

Eventus (R) Software from Cowan Research, L.C.

Eventus (R) software is produced by Cowan Research, L.C.  
http://www.eventstudy.com/

ESTIMATION PERIOD: Ends 46 days before the event date;  
255 days in length.

TOTAL SECURITY-EVENTS IN REQUEST FILE: 8  
SECURITY-EVENTS DROPPED: 0  
SECURITY-EVENTS WITH USEABLE RETURNS: 8

Minimum days of return data required for parameter estimation: 3

NOTE: Useable returns means all nonmissing returns except the  
first day after a missing estimation period return.

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#### Results of Daily Security Return Data Input

PERMNO	Name on Event Date	Event Date	Esti- mation Period Returns ≤255	Event Period Returns ≤61	Reason if no useable returns
12079	GENERAL MOTORS CORP	Friday, October 3, 2008	255	61	
38703	WELLS FARGO & CO NEW	Friday, October 3, 2008	255	61	
47896	JPMORGAN CHASE & CO	Friday, October 3, 2008	255	61	
59408	BANK OF AMERICA CORP	Friday, October 3, 2008	255	61	
66800	AMERICAN INTERNATIONAL GROUP IN	Friday, October 3, 2008	255	61	
69032	MORGAN STANLEY DEAN WITTER & CO	Friday, October 3, 2008	255	61	
70519	CITIGROUP INC	Friday, October 3, 2008	255	61	
86868	GOLDMAN SACHS GROUP INC	Friday, October 3, 2008	255	61	

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#### Parameter Estimates and Estimation Period Statistics

Market Index=Value

PERMNO	Event Date	Mean Total Return	% of Raw Returns >0	Alpha	Beta	Market Model Res- iduals>0	Total Return Variance	Residual Standard Deviation	Autocor- relation*
12079	03OCT2008	-0.00319	45.10%	-0.00263	1.82	47.45%	0.00146	0.03047	0.0774
38703	03OCT2008	0.00044	43.92%	0.00100	1.81	43.53%	0.00125	0.02685	0.0001
47896	03OCT2008	0.00038	45.88%	0.00089	1.66	42.75%	0.00097	0.02276	0.0875
59408	03OCT2008	-0.00053	43.14%	0.00002	1.80	38.82%	0.00117	0.02530	0.2136
66800	03OCT2008	-0.00296	45.10%	-0.00242	1.77	52.94%	0.00108	0.02391	0.0749
69032	03OCT2008	-0.00130	43.92%	-0.00066	2.08	47.06%	0.00127	0.02383	0.1240
70519	03OCT2008	-0.00291	41.57%	-0.00229	2.01	47.84%	0.00112	0.02148	0.1680
86868	03OCT2008	0.00027	49.02%	0.00081	1.76	45.10%	0.00085	0.01864	0.0157
Mean		-0.00123	44.71%	-0.00066	1.84	45.69%	0.00115	0.02416	0.0951
Median		-0.00091	44.51%	-0.00032	1.80	46.08%	0.00114	0.02387	0.0825

\* First order autocorrelation of market model abnormal returns

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Market Model, Value Weighted Index

Day	N	Mean Abnormal Return	Positive: Negative	Patell Z	Portfolio Time-Series (CDA) t	Generalized Sign Z
-30	8	-2.27%	0:8<<	-2.635**	-1.311\$	-2.594**
-29	8	1.77%	7:1>>	1.991*	1.025	2.374**
-28	8	0.21%	5:3	0.251	0.120	0.955
-27	8	0.37%	4:4	0.484	0.214	0.245
-26	8	-0.40%	3:5	-0.552	-0.233	-0.465
-25	8	2.20%	7:1>>	2.663**	1.272	2.374**
-24	8	1.67%	7:1>>	2.140*	0.968	2.374**
-23	8	3.89%	8:0>>	4.345***	2.253*	3.084**
-22	8	3.10%	7:1>>	3.560***	1.792*	2.374**
-21	8	0.10%	5:3	0.139	0.056	0.955
-20	8	2.94%	7:1>>	3.473***	1.701*	2.374**
-19	8	2.13%	6:2>	2.557**	1.233	1.664*
-18	8	-0.61%	5:3	-0.821	-0.355	0.955
-17	8	-2.10%	2:6	-2.834**	-1.215	-1.175
-16	8	1.17%	4:4	0.875	0.677	0.245
-15	8	-5.36%	3:5	-6.561***	-3.099***	-0.465
-14	8	-10.85%	0:8<<	-12.501***	-6.275***	-2.594**
-13	8	-2.97%	4:4	-3.605***	-1.721*	0.245
-12	8	-7.44%	3:5	-8.910***	-4.300***	-0.465
-11	8	4.24%	6:2>	4.225***	2.452**	1.664*
-10	8	12.83%	7:1>>	15.206***	7.418***	2.374**
-9	8	2.72%	3:5	3.386***	1.571\$	-0.465
-8	8	2.85%	6:2>	3.813***	1.651*	1.664*
-7	8	-5.33%	3:5	-5.987***	-3.083**	-0.465
-6	8	-1.42%	3:5	-1.452\$	-0.821	-0.465
-5	8	3.63%	6:2>	4.365***	2.101*	1.664*
-4	8	0.72%	5:3	0.816	0.416	0.955
-3	8	6.19%	6:2>	6.933***	3.579***	1.664*
-2	8	7.99%	7:1>>	9.825***	4.623***	2.374**
-1	8	5.95%	8:0>>	7.029***	3.442***	3.084**
0	8	-1.89%	3:5	-2.594**	-1.094	-0.465
+1	8	4.27%	8:0>>	5.023***	2.471**	3.084**
+2	8	-3.13%	3:5	-3.357***	-1.812*	-0.465
+3	8	-1.81%	3:5	-2.013*	-1.050	-0.465
+4	8	-3.35%	4:4	-2.972**	-1.936*	0.245
+5	8	2.08%	5:3	1.986*	1.204	0.955
+6	8	1.95%	3:5	1.834*	1.126	-0.465
+7	8	12.10%	7:1>>	14.655***	7.001***	2.374**

The symbols \$,\*,\*\*, and \*\*\* denote statistical significance at the 0.10, 0.05, 0.01 and 0.001 levels, respectively, using a generic one-tail test. The symbols (< or >) etc. correspond to \$,\* and show the direction and significance of the generalized sign test.

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Market Model, Value Weighted Index

Day	N	Mean Abnormal Return	Positive: Negative	Patell Z	Portfolio Time-Series (CDA) t	Generalized Sign Z
+8	8	7.71%	8:0>>	8.127***	4.457***	3.084**
+9	8	-5.76%	0:8<<	-6.877***	-3.332***	-2.594**
+10	8	-2.94%	3:5	-3.410***	-1.700*	-0.465
+11	8	-4.63%	1:7<	-5.192***	-2.679**	-1.884*
+12	8	4.47%	8:0>>	5.123***	2.588**	3.084**
+13	8	5.76%	8:0>>	6.529***	3.333***	3.084**
+14	8	-1.58%	2:6	-2.073*	-0.915	-1.175
+15	8	-1.46%	2:6	-1.955*	-0.844	-1.175
+16	8	-1.08%	4:4	-1.296\$	-0.622	0.245
+17	8	-3.67%	1:7<	-4.433***	-2.121*	-1.884*
+18	8	-3.24%	2:6	-3.864***	-1.875*	-1.175
+19	8	-4.96%	1:7<	-5.699***	-2.870**	-1.884*

+20	8	2.89%	6:2>	3.535***	1.671*	1.664*
+21	8	1.08%	3:5	1.254	0.626	-0.465
+22	8	-1.87%	1:7<	-1.984*	-1.079	-1.884*
+23	8	-0.12%	5:3	-0.345	-0.072	0.955
+24	8	0.59%	5:3	0.902	0.339	0.955
+25	8	-3.58%	1:7<	-4.109***	-2.069*	-1.884*
+26	8	-3.56%	1:7<	-3.813***	-2.058*	-1.884*
+27	8	2.09%	7:1>>	3.047**	1.207	2.374**
+28	8	2.42%	5:3	2.195*	1.402\$	0.955
+29	8	-9.31%	0:8<<	-10.262***	-5.382***	-2.594**
+30	8	5.30%	7:1>>	5.927***	3.068**	2.374**

The symbols \$,\*,\*\*, and \*\*\* denote statistical significance at the 0.10, 0.05, 0.01 and 0.001 levels, respectively, using a generic one-tail test. The symbols (< or >) etc. correspond to \$,\* and show the direction and significance of the generalized sign test.

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#### Market Model, Value Weighted Index

Days	N	Mean Cumulative Abnormal Return	Precision Weighted CAAR	Positive: Negative	Patell Z	Portfolio Time-Series (CDA) t	Generalized Sign Z
(0,0)	8	-1.89%	-2.19%	3:5	-2.594**	-1.094	-0.465
(0,+1)	8	2.38%	2.13%	5:3	1.718*	0.974	0.955
(0,+5)	8	-3.83%	-3.49%	3:5	-1.603\$	-0.905	-0.465
(-9,+5)	8	19.47%	21.13%	6:2>	6.404***	2.908**	1.664*

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#### Market Adjusted Returns, Value Weighted Index

Day	N	Mean Abnormal Return	Positive: Negative	Patell Z	Portfolio Time-Series (CDA) t	Generalized Sign Z
-30	8	-2.06%	0:8<<	-2.200*	-1.015	-2.481**
-29	8	2.51%	7:1>>	2.611**	1.234	2.512**
-28	8	-1.42%	1:7<	-1.540\$	-0.697	-1.768*
-27	8	0.60%	4:4	0.695	0.296	0.372
-26	8	0.33%	6:2>	0.307	0.164	1.798*
-25	8	3.34%	7:1>>	3.661***	1.641\$	2.512**
-24	8	0.62%	7:1>>	0.792	0.306	2.512**
-23	8	3.25%	8:0>>>	3.311***	1.597\$	3.225***
-22	8	2.79%	7:1>>	2.916**	1.369\$	2.512**
-21	8	-2.39%	0:8<<	-2.550**	-1.177	-2.481**
-20	8	3.20%	7:1>>	3.455***	1.572\$	2.512**
-19	8	3.31%	7:1>>	3.593***	1.627\$	2.512**
-18	8	-3.61%	1:7<	-3.984***	-1.775*	-1.768*
-17	8	-1.45%	2:6	-1.805*	-0.711	-1.054
-16	8	2.04%	4:4	1.853*	1.001	0.372
-15	8	-4.99%	3:5	-5.561***	-2.450**	-0.341
-14	8	-14.76%	0:8<<	-15.942***	-7.251***	-2.481**
-13	8	-1.75%	4:4	-1.868*	-0.861	0.372
-12	8	-11.33%	1:7<	-12.445***	-5.569***	-1.768*
-11	8	7.88%	6:2>	7.993***	3.873***	1.798*
-10	8	16.61%	8:0>>>	18.197***	8.162***	3.225***
-9	8	-0.45%	3:5	-0.342	-0.220	-0.341
-8	8	1.48%	5:3	1.927*	0.727	1.085
-7	8	-5.67%	3:5	-5.823***	-2.788**	-0.341
-6	8	-0.09%	5:3	0.034	-0.046	1.085
-5	8	3.41%	6:2>	3.846***	1.674*	1.798*
-4	8	-6.29%	0:8<<	-6.776***	-3.090***	-2.481**
-3	8	10.05%	8:0>>>	10.717***	4.939***	3.225***
-2	8	7.45%	7:1>>	8.289***	3.660***	2.512**
-1	8	2.05%	6:2>	2.368**	1.009	1.798*
0	8	-3.16%	2:6	-3.650***	-1.552\$	-1.054
+1	8	0.64%	5:3	0.746	0.315	1.085
+2	8	-8.08%	0:8<<	-8.435***	-3.970***	-2.481**
+3	8	-2.85%	2:6	-2.933**	-1.400\$	-1.054
+4	8	-9.55%	1:7<	-9.586***	-4.694***	-1.768*
+5	8	1.01%	5:3	0.871	0.495	1.085
+6	8	11.54%	4:4	11.758***	5.670***	0.372
+7	8	11.29%	7:1>>	12.229***	5.548***	2.512**

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## Market Adjusted Returns, Value Weighted Index

Day	N	Mean Abnormal Return	Positive: Negative	Patell Z	Portfolio Time-Series (CDA) t	Generalized Sign Z
+8	8	0.10%	4:4	-0.006	0.048	0.372
+9	8	-2.49%	1:7<	-2.787**	-1.223	-1.768*
+10	8	-3.19%	3:5	-3.416***	-1.570\$	-0.341
+11	8	-0.79%	3:5	-0.683	-0.389	-0.341
+12	8	1.78%	6:2>	1.820*	0.873	1.798*
+13	8	0.73%	6:2>	0.761	0.361	1.798*
+14	8	-1.57%	3:5	-1.788*	-0.773	-0.341
+15	8	-4.32%	2:6	-4.850***	-2.122*	-1.054
+16	8	-4.25%	3:5	-4.565***	-2.087*	-0.341
+17	8	4.27%	7:1>>	4.210***	2.098*	2.512**
+18	8	-3.18%	2:6	-3.469***	-1.564\$	-1.054
+19	8	-2.36%	3:5	-2.485**	-1.158	-0.341
+20	8	4.36%	6:2>	4.830***	2.141*	1.798*
+21	8	0.96%	3:5	0.996	0.472	-0.341
+22	8	1.33%	5:3	1.596\$	0.653	1.085
+23	8	-4.44%	1:7<	-4.912***	-2.183*	-1.768*
+24	8	-3.61%	1:7<	-3.660***	-1.773*	-1.768*
+25	8	-1.44%	2:6	-1.485\$	-0.707	-1.054
+26	8	-4.75%	1:7<	-4.740***	-2.333**	-1.768*
+27	8	-0.02%	4:4	0.481	-0.011	0.372
+28	8	-2.16%	3:5	-2.722**	-1.063	-0.341
+29	8	-3.65%	2:6	-3.756***	-1.792*	-1.054
+30	8	1.57%	5:3	1.522\$	0.773	1.085

The symbols \$,\*,\*\*, and \*\*\* denote statistical significance at the 0.10, 0.05, 0.01 and 0.001 levels, respectively, using a generic one-tail test. The symbols (< or >) etc. correspond to \$,\* and show the direction and significance of the generalized sign test.

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## Market Adjusted Returns, Value Weighted Index

Days	N	Mean Cumulative Abnormal Return	Precision Weighted CAAR	Positive: Negative	Patell Z	Portfolio Time-Series (CDA) t	Generalized Sign Z
(0,0)	8	-3.16%	-3.43%	2:6	-3.650***	-1.552\$	-1.054
(0,+1)	8	-2.52%	-2.73%	3:5	-2.053*	-0.875	-0.341
(0,+5)	8	-21.99%	-21.63%	2:6	-9.384***	-4.412***	-1.054
(-9,+5)	8	-10.06%	-8.23%	4:4	-2.258*	-1.276	0.372

The symbols \$,\*,\*\*, and \*\*\* denote statistical significance at the 0.10, 0.05, 0.01 and 0.001 levels, respectively, using a generic one-tail test. The symbols (< or >) etc. correspond to \$,\* and show the direction and significance of the generalized sign test.