overline{c}$
-2.0	-14.038	-3.894	-14.038	-4.035	-14.038	-4.159	-13.889	-4.218
-2.1	-15.140	-4.531	-15.140	-4.733	-15.140	-4.867	-14.970	-4.925
-2.2	-16.259	-5.200	-16.259	-5.388	-16.259	-5.558	-16.064	-5.627
-2.3	-17.438	-5.975	-17.438	-6.128	-17.438	-6.291	-17.248	-6.384
-2.4	-18.651	-6.708	-18.651	-6.879	-18.651	-7.063	-18.454	-7.164
-2.5	-19.895	-7.546	-19.895	-7.747	-19.895	-7.912	-19.699	-7.994
-2.6	-21.188	-8.406	-21.188	-8.585	-21.188	-8.748	-20.977	-8.846
-2.7	-22.528	-9.214	-22.528	-9.457	-22.528	-9.647	-22.293	-9.732
-2.8	-23.942	-10.172	-23.942	-10.377	-23.942	-10.572	-23.711	-10.674
-2.9	-25.300	-11.130	-25.300	-11.337	-25.300	-11.534	-25.088	-11.638
-3.0	-26.719	-12.098	-26.719	-12.332	-26.719	-12.549	-26.487	-12.662
-3.1	-28.200	-13.179	-28.200	-13.405	-28.200	-13.616	-27.952	-13.723
-3.2	-29.649	-14.258	-29.649	-14.477	-29.649	-14.689	-29.404	-14.795
-3.3	-31.196	-15.328	-31.196	-15.549	-31.196	-15.767	-30.926	-15.871
-3.4	-32.802	-16.437	-32.802	-16.685	-32.802	-16.923	-32.517	-17.033
-3.5	-34.425	-17.608	-34.425	-17.867	-34.425	-18.104	-34.153	-18.214
-3.6	-36.017	-18.813	-36.017	-19.075	-36.017	-19.312	-35.760	-19.422
-3.7	-37.724	-20.035	-37.724	-20.302	-37.724	-20.559	-37.441	-20.679
-3.8	-39.531	-21.316	-39.531	-21.582	-39.531	-21.857	-39.213	-21.981
-3.9	-41.273	-22.624	-41.273	-22.900	-41.273	-23.178	-40.963	-23.303
-4.0	-43.025	-23.965	-43.025	-24.241	-43.025	-24.515	-42.706	-24.641
-4.1	-44.822	-25.305	-44.822	-25.602	-44.822	-25.874	-44.508	-25.997
-4.2	-46.660	-26.694	-46.660	-27.005	-46.660	-27.305	-46.325	-27.442
-4.3	-48.545	-28.137	-48.545	-28.440	-48.545	-28.749	-48.226	-28.887
-4.4	-50.462	-29.604	-50.462	-29.903	-50.462	-30.211	-50.097	-30.358
-4.5	-52.466	-31.131	-52.466	-31.447	-52.466	-31.760	-52.094	-31.908
-4.6	-54.463	-32.690	-54.463	-33.000	-54.463	-33.300	-54.115	-33.445
-4.7	-56.353	-34.258	-56.353	-34.560	-56.353	-34.864	-56.001	-35.015
-4.8	-58.454	-35.817	-58.454	-36.136	-58.454	-36.472	-58.063	-36.633
-4.9	-60.538	-37.476	-60.538	-37.812	-60.538	-38.135	-60.177	-38.296
-5.0	-62.628	-39.135	-62.628	-39.463	-62.628	-39.798	-62.260	-39.964

Table 6: Confidence Interval for c in the Bonferroni Q-test: $\delta \in [-0.6, -0.5)$

DF-GLS	$\delta = -0.600$		$\delta = -0.575$		$\delta = -0.550$		$\delta = -0.525$	
	$\underline{c}$	$\bar{c}$	$\underline{c}$	$\bar{c}$	$\underline{c}$	$\bar{c}$	$\underline{c}$	$\bar{c}$
1.0	-0.052	2.443	-0.052	2.392	-0.012	2.347	-0.012	2.303
0.9	-0.161	2.394	-0.161	2.345	-0.122	2.302	-0.122	2.257
0.8	-0.272	2.345	-0.272	2.298	-0.231	2.256	-0.231	2.202
0.7	-0.390	2.296	-0.390	2.250	-0.349	2.198	-0.349	2.146
0.6	-0.509	2.246	-0.509	2.190	-0.469	2.138	-0.469	2.089
0.5	-0.646	2.183	-0.646	2.129	-0.603	2.079	-0.603	2.032
0.4	-0.789	2.119	-0.789	2.068	-0.742	2.019	-0.742	1.971
0.3	-0.947	2.056	-0.947	2.007	-0.898	1.955	-0.898	1.907
0.2	-1.118	1.992	-1.118	1.939	-1.063	1.889	-1.063	1.842
0.1	-1.301	1.922	-1.301	1.871	-1.242	1.823	-1.242	1.778
0.0	-1.503	1.852	-1.503	1.802	-1.450	1.756	-1.450	1.699
-0.1	-1.741	1.782	-1.741	1.727	-1.679	1.666	-1.679	1.609
-0.2	-2.021	1.695	-2.021	1.630	-1.952	1.573	-1.952	1.519
-0.3	-2.277	1.593	-2.277	1.534	-2.210	1.474	-2.210	1.411
-0.4	-2.603	1.489	-2.603	1.418	-2.516	1.355	-2.516	1.298
-0.5	-2.942	1.358	-2.942	1.293	-2.877	1.233	-2.877	1.169
-0.6	-3.330	1.220	-3.330	1.146	-3.238	1.084	-3.238	1.026
-0.7	-3.785	1.050	-3.785	0.984	-3.698	0.917	-3.698	0.849
-0.8	-4.277	0.855	-4.277	0.787	-4.181	0.719	-4.181	0.638
-0.9	-4.824	0.622	-4.824	0.537	-4.724	0.459	-4.724	0.386
-1.0	-5.417	0.350	-5.417	0.270	-5.324	0.186	-5.324	0.107
-1.1	-6.043	0.051	-6.043	-0.036	-5.932	-0.120	-5.932	-0.202
-1.2	-6.769	-0.289	-6.769	-0.389	-6.651	-0.484	-6.651	-0.570
-1.3	-7.484	-0.666	-7.484	-0.752	-7.385	-0.863	-7.385	-0.974
-1.4	-8.259	-1.096	-8.259	-1.194	-8.153	-1.294	-8.153	-1.399
-1.5	-9.117	-1.546	-9.117	-1.645	-8.998	-1.742	-8.998	-1.854
-1.6	-9.985	-2.035	-9.985	-2.146	-9.845	-2.253	-9.845	-2.370
-1.7	-10.923	-2.575	-10.923	-2.693	-10.773	-2.806	-10.773	-2.917
-1.8	-11.864	-3.132	-11.864	-3.266	-11.714	-3.390	-11.714	-3.522
-1.9	-12.871	-3.745	-12.871	-3.884	-12.713	-4.011	-12.713	-4.121

DF-GLS	$\delta = -0.600$		$\delta = -0.575$		$\delta = -0.550$		$\delta = -0.525$	
	$\underline{c}$	$\overline{c}$	$\underline{c}$	$\overline{c}$	$\underline{c}$	$\overline{c}$	$\underline{c}$	$\overline{c}$
-2.0	-13.889	-4.367	-13.889	-4.520	-13.738	-4.679	-13.738	-4.817
-2.1	-14.970	-5.053	-14.970	-5.185	-14.811	-5.333	-14.811	-5.487
-2.2	-16.064	-5.766	-16.064	-5.942	-15.900	-6.094	-15.900	-6.217
-2.3	-17.248	-6.546	-17.248	-6.688	-17.070	-6.815	-17.070	-6.954
-2.4	-18.454	-7.332	-18.454	-7.480	-18.261	-7.659	-18.261	-7.821
-2.5	-19.699	-8.165	-19.699	-8.323	-19.503	-8.508	-19.503	-8.647
-2.6	-20.977	-9.034	-20.977	-9.162	-20.776	-9.338	-20.776	-9.548
-2.7	-22.293	-9.907	-22.293	-10.084	-22.076	-10.263	-22.076	-10.444
-2.8	-23.711	-10.861	-23.711	-11.048	-23.484	-11.227	-23.484	-11.405
-2.9	-25.088	-11.827	-25.088	-12.014	-24.872	-12.209	-24.872	-12.398
-3.0	-26.487	-12.867	-26.487	-13.068	-26.262	-13.259	-26.262	-13.444
-3.1	-27.952	-13.922	-27.952	-14.125	-27.720	-14.318	-27.720	-14.509
-3.2	-29.404	-14.996	-29.404	-15.198	-29.177	-15.398	-29.177	-15.595
-3.3	-30.926	-16.078	-30.926	-16.299	-30.682	-16.524	-30.682	-16.738
-3.4	-32.517	-17.262	-32.517	-17.485	-32.257	-17.707	-32.257	-17.914
-3.5	-34.153	-18.450	-34.153	-18.674	-33.875	-18.898	-33.875	-19.113
-3.6	-35.760	-19.646	-35.760	-19.866	-35.496	-20.100	-35.496	-20.337
-3.7	-37.441	-20.923	-37.441	-21.155	-37.166	-21.401	-37.166	-21.628
-3.8	-39.213	-22.236	-39.213	-22.468	-38.916	-22.711	-38.916	-22.946
-3.9	-40.963	-23.558	-40.963	-23.800	-40.682	-24.032	-40.682	-24.280
-4.0	-42.706	-24.896	-42.706	-25.143	-42.408	-25.391	-42.408	-25.639
-4.1	-44.508	-26.262	-44.508	-26.528	-44.209	-26.798	-44.209	-27.056
-4.2	-46.325	-27.715	-46.325	-27.983	-45.998	-28.245	-45.998	-28.503
-4.3	-48.226	-29.167	-48.226	-29.434	-47.910	-29.701	-47.910	-29.966
-4.4	-50.097	-30.660	-50.097	-30.949	-49.762	-31.232	-49.762	-31.506
-4.5	-52.094	-32.204	-52.094	-32.496	-51.751	-32.768	-51.751	-33.032
-4.6	-54.115	-33.737	-54.115	-34.024	-53.802	-34.302	-53.802	-34.580
-4.7	-56.001	-35.319	-56.001	-35.606	-55.655	-35.893	-55.655	-36.190
-4.8	-58.063	-36.951	-58.063	-37.258	-57.704	-37.553	-57.704	-37.853
-4.9	-60.177	-38.611	-60.177	-38.928	-59.811	-39.226	-59.811	-39.519
-5.0	-62.260	-40.272	-62.260	-40.603	-61.893	-40.912	-61.893	-41.218

Table 7: Confidence Interval for c in the Bonferroni Q-test: $\delta \in [-0.5, -0.4)$

DF-GLS	$\delta = -0.500$		$\delta = -0.475$		$\delta = -0.450$		$\delta = -0.425$	
	$\underline{c}$	$\overline{c}$	$\underline{c}$	$\overline{c}$	$\underline{c}$	$\overline{c}$	$\underline{c}$	$\overline{c}$
1.0	-0.012	2.263	0.020	2.242	0.020	2.193	0.049	2.128
0.9	-0.122	2.212	-0.083	2.187	-0.083	2.140	-0.046	2.077
0.8	-0.231	2.156	-0.191	2.133	-0.191	2.087	-0.156	2.026
0.7	-0.349	2.101	-0.306	2.078	-0.306	2.034	-0.268	1.972
0.6	-0.469	2.045	-0.428	2.023	-0.428	1.979	-0.391	1.913
0.5	-0.603	1.989	-0.559	1.964	-0.559	1.918	-0.516	1.855
0.4	-0.742	1.925	-0.700	1.901	-0.700	1.857	-0.660	1.797
0.3	-0.898	1.861	-0.853	1.837	-0.853	1.796	-0.809	1.734
0.2	-1.063	1.797	-1.012	1.774	-1.012	1.730	-0.967	1.653
0.1	-1.242	1.727	-1.193	1.698	-1.193	1.648	-1.145	1.573
0.0	-1.450	1.641	-1.392	1.614	-1.392	1.565	-1.339	1.491
-0.1	-1.679	1.555	-1.617	1.530	-1.617	1.478	-1.556	1.395
-0.2	-1.952	1.462	-1.881	1.431	-1.881	1.376	-1.813	1.299
-0.3	-2.210	1.354	-2.149	1.326	-2.149	1.274	-2.093	1.192
-0.4	-2.516	1.245	-2.442	1.213	-2.442	1.153	-2.375	1.075
-0.5	-2.877	1.109	-2.812	1.080	-2.812	1.028	-2.740	0.945
-0.6	-3.238	0.964	-3.162	0.932	-3.162	0.872	-3.083	0.792
-0.7	-3.698	0.787	-3.610	0.759	-3.610	0.691	-3.523	0.590
-0.8	-4.181	0.563	-4.082	0.528	-4.082	0.460	-3.987	0.361
-0.9	-4.724	0.313	-4.625	0.281	-4.625	0.210	-4.515	0.099
-1.0	-5.324	0.028	-5.227	-0.012	-5.227	-0.085	-5.122	-0.193
-1.1	-5.932	-0.288	-5.831	-0.331	-5.831	-0.418	-5.735	-0.539
-1.2	-6.651	-0.653	-6.543	-0.694	-6.543	-0.775	-6.440	-0.912
-1.3	-7.385	-1.063	-7.289	-1.106	-7.289	-1.191	-7.187	-1.321
-1.4	-8.153	-1.503	-8.051	-1.544	-8.051	-1.628	-7.945	-1.755
-1.5	-8.998	-1.966	-8.879	-2.018	-8.879	-2.115	-8.753	-2.262
-1.6	-9.845	-2.485	-9.713	-2.537	-9.713	-2.644	-9.605	-2.803
-1.7	-10.773	-3.027	-10.624	-3.086	-10.624	-3.206	-10.492	-3.368
-1.8	-11.714	-3.640	-11.571	-3.696	-11.571	-3.808	-11.439	-3.971
-1.9	-12.713	-4.226	-12.558	-4.288	-12.558	-4.421	-12.414	-4.640

DF-GLS	$\delta = -0.500$		$\delta = -0.475$		$\delta = -0.450$		$\delta = -0.425$	
	$\underline{c}$	$\overline{c}$	$\underline{c}$	$\overline{c}$	$\underline{c}$	$\overline{c}$	$\underline{c}$	$\overline{c}$
-2.0	-13.738	-4.925	-13.578	-4.983	-13.578	-5.102	-13.430	-5.290
-2.1	-14.811	-5.616	-14.646	-5.681	-14.646	-5.820	-14.485	-6.037
-2.2	-15.900	-6.364	-15.747	-6.444	-15.747	-6.573	-15.591	-6.750
-2.3	-17.070	-7.119	-16.902	-7.205	-16.902	-7.352	-16.736	-7.571
-2.4	-18.261	-7.962	-18.078	-8.035	-18.078	-8.170	-17.904	-8.402
-2.5	-19.503	-8.790	-19.315	-8.881	-19.315	-9.033	-19.147	-9.213
-2.6	-20.776	-9.687	-20.582	-9.757	-20.582	-9.919	-20.408	-10.150
-2.7	-22.076	-10.616	-21.884	-10.698	-21.884	-10.870	-21.693	-11.116
-2.8	-23.484	-11.578	-23.267	-11.663	-23.267	-11.833	-23.061	-12.088
-2.9	-24.872	-12.586	-24.658	-12.680	-24.658	-12.858	-24.456	-13.117
-3.0	-26.262	-13.630	-26.050	-13.723	-26.050	-13.895	-25.852	-14.154
-3.1	-27.720	-14.700	-27.504	-14.796	-27.504	-14.972	-27.292	-15.239
-3.2	-29.177	-15.786	-28.943	-15.880	-28.943	-16.059	-28.740	-16.353
-3.3	-30.682	-16.945	-30.415	-17.045	-30.415	-17.236	-30.205	-17.532
-3.4	-32.257	-18.125	-32.003	-18.226	-32.003	-18.426	-31.771	-18.730
-3.5	-33.875	-19.331	-33.627	-19.437	-33.627	-19.638	-33.380	-19.941
-3.6	-35.496	-20.572	-35.246	-20.681	-35.246	-20.902	-35.011	-21.222
-3.7	-37.166	-21.856	-36.897	-21.956	-36.897	-22.194	-36.662	-22.520
-3.8	-38.916	-23.184	-38.629	-23.297	-38.629	-23.526	-38.356	-23.841
-3.9	-40.682	-24.524	-40.426	-24.644	-40.426	-24.867	-40.162	-25.189
-4.0	-42.408	-25.876	-42.136	-25.992	-42.136	-26.229	-41.879	-26.582
-4.1	-44.209	-27.306	-43.904	-27.433	-43.904	-27.671	-43.649	-28.035
-4.2	-45.998	-28.759	-45.716	-28.885	-45.716	-29.132	-45.444	-29.497
-4.3	-47.910	-30.236	-47.613	-30.366	-47.613	-30.631	-47.334	-31.019
-4.4	-49.762	-31.777	-49.470	-31.916	-49.470	-32.173	-49.193	-32.555
-4.5	-51.751	-33.302	-51.418	-33.431	-51.418	-33.687	-51.115	-34.067
-4.6	-53.802	-34.866	-53.456	-35.001	-53.456	-35.264	-53.139	-35.663
-4.7	-55.655	-36.482	-55.356	-36.628	-55.356	-36.901	-55.083	-37.313
-4.8	-57.704	-38.144	-57.361	-38.294	-57.361	-38.578	-57.034	-38.988
-4.9	-59.811	-39.822	-59.470	-39.962	-59.470	-40.257	-59.132	-40.666
-5.0	-61.893	-41.503	-61.556	-41.655	-61.556	-41.924	-61.221	-42.344

Table 8: Confidence Interval for c in the Bonferroni Q-test: $\delta \in [-0.4, -0.3)$

DF-GLS	$\delta = -0.400$		$\delta = -0.375$		$\delta = -0.350$		$\delta = -0.325$	
	$\underline{c}$	$\overline{c}$	$\underline{c}$	$\overline{c}$	$\underline{c}$	$\overline{c}$	$\underline{c}$	$\overline{c}$
1.0	0.049	2.086	0.078	2.047	0.106	1.991	0.106	1.954
0.9	-0.046	2.037	-0.008	1.999	0.021	1.938	0.021	1.902
0.8	-0.156	1.985	-0.119	1.944	-0.084	1.885	-0.084	1.850
0.7	-0.268	1.929	-0.230	1.889	-0.196	1.832	-0.196	1.797
0.6	-0.391	1.872	-0.351	1.833	-0.314	1.779	-0.314	1.743
0.5	-0.516	1.815	-0.475	1.778	-0.439	1.718	-0.439	1.673
0.4	-0.660	1.758	-0.619	1.713	-0.577	1.644	-0.577	1.602
0.3	-0.809	1.684	-0.769	1.636	-0.729	1.571	-0.729	1.532
0.2	-0.967	1.607	-0.926	1.560	-0.887	1.498	-0.887	1.453
0.1	-1.145	1.529	-1.098	1.481	-1.053	1.410	-1.053	1.368
0.0	-1.339	1.441	-1.287	1.390	-1.239	1.323	-1.239	1.283
-0.1	-1.556	1.346	-1.497	1.299	-1.451	1.232	-1.451	1.187
-0.2	-1.813	1.251	-1.746	1.199	-1.692	1.129	-1.692	1.085
-0.3	-2.093	1.140	-2.032	1.090	-1.970	1.025	-1.970	0.979
-0.4	-2.375	1.028	-2.313	0.976	-2.248	0.899	-2.248	0.851
-0.5	-2.740	0.889	-2.662	0.836	-2.587	0.766	-2.587	0.711
-0.6	-3.083	0.738	-2.999	0.673	-2.944	0.584	-2.944	0.530
-0.7	-3.523	0.530	-3.444	0.470	-3.374	0.379	-3.374	0.323
-0.8	-3.987	0.301	-3.914	0.240	-3.840	0.141	-3.840	0.077
-0.9	-4.515	0.035	-4.441	-0.034	-4.369	-0.135	-4.369	-0.201
-1.0	-5.122	-0.265	-5.014	-0.342	-4.940	-0.458	-4.940	-0.528
-1.1	-5.735	-0.614	-5.645	-0.682	-5.559	-0.794	-5.559	-0.873
-1.2	-6.440	-1.004	-6.342	-1.082	-6.239	-1.190	-6.239	-1.268
-1.3	-7.187	-1.411	-7.067	-1.503	-6.961	-1.619	-6.961	-1.691
-1.4	-7.945	-1.856	-7.854	-1.956	-7.761	-2.095	-7.761	-2.177
-1.5	-8.753	-2.357	-8.623	-2.453	-8.493	-2.601	-8.493	-2.697
-1.6	-9.605	-2.900	-9.500	-2.996	-9.368	-3.149	-9.368	-3.246
-1.7	-10.492	-3.474	-10.366	-3.585	-10.236	-3.746	-10.236	-3.844
-1.8	-11.439	-4.073	-11.317	-4.170	-11.184	-4.327	-11.184	-4.449
-1.9	-12.414	-4.777	-12.285	-4.870	-12.142	-5.009	-12.142	-5.123
[continued on the next page]								

DF-GLS	$\delta = -0.400$		$\delta = -0.375$		$\delta = -0.350$		$\delta = -0.325$	
	$\underline{c}$	$\overline{c}$	$\underline{c}$	$\overline{c}$	$\underline{c}$	$\overline{c}$	$\underline{c}$	$\overline{c}$
-2.0	-13.430	-5.422	-13.300	-5.540	-13.158	-5.703	-13.158	-5.832
-2.1	-14.485	-6.157	-14.342	-6.278	-14.191	-6.469	-14.191	-6.582
-2.2	-15.591	-6.868	-15.444	-6.979	-15.298	-7.212	-15.298	-7.351
-2.3	-16.736	-7.739	-16.579	-7.859	-16.427	-8.040	-16.427	-8.172
-2.4	-17.904	-8.541	-17.748	-8.657	-17.593	-8.865	-17.593	-9.025
-2.5	-19.147	-9.397	-18.981	-9.571	-18.818	-9.773	-18.818	-9.901
-2.6	-20.408	-10.310	-20.239	-10.471	-20.076	-10.691	-20.076	-10.845
-2.7	-21.693	-11.271	-21.528	-11.429	-21.357	-11.653	-21.357	-11.809
-2.8	-23.061	-12.249	-22.882	-12.417	-22.695	-12.659	-22.695	-12.819
-2.9	-24.456	-13.283	-24.272	-13.447	-24.090	-13.690	-24.090	-13.841
-3.0	-25.852	-14.331	-25.664	-14.501	-25.472	-14.763	-25.472	-14.925
-3.1	-27.292	-15.414	-27.094	-15.586	-26.894	-15.853	-26.894	-16.023
-3.2	-28.740	-16.539	-28.539	-16.726	-28.342	-17.012	-28.342	-17.193
-3.3	-30.205	-17.713	-29.989	-17.901	-29.799	-18.188	-29.799	-18.375
-3.4	-31.771	-18.920	-31.550	-19.117	-31.332	-19.404	-31.332	-19.586
-3.5	-33.380	-20.146	-33.154	-20.352	-32.926	-20.647	-32.926	-20.841
-3.6	-35.011	-21.427	-34.786	-21.624	-34.559	-21.916	-34.559	-22.123
-3.7	-36.662	-22.729	-36.428	-22.934	-36.197	-23.242	-36.197	-23.446
-3.8	-38.356	-24.051	-38.072	-24.265	-37.834	-24.586	-37.834	-24.793
-3.9	-40.162	-25.408	-39.912	-25.621	-39.660	-25.947	-39.660	-26.166
-4.0	-41.879	-26.817	-41.619	-27.045	-41.379	-27.393	-41.379	-27.607
-4.1	-43.649	-28.270	-43.386	-28.497	-43.127	-28.834	-43.127	-29.055
-4.2	-45.444	-29.727	-45.170	-29.949	-44.920	-30.292	-44.920	-30.540
-4.3	-47.334	-31.268	-47.046	-31.505	-46.779	-31.856	-46.779	-32.089
-4.4	-49.193	-32.794	-48.934	-33.023	-48.674	-33.363	-48.674	-33.589
-4.5	-51.115	-34.312	-50.819	-34.556	-50.534	-34.933	-50.534	-35.184
-4.6	-53.139	-35.916	-52.818	-36.163	-52.521	-36.567	-52.521	-36.831
-4.7	-55.083	-37.587	-54.798	-37.844	-54.518	-38.230	-54.518	-38.499
-4.8	-57.034	-39.257	-56.742	-39.524	-56.448	-39.921	-56.448	-40.179
-4.9	-59.132	-40.934	-58.812	-41.206	-58.491	-41.591	-58.491	-41.847
-5.0	-61.221	-42.626	-60.912	-42.898	-60.606	-43.286	-60.606	-43.540

Table 9: Confidence Interval for c in the Bonferroni Q-test: $\delta \in [-0.3, -0.2)$

DF-GLS	$\delta = -0.300$		$\delta = -0.275$		$\delta = -0.250$		$\delta = -0.225$	
	$\underline{c}$	$\overline{c}$	$\underline{c}$	$\overline{c}$	$\underline{c}$	$\overline{c}$	$\underline{c}$	$\overline{c}$
1.0	0.135	1.937	0.162	1.900	0.190	1.884	0.240	1.867
0.9	0.048	1.885	0.073	1.850	0.100	1.834	0.149	1.818
0.8	-0.051	1.833	-0.020	1.799	0.010	1.784	0.058	1.768
0.7	-0.163	1.781	-0.131	1.747	-0.101	1.728	-0.042	1.708
0.6	-0.278	1.721	-0.243	1.679	-0.213	1.660	-0.156	1.641
0.5	-0.403	1.652	-0.369	1.611	-0.337	1.593	-0.273	1.574
0.4	-0.535	1.582	-0.497	1.543	-0.467	1.526	-0.402	1.507
0.3	-0.691	1.512	-0.652	1.470	-0.615	1.449	-0.539	1.428
0.2	-0.849	1.430	-0.811	1.388	-0.770	1.367	-0.695	1.347
0.1	-1.010	1.346	-0.973	1.305	-0.934	1.286	-0.861	1.265
0.0	-1.196	1.262	-1.156	1.218	-1.114	1.195	-1.036	1.173
-0.1	-1.403	1.164	-1.355	1.120	-1.310	1.098	-1.230	1.078
-0.2	-1.639	1.064	-1.583	1.022	-1.527	1.002	-1.440	0.978
-0.3	-1.913	0.954	-1.856	0.905	-1.798	0.881	-1.696	0.859
-0.4	-2.192	0.827	-2.137	0.782	-2.089	0.761	-1.991	0.736
-0.5	-2.508	0.681	-2.446	0.626	-2.391	0.599	-2.280	0.574
-0.6	-2.884	0.505	-2.830	0.449	-2.775	0.419	-2.648	0.391
-0.7	-3.301	0.296	-3.236	0.240	-3.162	0.208	-3.029	0.177
-0.8	-3.771	0.046	-3.705	-0.014	-3.636	-0.047	-3.496	-0.078
-0.9	-4.300	-0.232	-4.226	-0.301	-4.142	-0.333	-3.995	-0.366
-1.0	-4.871	-0.559	-4.801	-0.622	-4.731	-0.655	-4.569	-0.685
-1.1	-5.476	-0.913	-5.403	-0.990	-5.334	-1.027	-5.191	-1.062
-1.2	-6.141	-1.309	-6.044	-1.391	-5.962	-1.430	-5.814	-1.467
-1.3	-6.862	-1.730	-6.772	-1.820	-6.684	-1.866	-6.520	-1.912
-1.4	-7.631	-2.219	-7.499	-2.305	-7.427	-2.350	-7.279	-2.394
-1.5	-8.397	-2.744	-8.302	-2.833	-8.210	-2.878	-8.032	-2.921
-1.6	-9.237	-3.297	-9.144	-3.393	-9.059	-3.444	-8.882	-3.491
-1.7	-10.117	-3.890	-10.001	-3.987	-9.910	-4.033	-9.740	-4.079
-1.8	-11.065	-4.506	-10.952	-4.643	-10.836	-4.708	-10.622	-4.762
-1.9	-12.015	-5.181	-11.902	-5.294	-11.785	-5.346	-11.563	-5.396

DF-GLS	$\delta = -0.300$		$\delta = -0.275$		$\delta = -0.250$		$\delta = -0.225$	
	$\underline{c}$	$\overline{c}$	$\underline{c}$	$\overline{c}$	$\underline{c}$	$\overline{c}$	$\underline{c}$	$\overline{c}$
-2.0	-13.038	-5.900	-12.913	-6.023	-12.789	-6.078	-12.549	-6.133
-2.1	-14.066	-6.633	-13.931	-6.734	-13.810	-6.784	-13.573	-6.841
-2.2	-15.164	-7.417	-15.023	-7.549	-14.899	-7.616	-14.648	-7.684
-2.3	-16.279	-8.236	-16.130	-8.371	-16.004	-8.442	-15.760	-8.505
-2.4	-17.450	-9.082	-17.298	-9.189	-17.168	-9.244	-16.906	-9.333
-2.5	-18.664	-9.962	-18.504	-10.106	-18.356	-10.174	-18.066	-10.248
-2.6	-19.918	-10.920	-19.765	-11.068	-19.601	-11.137	-19.310	-11.209
-2.7	-21.193	-11.886	-21.029	-12.032	-20.869	-12.107	-20.572	-12.181
-2.8	-22.513	-12.899	-22.323	-13.054	-22.160	-13.130	-21.857	-13.206
-2.9	-23.906	-13.919	-23.717	-14.082	-23.545	-14.164	-23.217	-14.246
-3.0	-25.296	-15.011	-25.114	-15.174	-24.936	-15.259	-24.595	-15.338
-3.1	-26.711	-16.116	-26.526	-16.287	-26.341	-16.380	-25.984	-16.464
-3.2	-28.153	-17.284	-27.964	-17.465	-27.781	-17.553	-27.429	-17.642
-3.3	-29.614	-18.469	-29.428	-18.658	-29.243	-18.747	-28.896	-18.838
-3.4	-31.134	-19.680	-30.938	-19.866	-30.744	-19.953	-30.391	-20.043
-3.5	-32.710	-20.937	-32.504	-21.127	-32.302	-21.223	-31.930	-21.315
-3.6	-34.335	-22.218	-34.133	-22.413	-33.944	-22.513	-33.560	-22.608
-3.7	-35.975	-23.545	-35.763	-23.739	-35.556	-23.834	-35.163	-23.928
-3.8	-37.617	-24.896	-37.404	-25.100	-37.196	-25.197	-36.795	-25.295
-3.9	-39.417	-26.275	-39.176	-26.493	-38.936	-26.598	-38.505	-26.703
-4.0	-41.153	-27.722	-40.935	-27.934	-40.711	-28.043	-40.291	-28.150
-4.1	-42.881	-29.165	-42.647	-29.378	-42.428	-29.481	-42.029	-29.592
-4.2	-44.665	-30.655	-44.411	-30.883	-44.188	-31.001	-43.750	-31.118
-4.3	-46.504	-32.201	-46.233	-32.423	-45.990	-32.545	-45.546	-32.656
-4.4	-48.409	-33.702	-48.156	-33.930	-47.902	-34.054	-47.418	-34.176
-4.5	-50.259	-35.307	-49.974	-35.554	-49.737	-35.680	-49.275	-35.801
-4.6	-52.243	-36.951	-51.955	-37.208	-51.695	-37.335	-51.218	-37.456
-4.7	-54.256	-38.618	-53.981	-38.879	-53.713	-39.006	-53.224	-39.128
-4.8	-56.178	-40.303	-55.904	-40.551	-55.651	-40.679	-55.181	-40.799
-4.9	-58.189	-41.970	-57.929	-42.216	-57.634	-42.353	-57.148	-42.477
-5.0	-60.310	-43.673	-60.031	-43.934	-59.739	-44.062	-59.211	-44.204

Table 10: Confidence Interval for c in the Bonferroni Q-test: $\delta \in [-0.2, -0.1)$

DF-GLS	$\delta = -0.200$		$\delta = -0.175$		$\delta = -0.150$		$\delta = -0.125$	
	$\underline{c}$	$\overline{c}$	$\underline{c}$	$\overline{c}$	$\underline{c}$	$\overline{c}$	$\underline{c}$	$\overline{c}$
1.0	0.264	1.834	0.306	1.818	0.347	1.802	0.387	1.787
0.9	0.175	1.786	0.225	1.770	0.269	1.755	0.308	1.737
0.8	0.082	1.734	0.130	1.713	0.177	1.693	0.224	1.674
0.7	-0.012	1.669	0.036	1.648	0.081	1.629	0.127	1.611
0.6	-0.127	1.603	-0.072	1.584	-0.018	1.566	0.030	1.548
0.5	-0.242	1.537	-0.188	1.519	-0.134	1.502	-0.081	1.481
0.4	-0.372	1.466	-0.312	1.446	-0.249	1.425	-0.199	1.405
0.3	-0.503	1.387	-0.446	1.368	-0.386	1.348	-0.327	1.328
0.2	-0.659	1.309	-0.592	1.291	-0.526	1.271	-0.464	1.252
0.1	-0.823	1.227	-0.746	1.206	-0.683	1.184	-0.619	1.162
0.0	-0.999	1.133	-0.928	1.113	-0.855	1.093	-0.784	1.073
-0.1	-1.192	1.039	-1.117	1.020	-1.044	1.001	-0.973	0.979
-0.2	-1.399	0.933	-1.320	0.911	-1.245	0.889	-1.177	0.868
-0.3	-1.648	0.816	-1.553	0.797	-1.468	0.777	-1.398	0.757
-0.4	-1.939	0.683	-1.842	0.658	-1.742	0.633	-1.655	0.609
-0.5	-2.229	0.527	-2.142	0.503	-2.053	0.476	-1.964	0.449
-0.6	-2.586	0.339	-2.472	0.313	-2.377	0.289	-2.288	0.264
-0.7	-2.972	0.119	-2.879	0.089	-2.782	0.062	-2.680	0.035
-0.8	-3.438	-0.137	-3.326	-0.165	-3.213	-0.192	-3.105	-0.220
-0.9	-3.940	-0.430	-3.825	-0.461	-3.713	-0.492	-3.601	-0.522
-1.0	-4.492	-0.745	-4.367	-0.781	-4.242	-0.819	-4.121	-0.857
-1.1	-5.112	-1.133	-4.976	-1.167	-4.854	-1.200	-4.732	-1.236
-1.2	-5.746	-1.539	-5.602	-1.573	-5.464	-1.608	-5.341	-1.642
-1.3	-6.438	-2.003	-6.287	-2.041	-6.134	-2.079	-5.985	-2.116
-1.4	-7.185	-2.476	-7.002	-2.523	-6.856	-2.568	-6.717	-2.614
-1.5	-7.956	-3.004	-7.814	-3.047	-7.633	-3.091	-7.453	-3.138
-1.6	-8.787	-3.588	-8.578	-3.636	-8.409	-3.683	-8.271	-3.731
-1.7	-9.655	-4.168	-9.485	-4.212	-9.235	-4.261	-9.097	-4.310
-1.8	-10.523	-4.849	-10.330	-4.893	-10.137	-4.936	-9.966	-4.977
-1.9	-11.466	-5.499	-11.269	-5.560	-11.079	-5.612	-10.901	-5.671

DF-GLS	$\delta = -0.200$		$\delta = -0.175$		$\delta = -0.150$		$\delta = -0.125$	
	$\underline{c}$	$\overline{c}$	$\underline{c}$	$\overline{c}$	$\underline{c}$	$\overline{c}$	$\underline{c}$	$\overline{c}$
-2.0	-12.445	-6.241	-12.228	-6.298	-12.023	-6.357	-11.841	-6.417
-2.1	-13.469	-6.947	-13.255	-7.002	-13.052	-7.086	-12.857	-7.163
-2.2	-14.534	-7.812	-14.303	-7.871	-14.086	-7.927	-13.888	-7.988
-2.3	-15.640	-8.613	-15.406	-8.664	-15.183	-8.715	-14.980	-8.778
-2.4	-16.781	-9.509	-16.539	-9.576	-16.300	-9.636	-16.085	-9.699
-2.5	-17.938	-10.391	-17.705	-10.465	-17.475	-10.535	-17.250	-10.606
-2.6	-19.175	-11.351	-18.923	-11.423	-18.678	-11.493	-18.438	-11.562
-2.7	-20.429	-12.331	-20.165	-12.408	-19.905	-12.482	-19.668	-12.555
-2.8	-21.707	-13.353	-21.446	-13.432	-21.186	-13.506	-20.934	-13.577
-2.9	-23.062	-14.402	-22.770	-14.486	-22.494	-14.566	-22.226	-14.643
-3.0	-24.445	-15.495	-24.131	-15.576	-23.843	-15.660	-23.569	-15.738
-3.1	-25.842	-16.632	-25.542	-16.718	-25.238	-16.804	-24.956	-16.890
-3.2	-27.262	-17.806	-26.950	-17.892	-26.649	-17.972	-26.366	-18.062
-3.3	-28.715	-19.011	-28.375	-19.097	-28.074	-19.179	-27.787	-19.267
-3.4	-30.208	-20.233	-29.862	-20.321	-29.568	-20.407	-29.269	-20.499
-3.5	-31.760	-21.500	-31.414	-21.588	-31.095	-21.678	-30.780	-21.771
-3.6	-33.379	-22.797	-33.018	-22.892	-32.669	-22.988	-32.326	-23.082
-3.7	-34.980	-24.119	-34.630	-24.223	-34.281	-24.324	-33.953	-24.420
-3.8	-36.596	-25.502	-36.227	-25.598	-35.859	-25.700	-35.537	-25.801
-3.9	-38.295	-26.920	-37.912	-27.024	-37.555	-27.126	-37.198	-27.229
-4.0	-40.088	-28.358	-39.704	-28.468	-39.317	-28.566	-38.941	-28.668
-4.1	-41.818	-29.802	-41.414	-29.905	-41.051	-30.007	-40.689	-30.122
-4.2	-43.546	-31.349	-43.135	-31.467	-42.770	-31.577	-42.393	-31.691
-4.3	-45.339	-32.878	-44.910	-32.994	-44.524	-33.102	-44.139	-33.208
-4.4	-47.190	-34.412	-46.759	-34.537	-46.346	-34.653	-45.950	-34.764
-4.5	-49.050	-36.031	-48.637	-36.160	-48.234	-36.280	-47.854	-36.395
-4.6	-50.969	-37.704	-50.505	-37.819	-50.063	-37.953	-49.666	-38.073
-4.7	-52.973	-39.375	-52.491	-39.491	-52.028	-39.615	-51.582	-39.735
-4.8	-54.939	-41.043	-54.486	-41.157	-54.061	-41.274	-53.598	-41.397
-4.9	-56.898	-42.729	-56.402	-42.851	-55.944	-42.977	-55.537	-43.104
-5.0	-58.955	-44.469	-58.437	-44.608	-57.967	-44.744	-57.545	-44.873

Table 11: Confidence Interval for c in the Bonferroni Q-test: $\delta \in [-0.1, 0)$

DF-GLS	$\delta = -0.100$		$\delta = -0.075$		$\delta = -0.050$		$\delta = -0.025$	
	$\underline{c}$	$\bar{c}$	$\underline{c}$	$\bar{c}$	$\underline{c}$	$\bar{c}$	$\underline{c}$	$\bar{c}$
1.0	0.447	1.758	0.506	1.743	0.601	1.725	0.729	1.689
0.9	0.367	1.699	0.424	1.682	0.521	1.665	0.646	1.630
0.8	0.286	1.638	0.342	1.621	0.437	1.605	0.563	1.571
0.7	0.195	1.577	0.260	1.560	0.351	1.545	0.478	1.511
0.6	0.095	1.516	0.162	1.500	0.265	1.481	0.388	1.441
0.5	-0.006	1.444	0.062	1.425	0.165	1.406	0.298	1.368
0.4	-0.124	1.368	-0.047	1.350	0.061	1.331	0.200	1.295
0.3	-0.243	1.292	-0.171	1.275	-0.053	1.256	0.091	1.218
0.2	-0.382	1.211	-0.301	1.192	-0.182	1.171	-0.022	1.133
0.1	-0.526	1.123	-0.442	1.104	-0.318	1.085	-0.157	1.049
0.0	-0.692	1.035	-0.603	1.017	-0.464	0.999	-0.297	0.957
-0.1	-0.874	0.935	-0.779	0.914	-0.636	0.893	-0.452	0.854
-0.2	-1.074	0.827	-0.972	0.807	-0.824	0.788	-0.632	0.750
-0.3	-1.292	0.708	-1.188	0.683	-1.027	0.659	-0.830	0.613
-0.4	-1.530	0.562	-1.424	0.539	-1.263	0.517	-1.044	0.470
-0.5	-1.826	0.397	-1.705	0.372	-1.515	0.348	-1.303	0.302
-0.6	-2.161	0.209	-2.037	0.181	-1.843	0.155	-1.584	0.102
-0.7	-2.532	-0.018	-2.406	-0.046	-2.209	-0.073	-1.951	-0.128
-0.8	-2.958	-0.276	-2.828	-0.307	-2.610	-0.336	-2.337	-0.397
-0.9	-3.440	-0.584	-3.293	-0.614	-3.065	-0.646	-2.776	-0.707
-1.0	-3.951	-0.928	-3.806	-0.961	-3.572	-0.993	-3.263	-1.062
-1.1	-4.525	-1.306	-4.367	-1.342	-4.110	-1.376	-3.779	-1.442
-1.2	-5.153	-1.711	-4.982	-1.746	-4.722	-1.788	-4.351	-1.875
-1.3	-5.806	-2.191	-5.623	-2.227	-5.347	-2.265	-4.972	-2.345
-1.4	-6.510	-2.705	-6.323	-2.747	-6.004	-2.785	-5.626	-2.859
-1.5	-7.278	-3.236	-7.050	-3.283	-6.738	-3.329	-6.333	-3.418
-1.6	-8.037	-3.820	-7.851	-3.864	-7.485	-3.906	-7.057	-3.991
-1.7	-8.881	-4.413	-8.642	-4.464	-8.273	-4.518	-7.868	-4.636
-1.8	-9.740	-5.084	-9.530	-5.138	-9.121	-5.192	-8.673	-5.295
-1.9	-10.643	-5.782	-10.393	-5.840	-10.001	-5.895	-9.548	-6.001
[continued on the next page]								

DF-GLS	$\delta = -0.100$		$\delta = -0.075$		$\delta = -0.050$		$\delta = -0.025$	
	$\underline{c}$	$\overline{c}$	$\underline{c}$	$\overline{c}$	$\underline{c}$	$\overline{c}$	$\underline{c}$	$\overline{c}$
-2.0	-11.582	-6.520	-11.335	-6.570	-10.942	-6.617	-10.427	-6.719
-2.1	-12.569	-7.290	-12.301	-7.346	-11.883	-7.405	-11.363	-7.527
-2.2	-13.596	-8.111	-13.326	-8.169	-12.899	-8.227	-12.327	-8.349
-2.3	-14.671	-8.928	-14.376	-9.002	-13.926	-9.052	-13.352	-9.159
-2.4	-15.776	-9.822	-15.477	-9.882	-15.017	-9.938	-14.403	-10.060
-2.5	-16.928	-10.739	-16.610	-10.810	-16.120	-10.877	-15.499	-11.013
-2.6	-18.097	-11.691	-17.772	-11.759	-17.286	-11.830	-16.638	-11.966
-2.7	-19.324	-12.696	-18.989	-12.769	-18.471	-12.845	-17.813	-12.991
-2.8	-20.568	-13.726	-20.227	-13.801	-19.685	-13.874	-19.009	-14.019
-2.9	-21.832	-14.801	-21.496	-14.882	-20.953	-14.961	-20.225	-15.113
-3.0	-23.169	-15.893	-22.800	-15.975	-22.244	-16.060	-21.518	-16.220
-3.1	-24.540	-17.056	-24.137	-17.139	-23.556	-17.222	-22.824	-17.387
-3.2	-25.947	-18.233	-25.557	-18.317	-24.934	-18.399	-24.146	-18.571
-3.3	-27.361	-19.441	-26.972	-19.524	-26.346	-19.606	-25.558	-19.773
-3.4	-28.821	-20.680	-28.407	-20.770	-27.765	-20.860	-26.973	-21.042
-3.5	-30.326	-21.948	-29.903	-22.041	-29.242	-22.142	-28.408	-22.334
-3.6	-31.865	-23.272	-31.428	-23.370	-30.754	-23.466	-29.888	-23.645
-3.7	-33.483	-24.619	-33.019	-24.720	-32.306	-24.818	-31.414	-25.010
-3.8	-35.080	-25.991	-34.629	-26.094	-33.928	-26.198	-32.991	-26.404
-3.9	-36.717	-27.426	-36.228	-27.528	-35.494	-27.621	-34.581	-27.819
-4.0	-38.441	-28.875	-37.941	-28.979	-37.162	-29.076	-36.154	-29.285
-4.1	-40.194	-30.358	-39.694	-30.471	-38.894	-30.576	-37.860	-30.806
-4.2	-41.863	-31.927	-41.391	-32.031	-40.622	-32.133	-39.617	-32.355
-4.3	-43.606	-33.428	-43.103	-33.534	-42.328	-33.640	-41.294	-33.855
-4.4	-45.402	-34.995	-44.874	-35.111	-44.076	-35.221	-43.018	-35.448
-4.5	-47.270	-36.631	-46.729	-36.755	-45.864	-36.866	-44.798	-37.100
-4.6	-49.108	-38.311	-48.597	-38.434	-47.787	-38.545	-46.636	-38.773
-4.7	-50.978	-39.983	-50.416	-40.098	-49.582	-40.209	-48.530	-40.440
-4.8	-52.963	-41.640	-52.381	-41.764	-51.482	-41.883	-50.329	-42.116
-4.9	-54.952	-43.359	-54.394	-43.490	-53.483	-43.612	-52.275	-43.871
-5.0	-56.924	-45.145	-56.333	-45.275	-55.419	-45.409	-54.286	-45.666