

**Not-for-Publication Appendix of Tables for**  
**“Using Out-of-Sample Mean Squared Prediction Errors to Test the Martingale Difference Hypothesis”**

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This appendix reports, in the tables listed below, the details of auxiliary Monte Carlo results referred to in the paper. The first eight tables expand on the results presented in the paper's Tables 1, 2, 4, and 5. Subsequent tables generally appear in the order in which the paper makes reference to the results contained in each table. In light of the volume of numbers reported, the legends to the appendix tables provide less detail than those in the paper.

Note that, in all cases, the reported results are based on 10,000 simulations. Unless otherwise indicated, the data are based on draws from the normal distribution.

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Table A1						
Augmented Results on Empirical Size: DGP 1						
Nominal Size = 10%						
	A. $R = 60$					
	$P = 48$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
MSPE-adjusted	.073	.072	.072	.074	.079	.085
MSPE:normal	.007	.002	.000	.000	.000	.000
MSPE:McCracken	.083	.074	.048	.050	.036	.025
CCS:robust	.144	.125	.119	.115	.108	.107
CCS:OLS	.109	.108	.109	.107	.105	.105
CCS:robust, null	.097	.100	.103	.105	.103	.105
MSE-F:McCracken	.084	.072	.044	.043	.025	.007
ENC-F:Clark-McCracken	.113	.120	.136	.116	.112	.118
ENC-t:Clark-McCracken	.106	.111	.107	.099	.096	.096
	B. $R = 120$					
	$P = 48$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
MSPE-adjusted	.070	.063	.065	.067	.074	.081
MSPE:normal	.020	.008	.004	.001	.000	.000
MSPE:McCracken	.089	.087	.079	.073	.063	.052
CCS:robust	.144	.121	.119	.114	.108	.100
CCS:OLS	.113	.106	.108	.105	.103	.101
CCS:robust, null	.095	.098	.101	.103	.102	.099
MSE-F:McCracken	.088	.084	.080	.072	.059	.036
ENC-F:Clark-McCracken	.102	.104	.107	.107	.104	.105
ENC-t:Clark-McCracken	.101	.097	.101	.099	.097	.095
	C. $R = 240$					
	$P = 48$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
MSPE-adjusted	.079	.072	.070	.067	.066	.072
MSPE:normal	.034	.020	.014	.004	.001	.000
MSPE:McCracken	.103	.097	.093	.097	.085	.072
CCS:robust	.135	.121	.116	.113	.103	.099
CCS:OLS	.106	.106	.107	.107	.100	.098
CCS:robust, null	.088	.099	.101	.103	.099	.097
MSE-F:McCracken	.102	.098	.092	.099	.083	.066
ENC-F:Clark-McCracken	.105	.104	.106	.106	.107	.102
ENC-t:Clark-McCracken	.108	.105	.097	.107	.102	.096

Notes:

1. The results in the first four rows of each panel repeat the results in the paper's Table 1. The test *CCS:robust* is the heteroskedasticity-robust version of the CCS test used in the paper and denoted in the paper's tables as simply *CCS*.
2. *CCS:OLS* refers to a CCS test computed imposing homoskedasticity (as default least-squares estimators do) in computing the variance matrix that enters the test statistic. *CCS:robust, null* refers to a CCS test using a heteroskedasticity-robust variance calculated with the null hypothesis imposed.
3. *MSE-F:McCracken* refers to the F-type test of equal MSPE developed by McCracken (2004), compared against McCracken's asymptotic critical values.
4. *ENC-F:Clark-McCracken* refers to the F-type test of forecast encompassing developed in Clark and McCracken (2001, 2003), compared against Clark and McCracken's (2001) asymptotic critical values.
4. *ENC-t:Clark-McCracken* refers to a t-test for forecast encompassing compared against Clark and McCracken's (2001) asymptotic critical values.

<b>Table A2</b>						
<b>Augmented Results on Empirical Size: DGP 2</b>						
<b>Nominal Size = 10%</b>						
	<b>A. <math>R = 60</math></b>					
	$P = 48$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
MSPE-adjusted	.101	.085	.081	.083	.082	.089
MSPE:normal	.023	.003	.001	.000	.000	.000
MSPE:McCracken	.136	.098	.062	.057	.036	.019
CCS:robust	.244	.188	.159	.132	.118	.102
CCS:OLS	.198	.163	.144	.124	.114	.099
CCS:robust, null	.160	.147	.137	.122	.113	.099
MSE-F:McCracken	.124	.098	.060	.053	.027	.005
ENC-F:Clark-McCracken	.134	.135	.141	.125	.120	.129
ENC-t:Clark-McCracken	.142	.128	.117	.109	.097	.100
	<b>B. <math>R = 120</math></b>					
	$P = 48$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
MSPE-adjusted	.101	.090	.077	.074	.075	.083
MSPE:normal	.041	.017	.006	.002	.000	.000
MSPE:McCracken	.138	.128	.101	.082	.062	.042
CCS:robust	.251	.186	.160	.134	.113	.108
CCS:OLS	.195	.163	.140	.124	.110	.104
CCS:robust, null	.163	.149	.138	.123	.107	.105
MSE-F:McCracken	.122	.121	.099	.081	.060	.030
ENC-F:Clark-McCracken	.120	.124	.118	.120	.114	.117
ENC-t:Clark-McCracken	.140	.130	.112	.108	.100	.097
	<b>C. <math>R = 240</math></b>					
	$P = 48$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
MSPE-adjusted	.101	.090	.085	.070	.073	.079
MSPE:normal	.059	.036	.023	.009	.002	.000
MSPE:McCracken	.137	.126	.119	.105	.092	.073
CCS:robust	.239	.176	.160	.129	.115	.109
CCS:OLS	.190	.154	.147	.122	.112	.108
CCS:robust, null	.156	.143	.137	.116	.110	.107
MSE-F:McCracken	.116	.117	.109	.105	.091	.066
ENC-F:Clark-McCracken	.111	.114	.112	.110	.110	.111
ENC-t:Clark-McCracken	.137	.128	.117	.113	.105	.103

Notes:

1. The results in the first four rows of each panel repeat the results in the paper's Table 2.
2. See the notes to Table A1.

Table A3						
Augmented Results on Bootstrap Size: DGP 1						
Nominal Size = 10%						
	A. $R = 60$					
	$P = 48$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
MSPE-adjusted	.092	.096	.096	.093	.098	.096
MSPE	.095	.102	.101	.102	.103	.104
CCS	.113	.109	.108	.108	.104	.104
CCS, null	.109	.106	.107	.109	.104	.103
MSE-F	.098	.098	.093	.092	.098	.109
ENC-F	.102	.106	.106	.102	.100	.096
	B. $R = 120$					
	$P = 48$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
MSPE-adjusted	.085	.088	.095	.094	.093	.096
MSPE	.090	.094	.101	.101	.099	.100
CCS	.111	.105	.107	.106	.105	.099
CCS, null	.108	.104	.105	.106	.104	.099
MSE-F	.093	.098	.099	.099	.096	.102
ENC-F	.092	.098	.098	.099	.096	.098
	C. $R = 240$					
	$P = 48$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
MSPE-adjusted	.091	.095	.094	.097	.100	.098
MSPE	.093	.098	.097	.100	.103	.101
CCS	.105	.105	.106	.106	.100	.097
CCS, null	.101	.104	.105	.106	.100	.098
MSE-F	.102	.103	.100	.102	.101	.099
ENC-F	.099	.100	.104	.101	.103	.098

Notes:

1. The first three rows of panel B repeat the results in rows two through four of the top panel of the paper's Table 4.
2. *MSE-F:McCracken* refers to the F-type test of equal MSPE developed by McCracken (2004).
3. *ENC-F:Clark-McCracken* refers to the F-type test of forecast encompassing developed in Clark and McCracken (2001, 2003).

Table A4						
Augmented Results on Bootstrap Size: DGP 2						
Nominal Size = 10%						
	A. $R = 60$					
	$P = 48$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
MSPE-adjusted	.104	.101	.098	.098	.094	.098
MSPE	.112	.104	.103	.098	.102	.094
CCS	.158	.130	.120	.109	.101	.096
CCS, null	.143	.126	.118	.108	.102	.096
MSE-F	.116	.104	.101	.090	.092	.096
ENC-F	.117	.114	.108	.105	.098	.100
	B. $R = 120$					
	$P = 48$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
MSPE-adjusted	.104	.103	.096	.096	.094	.097
MSPE	.106	.107	.100	.098	.097	.099
CCS	.153	.128	.120	.109	.098	.099
CCS, null	.136	.123	.116	.108	.097	.099
MSE-F	.108	.111	.101	.097	.093	.095
ENC-F	.102	.111	.101	.104	.096	.099
	C. $R = 240$					
	$P = 48$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
MSPE-adjusted	.101	.102	.101	.095	.100	.102
MSPE	.104	.102	.102	.094	.101	.105
CCS	.142	.119	.117	.102	.100	.103
CCS, null	.130	.117	.115	.101	.099	.103
MSE-F	.103	.106	.105	.094	.102	.104
ENC-F	.100	.101	.103	.100	.103	.101

Notes:

1. The first three rows of panel B repeat the results in rows two through four of the bottom panel of the paper's Table 4.
2. See the notes to Table A3.

Table A5						
Augmented Results on Size-Adjusted Power: DGP 1						
Empirical Size = 10%						
	A. $R = 60$					
	$P = 48$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
MSPE-adjusted	.286	.371	.450	.564	.740	.947
MSPE	.260	.351	.438	.556	.740	.952
CCS:robust	.229	.368	.484	.668	.909	.999
CCS:OLS	.237	.374	.488	.674	.909	.999
MSE-F	.269	.344	.422	.527	.709	.930
ENC-F	.300	.376	.444	.555	.731	.945
	B. $R = 120$					
	$P = 48$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
MSPE-adjusted	.345	.464	.554	.677	.854	.984
MSPE	.283	.408	.503	.643	.842	.982
CCS:robust	.232	.374	.483	.672	.913	.999
CCS:OLS	.234	.376	.490	.678	.916	.999
MSE-F	.327	.421	.503	.623	.819	.973
ENC-F	.392	.489	.570	.680	.852	.984
	C. $R = 240$					
	$P = 48$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
MSPE-adjusted	.394	.547	.645	.774	.913	.997
MSPE	.308	.431	.529	.693	.882	.995
CCS:robust	.240	.368	.481	.675	.914	.999
CCS:OLS	.242	.369	.488	.673	.913	.999
MSE-F	.409	.511	.586	.708	.873	.993
ENC-F	.495	.621	.694	.798	.918	.997

Notes:

1. The first three rows of panel B repeat the results in panel A of the paper's Table 5.
2. The test *CCS:robust* is the heteroskedasticity-robust version of the CCS test used in the paper and denoted in the paper's tables as simply *CCS*. *CCS:OLS* refers to a CCS test computed imposing homoskedasticity (as default least-squares estimators do) in computing the variance matrix that enters the test statistic.
3. *MSE-F:McCracken* refers to the F-type test of equal MSPE developed by McCracken (2004).
4. *ENC-F:Clark-McCracken* refers to the F-type test of forecast encompassing developed in Clark and McCracken (2001, 2003).

Table A6						
Augmented Results on Size-Adjusted Power: DGP 2						
Empirical Size = 10%						
	A. $R = 60$					
	$P = 48$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
MSPE-adjusted	.103	.104	.102	.105	.108	.108
MSPE	.109	.110	.115	.122	.124	.133
CCS:robust	.105	.110	.122	.140	.189	.358
CCS	.100	.111	.118	.141	.187	.358
MSE-F	.108	.110	.114	.122	.132	.153
ENC-F	.095	.098	.097	.098	.104	.103
	B. $R = 120$					
	$P = 48$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
MSPE-adjusted	.114	.120	.127	.138	.147	.171
MSPE	.119	.122	.131	.142	.158	.184
CCS:robust	.104	.114	.125	.142	.203	.351
CCS:OLS	.103	.115	.127	.142	.204	.352
MSE-F	.117	.121	.130	.144	.158	.182
ENC-F	.109	.115	.121	.129	.143	.165
	C. $R = 240$					
	$P = 48$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
MSPE-adjusted	.129	.136	.145	.159	.182	.231
MSPE	.132	.140	.143	.164	.181	.228
CCS:robust	.106	.113	.119	.144	.190	.340
CCS:OLS	.096	.109	.117	.140	.188	.341
MSE-F	.123	.134	.144	.161	.177	.226
ENC-F	.124	.133	.141	.155	.179	.232

Notes:

1. The first three rows of panel B repeat the results in panel C of the paper's Table 5.
2. See the notes to Table A5.

Table A7						
Augmented Results on Bootstrap Power: DGP 1						
Size = 10%						
	A. $R = 60$					
	$P = 48$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
MSPE-adjusted	.272	.365	.441	.551	.734	.945
MSPE	.253	.358	.443	.562	.746	.951
CCS:robust	.249	.382	.499	.683	.911	.999
CCS:OLS	.233	.379	.494	.683	.912	.999
MSE-F	.268	.343	.414	.519	.702	.931
ENC-F	.306	.387	.454	.558	.732	.943
	B. $R = 120$					
	$P = 48$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
MSPE-adjusted	.315	.445	.545	.666	.846	.984
MSPE	.268	.394	.500	.645	.842	.981
CCS:robust	.249	.381	.495	.679	.917	.999
CCS:OLS	.235	.376	.496	.682	.917	1.000
MSE-F	.319	.417	.500	.623	.811	.973
ENC-F	.379	.485	.567	.681	.848	.983
	C. $R = 240$					
	$P = 48$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
MSPE-adjusted	.375	.534	.636	.771	.914	.997
MSPE	.296	.423	.525	.693	.884	.996
CCS:robust	.248	.378	.492	.682	.913	.999
CCS:OLS	.235	.371	.495	.681	.913	.999
MSE-F	.411	.514	.585	.709	.874	.993
ENC-F	.490	.619	.698	.800	.921	.997

1. The first three rows of panel B repeat the results in panel B of the paper's Table 5.
2. The test *CCS:robust* is the heteroskedasticity-robust version of the CCS test used in the paper and denoted in the paper's tables as simply *CCS*. *CCS:OLS* refers to a CCS test computed imposing homoskedasticity (as default least-squares estimators do) in computing the variance matrix that enters the test statistic.
3. *MSE-F:McCracken* refers to the F-type test of equal MSPE developed by McCracken (2004).
4. *ENC-F:Clark-McCracken* refers to the F-type test of forecast encompassing developed in Clark and McCracken (2001, 2003).

<b>Table A8</b>						
<b>Augmented Results on Bootstrap Power: DGP 2</b>						
<b>Size = 10%</b>						
	<b>A. <math>R = 60</math></b>					
	$P = 48$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
MSPE-adjusted	.109	.106	.102	.104	.104	.106
MSPE	.123	.117	.120	.117	.122	.123
CCS:robust	.164	.150	.146	.153	.192	.346
CCS:OLS	.130	.134	.136	.152	.189	.346
MSE-F	.123	.116	.116	.110	.121	.141
ENC-F	.114	.112	.108	.105	.103	.102
	<b>B. <math>R = 120</math></b>					
	$P = 48$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
MSPE-adjusted	.118	.123	.122	.133	.141	.165
MSPE	.127	.133	.132	.139	.152	.176
CCS:robust	.163	.148	.146	.156	.199	.350
CCS:OLS	.123	.131	.136	.149	.200	.351
MSE-F	.124	.133	.131	.137	.148	.172
ENC-F	.115	.127	.123	.136	.142	.165
	<b>C. <math>R = 240</math></b>					
	$P = 48$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
MSPE-adjusted	.131	.139	.143	.153	.183	.236
MSPE	.138	.145	.148	.156	.181	.235
CCS:robust	.146	.140	.142	.147	.190	.346
CCS:OLS	.112	.123	.131	.142	.191	.345
MSE-F	.127	.142	.149	.157	.179	.226
ENC-F	.123	.138	.147	.161	.185	.234

Notes:

1. The first three rows of panel B. repeat the results in panel D. of the paper's Table 5.
2. See the notes to Table A7.

**Table A9**  
**MSPE Summary Statistics, Size Experiments: DGP 1**

	A. $R = 60$					
	$P = 48$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
$\hat{\sigma}_1^2$ : mean	0.99844	0.99847	0.99924	0.99973	0.99994	0.99983
$\hat{\sigma}_2^2$ : mean	1.04238	1.04225	1.04339	1.04388	1.04400	1.04398
adj.: mean	0.04429	0.04419	0.04446	0.04434	0.04425	0.04417
$\hat{\sigma}_2^2$ -adj.: mean	0.99808	0.99806	0.99893	0.99954	0.99976	0.99982
$\hat{\sigma}_1^2$ -( $\hat{\sigma}_2^2$ -adj.): mean	0.00036	0.00040	0.00031	0.00019	0.00019	0.00001
$\hat{\sigma}_1^2 - \hat{\sigma}_2^2$ : mean	-0.04394	-0.04379	-0.04415	-0.04415	-0.04406	-0.04415
$\hat{\sigma}_1^2$ : median	0.98546	0.99256	0.99547	0.99687	0.99879	0.99928
$\hat{\sigma}_2^2$ : median	1.02913	1.03550	1.03962	1.04102	1.04267	1.04318
adj.: median	0.03257	0.03703	0.03897	0.04089	0.04227	0.04326
$\hat{\sigma}_2^2$ -adj.: median	0.98353	0.99132	0.99423	0.99652	0.99849	0.99900
$\hat{\sigma}_1^2$ -( $\hat{\sigma}_2^2$ -adj.): median	-0.01088	-0.00788	-0.00587	-0.00391	-0.00192	-0.00101
$\hat{\sigma}_1^2 - \hat{\sigma}_2^2$ : median	-0.04309	-0.04362	-0.04415	-0.04402	-0.04408	-0.04420
prob.(( $\hat{\sigma}_1^2 - \hat{\sigma}_2^2$ ) < 0)	0.86210	0.93420	0.96880	0.99120	0.99970	1.00000
	B. $R = 120$					
	$P = 48$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
$\hat{\sigma}_1^2$ : mean	1.00144	1.00137	1.00154	1.00081	0.99977	1.00076
$\hat{\sigma}_2^2$ : mean	1.02227	1.02164	1.02157	1.02092	1.01984	1.02082
adj.: mean	0.01970	0.01973	0.01993	0.01997	0.01996	0.02005
$\hat{\sigma}_2^2$ -adj.: mean	1.00257	1.00191	1.00164	1.00095	0.99989	1.00077
$\hat{\sigma}_1^2$ -( $\hat{\sigma}_2^2$ -adj.): mean	-0.00113	-0.00054	-0.00011	-0.00014	-0.00012	-0.00002
$\hat{\sigma}_1^2 - \hat{\sigma}_2^2$ : mean	-0.02083	-0.02027	-0.02004	-0.02011	-0.02008	-0.02006
$\hat{\sigma}_1^2$ : median	0.98510	0.99617	0.99703	0.99766	0.99854	1.00030
$\hat{\sigma}_2^2$ : median	1.00697	1.01622	1.01704	1.01729	1.01878	1.02063
adj.: median	0.01272	0.01475	0.01593	0.01732	0.01848	0.01940
$\hat{\sigma}_2^2$ -adj.: median	0.98651	0.99587	0.99695	0.99720	0.99857	1.00036
$\hat{\sigma}_1^2$ -( $\hat{\sigma}_2^2$ -adj.): median	-0.00776	-0.00592	-0.00459	-0.00335	-0.00210	-0.00084
$\hat{\sigma}_1^2 - \hat{\sigma}_2^2$ : median	-0.02001	-0.02049	-0.02024	-0.02026	-0.02016	-0.02014
prob.(( $\hat{\sigma}_1^2 - \hat{\sigma}_2^2$ ) < 0)	0.78440	0.85260	0.89820	0.94930	0.98660	0.99950
	C. $R = 240$					
	$P = 48$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
$\hat{\sigma}_1^2$ : mean	1.00206	1.00008	1.00069	0.99982	1.00073	0.99966
$\hat{\sigma}_2^2$ : mean	1.01110	1.00933	1.00997	1.00912	1.01000	1.00894
adj.: mean	0.00933	0.00936	0.00938	0.00935	0.00932	0.00925
$\hat{\sigma}_2^2$ -adj.: mean	1.00176	0.99997	1.00059	0.99977	1.00068	0.99969
$\hat{\sigma}_1^2$ -( $\hat{\sigma}_2^2$ -adj.): mean	0.00029	0.00012	0.00010	0.00005	0.00005	-0.00003
$\hat{\sigma}_1^2 - \hat{\sigma}_2^2$ : mean	-0.00904	-0.00924	-0.00928	-0.00930	-0.00927	-0.00928
$\hat{\sigma}_1^2$ : median	0.98677	0.99364	0.99751	0.99598	0.99950	0.99960
$\hat{\sigma}_2^2$ : median	0.99517	1.00255	1.00640	1.00521	1.00855	1.00864
adj.: median	0.00544	0.00626	0.00679	0.00731	0.00810	0.00876
$\hat{\sigma}_2^2$ -adj.: median	0.98645	0.99339	0.99716	0.99640	0.99947	0.99917
$\hat{\sigma}_1^2$ -( $\hat{\sigma}_2^2$ -adj.): median	-0.00359	-0.00320	-0.00296	-0.00250	-0.00156	-0.00079
$\hat{\sigma}_1^2 - \hat{\sigma}_2^2$ : median	-0.00859	-0.00923	-0.00938	-0.00952	-0.00940	-0.00934
prob.(( $\hat{\sigma}_1^2 - \hat{\sigma}_2^2$ ) < 0)	0.69440	0.76330	0.80570	0.86800	0.93910	0.99280

**Table A10: MSPE Summary Statistics, Size Experiments: Varying  $k$  Version of DGP 1,  $R = 120$**

<b>A. null model</b>						
	$P = 48$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
$\hat{\sigma}_1^2$ : mean	0.99985	0.99905	0.99828	0.99799	0.99843	0.99889
<b>B. <math>k = 2</math></b>						
	$P = 48$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
$\hat{\sigma}_2^2$ : mean	1.02010	1.01896	1.01816	1.01801	1.01845	1.01884
adj.: mean	0.01990	0.01983	0.01988	0.02002	0.02014	0.02012
$\hat{\sigma}_2^2$ -adj.: mean	1.00020	0.99912	0.99828	0.99799	0.99831	0.99872
$\hat{\sigma}_1^2$ -( $\hat{\sigma}_2^2$ -adj.): mean	-0.00035	-0.00007	-0.00000	0.00000	0.00012	0.00018
$\hat{\sigma}_1^2 - \hat{\sigma}_2^2$ : mean	-0.02025	-0.01991	-0.01988	-0.02002	-0.02002	-0.01995
prob.(( $\hat{\sigma}_1^2 - \hat{\sigma}_2^2$ ) < 0)	0.77400	0.85430	0.89810	0.94990	0.98740	0.99950
<b>C. <math>k = 3</math></b>						
	$P = 48$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
$\hat{\sigma}_2^2$ : mean	1.03284	1.03180	1.03096	1.03072	1.03110	1.03150
adj.: mean	0.03264	0.03253	0.03257	0.03274	0.03285	0.03283
$\hat{\sigma}_2^2$ -adj.: mean	1.00020	0.99928	0.99839	0.99798	0.99825	0.99867
$\hat{\sigma}_1^2$ -( $\hat{\sigma}_2^2$ -adj.): mean	-0.00035	-0.00023	-0.00012	0.00001	0.00018	0.00022
$\hat{\sigma}_1^2 - \hat{\sigma}_2^2$ : mean	-0.03299	-0.03276	-0.03269	-0.03273	-0.03267	-0.03261
prob.(( $\hat{\sigma}_1^2 - \hat{\sigma}_2^2$ ) < 0)	0.81380	0.89490	0.93990	0.97670	0.99690	1.00000
<b>E. <math>k = 5</math></b>						
	$P = 48$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
$\hat{\sigma}_2^2$ : mean	1.06030	1.05962	1.05900	1.05860	1.05878	1.05911
adj.: mean	0.06027	0.06045	0.06041	0.06036	0.06052	0.06042
$\hat{\sigma}_2^2$ -adj.: mean	1.00003	0.99917	0.99859	0.99823	0.99826	0.99869
$\hat{\sigma}_1^2$ -( $\hat{\sigma}_2^2$ -adj.): mean	-0.00019	-0.00012	-0.00031	-0.00024	0.00017	0.00020
$\hat{\sigma}_1^2 - \hat{\sigma}_2^2$ : mean	-0.06046	-0.06057	-0.06073	-0.06061	-0.06035	-0.06022
prob.(( $\hat{\sigma}_1^2 - \hat{\sigma}_2^2$ ) < 0)	0.87340	0.94880	0.97720	0.99430	0.99980	1.00000
<b>F. <math>k = 7</math></b>						
	$P = 48$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
$\hat{\sigma}_2^2$ : mean	1.09146	1.09019	1.08945	1.08911	1.08934	1.08974
adj.: mean	0.09135	0.09138	0.09135	0.09114	0.09118	0.09109
$\hat{\sigma}_2^2$ -adj.: mean	1.00011	0.99881	0.99810	0.99798	0.99816	0.99865
$\hat{\sigma}_1^2$ -( $\hat{\sigma}_2^2$ -adj.): mean	-0.00026	0.00024	0.00018	0.00002	0.00027	0.00025
$\hat{\sigma}_1^2 - \hat{\sigma}_2^2$ : mean	-0.09161	-0.09114	-0.09117	-0.09112	-0.09091	-0.09085
prob.(( $\hat{\sigma}_1^2 - \hat{\sigma}_2^2$ ) < 0)	0.91550	0.97320	0.99200	0.99870	1.00000	1.00000
<b>G. <math>k = 11</math></b>						
	$P = 48$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
$\hat{\sigma}_2^2$ : mean	1.15841	1.15777	1.15713	1.15691	1.15738	1.15805
adj.: mean	0.15839	0.15884	0.15902	0.15872	0.15894	0.15923
$\hat{\sigma}_2^2$ -adj.: mean	1.00002	0.99894	0.99810	0.99819	0.99845	0.99881
$\hat{\sigma}_1^2$ -( $\hat{\sigma}_2^2$ -adj.): mean	-0.00017	0.00011	0.00017	-0.00020	-0.00002	0.00008
$\hat{\sigma}_1^2 - \hat{\sigma}_2^2$ : mean	-0.15856	-0.15872	-0.15885	-0.15892	-0.15895	-0.15916
prob.(( $\hat{\sigma}_1^2 - \hat{\sigma}_2^2$ ) < 0)	0.95860	0.99330	0.99900	1.00000	1.00000	1.00000

Notes:

1. The DGP takes the same form as DGP 1, except that data are generated for a total of 10  $x$  variables,  $x_{i,t}, i = 1, 2, \dots, 10$ , each following an AR(1) process with coefficient .9.
2. Each panel reports, for a different  $k$ , the results of comparing forecasts from the null “no change” model to an alternative model that includes a constant and  $x_{1,t-1}, x_{2,t-1}, \dots, x_{k-1,t-1}$ .

<b>Table A11</b>						
<b>Empirical Size, Data with Fat Tails: DGP 1</b>						
<b>Nominal Size = 10%</b>						
	<b>A. <math>R = 120</math></b>					
	$P = 48$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
MSPE-adjusted	.076	.070	.069	.065	.072	.082
MSPE:normal	.021	.009	.003	.001	.000	.000
MSPE:McCracken	.091	.089	.078	.070	.064	.048
CCS	.141	.116	.112	.106	.101	.102
	<b>B. <math>R = 240</math></b>					
	$P = 48$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
MSPE-adjusted	.079	.068	.064	.063	.065	.074
MSPE:normal	.037	.019	.011	.004	.000	.000
MSPE:McCracken	.099	.093	.086	.093	.078	.071
CCS	.133	.112	.109	.105	.101	.100

<b>Table A12</b>						
<b>Empirical Size, Data with Fat Tails: DGP 2</b>						
<b>Nominal Size = 10%</b>						
	<b>A. <math>R = 120</math></b>					
	$P = 48$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
MSPE-adjusted	.104	.091	.076	.074	.081	.085
MSPE:normal	.040	.014	.008	.001	.000	.000
MSPE:McCracken	.144	.126	.100	.082	.065	.042
CCS	.233	.181	.150	.127	.118	.102
	<b>B. <math>R = 240</math></b>					
	$P = 48$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
MSPE-adjusted	.098	.083	.077	.075	.071	.078
MSPE:normal	.052	.033	.018	.010	.001	.000
MSPE:McCracken	.138	.119	.114	.110	.085	.068
CCS	.236	.176	.149	.132	.116	.110

Notes:

1. The data are generated from innovations drawn from the  $t(6)$  distribution, following the approach of Diebold and Mariano (1995). The forecast error  $e_t$  follows a  $t(6)$  distribution. The error  $v_t$  in the equation for  $x_t$  is  $t(6)$  distributed in the case of DGP 1 (for which  $e_t$  and  $v_t$  are uncorrelated) and a linear combination of  $t(6)$ -distributed innovations in the case of DGP 2 (for which  $e_t$  and  $v_t$  are correlated).

<b>Table A13</b>						
<b>Empirical Size: DGP 1</b>						
<b>Nominal Size = 5%</b>						
	<b>A. <math>R = 60</math></b>					
	$P = 48$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
MSPE-adjusted	.037	.034	.033	.032	.037	.043
MSPE:normal	.003	.001	.000	.000	.000	.000
MSPE:McCracken	.041	.037	.023	.022	.015	.009
CCS:robust	.085	.069	.063	.057	.056	.053
	<b>B. <math>R = 120</math></b>					
	$P = 48$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
MSPE-adjusted	.034	.031	.030	.033	.037	.040
MSPE:normal	.009	.003	.001	.000	.000	.000
MSPE:McCracken	.047	.041	.039	.038	.033	.023
CCS:robust	.084	.067	.062	.062	.055	.052
	<b>C. <math>R = 240</math></b>					
	$P = 48$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
MSPE-adjusted	.037	.035	.036	.032	.029	.032
MSPE:normal	.016	.008	.005	.001	.000	.000
MSPE:McCracken	.051	.051	.048	.047	.047	.035
CCS:robust	.081	.065	.059	.061	.053	.049

<b>Table A14</b>						
<b>Empirical Size: DGP 2</b>						
<b>Nominal Size = 5%</b>						
	<b>A. <math>R = 60</math></b>					
	$P = 48$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
MSPE-adjusted	.050	.043	.039	.041	.041	.044
MSPE:normal	.011	.001	.000	.000	.000	.000
MSPE:McCracken	.078	.058	.038	.029	.016	.008
CCS:robust	.163	.111	.092	.074	.059	.050
	<b>B. <math>R = 120</math></b>					
	$P = 48$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
MSPE-adjusted	.054	.047	.038	.032	.034	.039
MSPE:normal	.018	.007	.002	.001	.000	.000
MSPE:McCracken	.086	.071	.057	.045	.031	.019
CCS:robust	.165	.112	.089	.075	.059	.054
	<b>C. <math>R = 240</math></b>					
	$P = 48$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
MSPE-adjusted	.051	.044	.042	.034	.036	.036
MSPE:normal	.029	.017	.010	.003	.000	.000
MSPE:McCracken	.080	.075	.068	.057	.053	.034
CCS:robust	.157	.108	.094	.069	.060	.057

Notes:

1. The results in Tables A13 and A14 come from the same experiments used in generating the results in the paper's Tables 1 and 2. In other words, compared to Tables 1 and 2, the simulated test statistics are the same, but the critical values are larger.

Table A15						
Empirical Size: DGP 1 with Heteroskedasticity, R = 120						
Nominal Size = 10%						
	A. GARCH					
	$P = 48$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
MSPE-adjusted	.077	.069	.064	.069	.074	.079
MSPE:normal	.022	.008	.003	.001	.000	.000
MSPE:McCracken	.091	.089	.080	.075	.070	.072
CCS	.146	.128	.115	.107	.107	.102
	B. Conditional heteroskedasticity					
	$P = 48$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
MSPE-adjusted	.083	.071	.066	.065	.069	.079
MSPE:normal	.024	.010	.005	.002	.000	.000
MSPE:McCracken	.107	.103	.099	.107	.134	.201
CCS	.159	.137	.125	.114	.108	.100

Notes:

1. The GARCH model takes the form given in equation (4.2) (for DGP 2), except that  $\rho = 0$ .
2. The conditional heteroskedasticity takes the form given in equation (4.3) (for DGP 2), except that  $\rho = 0$ .

<b>Table A16</b>			
<b>Empirical Size, Large <math>R</math> and <math>P</math>: DGP 1</b>			
<b>Nominal Size = 10%</b>			
	$R = 600$ $P = 6000$	$R = 1200$ $P = 12000$	$R = 2500$ $P = 25000$
MSPE-adjusted	.080	.080	.085
MSPE:normal	.000	.000	.000
MSPE:McCracken	.080	.086	.095
CCS	.099	.093	.101
MSE-F:McCracken	.077	.084	.096
ENC-F:Clark-McCracken	.094	.094	.098
ENC-t:Clark-McCracken	.091	.095	.099

Notes:

1. *MSE-F:McCracken* refers to the F-type test of equal MSPE developed by McCracken (2004), compared against McCracken's asymptotic critical values.
2. *ENC-F:Clark-McCracken* refers to the F-type test of forecast encompassing developed in Clark and McCracken (2001, 2003), compared against Clark and McCracken's (2001) asymptotic critical values.
3. *ENC-t:Clark-McCracken* refers to a t-test for forecast encompassing compared against Clark and McCracken's (2001) asymptotic critical values.

<b>Table A17</b>					
<b>Empirical Size, <math>R = 120</math>, <math>P</math> Large: DGP 1</b>					
<b>Nominal Size = 10%</b>					
	<b>A. Homoskedasticity</b>				
	$P = 240$	$P = 480$	$P = 1200$	$P = 12000$	$P = 24000$
MSPE-adjusted	.077	.076	.083	.094	.101
MSPE:normal	.002	.000	.000	.000	.000
MSPE:McCracken	.084	.063	.044	.000	.000
CCS	.142	.119	.105	.101	.095
	<b>B. Multiplicative conditional heteroskedasticity</b>				
	$P = 240$	$P = 480$	$P = 1200$	$P = 12000$	$P = 24000$
MSPE-adjusted	.069	.056	.051	.073	.082
MSPE:normal	.003	.000	.000	.000	.000
MSPE:McCracken	.103	.116	.210	.003	.000
CCS	.161	.134	.118	.099	.100

<b>Table A18</b>						
<b>Empirical Size: Varying <math>k</math> Version of DGP 1, <math>R = 120</math></b>						
<b>Nominal Size = 10%</b>						
	<b>A. <math>k = 2</math></b>					
	$P = 48$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
MSPE-adjusted	.073	.067	.065	.066	.076	.086
MSPE:normal	.021	.009	.003	.001	.000	.000
MSPE:McCracken	.093	.090	.080	.073	.067	.055
CCS:robust	.146	.124	.117	.108	.111	.105
CCS:OLS	.115	.109	.106	.101	.106	.103
	<b>B. <math>k = 3</math></b>					
	$P = 48$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
MSPE-adjusted	.076	.069	.068	.072	.079	.090
MSPE:normal	.012	.004	.002	.000	.000	.000
MSPE:McCracken	.076	.068	.066	.060	.050	.033
CCS:robust	.185	.140	.129	.120	.114	.108
CCS:OLS	.117	.106	.106	.105	.108	.105
	<b>C. <math>k = 4</math></b>					
	$P = 48$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
MSPE-adjusted	.078	.074	.073	.076	.081	.090
MSPE:normal	.010	.002	.001	.000	.000	.000
MSPE:McCracken	.063	.060	.056	.043	.034	.018
CCS:robust	.225	.160	.143	.123	.113	.108
CCS:OLS	.120	.110	.107	.104	.105	.103
	<b>D. <math>k = 5</math></b>					
	$P = 48$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
MSPE-adjusted	.079	.078	.076	.078	.084	.089
MSPE:normal	.008	.001	.000	.000	.000	.000
MSPE:McCracken	.059	.054	.049	.037	.021	.012
CCS:robust	.269	.184	.152	.132	.120	.108
CCS:OLS	.121	.112	.107	.108	.106	.101
	<b>E. <math>k = 7</math></b>					
	$P = 48$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
MSPE-adjusted	.081	.082	.084	.084	.087	.096
MSPE:normal	.004	.000	.000	.000	.000	.000
CCS:robust	.377	.235	.187	.153	.131	.112
CCS:OLS	.131	.116	.111	.109	.108	.100
	<b>F. <math>k = 11</math></b>					
	$P = 48$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
MSPE-adjusted	.085	.086	.089	.090	.091	.098
MSPE:normal	.001	.000	.000	.000	.000	.000
CCS:robust	.625	.370	.275	.200	.150	.120
CCS:OLS	.145	.125	.118	.111	.109	.103

Notes:

1. See the notes to Table A10.
2. The results in panel A for  $k = 2$  are conceptually the same as the paper's Table 1 results for  $R = 120$  except that the results are based on different sets of random draws.

**Table A19**  
**Empirical Size, Long-Horizon Forecasts,  $R = 120$ : DGP 1**  
**Nominal Size = 10%**

	<b>A. Horizon (<math>\tau</math>) = 6</b>									
	<b>West-Hodrick</b>					<b>QS-AR(1)</b>				
	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
MSPE-adjusted	.065	.065	.069	.075	.083	.112	.098	.092	.083	.079
MSPE:normal	.011	.004	.001	.000	.000	.024	.009	.003	.001	.000
CCS	.093	.098	.102	.102	.098	.390	.324	.249	.187	.141
	<b>B. Horizon (<math>\tau</math>) = 12</b>									
	<b>West-Hodrick</b>					<b>QS-AR(1)</b>				
	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
MSPE-adjusted	.075	.071	.071	.078	.085	.156	.129	.110	.096	.090
MSPE:normal	.015	.006	.002	.000	.000	.046	.020	.006	.001	.000
CCS	.091	.096	.098	.100	.100	.522	.427	.321	.235	.164
	<b>C. Horizon (<math>\tau</math>) = 24</b>									
	<b>West-Hodrick</b>					<b>QS-AR(1)</b>				
	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
MSPE-adjusted	.086	.076	.071	.077	.085	.215	.177	.144	.113	.099
MSPE:normal	.024	.010	.003	.000	.000	.084	.044	.015	.002	.000
CCS	.106	.098	.093	.098	.102	.689	.579	.427	.293	.191
	<b>D. Horizon (<math>\tau</math>) = 36</b>									
	<b>West-Hodrick</b>					<b>QS-AR(1)</b>				
	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
MSPE-adjusted	.100	.078	.071	.078	.087	.264	.212	.163	.132	.110
MSPE:normal	.033	.015	.005	.001	.000	.118	.063	.022	.003	.000
CCS	.149	.107	.098	.095	.099	.801	.679	.506	.343	.214

Notes:

1. The underlying data are the same as those used in generating the one-step ahead forecast results for  $R = 120$  in the paper's Table 1.
2. For a given forecast horizon  $\tau$ , the variable being forecast is  $y_{t+\tau,\tau} \equiv y_{t+\tau} + y_{t+\tau-1} + \dots + y_{t+1}$ . The null model is "no change." The alternative model regresses  $y_{t+\tau,\tau}$  on  $X_{t+1} = (1, x_t)'$ .
3. The left or *West-Hodrick* side of the table reports results for test statistics computed with variances estimated by the method of West (1997) and Hodrick (1992), as described at the end of section 3.
4. The right or *QS-AR(1)* side of the table reports results for test statistics computed with variances estimated with the quadratic spectral kernel and bandwidth chosen as recommended in Andrews (1991).

**Table A20**  
**Empirical Size, Long-Horizon Forecasts,  $R = 120$ : DGP 2**  
**Nominal Size = 10%**

	<b>A. Horizon (<math>\tau</math>) = 6</b>									
	<b>West-Hodrick</b>					<b>QS-AR(1)</b>				
	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
MSPE-adjusted	.103	.087	.077	.079	.087	.180	.147	.129	.113	.103
MSPE:normal	.020	.008	.002	.000	.000	.050	.024	.004	.000	.000
CCS	.149	.137	.123	.106	.103	.466	.364	.273	.195	.143
	<b>B. Horizon (<math>\tau</math>) = 12</b>									
	<b>West-Hodrick</b>					<b>QS-AR(1)</b>				
	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
MSPE-adjusted	.109	.097	.086	.084	.091	.222	.187	.157	.129	.116
MSPE:normal	.024	.009	.001	.000	.000	.073	.034	.008	.001	.000
CCS	.152	.136	.127	.106	.100	.619	.486	.361	.246	.166
	<b>C. Horizon (<math>\tau</math>) = 24</b>									
	<b>West-Hodrick</b>					<b>QS-AR(1)</b>				
	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
MSPE-adjusted	.120	.107	.090	.094	.098	.274	.234	.199	.167	.139
MSPE:normal	.032	.015	.003	.000	.000	.103	.059	.019	.002	.000
CCS	.174	.146	.129	.108	.101	.781	.644	.473	.319	.205
	<b>D. Horizon (<math>\tau</math>) = 36</b>									
	<b>West-Hodrick</b>					<b>QS-AR(1)</b>				
	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
MSPE-adjusted	.138	.118	.095	.092	.098	.325	.269	.228	.188	.151
MSPE:normal	.046	.019	.005	.001	.000	.141	.074	.027	.004	.000
CCS	.255	.166	.131	.112	.100	.878	.749	.562	.374	.234

Notes:

1. The underlying data are the same as those used in generating the one-step ahead forecast results for  $R = 120$  in the paper's Table 2.

1. See the notes to Table A19.

<b>Table A21</b>						
<b>Empirical Size, Null Model Includes Constant: DGP 1</b>						
<b>Nominal Size = 10%</b>						
	<b>A. <math>R = 60</math></b>					
	$P = 48$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
MSPE-adjusted	.070	.069	.070	.076	.082	.095
MSPE:normal	.015	.003	.002	.000	.000	.000
MSPE:McCracken	.093	.077	.056	.059	.037	.023
CCS	.121	.112	.104	.103	.103	.102
	<b>B. <math>R = 120</math></b>					
	$P = 48$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
MSPE-adjusted	.072	.065	.064	.065	.071	.079
MSPE:normal	.030	.011	.007	.002	.000	.000
MSPE:McCracken	.105	.096	.088	.079	.067	.049
CCS	.118	.109	.109	.105	.102	.098
	<b>C. <math>R = 240</math></b>					
	$P = 48$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
MSPE-adjusted	.082	.073	.062	.059	.066	.077
MSPE:normal	.051	.033	.021	.011	.003	.000
MSPE:McCracken	.123	.108	.096	.099	.092	.082
CCS	.123	.119	.113	.105	.101	.104

<b>Table A22</b>						
<b>Empirical Size, Null Model Includes Constant: DGP 2</b>						
<b>Nominal Size = 10%</b>						
	<b>A. <math>R = 60</math></b>					
	$P = 48$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
MSPE-adjusted	.101	.088	.093	.100	.111	.135
MSPE:normal	.028	.007	.002	.001	.000	.000
MSPE:McCracken	.135	.103	.070	.060	.036	.014
CCS	.118	.105	.106	.104	.103	.106
	<b>B. <math>R = 120</math></b>					
	$P = 48$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
MSPE-adjusted	.103	.086	.079	.079	.086	.100
MSPE:normal	.055	.025	.015	.004	.000	.000
MSPE:McCracken	.151	.124	.113	.088	.065	.041
CCS	.127	.108	.111	.108	.105	.103
	<b>C. <math>R = 240</math></b>					
	$P = 48$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
MSPE-adjusted	.105	.084	.075	.070	.067	.076
MSPE:normal	.071	.044	.031	.015	.003	.000
MSPE:McCracken	.152	.124	.113	.114	.093	.070
CCS	.121	.103	.104	.104	.104	.106

Notes:

1. In these experiments, the null model relates the predictand  $y_{t+1}$  to a constant, rather than taking the “no change” form used throughout the paper.

Table A23						
Size-Adjusted Power: DGP 1 with $b = -1$						
Empirical Size = 10%						
	A. $R = 60$					
	$P = 48$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
MSPE-adjusted	.146	.174	.189	.221	.271	.384
MSPE	.139	.167	.187	.220	.273	.392
CCS	.134	.169	.213	.270	.446	.787
	B. $R = 120$					
	$P = 48$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
MSPE-adjusted	.170	.205	.231	.283	.370	.524
MSPE	.153	.182	.211	.268	.359	.523
CCS	.134	.174	.203	.286	.449	.798
	C. $R = 240$					
	$P = 48$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
MSPE-adjusted	.185	.232	.271	.320	.444	.649
MSPE	.163	.199	.236	.286	.416	.635
CCS	.134	.164	.196	.271	.444	.787

Notes:

1. In these power experiments, the slope coefficient  $b$  on  $x$  in the DGP for  $y$  is set to  $-1$  rather than  $-2$  as in the paper's Table 5 results.

<b>Table A24</b>						
<b>Size-Adjusted Power: DGP 1</b>						
<b>Empirical Size = 5%</b>						
	<i>R</i> = 60					
	<i>P</i> = 48	<i>P</i> = 96	<i>P</i> = 144	<i>P</i> = 240	<i>P</i> = 480	<i>P</i> = 1200
MSPE-adjusted	.189	.266	.338	.450	.639	.905
MSPE	.156	.236	.325	.444	.653	.912
CCS	.144	.256	.363	.560	.852	.998
	<i>R</i> = 120					
	<i>P</i> = 48	<i>P</i> = 96	<i>P</i> = 144	<i>P</i> = 240	<i>P</i> = 480	<i>P</i> = 1200
MSPE-adjusted	.234	.357	.441	.572	.775	.970
MSPE	.182	.281	.378	.525	.758	.968
CCS	.139	.263	.374	.546	.862	.998
	<i>R</i> = 240					
	<i>P</i> = 48	<i>P</i> = 96	<i>P</i> = 144	<i>P</i> = 240	<i>P</i> = 480	<i>P</i> = 1200
MSPE-adjusted	.276	.406	.514	.674	.868	.994
MSPE	.202	.295	.394	.562	.816	.990
CCS	.149	.263	.376	.553	.860	.999

<b>Table A25</b>						
<b>Size-Adjusted Power: DGP 2</b>						
<b>Empirical Size = 5%</b>						
	<i>R</i> = 60					
	<i>P</i> = 48	<i>P</i> = 96	<i>P</i> = 144	<i>P</i> = 240	<i>P</i> = 480	<i>P</i> = 1200
MSPE-adjusted	.052	.054	.052	.052	.056	.057
MSPE	.056	.057	.059	.061	.066	.074
CCS	.054	.055	.060	.073	.110	.237
	<i>R</i> = 120					
	<i>P</i> = 48	<i>P</i> = 96	<i>P</i> = 144	<i>P</i> = 240	<i>P</i> = 480	<i>P</i> = 1200
MSPE-adjusted	.058	.060	.065	.073	.087	.096
MSPE	.064	.070	.072	.080	.089	.107
CCS	.052	.058	.068	.078	.114	.234
	<i>R</i> = 240					
	<i>P</i> = 48	<i>P</i> = 96	<i>P</i> = 144	<i>P</i> = 240	<i>P</i> = 480	<i>P</i> = 1200
MSPE-adjusted	.069	.073	.076	.092	.105	.149
MSPE	.073	.075	.076	.088	.104	.151
CCS	.050	.055	.064	.074	.106	.219

Notes:

1. The results in Tables A24 and A25 for  $R = 120$  come from the same experiments used in generating the results in the paper's Table 5. In other words, compared to Table 5, the simulated test statistics are the same, but the critical values are larger.

<b>Table A26</b>						
<b>Unadjusted Power: DGP 1</b>						
<b>Nominal Size = 10%</b>						
	<b>A. <math>R = 60</math></b>					
	$P = 48$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
MSPE-adjusted	.237	.319	.396	.510	.708	.938
MSPE:normal	.037	.026	.019	.015	.007	.002
MSPE:McCracken	.228	.299	.317	.442	.603	.864
CCS	.292	.410	.517	.692	.913	.999
	<b>B. <math>R = 120</math></b>					
	$P = 48$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
MSPE-adjusted	.283	.391	.480	.614	.821	.980
MSPE:normal	.095	.089	.086	.086	.103	.146
MSPE:McCracken	.263	.375	.457	.588	.789	.968
CCS	.296	.407	.518	.694	.920	.999
	<b>C. <math>R = 240</math></b>					
	$P = 48$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
MSPE-adjusted	.347	.482	.577	.716	.887	.996
MSPE:normal	.158	.180	.198	.230	.319	.590
MSPE:McCracken	.314	.423	.513	.685	.868	.994
CCS	.293	.403	.512	.693	.916	.999

<b>Table A27</b>						
<b>Unadjusted Power: DGP 2</b>						
<b>Nominal Size = 10%</b>						
	<b>A. <math>R = 60</math></b>					
	$P = 48$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
MSPE-adjusted	.104	.089	.083	.086	.091	.097
MSPE:normal	.026	.004	.002	.000	.000	.000
MSPE:McCracken	.146	.106	.075	.070	.050	.029
CCS	.261	.209	.187	.187	.212	.359
	<b>B. <math>R = 120</math></b>					
	$P = 48$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
MSPE-adjusted	.117	.110	.097	.104	.115	.145
MSPE:normal	.054	.024	.011	.004	.000	.000
MSPE:McCracken	.162	.156	.131	.121	.106	.095
CCS	.264	.212	.191	.186	.222	.363
	<b>C. <math>R = 240</math></b>					
	$P = 48$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
MSPE-adjusted	.130	.124	.124	.121	.143	.199
MSPE:normal	.083	.056	.039	.017	.005	.000
MSPE:McCracken	.178	.172	.169	.170	.165	.187
CCS	.253	.204	.189	.182	.212	.360

Notes:

1. The results in Tables A26 and A27 for  $R = 120$  come from the same experiments used in generating the results in the paper's Table 5. In other words, compared to Table 5, the simulated test statistics are the same, but the critical values are asymptotic rather than simulated.

Table A28						
MSPE Summary Statistics, Power Experiments: DGP 1						
	A. $R = 60$					
	$P = 48$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
$\hat{\sigma}_1^2$ : mean	1.02410	1.02406	1.02520	1.02563	1.02580	1.02569
$\hat{\sigma}_2^2$ : mean	1.04235	1.04224	1.04339	1.04387	1.04400	1.04398
$\hat{\sigma}_1^2$ : median	1.00993	1.01723	1.02026	1.02258	1.02413	1.02477
$\hat{\sigma}_2^2$ : median	1.02911	1.03529	1.03965	1.04101	1.04270	1.04319
prob. $((\hat{\sigma}_1^2 - \hat{\sigma}_2^2) < 0)$	0.67800	0.71840	0.73470	0.77290	0.82460	0.92130
	B. $R = 120$					
	$P = 48$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
$\hat{\sigma}_1^2$ : mean	1.02765	1.02768	1.02773	1.02663	1.02561	1.02643
$\hat{\sigma}_2^2$ : mean	1.02228	1.02165	1.02158	1.02092	1.01985	1.02082
$\hat{\sigma}_1^2$ : median	1.01123	1.02210	1.02395	1.02283	1.02396	1.02581
$\hat{\sigma}_2^2$ : median	1.00712	1.01626	1.01702	1.01737	1.01878	1.02063
prob. $((\hat{\sigma}_1^2 - \hat{\sigma}_2^2) < 0)$	0.52650	0.51560	0.49380	0.47260	0.41130	0.32590
	C. $R = 240$					
	$P = 48$	$P = 96$	$P = 144$	$P = 240$	$P = 480$	$P = 1200$
$\hat{\sigma}_1^2$ : mean	1.02849	1.02646	1.02691	1.02581	1.02658	1.02551
$\hat{\sigma}_2^2$ : mean	1.01110	1.00933	1.00997	1.00912	1.01000	1.00894
$\hat{\sigma}_1^2$ : median	1.01326	1.01854	1.02241	1.02284	1.02497	1.02516
$\hat{\sigma}_2^2$ : median	0.99515	1.00258	1.00641	1.00518	1.00856	1.00865
prob. $((\hat{\sigma}_1^2 - \hat{\sigma}_2^2) < 0)$	0.40650	0.35370	0.32100	0.25900	0.16230	0.04180