

## Sources:

Meta stock prices: <https://www.investing.com/equities/facebook-inc-historical-data>S&P 500 prices: <https://www.investing.com/indices/us-spx-500-historical-data>30-Year Treasury yields: <https://fred.stlouisfed.org/series/DGS30#0>

<b>Average Returns</b>	Levered Beta: 1.100357724	T-statistic: 5.644378735
Meta: 0.39%	Levered Downside Beta: 0.9668404263	
S&P 500: 0.55%		
<b>Average Excess Returns</b>	<b>Standard Deviation of Downmarket Returns</b>	
Meta: 0.33%	Meta: 0.04251766234	
S&P 500: 0.19%	S&P 500: 0.02285018501	
<b>Average Downmarket Excess Returns</b>	Observations: 118	
Meta: -2.36%	Covariance: 0.000500539202	
S&P 500: -1.92%	Standard Error of Slope: 0.1712926208	

Meta Return Data					S&P 500 Return Data				30-Year Treasuries Return Data			
Date	Closing Price	Logarithmic Returns	Excess Return (%)	Downmarket Excess Returns	Closing Price	Logarithmic Returns	Excess Return (%) (t)	Downside Periods	Downmarket Excess Returns	Yield	Returns	
6/30/2019	\$ 196.40				\$ 2,990.41						2.54%	0.05%
7/7/2019	\$ 204.87	4.22%	4.18%		\$ 3,013.77	0.78%	0.73%	FALSE			2.52%	0.05%
7/14/2019	\$ 198.36	-3.23%	-3.28%	-3.28%	\$ 2,976.61	-1.24%	-1.29%	TRUE	-1.29%		2.59%	0.05%
7/21/2019	\$ 199.75	0.70%	0.65%		\$ 3,025.86	1.64%	1.59%	FALSE			2.59%	0.05%
7/28/2019	\$ 189.02	-5.52%	-5.57%	-5.57%	\$ 2,932.05	-3.15%	-3.20%	TRUE	-3.20%		2.59%	0.05%
8/4/2019	\$ 187.85	-0.62%	-0.67%	-0.67%	\$ 2,918.65	-0.46%	-0.50%	TRUE	-0.50%		2.51%	0.05%
8/11/2019	\$ 183.70	-2.23%	-2.28%	-2.28%	\$ 2,888.68	-1.03%	-1.07%	TRUE	-1.07%		2.26%	0.04%
8/18/2019	\$ 177.75	-3.29%	-3.33%	-3.33%	\$ 2,847.11	-1.45%	-1.49%	TRUE	-1.49%		2.06%	0.04%
8/25/2019	\$ 185.67	4.36%	4.32%		\$ 2,926.46	2.75%	2.71%	FALSE			2.06%	0.04%
9/1/2019	\$ 187.49	0.98%	0.94%		\$ 2,978.71	1.77%	1.73%	FALSE			1.98%	0.04%
9/8/2019	\$ 187.19	-0.16%	-0.20%		\$ 3,007.39	0.96%	0.92%	FALSE			2.00%	0.04%
9/15/2019	\$ 189.93	1.45%	1.41%	1.41%	\$ 2,992.07	-0.51%	-0.55%	TRUE	-0.55%		2.22%	0.04%
9/22/2019	\$ 177.10	-6.99%	-7.04%	-7.04%	\$ 2,961.79	-1.02%	-1.06%	TRUE	-1.06%		2.24%	0.04%
9/29/2019	\$ 180.45	1.87%	1.83%	1.83%	\$ 2,952.01	-0.33%	-0.37%	TRUE	-0.37%		2.14%	0.04%
10/6/2019	\$ 184.19	2.05%	2.01%		\$ 2,970.27	0.62%	0.58%	FALSE			2.07%	0.04%
10/13/2019	\$ 185.85	0.90%	0.86%		\$ 2,986.20	0.53%	0.50%	FALSE			2.11%	0.04%
10/20/2019	\$ 187.89	1.09%	1.05%		\$ 3,022.55	1.21%	1.17%	FALSE			2.24%	0.04%
10/27/2019	\$ 193.62	3.00%	2.96%		\$ 3,066.91	1.46%	1.41%	FALSE			2.27%	0.04%
11/3/2019	\$ 190.84	-1.45%	-1.49%		\$ 3,093.08	0.85%	0.81%	FALSE			2.26%	0.04%
11/10/2019	\$ 195.10	2.21%	2.16%		\$ 3,120.46	0.88%	0.84%	FALSE			2.35%	0.04%
11/17/2019	\$ 198.82	1.89%	1.85%	1.85%	\$ 3,110.29	-0.33%	-0.37%	TRUE	-0.37%		2.34%	0.04%
11/24/2019	\$ 201.64	1.41%	1.37%		\$ 3,140.98	0.98%	0.94%	FALSE			2.24%	0.04%
12/1/2019	\$ 201.05	-0.29%	-0.33%	-0.33%	\$ 3,145.91	0.16%	0.12%	TRUE	0.12%		2.20%	0.04%
12/8/2019	\$ 194.11	-3.51%	-3.55%		\$ 3,168.80	0.72%	0.68%	FALSE			2.24%	0.04%
12/15/2019	\$ 206.30	6.09%	6.05%		\$ 3,221.22	1.64%	1.60%	FALSE			2.27%	0.04%
12/22/2019	\$ 208.10	0.87%	0.83%		\$ 3,240.02	0.58%	0.54%	FALSE			2.33%	0.04%
12/29/2019	\$ 208.67	0.27%	0.23%	0.23%	\$ 3,234.85	-0.16%	-0.20%	TRUE	-0.20%		2.33%	0.04%
1/5/2020	\$ 218.06	4.40%	4.36%		\$ 3,265.35	0.94%	0.90%	FALSE			2.33%	0.04%
1/12/2020	\$ 222.14	1.85%	1.81%		\$ 3,329.62	1.95%	1.91%	FALSE			2.32%	0.04%
1/19/2020	\$ 217.94	-1.91%	-1.95%	-1.95%	\$ 3,295.47	-1.03%	-1.07%	TRUE	-1.07%		2.27%	0.04%
1/26/2020	\$ 201.91	-7.64%	-7.68%	-7.68%	\$ 3,225.52	-2.15%	-2.19%	TRUE	-2.19%		2.19%	0.04%
2/2/2020	\$ 212.33	5.03%	4.99%		\$ 3,327.71	3.12%	3.08%	FALSE			2.05%	0.04%
2/9/2020	\$ 214.18	0.87%	0.83%		\$ 3,380.16	1.56%	1.53%	FALSE			2.08%	0.04%
2/16/2020	\$ 210.18	-1.89%	-1.92%	-1.92%	\$ 3,337.75	-1.26%	-1.30%	TRUE	-1.30%		2.06%	0.04%
2/23/2020	\$ 192.47	-8.80%	-8.84%	-8.84%	\$ 2,954.22	-12.21%	-12.24%	TRUE	-12.24%		1.97%	0.04%
3/1/2020	\$ 181.09	-6.09%	-6.13%		\$ 2,972.37	0.61%	0.58%	FALSE			1.78%	0.03%
3/8/2020	\$ 170.28	-6.16%	-6.18%	-6.18%	\$ 2,711.02	-9.20%	-9.23%	TRUE	-9.23%		1.56%	0.03%
3/15/2020	\$ 149.73	-12.86%	-12.89%	-12.89%	\$ 2,304.92	-16.23%	-16.25%	TRUE	-16.25%		1.32%	0.02%
3/22/2020	\$ 156.79	4.61%	4.58%		\$ 2,541.47	9.77%	9.74%	FALSE			1.61%	0.03%
3/29/2020	\$ 154.18	-1.68%	-1.70%	-1.70%	\$ 2,488.65	-2.10%	-2.13%	TRUE	-2.13%		1.38%	0.03%
4/5/2020	\$ 175.19	12.78%	12.75%		\$ 2,789.82	11.42%	11.40%	FALSE			1.29%	0.02%
4/12/2020	\$ 179.24	2.29%	2.26%		\$ 2,874.56	2.99%	2.97%	FALSE			1.33%	0.02%
4/19/2020	\$ 190.07	5.87%	5.84%	5.84%	\$ 2,836.74	-1.32%	-1.35%	TRUE	-1.35%		1.31%	0.02%
4/26/2020	\$ 202.27	6.22%	6.20%	6.20%	\$ 2,830.71	-0.21%	-0.23%	TRUE	-0.23%		1.19%	0.02%
5/3/2020	\$ 212.35	4.86%	4.84%		\$ 2,929.80	3.44%	3.42%	FALSE			1.25%	0.02%
5/10/2020	\$ 210.88	-0.69%	-0.72%	-0.72%	\$ 2,863.70	-2.28%	-2.31%	TRUE	-2.31%		1.34%	0.02%
5/17/2020	\$ 234.91	10.79%	10.77%		\$ 2,955.45	3.15%	3.13%	FALSE			1.36%	0.03%
5/24/2020	\$ 225.09	-4.27%	-4.30%		\$ 3,044.31	2.96%	2.94%	FALSE			1.41%	0.03%
5/31/2020	\$ 230.77	2.49%	2.47%		\$ 3,193.93	4.80%	4.77%	FALSE			1.44%	0.03%
6/7/2020	\$ 228.58	-0.95%	-0.98%	-0.98%	\$ 3,041.31	-4.90%	-4.93%	TRUE	-4.93%		1.56%	0.03%
6/14/2020	\$ 238.79	4.37%	4.34%		\$ 3,097.74	1.84%	1.81%	FALSE			1.53%	0.03%
6/21/2020	\$ 216.08	-9.99%	-10.02%	-10.02%	\$ 3,009.05	-2.90%	-2.93%	TRUE	-2.93%		1.49%	0.03%
6/28/2020	\$ 233.42	7.72%	7.69%		\$ 3,130.01	3.94%	3.91%	FALSE			1.44%	0.03%
7/5/2020	\$ 245.07	4.87%	4.84%		\$ 3,185.04	1.74%	1.72%	FALSE			1.42%	0.03%
7/12/2020	\$ 242.03	-1.25%	-1.27%		\$ 3,224.73	1.24%	1.21%	FALSE			1.37%	0.03%
7/19/2020	\$ 230.71	-4.79%	-4.81%	-4.81%	\$ 3,215.63	-0.28%	-0.31%	TRUE	-0.31%		1.32%	0.02%
7/26/2020	\$ 253.67	9.49%	9.46%		\$ 3,271.12	1.71%	1.69%	FALSE			1.28%	0.02%
8/2/2020	\$ 268.44	5.66%	5.64%		\$ 3,351.28	2.42%	2.40%	FALSE			1.22%	0.02%
8/9/2020	\$ 261.24	-2.72%	-2.74%		\$ 3,372.85	0.64%	0.62%	FALSE			1.21%	0.02%
8/16/2020	\$ 267.01	2.18%	2.16%		\$ 3,397.16	0.72%	0.69%	FALSE			1.36%	0.03%

8/23/2020	\$	293.66	9.51%	9.49%		\$	3,508.01	3.21%	3.18%	FALSE		1.40%	0.03%
8/30/2020	\$	282.73	-3.79%	-3.82%	-3.82%	\$	3,426.96	-2.34%	-2.36%	TRUE	-2.36%	1.43%	0.03%
9/6/2020	\$	266.61	-5.87%	-5.90%	-5.90%	\$	3,340.97	-2.54%	-2.57%	TRUE	-2.57%	1.42%	0.03%
9/13/2020	\$	252.53	-5.43%	-5.45%	-5.45%	\$	3,319.47	-0.65%	-0.67%	TRUE	-0.67%	1.43%	0.03%
9/20/2020	\$	254.82	0.90%	0.88%	0.88%	\$	3,298.46	-0.63%	-0.66%	TRUE	-0.66%	1.44%	0.03%
9/27/2020	\$	259.94	1.99%	1.96%		\$	3,348.44	1.50%	1.48%	FALSE		1.41%	0.03%
10/4/2020	\$	264.45	1.72%	1.69%		\$	3,477.13	3.77%	3.74%	FALSE		1.44%	0.03%
10/11/2020	\$	265.93	0.56%	0.53%	0.53%	\$	3,483.81	0.19%	0.16%	TRUE	0.16%	1.58%	0.03%
10/18/2020	\$	284.79	6.85%	6.82%	6.82%	\$	3,465.39	-0.53%	-0.56%	TRUE	-0.56%	1.52%	0.03%
10/25/2020	\$	263.11	-7.92%	-7.95%	-7.95%	\$	3,269.96	-5.80%	-5.83%	TRUE	-5.83%	1.62%	0.03%
11/1/2020	\$	293.41	10.90%	10.87%		\$	3,509.44	7.07%	7.04%	FALSE		1.60%	0.03%
11/8/2020	\$	276.95	-5.77%	-5.80%		\$	3,585.15	2.13%	2.10%	FALSE		1.60%	0.03%
11/15/2020	\$	269.70	-2.65%	-2.68%	-2.68%	\$	3,557.54	-0.77%	-0.80%	TRUE	-0.80%	1.69%	0.03%
11/22/2020	\$	277.81	2.96%	2.93%		\$	3,638.35	2.25%	2.22%	FALSE		1.60%	0.03%
11/29/2020	\$	279.70	0.68%	0.65%		\$	3,699.12	1.66%	1.63%	FALSE		1.59%	0.03%
12/6/2020	\$	273.55	-2.22%	-2.25%	-2.25%	\$	3,663.46	-0.97%	-1.00%	TRUE	-1.00%	1.67%	0.03%
12/13/2020	\$	276.40	1.04%	1.01%		\$	3,709.41	1.25%	1.22%	FALSE		1.67%	0.03%
12/20/2020	\$	267.40	-3.31%	-3.34%	-3.34%	\$	3,703.06	-0.17%	-0.20%	TRUE	-0.20%	1.66%	0.03%
12/27/2020	\$	273.16	2.13%	2.10%		\$	3,756.07	1.42%	1.39%	FALSE		1.67%	0.03%
1/3/2021	\$	267.57	-2.07%	-2.10%		\$	3,824.68	1.81%	1.78%	FALSE		1.66%	0.03%
1/10/2021	\$	251.36	-6.25%	-6.28%	-6.28%	\$	3,768.25	-1.49%	-1.52%	TRUE	-1.52%	1.78%	0.03%
1/17/2021	\$	274.50	8.81%	8.77%		\$	3,841.47	1.92%	1.89%	FALSE		1.86%	0.03%
1/24/2021	\$	258.33	-6.07%	-6.11%	-6.11%	\$	3,714.24	-3.37%	-3.40%	TRUE	-3.40%	1.85%	0.03%
1/31/2021	\$	268.10	3.71%	3.68%		\$	3,886.83	4.54%	4.51%	FALSE		1.81%	0.03%
2/7/2021	\$	270.50	0.89%	0.86%		\$	3,934.83	1.23%	1.19%	FALSE		1.91%	0.04%
2/14/2021	\$	261.56	-3.36%	-3.40%	-3.40%	\$	3,906.71	-0.72%	-0.75%	TRUE	-0.75%	1.96%	0.04%
2/21/2021	\$	257.62	-1.52%	-1.56%	-1.56%	\$	3,811.15	-2.48%	-2.52%	TRUE	-2.52%	2.09%	0.04%
2/28/2021	\$	264.28	2.55%	2.51%		\$	3,841.94	0.80%	0.76%	FALSE		2.23%	0.04%
3/7/2021	\$	268.40	1.55%	1.51%		\$	3,943.34	2.61%	2.56%	FALSE		2.25%	0.04%
3/14/2021	\$	290.11	7.78%	7.74%	7.74%	\$	3,913.10	-0.77%	-0.81%	TRUE	-0.81%	2.30%	0.04%
3/21/2021	\$	283.02	-2.47%	-2.52%		\$	3,974.54	1.56%	1.51%	FALSE		2.41%	0.04%
3/28/2021	\$	298.66	5.38%	5.34%		\$	4,019.87	1.13%	1.09%	FALSE		2.35%	0.04%
4/4/2021	\$	312.46	4.52%	4.47%		\$	4,128.80	2.67%	2.63%	FALSE		2.38%	0.04%
4/11/2021	\$	306.18	-2.03%	-2.07%		\$	4,185.47	1.36%	1.32%	FALSE		2.34%	0.04%
4/18/2021	\$	301.13	-1.66%	-1.71%	-1.71%	\$	4,180.17	-0.13%	-0.17%	TRUE	-0.17%	2.29%	0.04%
4/25/2021	\$	325.08	7.65%	7.61%	7.61%	\$	4,181.17	0.02%	-0.02%	TRUE	-0.02%	2.26%	0.04%
5/2/2021	\$	319.08	-1.86%	-1.91%		\$	4,232.60	1.22%	1.18%	FALSE		2.29%	0.04%
5/9/2021	\$	315.94	-0.99%	-1.03%	-1.03%	\$	4,173.85	-1.40%	-1.44%	TRUE	-1.44%	2.27%	0.04%
5/16/2021	\$	316.23	0.09%	0.05%	0.05%	\$	4,155.86	-0.43%	-0.48%	TRUE	-0.48%	2.36%	0.04%
5/23/2021	\$	328.73	3.88%	3.83%		\$	4,204.11	1.15%	1.11%	FALSE		2.36%	0.04%
5/30/2021	\$	330.35	0.49%	0.45%		\$	4,229.89	0.61%	0.57%	FALSE		2.28%	0.04%
6/6/2021	\$	331.26	0.28%	0.23%		\$	4,247.44	0.41%	0.37%	FALSE		2.28%	0.04%
6/13/2021	\$	329.66	-0.48%	-0.52%	-0.52%	\$	4,166.45	-1.93%	-1.97%	TRUE	-1.97%	2.19%	0.04%
6/20/2021	\$	341.37	3.49%	3.45%		\$	4,280.70	2.71%	2.67%	FALSE		2.14%	0.04%
6/27/2021	\$	354.70	3.83%	3.79%		\$	4,352.34	1.66%	1.62%	FALSE		2.12%	0.04%
7/4/2021	\$	350.42	-1.21%	-1.25%		\$	4,369.55	0.39%	0.36%	FALSE		2.08%	0.04%
7/11/2021	\$	341.16	-2.68%	-2.71%	-2.71%	\$	4,327.16	-0.97%	-1.01%	TRUE	-1.01%	1.96%	0.04%
7/18/2021	\$	369.79	8.06%	8.02%		\$	4,411.79	1.94%	1.90%	FALSE		1.97%	0.04%
7/25/2021	\$	356.30	-3.72%	-3.75%	-3.75%	\$	4,395.26	-0.38%	-0.41%	TRUE	-0.41%	1.89%	0.04%
8/1/2021	\$	363.51	2.00%	1.97%		\$	4,436.52	0.93%	0.90%	FALSE		1.90%	0.04%
8/8/2021	\$	363.18	-0.09%	-0.13%		\$	4,468.00	0.71%	0.67%	FALSE		1.87%	0.03%
8/15/2021	\$	359.37	-1.05%	-1.09%	-1.09%	\$	4,441.67	-0.59%	-0.63%	TRUE	-0.63%	1.98%	0.04%
8/22/2021	\$	372.63	3.62%	3.59%		\$	4,509.37	1.51%	1.48%	FALSE		1.90%	0.04%
8/29/2021	\$	376.26	0.97%	0.93%		\$	4,535.43	0.58%	0.54%	FALSE		1.92%	0.04%
9/5/2021	\$	378.69	0.64%	0.61%	0.61%	\$	4,458.58	-1.71%	-1.74%	TRUE	-1.74%	1.92%	0.04%
9/12/2021	\$	364.72	-3.76%	-3.79%	-3.79%	\$	4,432.99	-0.58%	-0.61%	TRUE	-0.61%	1.95%	0.04%
9/19/2021	\$	352.96	-3.28%	-3.31%		\$	4,455.48	0.51%	0.47%	FALSE		1.88%	0.03%
9/26/2021	\$	343.01	-2.86%	-2.89%	-2.89%	\$	4,357.04	-2.23%	-2.27%	TRUE	-2.27%	1.89%	0.04%
10/3/2021	\$	330.05	-3.85%	-3.89%		\$	4,391.34	0.78%	0.75%	FALSE		2.05%	0.04%
10/10/2021	\$	324.76	-1.62%	-1.65%		\$	4,471.37	1.81%	1.77%	FALSE		2.10%	0.04%
10/17/2021	\$	324.61	-0.05%	-0.08%		\$	4,544.90	1.63%	1.59%	FALSE		2.06%	0.04%
10/24/2021	\$	323.57	-0.32%	-0.36%		\$	4,605.38	1.32%	1.28%	FALSE		2.09%	0.04%
10/31/2021	\$	341.13	5.28%	5.25%		\$	4,697.53	1.98%	1.94%	FALSE		2.00%	0.04%
11/7/2021	\$	340.89	-0.07%	-0.11%	-0.11%	\$	4,682.85	-0.31%	-0.35%	TRUE	-0.35%	1.95%	0.04%
11/14/2021	\$	345.30	1.29%	1.25%		\$	4,697.96	0.32%	0.29%	FALSE		1.90%	0.04%
11/21/2021	\$	333.12	-3.59%	-3.63%	-3.63%	\$	4,594.62	-2.22%	-2.26%	TRUE	-2.26%	1.98%	0.04%
11/28/2021	\$	306.84	-8.22%	-8.25%	-8.25%	\$	4,538.43	-1.23%	-1.27%	TRUE	-1.27%	1.95%	0.04%
12/5/2021	\$	329.75	7.20%	7.17%		\$	4,712.02	3.75%	3.72%	FALSE		1.77%	0.03%
12/12/2021	\$	333.79	1.22%	1.18%	1.18%	\$	4,620.64	-1.96%	-1.99%	TRUE	-1.99%	1.83%	0.03%
12/19/2021	\$	335.24	0.43%	0.40%		\$	4,725.79	2.25%	2.22%	FALSE		1.84%	0.03%
12/26/2021	\$	336.35	0.33%	0.30%		\$	4,766.18	0.85%	0.82%	FALSE		1.88%	0.03%
1/2/2022	\$	331.79	-1.37%	-1.40%	-1.40%	\$	4,677.03	-1.89%	-1.92%	TRUE	-1.92%	1.91%	0.04%
1/9/2022	\$	331.90	0.03%	-0.01%	-0.01%	\$	4,662.85	-0.30%	-0.34%	TRUE	-0.34%	2.07%	0.04%
1/16/2022	\$	303.17	-9.05%	-9.09%	-9.09%	\$	4,397.94	-5.85%	-5.89%	TRUE	-5.89%	2.09%	0.04%
1/23/2022	\$	301.71	-0.48%	-0.52%		\$	4,431.85	0.77%	0.73%	FALSE		2.13%	0.04%
1/30/2022	\$	237.09	-24.10%	-24.14%		\$	4,500.53	1.54%	1.50%	FALSE		2.11%	0.04%
2/6/2022	\$	219.55	-7.69%	-7.73%	-7.73%	\$	4,418.64	-1.84%	-1.88%	TRUE	-1.88%	2.14%	0.04%
2/13/2022	\$	206.16	-6.29%	-6.33%	-6.33%	\$	4,348.87	-1.59%	-1.63%	TRUE	-1.63%	2.25%	0.04%
2/20/2022	\$	210.48	2.07%	2.03%		\$	4,384.65	0.82%	0.78%	FALSE		2.31%	0.04%
2/27/2022	\$	200.06	-5.08%	-5.12%	-5.12%	\$	4,328.87	-1.28%	-1.32%	TRUE	-1.32%	2.28%	0.04%
3/6/2022	\$	187.61	-6.43%	-6.47%	-6.47%	\$	4,204.31	-2.92%	-2.96%	TRUE	-2.96%	2.18%	0.04%
3/13/2022	\$	216.49	14.32%	14.28%		\$	4,463.12	5.97%	5.93%	FALSE		2.29%	0.04%
3/20/2022	\$	221.82	2.43%	2.39%		\$	4,543.06	1.78%	1.73%	FALSE		2.47%	0.05%

3/27/2022	\$	224.85	1.36%	1.31%	1.31%	\$	4,545.86	0.06%	0.01%	TRUE	0.01%	2.56%	0.05%
4/3/2022	\$	222.33	-1.13%	-1.17%	-1.17%	\$	4,488.28	-1.27%	-1.32%	TRUE	-1.32%	2.49%	0.05%
4/10/2022	\$	210.18	-5.62%	-5.67%	-5.67%	\$	4,392.59	-2.16%	-2.20%	TRUE	-2.20%	2.63%	0.05%
4/17/2022	\$	184.11	-13.24%	-13.30%	-13.30%	\$	4,271.78	-2.79%	-2.84%	TRUE	-2.84%	2.85%	0.05%
4/24/2022	\$	200.47	8.51%	8.46%	8.46%	\$	4,131.93	-3.33%	-3.38%	TRUE	-3.38%	2.95%	0.05%
5/1/2022	\$	203.77	1.63%	1.58%	1.58%	\$	4,123.34	-0.21%	-0.26%	TRUE	-0.26%	2.91%	0.05%
5/8/2022	\$	198.62	-2.56%	-2.62%	-2.62%	\$	4,023.89	-2.44%	-2.50%	TRUE	-2.50%	3.10%	0.06%
5/15/2022	\$	193.54	-2.59%	-2.65%	-2.65%	\$	3,901.36	-3.09%	-3.15%	TRUE	-3.15%	3.09%	0.06%
5/22/2022	\$	195.13	0.82%	0.76%		\$	4,158.24	6.38%	6.32%	FALSE		3.07%	0.06%
5/29/2022	\$	190.78	-2.25%	-2.31%	-2.31%	\$	4,108.54	-1.20%	-1.26%	TRUE	-1.26%	3.00%	0.06%
6/5/2022	\$	175.57	-8.31%	-8.37%	-8.37%	\$	3,900.86	-5.19%	-5.24%	TRUE	-5.24%	3.09%	0.06%
6/12/2022	\$	163.74	-6.98%	-7.03%	-7.03%	\$	3,674.84	-5.97%	-6.03%	TRUE	-6.03%	3.18%	0.06%
6/19/2022	\$	170.16	3.85%	3.78%		\$	3,911.74	6.25%	6.18%	FALSE		3.38%	0.06%
6/26/2022	\$	160.03	-6.14%	-6.20%	-6.20%	\$	3,825.33	-2.23%	-2.29%	TRUE	-2.29%	3.28%	0.06%
7/3/2022	\$	170.88	6.56%	6.50%		\$	3,899.38	1.92%	1.86%	FALSE		3.22%	0.06%
7/10/2022	\$	164.70	-3.68%	-3.74%	-3.74%	\$	3,863.16	-0.93%	-0.99%	TRUE	-0.99%	3.17%	0.06%
7/17/2022	\$	169.27	2.74%	2.68%		\$	3,961.63	2.52%	2.46%	FALSE		3.12%	0.06%
7/24/2022	\$	159.10	-6.20%	-6.25%		\$	4,130.29	4.17%	4.11%	FALSE		3.11%	0.06%
7/31/2022	\$	167.11	4.91%	4.86%		\$	4,145.19	0.36%	0.30%	FALSE		3.02%	0.06%
8/7/2022	\$	180.50	7.71%	7.65%		\$	4,280.15	3.20%	3.15%	FALSE		2.98%	0.06%
8/14/2022	\$	167.96	-7.20%	-7.26%	-7.26%	\$	4,228.48	-1.21%	-1.27%	TRUE	-1.27%	3.06%	0.06%
8/21/2022	\$	161.78	-3.75%	-3.81%	-3.81%	\$	4,057.66	-4.12%	-4.18%	TRUE	-4.18%	3.14%	0.06%
8/28/2022	\$	160.32	-0.91%	-0.97%	-0.97%	\$	3,924.26	-3.34%	-3.40%	TRUE	-3.40%	3.26%	0.06%
9/4/2022	\$	169.15	5.36%	5.30%		\$	4,067.36	3.58%	3.52%	FALSE		3.29%	0.06%
9/11/2022	\$	146.29	-14.52%	-14.58%	-14.58%	\$	3,873.33	-4.89%	-4.95%	TRUE	-4.95%	3.46%	0.06%
9/18/2022	\$	140.41	-4.10%	-4.17%	-4.17%	\$	3,693.23	-4.76%	-4.83%	TRUE	-4.83%	3.50%	0.06%
9/25/2022	\$	135.68	-3.43%	-3.49%	-3.49%	\$	3,585.62	-2.96%	-3.02%	TRUE	-3.02%	3.57%	0.07%
10/2/2022	\$	133.45	-1.66%	-1.73%		\$	3,639.66	1.50%	1.43%	FALSE		3.76%	0.07%
10/9/2022	\$	126.76	-5.14%	-5.21%	-5.21%	\$	3,583.07	-1.57%	-1.64%	TRUE	-1.64%	3.78%	0.07%
10/16/2022	\$	130.01	2.53%	2.46%		\$	3,752.75	4.63%	4.55%	FALSE		3.95%	0.07%
10/23/2022	\$	99.20	-27.05%	-27.12%		\$	3,901.06	3.88%	3.80%	FALSE		4.16%	0.08%
10/30/2022	\$	90.79	-8.86%	-8.94%	-8.94%	\$	3,770.55	-3.40%	-3.48%	TRUE	-3.48%	4.22%	0.08%
11/6/2022	\$	113.02	21.90%	21.82%		\$	3,992.93	5.73%	5.65%	FALSE		4.19%	0.08%
11/13/2022	\$	112.05	-0.86%	-0.94%	-0.94%	\$	3,965.34	-0.69%	-0.77%	TRUE	-0.77%	4.24%	0.08%
11/20/2022	\$	111.41	-0.57%	-0.65%		\$	4,026.12	1.52%	1.45%	FALSE		3.94%	0.07%
11/27/2022	\$	123.49	10.29%	10.22%		\$	4,071.70	1.13%	1.06%	FALSE		3.81%	0.07%
12/4/2022	\$	115.90	-6.34%	-6.41%	-6.41%	\$	3,934.38	-3.43%	-3.50%	TRUE	-3.50%	3.71%	0.07%
12/11/2022	\$	119.43	3.00%	2.94%	2.94%	\$	3,852.36	-2.11%	-2.17%	TRUE	-2.17%	3.51%	0.07%
12/18/2022	\$	118.04	-1.17%	-1.24%	-1.24%	\$	3,844.82	-0.20%	-0.26%	TRUE	-0.26%	3.53%	0.07%
12/25/2022	\$	120.34	1.93%	1.86%	1.86%	\$	3,839.50	-0.14%	-0.21%	TRUE	-0.21%	3.73%	0.07%
1/1/2023	\$	130.02	7.74%	7.66%		\$	3,895.08	1.44%	1.36%	FALSE		3.95%	0.07%
1/8/2023	\$	136.98	5.21%	5.14%		\$	3,999.09	2.64%	2.57%	FALSE		3.79%	0.07%
1/15/2023	\$	139.37	1.73%	1.66%	1.66%	\$	3,972.61	-0.66%	-0.73%	TRUE	-0.73%	3.65%	0.07%
1/22/2023	\$	151.74	8.50%	8.44%		\$	4,070.56	2.44%	2.37%	FALSE		3.60%	0.07%
1/29/2023	\$	186.53	20.64%	20.57%		\$	4,136.48	1.61%	1.54%	FALSE		3.64%	0.07%
2/5/2023	\$	174.15	-6.87%	-6.93%	-6.93%	\$	4,090.46	-1.12%	-1.19%	TRUE	-1.19%	3.61%	0.07%
2/12/2023	\$	172.88	-0.73%	-0.80%	-0.80%	\$	4,079.09	-0.28%	-0.35%	TRUE	-0.35%	3.73%	0.07%
2/19/2023	\$	170.39	-1.45%	-1.52%	-1.52%	\$	3,970.04	-2.71%	-2.78%	TRUE	-2.78%	3.85%	0.07%
2/26/2023	\$	185.25	8.36%	8.29%		\$	4,045.64	1.89%	1.81%	FALSE		3.93%	0.07%
3/5/2023	\$	179.51	-3.15%	-3.22%	-3.22%	\$	3,861.59	-4.66%	-4.73%	TRUE	-4.73%	3.95%	0.07%
3/12/2023	\$	195.61	8.59%	8.52%		\$	3,916.64	1.42%	1.34%	FALSE		3.85%	0.07%
3/19/2023	\$	206.01	5.18%	5.11%		\$	3,970.99	1.38%	1.31%	FALSE		3.70%	0.07%
3/26/2023	\$	211.94	2.84%	2.77%		\$	4,109.31	3.42%	3.36%	FALSE		3.67%	0.07%
4/2/2023	\$	216.10	1.94%	1.87%	1.87%	\$	4,105.02	-0.10%	-0.17%	TRUE	-0.17%	3.75%	0.07%
4/9/2023	\$	221.49	2.46%	2.40%		\$	4,137.64	0.79%	0.73%	FALSE		3.59%	0.07%
4/16/2023	\$	212.89	-3.96%	-4.03%	-4.03%	\$	4,133.52	-0.10%	-0.17%	TRUE	-0.17%	3.66%	0.07%
4/23/2023	\$	240.32	12.12%	12.05%		\$	4,169.48	0.87%	0.80%	FALSE		3.78%	0.07%
4/30/2023	\$	232.78	-3.19%	-3.26%	-3.26%	\$	4,136.25	-0.80%	-0.87%	TRUE	-0.87%	3.70%	0.07%
5/7/2023	\$	233.81	0.44%	0.37%	0.37%	\$	4,124.08	-0.29%	-0.36%	TRUE	-0.36%	3.75%	0.07%
5/14/2023	\$	245.64	4.94%	4.87%		\$	4,191.98	1.63%	1.56%	FALSE		3.80%	0.07%
5/21/2023	\$	262.04	6.46%	6.39%		\$	4,205.45	0.32%	0.25%	FALSE		3.89%	0.07%
5/28/2023	\$	272.61	3.95%	3.88%		\$	4,282.37	1.81%	1.74%	FALSE		3.97%	0.07%
6/4/2023	\$	264.95	-2.85%	-2.92%		\$	4,298.86	0.38%	0.31%	FALSE		3.87%	0.07%
6/11/2023	\$	281.00	5.88%	5.81%		\$	4,409.59	2.54%	2.47%	FALSE		3.90%	0.07%
6/18/2023	\$	288.73	2.71%	2.64%	2.64%	\$	4,348.33	-1.40%	-1.47%	TRUE	-1.47%	3.88%	0.07%
6/25/2023	\$	286.98	-0.61%	-0.68%		\$	4,450.38	2.32%	2.25%	FALSE		3.84%	0.07%
7/2/2023	\$	290.53	1.23%	1.16%	1.16%	\$	4,398.95	-1.16%	-1.23%	TRUE	-1.23%	3.85%	0.07%
7/9/2023	\$	308.87	6.12%	6.05%		\$	4,505.42	2.39%	2.32%	FALSE		3.97%	0.07%
7/16/2023	\$	294.26	-4.85%	-4.92%		\$	4,536.34	0.68%	0.61%	FALSE		3.97%	0.07%
7/23/2023	\$	325.48	10.08%	10.01%		\$	4,582.23	1.01%	0.93%	FALSE		3.90%	0.07%
7/30/2023	\$	310.73	-4.64%	-4.71%	-4.71%	\$	4,478.03	-2.30%	-2.37%	TRUE	-2.37%	3.98%	0.07%
8/6/2023	\$	301.64	-2.97%	-3.05%	-3.05%	\$	4,464.05	-0.31%	-0.39%	TRUE	-0.39%	4.17%	0.08%
8/13/2023	\$	283.25	-6.29%	-6.37%	-6.37%	\$	4,369.71	-2.14%	-2.21%	TRUE	-2.21%	4.23%	0.08%
8/20/2023	\$	285.50	0.79%	0.71%		\$	4,405.71	0.82%	0.74%	FALSE		4.36%	0.08%
8/27/2023	\$	296.38	3.74%	3.66%		\$	4,515.77	2.47%	2.39%	FALSE		4.35%	0.08%
9/3/2023	\$	297.89	0.51%	0.43%	0.43%	\$	4,457.49	-1.30%	-1.38%	TRUE	-1.38%	4.25%	0.08%
9/10/2023	\$	300.31	0.81%	0.73%	0.73%	\$	4,450.32	-0.16%	-0.24%	TRUE	-0.24%	4.36%	0.08%
9/17/2023	\$	299.08	-0.41%	-0.49%	-0.49%	\$	4,320.06	-2.97%	-3.05%	TRUE	-3.05%	4.37%	0.08%
9/24/2023	\$	300.21	0.38%	0.29%	0.29%	\$	4,288.05	-0.74%	-0.83%	TRUE	-0.83%	4.46%	0.08%
10/1/2023	\$	315.43	4.95%	4.86%		\$	4,308.50	0.48%	0.39%	FALSE		4.71%	0.09%
10/8/2023	\$	314.69	-0.23%	-0.33%		\$	4,327.78	0.45%	0.36%	FALSE		4.89%	0.09%
10/15/2023	\$	308.65	-1.94%	-2.03%	-2.03%	\$	4,224.16	-2.42%	-2.51%	TRUE	-2.51%	4.81%	0.09%
10/22/2023	\$	296.73	-3.94%	-4.03%	-4.03%	\$	4,117.37	-2.56%	-2.65%	TRUE	-2.65%	5.00%	0.09%

10/29/2023	\$	314.60	5.85%	5.75%		\$	4,358.34	5.69%	5.59%	FALSE		5.02%	0.09%
11/5/2023	\$	328.77	4.41%	4.31%		\$	4,415.24	1.30%	1.21%	FALSE		4.93%	0.09%
11/12/2023	\$	335.04	1.89%	1.80%		\$	4,514.02	2.21%	2.12%	FALSE		4.75%	0.09%
11/19/2023	\$	338.23	0.95%	0.86%		\$	4,559.34	1.00%	0.91%	FALSE		4.65%	0.09%
11/26/2023	\$	324.82	-4.05%	-4.13%		\$	4,594.63	0.77%	0.69%	FALSE		4.57%	0.08%
12/3/2023	\$	332.75	2.41%	2.33%	2.33%	\$	4,604.37	0.21%	0.13%	TRUE	0.13%	4.49%	0.08%
12/10/2023	\$	334.92	0.65%	0.57%		\$	4,719.19	2.46%	2.38%	FALSE		4.30%	0.08%
12/17/2023	\$	353.39	5.37%	5.29%		\$	4,754.63	0.75%	0.67%	FALSE		4.17%	0.08%
12/24/2023	\$	353.96	0.16%	0.09%		\$	4,769.83	0.32%	0.24%	FALSE		4.03%	0.07%
12/31/2023	\$	351.95	-0.57%	-0.64%	-0.64%	\$	4,697.24	-1.53%	-1.61%	TRUE	-1.61%	4.00%	0.07%
1/7/2024	\$	374.49	6.21%	6.13%		\$	4,783.83	1.83%	1.75%	FALSE		4.12%	0.08%
1/14/2024	\$	383.45	2.36%	2.29%		\$	4,839.81	1.16%	1.09%	FALSE		4.19%	0.08%
1/21/2024	\$	394.14	2.75%	2.67%		\$	4,890.97	1.05%	0.97%	FALSE		4.34%	0.08%
1/28/2024	\$	474.99	18.66%	18.58%		\$	4,958.61	1.37%	1.29%	FALSE		4.37%	0.08%
2/4/2024	\$	468.11	-1.46%	-1.54%		\$	5,026.61	1.36%	1.28%	FALSE		4.23%	0.08%
2/11/2024	\$	473.32	1.11%	1.03%	1.03%	\$	5,005.57	-0.42%	-0.50%	TRUE	-0.50%	4.34%	0.08%
2/18/2024	\$	484.03	2.24%	2.16%		\$	5,088.80	1.65%	1.57%	FALSE		4.43%	0.08%
2/25/2024	\$	502.30	3.71%	3.62%		\$	5,137.08	0.94%	0.86%	FALSE		4.44%	0.08%
3/3/2024	\$	505.95	0.72%	0.64%	0.64%	\$	5,123.69	-0.26%	-0.34%	TRUE	-0.34%	4.39%	0.08%
3/10/2024	\$	484.10	-4.41%	-4.49%	-4.49%	\$	5,117.09	-0.13%	-0.21%	TRUE	-0.21%	4.28%	0.08%
3/17/2024	\$	509.58	5.13%	5.05%		\$	5,234.18	2.26%	2.18%	FALSE		4.36%	0.08%
3/24/2024	\$	485.58	-4.82%	-4.91%		\$	5,254.35	0.38%	0.30%	FALSE		4.44%	0.08%
3/31/2024	\$	527.34	8.25%	8.17%	8.17%	\$	5,204.34	-0.96%	-1.04%	TRUE	-1.04%	4.38%	0.08%
4/7/2024	\$	511.90	-2.97%	-3.05%	-3.05%	\$	5,123.41	-1.57%	-1.65%	TRUE	-1.65%	4.50%	0.08%
4/14/2024	\$	481.07	-6.21%	-6.30%	-6.30%	\$	4,967.23	-3.10%	-3.18%	TRUE	-3.18%	4.59%	0.09%
4/21/2024	\$	443.29	-8.18%	-8.27%		\$	5,099.96	2.64%	2.55%	FALSE		4.74%	0.09%
4/28/2024	\$	451.96	1.94%	1.85%		\$	5,127.79	0.54%	0.46%	FALSE		4.77%	0.09%
5/5/2024	\$	476.20	5.22%	5.14%		\$	5,222.68	1.83%	1.75%	FALSE		4.73%	0.09%
5/12/2024	\$	471.91	-0.90%	-0.99%		\$	5,303.27	1.53%	1.45%	FALSE		4.63%	0.09%
5/19/2024	\$	478.22	1.33%	1.24%	1.24%	\$	5,304.72	0.03%	-0.06%	TRUE	-0.06%	4.56%	0.08%
5/26/2024	\$	466.83	-2.41%	-2.50%	-2.50%	\$	5,277.51	-0.51%	-0.60%	TRUE	-0.60%	4.57%	0.08%
6/2/2024	\$	492.96	5.45%	5.36%		\$	5,346.99	1.31%	1.22%	FALSE		4.69%	0.09%
6/9/2024	\$	504.16	2.25%	2.16%		\$	5,431.60	1.57%	1.49%	FALSE		4.49%	0.08%
6/16/2024	\$	494.78	-1.88%	-1.96%		\$	5,464.62	0.61%	0.52%	FALSE		4.47%	0.08%
6/23/2024	\$	503.89	1.82%	1.74%	1.74%	\$	5,460.48	-0.08%	-0.16%	TRUE	-0.16%	4.39%	0.08%
6/30/2024	\$	539.91	6.90%	6.82%		\$	5,567.19	1.94%	1.85%	FALSE		4.43%	0.08%



## Sources:

Alphabet stock prices: <https://www.investing.com/equities/google-inc-historical-data>S&P 500 prices: <https://www.investing.com/indices/us-spx-500-historical-data>30-Year Treasury yields: <https://fred.stlouisfed.org/series/DGS30#0>

## Average Returns

Alphabet: 0.46%  
S&P 500: 0.55%

Levered Beta: 1.027951239

T-statistic: 6.62924565

Levered  
Downside Beta: 0.9497222819Standard Deviation of  
Downmarket Returns

## Average Excess Returns

Alphabet: 0.41%  
S&P 500: 0.19%Alphabet: 0.03556012177  
S&P 500: 0.02285018501

Observations: 118

Average Downmarket Excess  
ReturnsAlphabet: -2.04%  
S&P 500: -1.92%Covariance: 0.000491677034  
Standard Error  
of Slope: 0.1432624965

Alphabet Return Data					S&P 500 Return Data				30-Year Treasuries Return Data		
Date	Closing Price	Logarithmic Returns	Excess Return (%)	Downmarket Excess Returns	Closing Price	Logarithmic Returns	Excess Return (%) (t)	Downside Periods	Downmarket Excess Returns	Yield	Returns
6/30/2019	\$ 56.63				\$ 2,990.41					2.54%	0.05%
7/7/2019	\$ 57.27	1.12%	1.08%		\$ 3,013.77	0.78%	0.73%	FALSE		2.52%	0.05%
7/14/2019	\$ 56.58	-1.21%	-1.26%	-1.26%	\$ 2,976.61	-1.24%	-1.29%	TRUE	-1.29%	2.59%	0.05%
7/21/2019	\$ 62.26	9.57%	9.52%		\$ 3,025.86	1.64%	1.59%	FALSE		2.59%	0.05%
7/28/2019	\$ 59.82	-4.00%	-4.05%	-4.05%	\$ 2,932.05	-3.15%	-3.20%	TRUE	-3.20%	2.59%	0.05%
8/4/2019	\$ 59.44	-0.64%	-0.68%	-0.68%	\$ 2,918.65	-0.46%	-0.50%	TRUE	-0.50%	2.51%	0.05%
8/11/2019	\$ 58.96	-0.81%	-0.85%	-0.85%	\$ 2,888.68	-1.03%	-1.07%	TRUE	-1.07%	2.26%	0.04%
8/18/2019	\$ 57.68	-2.19%	-2.23%	-2.23%	\$ 2,847.11	-1.45%	-1.49%	TRUE	-1.49%	2.06%	0.04%
8/25/2019	\$ 59.53	3.16%	3.12%		\$ 2,926.46	2.75%	2.71%	FALSE		2.06%	0.04%
9/1/2019	\$ 60.32	1.32%	1.28%		\$ 2,978.71	1.77%	1.73%	FALSE		1.98%	0.04%
9/8/2019	\$ 62.00	2.75%	2.71%		\$ 3,007.39	0.96%	0.92%	FALSE		2.00%	0.04%
9/15/2019	\$ 61.49	-0.83%	-0.87%	-0.87%	\$ 2,992.07	-0.51%	-0.55%	TRUE	-0.55%	2.22%	0.04%
9/22/2019	\$ 61.30	-0.31%	-0.35%	-0.35%	\$ 2,961.79	-1.02%	-1.06%	TRUE	-1.06%	2.24%	0.04%
9/29/2019	\$ 60.55	-1.23%	-1.27%	-1.27%	\$ 2,952.01	-0.33%	-0.37%	TRUE	-0.37%	2.14%	0.04%
10/6/2019	\$ 60.79	0.40%	0.36%		\$ 2,970.27	0.62%	0.58%	FALSE		2.07%	0.04%
10/13/2019	\$ 62.22	2.33%	2.29%		\$ 2,986.20	0.53%	0.50%	FALSE		2.11%	0.04%
10/20/2019	\$ 63.22	1.59%	1.55%		\$ 3,022.55	1.21%	1.17%	FALSE		2.24%	0.04%
10/27/2019	\$ 63.61	0.61%	0.57%		\$ 3,066.91	1.46%	1.41%	FALSE		2.27%	0.04%
11/3/2019	\$ 65.45	2.85%	2.81%		\$ 3,093.08	0.85%	0.81%	FALSE		2.26%	0.04%
11/10/2019	\$ 66.68	1.86%	1.82%		\$ 3,120.46	0.88%	0.84%	FALSE		2.35%	0.04%
11/17/2019	\$ 64.68	-3.05%	-3.09%	-3.09%	\$ 3,110.29	-0.33%	-0.37%	TRUE	-0.37%	2.34%	0.04%
11/24/2019	\$ 65.20	0.80%	0.76%		\$ 3,140.98	0.98%	0.94%	FALSE		2.24%	0.04%
12/1/2019	\$ 66.97	2.68%	2.64%	2.64%	\$ 3,145.91	0.16%	0.12%	TRUE	0.12%	2.20%	0.04%
12/8/2019	\$ 67.34	0.55%	0.51%		\$ 3,168.80	0.72%	0.68%	FALSE		2.24%	0.04%
12/15/2019	\$ 67.56	0.33%	0.28%		\$ 3,221.22	1.64%	1.60%	FALSE		2.27%	0.04%
12/22/2019	\$ 67.73	0.25%	0.21%		\$ 3,240.02	0.58%	0.54%	FALSE		2.33%	0.04%
12/29/2019	\$ 68.08	0.52%	0.47%	0.47%	\$ 3,234.85	-0.16%	-0.20%	TRUE	-0.20%	2.33%	0.04%
1/5/2020	\$ 71.45	4.83%	4.79%		\$ 3,265.35	0.94%	0.90%	FALSE		2.33%	0.04%
1/12/2020	\$ 73.98	3.48%	3.44%		\$ 3,329.62	1.95%	1.91%	FALSE		2.32%	0.04%
1/19/2020	\$ 73.31	-0.91%	-0.95%	-0.95%	\$ 3,295.47	-1.03%	-1.07%	TRUE	-1.07%	2.27%	0.04%
1/26/2020	\$ 71.64	-2.30%	-2.34%	-2.34%	\$ 3,225.52	-2.15%	-2.19%	TRUE	-2.19%	2.19%	0.04%
2/2/2020	\$ 73.96	3.19%	3.15%		\$ 3,327.71	3.12%	3.08%	FALSE		2.05%	0.04%
2/9/2020	\$ 75.94	2.64%	2.60%		\$ 3,380.16	1.56%	1.53%	FALSE		2.08%	0.04%
2/16/2020	\$ 74.17	-2.36%	-2.40%	-2.40%	\$ 3,337.75	-1.26%	-1.30%	TRUE	-1.30%	2.06%	0.04%
2/23/2020	\$ 66.96	-10.23%	-10.26%	-10.26%	\$ 2,954.22	-12.21%	-12.24%	TRUE	-12.24%	1.97%	0.04%
3/1/2020	\$ 64.79	-3.29%	-3.33%		\$ 2,972.37	0.61%	0.58%	FALSE		1.78%	0.03%
3/8/2020	\$ 60.71	-6.50%	-6.53%	-6.53%	\$ 2,711.02	-9.20%	-9.23%	TRUE	-9.23%	1.56%	0.03%
3/15/2020	\$ 53.41	-12.81%	-12.84%	-12.84%	\$ 2,304.92	-16.23%	-16.25%	TRUE	-16.25%	1.32%	0.02%
3/22/2020	\$ 55.51	3.86%	3.83%		\$ 2,541.47	9.77%	9.74%	FALSE		1.61%	0.03%
3/29/2020	\$ 54.63	-1.60%	-1.62%	-1.62%	\$ 2,488.65	-2.10%	-2.13%	TRUE	-2.13%	1.38%	0.03%
4/5/2020	\$ 60.33	9.92%	9.90%		\$ 2,789.82	11.42%	11.40%	FALSE		1.29%	0.02%
4/12/2020	\$ 63.95	5.83%	5.80%		\$ 2,874.56	2.99%	2.97%	FALSE		1.33%	0.02%
4/19/2020	\$ 63.83	-0.19%	-0.21%	-0.21%	\$ 2,836.74	-1.32%	-1.35%	TRUE	-1.35%	1.31%	0.02%
4/26/2020	\$ 65.87	3.15%	3.12%	3.12%	\$ 2,830.71	-0.21%	-0.23%	TRUE	-0.23%	1.19%	0.02%
5/3/2020	\$ 69.22	4.96%	4.94%		\$ 2,929.80	3.44%	3.42%	FALSE		1.25%	0.02%
5/10/2020	\$ 68.65	-0.83%	-0.85%	-0.85%	\$ 2,863.70	-2.28%	-2.31%	TRUE	-2.31%	1.34%	0.02%
5/17/2020	\$ 70.66	2.89%	2.86%		\$ 2,955.45	3.15%	3.13%	FALSE		1.36%	0.03%
5/24/2020	\$ 71.68	1.43%	1.41%		\$ 3,044.31	2.96%	2.94%	FALSE		1.41%	0.03%
5/31/2020	\$ 72.00	0.45%	0.42%		\$ 3,193.93	4.80%	4.77%	FALSE		1.44%	0.03%
6/7/2020	\$ 70.65	-1.89%	-1.92%	-1.92%	\$ 3,041.31	-4.90%	-4.93%	TRUE	-4.93%	1.56%	0.03%
6/14/2020	\$ 71.23	0.82%	0.79%		\$ 3,097.74	1.84%	1.81%	FALSE		1.53%	0.03%
6/21/2020	\$ 68.13	-4.45%	-4.48%	-4.48%	\$ 3,009.05	-2.90%	-2.93%	TRUE	-2.93%	1.49%	0.03%
6/28/2020	\$ 73.50	7.59%	7.56%		\$ 3,130.01	3.94%	3.91%	FALSE		1.44%	0.03%
7/5/2020	\$ 76.95	4.59%	4.56%		\$ 3,185.04	1.74%	1.72%	FALSE		1.42%	0.03%
7/12/2020	\$ 75.84	-1.45%	-1.48%		\$ 3,224.73	1.24%	1.21%	FALSE		1.37%	0.03%
7/19/2020	\$ 75.41	-0.57%	-0.59%	-0.59%	\$ 3,215.63	-0.28%	-0.31%	TRUE	-0.31%	1.32%	0.02%
7/26/2020	\$ 74.40	-1.35%	-1.37%		\$ 3,271.12	1.71%	1.69%	FALSE		1.28%	0.02%
8/2/2020	\$ 74.92	0.70%	0.67%		\$ 3,351.28	2.42%	2.40%	FALSE		1.22%	0.02%
8/9/2020	\$ 75.23	0.41%	0.39%		\$ 3,372.85	0.64%	0.62%	FALSE		1.21%	0.02%
8/16/2020	\$ 78.78	4.61%	4.59%		\$ 3,397.16	0.72%	0.69%	FALSE		1.36%	0.03%

8/23/2020	\$	81.97	3.97%	3.94%		\$	3,508.01	3.21%	3.18%	FALSE		1.40%	0.03%
8/30/2020	\$	79.06	-3.61%	-3.64%	-3.64%	\$	3,426.96	-2.34%	-2.36%	TRUE	-2.36%	1.43%	0.03%
9/6/2020	\$	75.79	-4.22%	-4.25%	-4.25%	\$	3,340.97	-2.54%	-2.57%	TRUE	-2.57%	1.42%	0.03%
9/13/2020	\$	72.55	-4.37%	-4.40%	-4.40%	\$	3,319.47	-0.65%	-0.67%	TRUE	-0.67%	1.43%	0.03%
9/20/2020	\$	71.95	-0.83%	-0.86%	-0.86%	\$	3,298.46	-0.63%	-0.66%	TRUE	-0.66%	1.44%	0.03%
9/27/2020	\$	72.78	1.15%	1.12%		\$	3,348.44	1.50%	1.48%	FALSE		1.41%	0.03%
10/4/2020	\$	75.52	3.70%	3.67%		\$	3,477.13	3.77%	3.74%	FALSE		1.44%	0.03%
10/11/2020	\$	78.39	3.73%	3.70%	3.70%	\$	3,483.81	0.19%	0.16%	TRUE	0.16%	1.58%	0.03%
10/18/2020	\$	81.65	4.07%	4.05%	4.05%	\$	3,465.39	-0.53%	-0.56%	TRUE	-0.56%	1.52%	0.03%
10/25/2020	\$	80.81	-1.03%	-1.06%	-1.06%	\$	3,269.96	-5.80%	-5.83%	TRUE	-5.83%	1.62%	0.03%
11/1/2020	\$	87.99	8.51%	8.48%		\$	3,509.44	7.07%	7.04%	FALSE		1.60%	0.03%
11/8/2020	\$	88.61	0.70%	0.67%		\$	3,585.15	2.13%	2.10%	FALSE		1.60%	0.03%
11/15/2020	\$	86.82	-2.04%	-2.07%	-2.07%	\$	3,557.54	-0.77%	-0.80%	TRUE	-0.80%	1.69%	0.03%
11/22/2020	\$	89.35	2.87%	2.84%		\$	3,638.35	2.25%	2.22%	FALSE		1.60%	0.03%
11/29/2020	\$	91.19	2.04%	2.01%		\$	3,699.12	1.66%	1.63%	FALSE		1.59%	0.03%
12/6/2020	\$	88.74	-2.72%	-2.75%	-2.75%	\$	3,663.46	-0.97%	-1.00%	TRUE	-1.00%	1.67%	0.03%
12/13/2020	\$	86.31	-2.78%	-2.81%		\$	3,709.41	1.25%	1.22%	FALSE		1.67%	0.03%
12/20/2020	\$	86.71	0.46%	0.43%	0.43%	\$	3,703.06	-0.17%	-0.20%	TRUE	-0.20%	1.66%	0.03%
12/27/2020	\$	87.63	1.06%	1.02%		\$	3,756.07	1.42%	1.39%	FALSE		1.67%	0.03%
1/3/2021	\$	89.89	2.55%	2.52%		\$	3,824.68	1.81%	1.78%	FALSE		1.66%	0.03%
1/10/2021	\$	86.38	-3.98%	-4.02%	-4.02%	\$	3,768.25	-1.49%	-1.52%	TRUE	-1.52%	1.78%	0.03%
1/17/2021	\$	94.63	9.12%	9.09%		\$	3,841.47	1.92%	1.89%	FALSE		1.86%	0.03%
1/24/2021	\$	91.37	-3.51%	-3.54%	-3.54%	\$	3,714.24	-3.37%	-3.40%	TRUE	-3.40%	1.85%	0.03%
1/31/2021	\$	104.44	13.37%	13.34%		\$	3,886.83	4.54%	4.51%	FALSE		1.81%	0.03%
2/7/2021	\$	104.75	0.30%	0.26%		\$	3,934.83	1.23%	1.19%	FALSE		1.91%	0.04%
2/14/2021	\$	104.44	-0.30%	-0.33%	-0.33%	\$	3,906.71	-0.72%	-0.75%	TRUE	-0.75%	1.96%	0.04%
2/21/2021	\$	101.10	-3.25%	-3.29%	-3.29%	\$	3,811.15	-2.48%	-2.52%	TRUE	-2.52%	2.09%	0.04%
2/28/2021	\$	104.85	3.64%	3.60%		\$	3,841.94	0.80%	0.76%	FALSE		2.23%	0.04%
3/7/2021	\$	102.50	-2.27%	-2.31%		\$	3,943.34	2.61%	2.56%	FALSE		2.25%	0.04%
3/14/2021	\$	101.35	-1.13%	-1.17%	-1.17%	\$	3,913.10	-0.77%	-0.81%	TRUE	-0.81%	2.30%	0.04%
3/21/2021	\$	101.24	-0.11%	-0.15%		\$	3,974.54	1.56%	1.51%	FALSE		2.41%	0.04%
3/28/2021	\$	106.49	5.06%	5.01%		\$	4,019.87	1.13%	1.09%	FALSE		2.35%	0.04%
4/4/2021	\$	113.53	6.40%	6.36%		\$	4,128.80	2.67%	2.63%	FALSE		2.38%	0.04%
4/11/2021	\$	114.14	0.54%	0.49%		\$	4,185.47	1.36%	1.32%	FALSE		2.34%	0.04%
4/18/2021	\$	115.00	0.75%	0.71%	0.71%	\$	4,180.17	-0.13%	-0.17%	TRUE	-0.17%	2.29%	0.04%
4/25/2021	\$	117.68	2.30%	2.26%	2.26%	\$	4,181.17	0.02%	-0.02%	TRUE	-0.02%	2.26%	0.04%
5/2/2021	\$	117.60	-0.07%	-0.11%		\$	4,232.60	1.22%	1.18%	FALSE		2.29%	0.04%
5/9/2021	\$	113.92	-3.18%	-3.22%	-3.22%	\$	4,173.85	-1.40%	-1.44%	TRUE	-1.44%	2.27%	0.04%
5/16/2021	\$	114.71	0.69%	0.65%	0.65%	\$	4,155.86	-0.43%	-0.48%	TRUE	-0.48%	2.36%	0.04%
5/23/2021	\$	117.84	2.69%	2.65%		\$	4,204.11	1.15%	1.11%	FALSE		2.36%	0.04%
5/30/2021	\$	119.68	1.55%	1.51%		\$	4,229.89	0.61%	0.57%	FALSE		2.28%	0.04%
6/6/2021	\$	121.51	1.52%	1.48%		\$	4,247.44	0.41%	0.37%	FALSE		2.28%	0.04%
6/13/2021	\$	120.11	-1.16%	-1.20%	-1.20%	\$	4,166.45	-1.93%	-1.97%	TRUE	-1.97%	2.19%	0.04%
6/20/2021	\$	122.51	1.98%	1.94%		\$	4,280.70	2.71%	2.67%	FALSE		2.14%	0.04%
6/27/2021	\$	125.26	2.22%	2.18%		\$	4,352.34	1.66%	1.62%	FALSE		2.12%	0.04%
7/4/2021	\$	125.52	0.21%	0.17%		\$	4,369.55	0.39%	0.36%	FALSE		2.08%	0.04%
7/11/2021	\$	126.97	1.15%	1.11%	1.11%	\$	4,327.16	-0.97%	-1.01%	TRUE	-1.01%	1.96%	0.04%
7/18/2021	\$	133.01	4.65%	4.61%		\$	4,411.79	1.94%	1.90%	FALSE		1.97%	0.04%
7/25/2021	\$	134.73	1.28%	1.25%	1.25%	\$	4,395.26	-0.38%	-0.41%	TRUE	-0.41%	1.89%	0.04%
8/1/2021	\$	135.74	0.75%	0.71%		\$	4,436.52	0.93%	0.90%	FALSE		1.90%	0.04%
8/8/2021	\$	137.73	1.46%	1.42%		\$	4,468.00	0.71%	0.67%	FALSE		1.87%	0.03%
8/15/2021	\$	137.43	-0.22%	-0.25%	-0.25%	\$	4,441.67	-0.59%	-0.63%	TRUE	-0.63%	1.98%	0.04%
8/22/2021	\$	144.00	4.67%	4.63%		\$	4,509.37	1.51%	1.48%	FALSE		1.90%	0.04%
8/29/2021	\$	143.74	-0.18%	-0.22%		\$	4,535.43	0.58%	0.54%	FALSE		1.92%	0.04%
9/5/2021	\$	140.88	-2.01%	-2.05%	-2.05%	\$	4,458.58	-1.71%	-1.74%	TRUE	-1.74%	1.92%	0.04%
9/12/2021	\$	140.80	-0.06%	-0.09%	-0.09%	\$	4,432.99	-0.58%	-0.61%	TRUE	-0.61%	1.95%	0.04%
9/19/2021	\$	142.21	1.00%	0.96%		\$	4,455.48	0.51%	0.47%	FALSE		1.88%	0.03%
9/26/2021	\$	136.54	-4.07%	-4.10%	-4.10%	\$	4,357.04	-2.23%	-2.27%	TRUE	-2.27%	1.89%	0.04%
10/3/2021	\$	139.79	2.35%	2.31%		\$	4,391.34	0.78%	0.75%	FALSE		2.05%	0.04%
10/10/2021	\$	141.37	1.12%	1.09%		\$	4,471.37	1.81%	1.77%	FALSE		2.10%	0.04%
10/17/2021	\$	137.57	-2.72%	-2.76%		\$	4,544.90	1.63%	1.59%	FALSE		2.06%	0.04%
10/24/2021	\$	148.05	7.34%	7.30%		\$	4,605.38	1.32%	1.28%	FALSE		2.09%	0.04%
10/31/2021	\$	148.85	0.54%	0.50%		\$	4,697.53	1.98%	1.94%	FALSE		2.00%	0.04%
11/7/2021	\$	148.68	-0.11%	-0.15%	-0.15%	\$	4,682.85	-0.31%	-0.35%	TRUE	-0.35%	1.95%	0.04%
11/14/2021	\$	148.93	0.17%	0.13%		\$	4,697.96	0.32%	0.29%	FALSE		1.90%	0.04%
11/21/2021	\$	142.18	-4.64%	-4.67%	-4.67%	\$	4,594.62	-2.22%	-2.26%	TRUE	-2.26%	1.98%	0.04%
11/28/2021	\$	142.00	-0.13%	-0.16%	-0.16%	\$	4,538.43	-1.23%	-1.27%	TRUE	-1.27%	1.95%	0.04%
12/5/2021	\$	148.00	4.14%	4.11%		\$	4,712.02	3.75%	3.72%	FALSE		1.77%	0.03%
12/12/2021	\$	141.73	-4.33%	-4.36%	-4.36%	\$	4,620.64	-1.96%	-1.99%	TRUE	-1.99%	1.83%	0.03%
12/19/2021	\$	146.92	3.60%	3.56%		\$	4,725.79	2.25%	2.22%	FALSE		1.84%	0.03%
12/26/2021	\$	144.85	-1.42%	-1.45%		\$	4,766.18	0.85%	0.82%	FALSE		1.88%	0.03%
1/2/2022	\$	137.02	-5.56%	-5.59%	-5.59%	\$	4,677.03	-1.89%	-1.92%	TRUE	-1.92%	1.91%	0.04%
1/9/2022	\$	139.48	1.78%	1.74%	1.74%	\$	4,662.85	-0.30%	-0.34%	TRUE	-0.34%	2.07%	0.04%
1/16/2022	\$	130.35	-6.77%	-6.81%	-6.81%	\$	4,397.94	-5.85%	-5.89%	TRUE	-5.89%	2.09%	0.04%
1/23/2022	\$	133.35	2.28%	2.24%		\$	4,431.85	0.77%	0.73%	FALSE		2.13%	0.04%
1/30/2022	\$	143.29	7.19%	7.15%		\$	4,500.53	1.54%	1.50%	FALSE		2.11%	0.04%
2/6/2022	\$	134.28	-6.49%	-6.53%	-6.53%	\$	4,418.64	-1.84%	-1.88%	TRUE	-1.88%	2.14%	0.04%
2/13/2022	\$	130.40	-2.93%	-2.97%	-2.97%	\$	4,348.87	-1.59%	-1.63%	TRUE	-1.63%	2.25%	0.04%
2/20/2022	\$	134.46	3.07%	3.02%		\$	4,384.65	0.82%	0.78%	FALSE		2.31%	0.04%
2/27/2022	\$	131.91	-1.91%	-1.96%	-1.96%	\$	4,328.87	-1.28%	-1.32%	TRUE	-1.32%	2.28%	0.04%
3/6/2022	\$	129.87	-1.56%	-1.60%	-1.60%	\$	4,204.31	-2.92%	-2.96%	TRUE	-2.96%	2.18%	0.04%
3/13/2022	\$	136.13	4.71%	4.67%		\$	4,463.12	5.97%	5.93%	FALSE		2.29%	0.04%
3/20/2022	\$	141.67	3.99%	3.94%		\$	4,543.06	1.78%	1.73%	FALSE		2.47%	0.05%

3/27/2022	\$	140.15	-1.08%	-1.13%	-1.13%	\$	4,545.86	0.06%	0.01%	TRUE	0.01%	2.56%	0.05%
4/3/2022	\$	133.29	-5.02%	-5.06%	-5.06%	\$	4,488.28	-1.27%	-1.32%	TRUE	-1.32%	2.49%	0.05%
4/10/2022	\$	126.73	-5.05%	-5.10%	-5.10%	\$	4,392.59	-2.16%	-2.20%	TRUE	-2.20%	2.63%	0.05%
4/17/2022	\$	119.64	-5.76%	-5.81%	-5.81%	\$	4,271.78	-2.79%	-2.84%	TRUE	-2.84%	2.85%	0.05%
4/24/2022	\$	114.11	-4.73%	-4.79%	-4.79%	\$	4,131.93	-3.33%	-3.38%	TRUE	-3.38%	2.95%	0.05%
5/1/2022	\$	115.75	1.43%	1.37%	1.37%	\$	4,123.34	-0.21%	-0.26%	TRUE	-0.26%	2.91%	0.05%
5/8/2022	\$	116.05	0.26%	0.20%	0.20%	\$	4,023.89	-2.44%	-2.50%	TRUE	-2.50%	3.10%	0.06%
5/15/2022	\$	108.91	-6.35%	-6.41%	-6.41%	\$	3,901.36	-3.09%	-3.15%	TRUE	-3.15%	3.09%	0.06%
5/22/2022	\$	112.32	3.08%	3.03%		\$	4,158.24	6.38%	6.32%	FALSE		3.07%	0.06%
5/29/2022	\$	114.54	1.96%	1.90%	1.90%	\$	4,108.54	-1.20%	-1.26%	TRUE	-1.26%	3.00%	0.06%
6/5/2022	\$	111.16	-3.00%	-3.05%	-3.05%	\$	3,900.86	-5.19%	-5.24%	TRUE	-5.24%	3.09%	0.06%
6/12/2022	\$	107.14	-3.68%	-3.74%	-3.74%	\$	3,674.84	-5.97%	-6.03%	TRUE	-6.03%	3.18%	0.06%
6/19/2022	\$	117.97	9.63%	9.57%		\$	3,911.74	6.25%	6.18%	FALSE		3.38%	0.06%
6/26/2022	\$	108.74	-8.15%	-8.21%	-8.21%	\$	3,825.33	-2.23%	-2.29%	TRUE	-2.29%	3.28%	0.06%
7/3/2022	\$	119.35	9.31%	9.25%		\$	3,899.38	1.92%	1.86%	FALSE		3.22%	0.06%
7/10/2022	\$	111.78	-6.55%	-6.61%	-6.61%	\$	3,863.16	-0.93%	-0.99%	TRUE	-0.99%	3.17%	0.06%
7/17/2022	\$	107.90	-3.53%	-3.59%		\$	3,961.63	2.52%	2.46%	FALSE		3.12%	0.06%
7/24/2022	\$	116.32	7.51%	7.46%		\$	4,130.29	4.17%	4.11%	FALSE		3.11%	0.06%
7/31/2022	\$	117.47	0.98%	0.93%		\$	4,145.19	0.36%	0.30%	FALSE		3.02%	0.06%
8/7/2022	\$	121.68	3.52%	3.47%		\$	4,280.15	3.20%	3.15%	FALSE		2.98%	0.06%
8/14/2022	\$	117.21	-3.74%	-3.80%	-3.80%	\$	4,228.48	-1.21%	-1.27%	TRUE	-1.27%	3.06%	0.06%
8/21/2022	\$	110.34	-6.04%	-6.10%	-6.10%	\$	4,057.66	-4.12%	-4.18%	TRUE	-4.18%	3.14%	0.06%
8/28/2022	\$	107.85	-2.28%	-2.34%	-2.34%	\$	3,924.26	-3.34%	-3.40%	TRUE	-3.40%	3.26%	0.06%
9/4/2022	\$	110.65	2.56%	2.50%		\$	4,067.36	3.58%	3.52%	FALSE		3.29%	0.06%
9/11/2022	\$	102.80	-7.36%	-7.42%	-7.42%	\$	3,873.33	-4.89%	-4.95%	TRUE	-4.95%	3.46%	0.06%
9/18/2022	\$	98.74	-4.03%	-4.09%	-4.09%	\$	3,693.23	-4.76%	-4.83%	TRUE	-4.83%	3.50%	0.06%
9/25/2022	\$	95.65	-3.18%	-3.25%	-3.25%	\$	3,585.62	-2.96%	-3.02%	TRUE	-3.02%	3.57%	0.07%
10/2/2022	\$	98.68	3.12%	3.05%		\$	3,639.66	1.50%	1.43%	FALSE		3.76%	0.07%
10/9/2022	\$	96.56	-2.17%	-2.24%	-2.24%	\$	3,583.07	-1.57%	-1.64%	TRUE	-1.64%	3.78%	0.07%
10/16/2022	\$	101.13	4.62%	4.55%		\$	3,752.75	4.63%	4.55%	FALSE		3.95%	0.07%
10/23/2022	\$	96.29	-4.90%	-4.98%		\$	3,901.06	3.88%	3.80%	FALSE		4.16%	0.08%
10/30/2022	\$	86.58	-10.63%	-10.71%	-10.71%	\$	3,770.55	-3.40%	-3.48%	TRUE	-3.48%	4.22%	0.08%
11/6/2022	\$	96.41	10.75%	10.68%		\$	3,992.93	5.73%	5.65%	FALSE		4.19%	0.08%
11/13/2022	\$	97.43	1.05%	0.97%	0.97%	\$	3,965.34	-0.69%	-0.77%	TRUE	-0.77%	4.24%	0.08%
11/20/2022	\$	97.46	0.03%	-0.04%		\$	4,026.12	1.52%	1.45%	FALSE		3.94%	0.07%
11/27/2022	\$	100.44	3.01%	2.94%		\$	4,071.70	1.13%	1.06%	FALSE		3.81%	0.07%
12/4/2022	\$	92.83	-7.88%	-7.95%	-7.95%	\$	3,934.38	-3.43%	-3.50%	TRUE	-3.50%	3.71%	0.07%
12/11/2022	\$	90.26	-2.81%	-2.87%	-2.87%	\$	3,852.36	-2.11%	-2.17%	TRUE	-2.17%	3.51%	0.07%
12/18/2022	\$	89.23	-1.15%	-1.21%	-1.21%	\$	3,844.82	-0.20%	-0.26%	TRUE	-0.26%	3.53%	0.07%
12/25/2022	\$	88.23	-1.13%	-1.20%	-1.20%	\$	3,839.50	-0.14%	-0.21%	TRUE	-0.21%	3.73%	0.07%
1/1/2023	\$	87.34	-1.01%	-1.09%		\$	3,895.08	1.44%	1.36%	FALSE		3.95%	0.07%
1/8/2023	\$	92.12	5.33%	5.26%		\$	3,999.09	2.64%	2.57%	FALSE		3.79%	0.07%
1/15/2023	\$	98.02	6.21%	6.14%	6.14%	\$	3,972.61	-0.66%	-0.73%	TRUE	-0.73%	3.65%	0.07%
1/22/2023	\$	99.37	1.37%	1.30%		\$	4,070.56	2.44%	2.37%	FALSE		3.60%	0.07%
1/29/2023	\$	104.78	5.30%	5.23%		\$	4,136.48	1.61%	1.54%	FALSE		3.64%	0.07%
2/5/2023	\$	94.57	-10.25%	-10.32%	-10.32%	\$	4,090.46	-1.12%	-1.19%	TRUE	-1.19%	3.61%	0.07%
2/12/2023	\$	94.35	-0.23%	-0.30%	-0.30%	\$	4,079.09	-0.28%	-0.35%	TRUE	-0.35%	3.73%	0.07%
2/19/2023	\$	89.13	-5.69%	-5.76%	-5.76%	\$	3,970.04	-2.71%	-2.78%	TRUE	-2.78%	3.85%	0.07%
2/26/2023	\$	93.65	4.95%	4.87%		\$	4,045.64	1.89%	1.81%	FALSE		3.93%	0.07%
3/5/2023	\$	90.63	-3.28%	-3.35%	-3.35%	\$	3,861.59	-4.66%	-4.73%	TRUE	-4.73%	3.95%	0.07%
3/12/2023	\$	101.62	11.45%	11.37%		\$	3,916.64	1.42%	1.34%	FALSE		3.85%	0.07%
3/19/2023	\$	105.44	3.69%	3.62%		\$	3,970.99	1.38%	1.31%	FALSE		3.70%	0.07%
3/26/2023	\$	103.73	-1.64%	-1.70%		\$	4,109.31	3.42%	3.36%	FALSE		3.67%	0.07%
4/2/2023	\$	108.42	4.42%	4.35%	4.35%	\$	4,105.02	-0.10%	-0.17%	TRUE	-0.17%	3.75%	0.07%
4/9/2023	\$	108.87	0.41%	0.35%		\$	4,137.64	0.79%	0.73%	FALSE		3.59%	0.07%
4/16/2023	\$	105.41	-3.23%	-3.30%	-3.30%	\$	4,133.52	-0.10%	-0.17%	TRUE	-0.17%	3.66%	0.07%
4/23/2023	\$	107.34	1.81%	1.74%		\$	4,169.48	0.87%	0.80%	FALSE		3.78%	0.07%
4/30/2023	\$	105.57	-1.66%	-1.73%	-1.73%	\$	4,136.25	-0.80%	-0.87%	TRUE	-0.87%	3.70%	0.07%
5/7/2023	\$	117.51	10.71%	10.65%	10.65%	\$	4,124.08	-0.29%	-0.36%	TRUE	-0.36%	3.75%	0.07%
5/14/2023	\$	122.76	4.37%	4.30%		\$	4,191.98	1.63%	1.56%	FALSE		3.80%	0.07%
5/21/2023	\$	124.61	1.50%	1.42%		\$	4,205.45	0.32%	0.25%	FALSE		3.89%	0.07%
5/28/2023	\$	124.67	0.05%	-0.03%		\$	4,282.37	1.81%	1.74%	FALSE		3.97%	0.07%
6/4/2023	\$	122.23	-1.98%	-2.05%		\$	4,298.86	0.38%	0.31%	FALSE		3.87%	0.07%
6/11/2023	\$	123.53	1.06%	0.99%		\$	4,409.59	2.54%	2.47%	FALSE		3.90%	0.07%
6/18/2023	\$	122.34	-0.97%	-1.04%	-1.04%	\$	4,348.33	-1.40%	-1.47%	TRUE	-1.47%	3.88%	0.07%
6/25/2023	\$	119.70	-2.18%	-2.25%		\$	4,450.38	2.32%	2.25%	FALSE		3.84%	0.07%
7/2/2023	\$	119.48	-0.18%	-0.26%	-0.26%	\$	4,398.95	-1.16%	-1.23%	TRUE	-1.23%	3.85%	0.07%
7/9/2023	\$	125.42	4.85%	4.78%		\$	4,505.42	2.39%	2.32%	FALSE		3.97%	0.07%
7/16/2023	\$	120.02	-4.40%	-4.47%		\$	4,536.34	0.68%	0.61%	FALSE		3.97%	0.07%
7/23/2023	\$	132.58	9.95%	9.88%		\$	4,582.23	1.01%	0.93%	FALSE		3.90%	0.07%
7/30/2023	\$	128.11	-3.43%	-3.50%	-3.50%	\$	4,478.03	-2.30%	-2.37%	TRUE	-2.37%	3.98%	0.07%
8/6/2023	\$	129.56	1.13%	1.05%	1.05%	\$	4,464.05	-0.31%	-0.39%	TRUE	-0.39%	4.17%	0.08%
8/13/2023	\$	127.46	-1.63%	-1.71%	-1.71%	\$	4,369.71	-2.14%	-2.21%	TRUE	-2.21%	4.23%	0.08%
8/20/2023	\$	129.88	1.88%	1.80%		\$	4,405.71	0.82%	0.74%	FALSE		4.36%	0.08%
8/27/2023	\$	135.66	4.35%	4.27%		\$	4,515.77	2.47%	2.39%	FALSE		4.35%	0.08%
9/3/2023	\$	136.38	0.53%	0.45%	0.45%	\$	4,457.49	-1.30%	-1.38%	TRUE	-1.38%	4.25%	0.08%
9/10/2023	\$	137.40	0.75%	0.66%	0.66%	\$	4,450.32	-0.16%	-0.24%	TRUE	-0.24%	4.36%	0.08%
9/17/2023	\$	130.25	-5.34%	-5.42%	-5.42%	\$	4,320.06	-2.97%	-3.05%	TRUE	-3.05%	4.37%	0.08%
9/24/2023	\$	130.86	0.47%	0.38%	0.38%	\$	4,288.05	-0.74%	-0.83%	TRUE	-0.83%	4.46%	0.08%
10/1/2023	\$	137.58	5.01%	4.92%		\$	4,308.50	0.48%	0.39%	FALSE		4.71%	0.09%
10/8/2023	\$	137.36	-0.16%	-0.25%		\$	4,327.78	0.45%	0.36%	FALSE		4.89%	0.09%
10/15/2023	\$	135.60	-1.29%	-1.38%	-1.38%	\$	4,224.16	-2.42%	-2.51%	TRUE	-2.51%	4.81%	0.09%
10/22/2023	\$	122.17	-10.43%	-10.52%	-10.52%	\$	4,117.37	-2.56%	-2.65%	TRUE	-2.65%	5.00%	0.09%



10/29/2023	\$ 129.10	5.52%	5.42%		\$ 4,358.34	5.69%	5.59%	FALSE		5.02%	0.09%
11/5/2023	\$ 132.59	2.67%	2.58%		\$ 4,415.24	1.30%	1.21%	FALSE		4.93%	0.09%
11/12/2023	\$ 135.31	2.03%	1.94%		\$ 4,514.02	2.21%	2.12%	FALSE		4.75%	0.09%
11/19/2023	\$ 136.69	1.01%	0.93%		\$ 4,559.34	1.00%	0.91%	FALSE		4.65%	0.09%
11/26/2023	\$ 131.86	-3.60%	-3.68%		\$ 4,594.63	0.77%	0.69%	FALSE		4.57%	0.08%
12/3/2023	\$ 134.99	2.35%	2.26%	2.26%	\$ 4,604.37	0.21%	0.13%	TRUE	0.13%	4.49%	0.08%
12/10/2023	\$ 132.60	-1.79%	-1.87%		\$ 4,719.19	2.46%	2.38%	FALSE		4.30%	0.08%
12/17/2023	\$ 141.49	6.49%	6.41%		\$ 4,754.63	0.75%	0.67%	FALSE		4.17%	0.08%
12/24/2023	\$ 139.69	-1.28%	-1.35%		\$ 4,769.83	0.32%	0.24%	FALSE		4.03%	0.07%
12/31/2023	\$ 135.73	-2.88%	-2.95%	-2.95%	\$ 4,697.24	-1.53%	-1.61%	TRUE	-1.61%	4.00%	0.07%
1/7/2024	\$ 142.65	4.97%	4.90%		\$ 4,783.83	1.83%	1.75%	FALSE		4.12%	0.08%
1/14/2024	\$ 146.38	2.58%	2.50%		\$ 4,839.81	1.16%	1.09%	FALSE		4.19%	0.08%
1/21/2024	\$ 152.18	3.89%	3.81%		\$ 4,890.97	1.05%	0.97%	FALSE		4.34%	0.08%
1/28/2024	\$ 142.38	-6.66%	-6.74%		\$ 4,958.61	1.37%	1.29%	FALSE		4.37%	0.08%
2/4/2024	\$ 149.00	4.54%	4.47%		\$ 5,026.61	1.36%	1.28%	FALSE		4.23%	0.08%
2/11/2024	\$ 140.52	-5.86%	-5.94%	-5.94%	\$ 5,005.57	-0.42%	-0.50%	TRUE	-0.50%	4.34%	0.08%
2/18/2024	\$ 143.96	2.42%	2.34%		\$ 5,088.80	1.65%	1.57%	FALSE		4.43%	0.08%
2/25/2024	\$ 137.14	-4.85%	-4.94%		\$ 5,137.08	0.94%	0.86%	FALSE		4.44%	0.08%
3/3/2024	\$ 135.41	-1.27%	-1.35%	-1.35%	\$ 5,123.69	-0.26%	-0.34%	TRUE	-0.34%	4.39%	0.08%
3/10/2024	\$ 141.18	4.17%	4.09%	4.09%	\$ 5,117.09	-0.13%	-0.21%	TRUE	-0.21%	4.28%	0.08%
3/17/2024	\$ 150.77	6.57%	6.49%		\$ 5,234.18	2.26%	2.18%	FALSE		4.36%	0.08%
3/24/2024	\$ 150.93	0.11%	0.02%		\$ 5,254.35	0.38%	0.30%	FALSE		4.44%	0.08%
3/31/2024	\$ 152.50	1.03%	0.95%	0.95%	\$ 5,204.34	-0.96%	-1.04%	TRUE	-1.04%	4.38%	0.08%
4/7/2024	\$ 157.73	3.37%	3.29%	3.29%	\$ 5,123.41	-1.57%	-1.65%	TRUE	-1.65%	4.50%	0.08%
4/14/2024	\$ 154.09	-2.33%	-2.42%	-2.42%	\$ 4,967.23	-3.10%	-3.18%	TRUE	-3.18%	4.59%	0.09%
4/21/2024	\$ 171.95	10.97%	10.88%		\$ 5,099.96	2.64%	2.55%	FALSE		4.74%	0.09%
4/28/2024	\$ 167.24	-2.78%	-2.87%		\$ 5,127.79	0.54%	0.46%	FALSE		4.77%	0.09%
5/5/2024	\$ 168.65	0.84%	0.75%		\$ 5,222.68	1.83%	1.75%	FALSE		4.73%	0.09%
5/12/2024	\$ 176.06	4.30%	4.21%		\$ 5,303.27	1.53%	1.45%	FALSE		4.63%	0.09%
5/19/2024	\$ 174.99	-0.61%	-0.69%	-0.69%	\$ 5,304.72	0.03%	-0.06%	TRUE	-0.06%	4.56%	0.08%
5/26/2024	\$ 172.50	-1.43%	-1.52%	-1.52%	\$ 5,277.51	-0.51%	-0.60%	TRUE	-0.60%	4.57%	0.08%
6/2/2024	\$ 174.46	1.13%	1.04%		\$ 5,346.99	1.31%	1.22%	FALSE		4.69%	0.09%
6/9/2024	\$ 176.79	1.33%	1.24%		\$ 5,431.60	1.57%	1.49%	FALSE		4.49%	0.08%
6/16/2024	\$ 179.63	1.59%	1.51%		\$ 5,464.62	0.61%	0.52%	FALSE		4.47%	0.08%
6/23/2024	\$ 182.15	1.39%	1.31%	1.31%	\$ 5,460.48	-0.08%	-0.16%	TRUE	-0.16%	4.39%	0.08%
6/30/2024	\$ 190.60	4.53%	4.45%		\$ 5,567.19	1.94%	1.85%	FALSE		4.43%	0.08%

## Sources:

Apple stock prices: <https://www.investing.com/equities/apple-computer-inc-historical-data>S&P 500 prices: <https://www.investing.com/indices/us-spx-500-historical-data>30-Year Treasury yields: <https://fred.stlouisfed.org/series/DGS30#0>

<b>Average Returns</b>	Levered Beta: 1.098548532	T-statistic: 7.24924712
Apple: 0.57%	Levered Downside Beta: 1.02919635	
S&P 500: 0.55%		
	<b>Standard Deviation of Downmarket Returns</b>	
<b>Average Excess Returns</b>	Apple: 0.03524001275	
Apple: 0.52%	S&P 500: 0.02285018501	
S&P 500: 0.19%		
	<b>Observations:</b> 118	
<b>Average Downmarket Excess Returns</b>		
Apple: -2.11%	Covariance: 0.000532821245	
S&P 500: -1.92%	Standard Error of Slope: 0.1419728604	

Apple Return Data					S&P 500 Return Data					30-Year Treasuries Return Data		
Date	Closing Price	Logarithmic Returns	Excess Return (%)	Downmarket Excess Returns	Closing Price	Logarithmic Returns	Excess Return (%)	Downside Periods	Downmarket Excess Returns	Yield	Returns	
6/30/2019	\$ 51.06				\$ 2,990.41					2.54%	0.05%	
7/7/2019	\$ 50.83	-0.45%	-0.50%		\$ 3,013.77	0.78%	0.73%	FALSE		2.52%	0.05%	
7/14/2019	\$ 50.65	-0.35%	-0.40%	-0.40%	\$ 2,976.61	-1.24%	-1.29%	TRUE	-1.29%	2.59%	0.05%	
7/21/2019	\$ 51.94	2.51%	2.47%		\$ 3,025.86	1.64%	1.59%	FALSE		2.59%	0.05%	
7/28/2019	\$ 51.01	-1.81%	-1.85%	-1.85%	\$ 2,932.05	-3.15%	-3.20%	TRUE	-3.20%	2.59%	0.05%	
8/4/2019	\$ 50.25	-1.50%	-1.55%	-1.55%	\$ 2,918.65	-0.46%	-0.50%	TRUE	-0.50%	2.51%	0.05%	
8/11/2019	\$ 51.62	2.69%	2.65%	2.65%	\$ 2,888.68	-1.03%	-1.07%	TRUE	-1.07%	2.26%	0.04%	
8/18/2019	\$ 50.66	-1.88%	-1.92%	-1.92%	\$ 2,847.11	-1.45%	-1.49%	TRUE	-1.49%	2.06%	0.04%	
8/25/2019	\$ 52.19	2.98%	2.94%		\$ 2,926.46	2.75%	2.71%	FALSE		2.06%	0.04%	
9/1/2019	\$ 53.31	2.12%	2.09%		\$ 2,978.71	1.77%	1.73%	FALSE		1.98%	0.04%	
9/8/2019	\$ 54.69	2.56%	2.52%		\$ 3,007.39	0.92%	0.92%	FALSE		2.00%	0.04%	
9/15/2019	\$ 54.43	-0.48%	-0.52%	-0.52%	\$ 2,992.07	-0.51%	-0.55%	TRUE	-0.55%	2.22%	0.04%	
9/22/2019	\$ 54.70	0.49%	0.45%	0.45%	\$ 2,961.79	-1.02%	-1.06%	TRUE	-1.06%	2.24%	0.04%	
9/29/2019	\$ 56.75	3.68%	3.64%	3.64%	\$ 2,952.01	-0.33%	-0.37%	TRUE	-0.37%	2.14%	0.04%	
10/6/2019	\$ 59.05	3.97%	3.93%		\$ 2,970.27	0.62%	0.58%	FALSE		2.07%	0.04%	
10/13/2019	\$ 59.10	0.08%	0.05%		\$ 2,986.20	0.53%	0.50%	FALSE		2.11%	0.04%	
10/20/2019	\$ 61.65	4.22%	4.18%		\$ 3,022.55	1.21%	1.17%	FALSE		2.24%	0.04%	
10/27/2019	\$ 63.95	3.66%	3.62%		\$ 3,066.91	1.46%	1.41%	FALSE		2.27%	0.04%	
11/3/2019	\$ 65.03	1.67%	1.63%		\$ 3,093.08	0.85%	0.81%	FALSE		2.26%	0.04%	
11/10/2019	\$ 66.44	2.15%	2.10%		\$ 3,120.46	0.88%	0.84%	FALSE		2.35%	0.04%	
11/17/2019	\$ 65.44	-1.52%	-1.56%	-1.56%	\$ 3,110.29	-0.33%	-0.37%	TRUE	-0.37%	2.34%	0.04%	
11/24/2019	\$ 66.81	2.07%	2.03%		\$ 3,140.98	0.98%	0.94%	FALSE		2.24%	0.04%	
12/1/2019	\$ 67.68	1.29%	1.25%	1.25%	\$ 3,145.91	0.16%	0.12%	TRUE	0.12%	2.20%	0.04%	
12/8/2019	\$ 68.79	1.63%	1.59%		\$ 3,168.80	0.72%	0.68%	FALSE		2.24%	0.04%	
12/15/2019	\$ 69.86	1.54%	1.50%		\$ 3,221.22	1.64%	1.60%	FALSE		2.27%	0.04%	
12/22/2019	\$ 72.45	3.64%	3.60%		\$ 3,240.02	0.58%	0.54%	FALSE		2.33%	0.04%	
12/29/2019	\$ 74.36	2.60%	2.56%	2.56%	\$ 3,234.85	-0.16%	-0.20%	TRUE	-0.20%	2.33%	0.04%	
1/5/2020	\$ 77.58	4.24%	4.20%		\$ 3,265.35	0.94%	0.90%	FALSE		2.33%	0.04%	
1/12/2020	\$ 79.68	2.67%	2.63%		\$ 3,329.62	1.95%	1.91%	FALSE		2.32%	0.04%	
1/19/2020	\$ 79.58	-0.13%	-0.17%	-0.17%	\$ 3,295.47	-1.03%	-1.07%	TRUE	-1.07%	2.27%	0.04%	
1/26/2020	\$ 77.38	-2.80%	-2.84%	-2.84%	\$ 3,225.52	-2.15%	-2.19%	TRUE	-2.19%	2.19%	0.04%	
2/2/2020	\$ 80.01	3.34%	3.30%		\$ 3,327.71	3.12%	3.08%	FALSE		2.05%	0.04%	
2/9/2020	\$ 81.24	1.53%	1.49%		\$ 3,380.16	1.56%	1.53%	FALSE		2.08%	0.04%	
2/16/2020	\$ 78.26	-3.74%	-3.78%	-3.78%	\$ 3,337.75	-1.26%	-1.30%	TRUE	-1.30%	2.06%	0.04%	
2/23/2020	\$ 68.34	-13.55%	-13.59%	-13.59%	\$ 2,954.22	-12.21%	-12.24%	TRUE	-12.24%	1.97%	0.04%	
3/1/2020	\$ 72.26	5.58%	5.54%		\$ 2,972.37	0.61%	0.58%	FALSE		1.78%	0.03%	
3/8/2020	\$ 69.49	-3.91%	-3.94%	-3.94%	\$ 2,711.02	-9.20%	-9.23%	TRUE	-9.23%	1.56%	0.03%	
3/15/2020	\$ 57.31	-19.27%	-19.30%	-19.30%	\$ 2,304.92	-16.23%	-16.25%	TRUE	-16.25%	1.32%	0.02%	
3/22/2020	\$ 61.94	7.77%	7.74%		\$ 2,541.47	9.77%	9.74%	FALSE		1.61%	0.03%	
3/29/2020	\$ 60.35	-2.60%	-2.63%	-2.63%	\$ 2,488.65	-2.10%	-2.13%	TRUE	-2.13%	1.38%	0.03%	
4/5/2020	\$ 67.00	10.45%	10.43%		\$ 2,789.82	11.42%	11.40%	FALSE		1.29%	0.02%	
4/12/2020	\$ 70.70	5.38%	5.35%		\$ 2,874.56	2.99%	2.97%	FALSE		1.33%	0.02%	
4/19/2020	\$ 70.74	0.06%	0.03%	0.03%	\$ 2,836.74	-1.32%	-1.35%	TRUE	-1.35%	1.31%	0.02%	
4/26/2020	\$ 72.27	2.14%	2.12%	2.12%	\$ 2,830.71	-0.21%	-0.23%	TRUE	-0.23%	1.19%	0.02%	
5/3/2020	\$ 77.53	7.03%	7.00%		\$ 2,929.80	3.44%	3.42%	FALSE		1.25%	0.02%	
5/10/2020	\$ 76.93	-0.78%	-0.80%	-0.80%	\$ 2,863.70	-2.28%	-2.31%	TRUE	-2.31%	1.34%	0.02%	
5/17/2020	\$ 79.72	3.56%	3.54%		\$ 2,955.45	3.15%	3.13%	FALSE		1.36%	0.03%	
5/24/2020	\$ 79.48	-0.30%	-0.33%		\$ 3,044.31	2.96%	2.94%	FALSE		1.41%	0.03%	
5/31/2020	\$ 82.88	4.19%	4.16%		\$ 3,193.93	4.80%	4.77%	FALSE		1.44%	0.03%	
6/7/2020	\$ 84.70	2.17%	2.14%	2.14%	\$ 3,041.31	-4.90%	-4.93%	TRUE	-4.93%	1.56%	0.03%	
6/14/2020	\$ 87.43	3.17%	3.14%		\$ 3,097.74	1.84%	1.81%	FALSE		1.53%	0.03%	
6/21/2020	\$ 88.41	1.11%	1.09%	1.09%	\$ 3,009.05	-2.90%	-2.93%	TRUE	-2.93%	1.49%	0.03%	
6/28/2020	\$ 91.03	2.92%	2.89%		\$ 3,130.01	3.94%	3.91%	FALSE		1.44%	0.03%	
7/5/2020	\$ 95.92	5.23%	5.21%		\$ 3,185.04	1.74%	1.72%	FALSE		1.42%	0.03%	
7/12/2020	\$ 96.33	0.43%	0.40%		\$ 3,224.73	1.24%	1.21%	FALSE		1.37%	0.03%	
7/19/2020	\$ 92.61	-3.94%	-3.96%	-3.96%	\$ 3,215.63	-0.28%	-0.31%	TRUE	-0.31%	1.32%	0.02%	
7/26/2020	\$ 106.26	13.75%	13.73%		\$ 3,271.12	1.71%	1.69%	FALSE		1.28%	0.02%	

8/2/2020	\$	111.11	4.46%	4.44%		\$	3,351.28	2.42%	2.40%	FALSE		1.22%	0.02%
8/9/2020	\$	114.91	3.36%	3.34%		\$	3,372.85	0.64%	0.62%	FALSE		1.21%	0.02%
8/16/2020	\$	124.37	7.91%	7.89%		\$	3,397.16	0.72%	0.69%	FALSE		1.36%	0.03%
8/23/2020	\$	124.81	0.35%	0.33%		\$	3,508.01	3.21%	3.18%	FALSE		1.40%	0.03%
8/30/2020	\$	120.96	-3.13%	-3.16%	-3.16%	\$	3,426.96	-2.34%	-2.36%	TRUE	-2.36%	1.43%	0.03%
9/6/2020	\$	112.00	-7.70%	-7.72%	-7.72%	\$	3,340.97	-2.54%	-2.57%	TRUE	-2.57%	1.42%	0.03%
9/13/2020	\$	106.84	-4.72%	-4.74%	-4.74%	\$	3,319.47	-0.65%	-0.67%	TRUE	-0.67%	1.43%	0.03%
9/20/2020	\$	112.28	4.97%	4.94%	4.94%	\$	3,298.46	-0.63%	-0.66%	TRUE	-0.66%	1.44%	0.03%
9/27/2020	\$	113.02	0.66%	0.63%		\$	3,348.44	1.50%	1.48%	FALSE		1.41%	0.03%
10/4/2020	\$	116.97	3.44%	3.41%		\$	3,477.13	3.77%	3.74%	FALSE		1.44%	0.03%
10/11/2020	\$	119.02	1.74%	1.71%	1.71%	\$	3,483.81	0.19%	0.16%	TRUE	0.16%	1.58%	0.03%
10/18/2020	\$	115.04	-3.40%	-3.43%	-3.43%	\$	3,465.39	-0.53%	-0.56%	TRUE	-0.56%	1.52%	0.03%
10/25/2020	\$	108.86	-5.52%	-5.55%	-5.55%	\$	3,269.96	-5.80%	-5.83%	TRUE	-5.83%	1.62%	0.03%
11/1/2020	\$	118.69	8.65%	8.62%		\$	3,509.44	7.07%	7.04%	FALSE		1.60%	0.03%
11/8/2020	\$	119.26	0.48%	0.45%		\$	3,585.15	2.13%	2.10%	FALSE		1.60%	0.03%
11/15/2020	\$	117.34	-1.62%	-1.65%	-1.65%	\$	3,557.54	-0.77%	-0.80%	TRUE	-0.80%	1.69%	0.03%
11/22/2020	\$	116.59	-0.64%	-0.67%		\$	3,638.35	2.25%	2.22%	FALSE		1.60%	0.03%
11/29/2020	\$	122.25	4.74%	4.71%		\$	3,699.12	1.66%	1.63%	FALSE		1.59%	0.03%
12/6/2020	\$	122.41	0.13%	0.10%	0.10%	\$	3,663.46	-0.97%	-1.00%	TRUE	-1.00%	1.67%	0.03%
12/13/2020	\$	126.66	3.41%	3.38%		\$	3,709.41	1.25%	1.22%	FALSE		1.67%	0.03%
12/20/2020	\$	131.97	4.11%	4.08%	4.08%	\$	3,703.06	-0.17%	-0.20%	TRUE	-0.20%	1.66%	0.03%
12/27/2020	\$	132.69	0.54%	0.51%		\$	3,756.07	1.42%	1.39%	FALSE		1.67%	0.03%
1/3/2021	\$	132.05	-0.48%	-0.51%		\$	3,824.68	1.81%	1.78%	FALSE		1.66%	0.03%
1/10/2021	\$	127.14	-3.79%	-3.82%	-3.82%	\$	3,768.25	-1.49%	-1.52%	TRUE	-1.52%	1.78%	0.03%
1/17/2021	\$	139.07	8.97%	8.93%		\$	3,841.47	1.92%	1.89%	FALSE		1.86%	0.03%
1/24/2021	\$	131.96	-5.25%	-5.28%	-5.28%	\$	3,714.24	-3.37%	-3.40%	TRUE	-3.40%	1.85%	0.03%
1/31/2021	\$	136.76	3.57%	3.54%		\$	3,886.83	4.54%	4.51%	FALSE		1.81%	0.03%
2/7/2021	\$	135.37	-1.02%	-1.06%		\$	3,934.83	1.23%	1.19%	FALSE		1.91%	0.04%
2/14/2021	\$	129.87	-4.15%	-4.18%	-4.18%	\$	3,906.71	-0.72%	-0.75%	TRUE	-0.75%	1.96%	0.04%
2/21/2021	\$	121.26	-6.86%	-6.90%	-6.90%	\$	3,811.15	-2.48%	-2.52%	TRUE	-2.52%	2.09%	0.04%
2/28/2021	\$	121.42	0.13%	0.09%		\$	3,841.94	0.80%	0.76%	FALSE		2.23%	0.04%
3/7/2021	\$	121.03	-0.32%	-0.36%		\$	3,943.34	2.61%	2.56%	FALSE		2.25%	0.04%
3/14/2021	\$	119.99	-0.86%	-0.91%	-0.91%	\$	3,913.10	-0.77%	-0.81%	TRUE	-0.81%	2.30%	0.04%
3/21/2021	\$	121.21	1.01%	0.97%		\$	3,974.54	1.56%	1.51%	FALSE		2.41%	0.04%
3/28/2021	\$	123.00	1.47%	1.42%		\$	4,019.87	1.13%	1.09%	FALSE		2.35%	0.04%
4/4/2021	\$	133.00	7.82%	7.77%		\$	4,128.80	2.67%	2.63%	FALSE		2.38%	0.04%
4/11/2021	\$	134.16	0.87%	0.83%		\$	4,185.47	1.36%	1.32%	FALSE		2.34%	0.04%
4/18/2021	\$	134.32	0.12%	0.08%	0.08%	\$	4,180.17	-0.13%	-0.17%	TRUE	-0.17%	2.29%	0.04%
4/25/2021	\$	131.46	-2.15%	-2.19%	-2.19%	\$	4,181.17	0.02%	-0.02%	TRUE	-0.02%	2.26%	0.04%
5/2/2021	\$	130.21	-0.96%	-1.00%		\$	4,232.60	1.22%	1.18%	FALSE		2.29%	0.04%
5/9/2021	\$	127.45	-2.14%	-2.18%	-2.18%	\$	4,173.85	-1.40%	-1.44%	TRUE	-1.44%	2.27%	0.04%
5/16/2021	\$	125.43	-1.60%	-1.64%	-1.64%	\$	4,155.86	-0.43%	-0.48%	TRUE	-0.48%	2.36%	0.04%
5/23/2021	\$	124.61	-0.66%	-0.70%		\$	4,204.11	1.15%	1.11%	FALSE		2.36%	0.04%
5/30/2021	\$	125.89	1.02%	0.98%		\$	4,229.89	0.61%	0.57%	FALSE		2.28%	0.04%
6/6/2021	\$	127.35	1.15%	1.11%		\$	4,247.44	0.41%	0.37%	FALSE		2.28%	0.04%
6/13/2021	\$	130.46	2.41%	2.37%	2.37%	\$	4,166.45	-1.93%	-1.97%	TRUE	-1.97%	2.19%	0.04%
6/20/2021	\$	133.11	2.01%	1.97%		\$	4,280.70	2.71%	2.67%	FALSE		2.14%	0.04%
6/27/2021	\$	139.96	5.02%	4.98%		\$	4,352.34	1.66%	1.62%	FALSE		2.12%	0.04%
7/4/2021	\$	145.11	3.61%	3.58%		\$	4,369.55	0.39%	0.36%	FALSE		2.08%	0.04%
7/11/2021	\$	146.39	0.88%	0.84%	0.84%	\$	4,327.16	-0.97%	-1.01%	TRUE	-1.01%	1.96%	0.04%
7/18/2021	\$	148.56	1.47%	1.43%		\$	4,411.79	1.94%	1.90%	FALSE		1.97%	0.04%
7/25/2021	\$	145.86	-1.83%	-1.87%	-1.87%	\$	4,395.26	-0.38%	-0.41%	TRUE	-0.41%	1.89%	0.04%
8/1/2021	\$	146.14	0.19%	0.16%		\$	4,436.52	0.93%	0.90%	FALSE		1.90%	0.04%
8/8/2021	\$	149.10	2.01%	1.97%		\$	4,468.00	0.71%	0.67%	FALSE		1.87%	0.03%
8/15/2021	\$	148.19	-0.61%	-0.65%	-0.65%	\$	4,441.67	-0.59%	-0.63%	TRUE	-0.63%	1.98%	0.04%
8/22/2021	\$	148.60	0.28%	0.24%		\$	4,509.37	1.51%	1.48%	FALSE		1.90%	0.04%
8/29/2021	\$	154.30	3.76%	3.73%		\$	4,535.43	0.58%	0.54%	FALSE		1.92%	0.04%
9/5/2021	\$	148.97	-3.52%	-3.55%	-3.55%	\$	4,458.58	-1.71%	-1.74%	TRUE	-1.74%	1.92%	0.04%
9/12/2021	\$	146.06	-1.97%	-2.01%	-2.01%	\$	4,432.99	-0.58%	-0.61%	TRUE	-0.61%	1.95%	0.04%
9/19/2021	\$	146.92	0.59%	0.55%		\$	4,455.48	0.51%	0.47%	FALSE		1.88%	0.03%
9/26/2021	\$	142.65	-2.95%	-2.98%	-2.98%	\$	4,357.04	-2.23%	-2.27%	TRUE	-2.27%	1.89%	0.04%
10/3/2021	\$	142.90	0.18%	0.14%		\$	4,391.34	0.78%	0.75%	FALSE		2.05%	0.04%
10/10/2021	\$	144.84	1.35%	1.31%		\$	4,471.37	1.81%	1.77%	FALSE		2.10%	0.04%
10/17/2021	\$	148.69	2.62%	2.59%		\$	4,544.90	1.63%	1.59%	FALSE		2.06%	0.04%
10/24/2021	\$	149.80	0.74%	0.71%		\$	4,605.38	1.32%	1.28%	FALSE		2.09%	0.04%
10/31/2021	\$	151.28	0.98%	0.95%		\$	4,697.53	1.98%	1.94%	FALSE		2.00%	0.04%
11/7/2021	\$	149.99	-0.86%	-0.89%	-0.89%	\$	4,682.85	-0.31%	-0.35%	TRUE	-0.35%	1.95%	0.04%
11/14/2021	\$	160.55	6.80%	6.77%		\$	4,697.96	0.32%	0.29%	FALSE		1.90%	0.04%
11/21/2021	\$	156.81	-2.36%	-2.39%	-2.39%	\$	4,594.62	-2.22%	-2.26%	TRUE	-2.26%	1.98%	0.04%
11/28/2021	\$	161.84	3.16%	3.12%	3.12%	\$	4,538.43	-1.23%	-1.27%	TRUE	-1.27%	1.95%	0.04%
12/5/2021	\$	179.45	10.33%	10.30%		\$	4,712.02	3.75%	3.72%	FALSE		1.77%	0.03%
12/12/2021	\$	171.14	-4.74%	-4.78%	-4.78%	\$	4,620.64	-1.96%	-1.99%	TRUE	-1.99%	1.83%	0.03%
12/19/2021	\$	176.28	2.96%	2.93%		\$	4,725.79	2.25%	2.22%	FALSE		1.84%	0.03%
12/26/2021	\$	177.57	0.73%	0.69%		\$	4,766.18	0.85%	0.82%	FALSE		1.88%	0.03%
1/2/2022	\$	172.17	-3.09%	-3.12%	-3.12%	\$	4,677.03	-1.89%	-1.92%	TRUE	-1.92%	1.91%	0.04%
1/9/2022	\$	173.07	0.52%	0.48%	0.48%	\$	4,662.85	-0.30%	-0.34%	TRUE	-0.34%	2.07%	0.04%
1/16/2022	\$	162.41	-6.36%	-6.40%	-6.40%	\$	4,397.94	-5.85%	-5.89%	TRUE	-5.89%	2.09%	0.04%
1/23/2022	\$	170.33	4.76%	4.72%		\$	4,431.85	0.77%	0.73%	FALSE		2.13%	0.04%
1/30/2022	\$	172.39	1.20%	1.16%		\$	4,500.53	1.54%	1.50%	FALSE		2.11%	0.04%
2/6/2022	\$	168.64	-2.20%	-2.24%	-2.24%	\$	4,418.64	-1.84%	-1.88%	TRUE	-1.88%	2.14%	0.04%
2/13/2022	\$	167.30	-0.80%	-0.84%	-0.84%	\$	4,348.87	-1.59%	-1.63%	TRUE	-1.63%	2.25%	0.04%
2/20/2022	\$	164.85	-1.48%	-1.52%		\$	4,384.65	0.82%	0.78%	FALSE		2.31%	0.04%

2/27/2022	\$	163.17	-1.02%	-1.07%	-1.07%	\$	4,328.87	-1.28%	-1.32%	TRUE	-1.32%	2.28%	0.04%
3/6/2022	\$	154.73	-5.31%	-5.35%	-5.35%	\$	4,204.31	-2.92%	-2.96%	TRUE	-2.96%	2.18%	0.04%
3/13/2022	\$	163.98	5.81%	5.76%		\$	4,463.12	5.97%	5.93%	FALSE		2.29%	0.04%
3/20/2022	\$	174.72	6.34%	6.30%		\$	4,543.06	1.78%	1.73%	FALSE		2.47%	0.05%
3/27/2022	\$	174.31	-0.23%	-0.28%	-0.28%	\$	4,545.86	0.06%	0.01%	TRUE	0.01%	2.56%	0.05%
4/3/2022	\$	170.09	-2.45%	-2.50%	-2.50%	\$	4,488.28	-1.27%	-1.32%	TRUE	-1.32%	2.49%	0.05%
4/10/2022	\$	165.29	-2.86%	-2.91%	-2.91%	\$	4,392.59	-2.16%	-2.20%	TRUE	-2.20%	2.63%	0.05%
4/17/2022	\$	161.79	-2.14%	-2.19%	-2.19%	\$	4,271.78	-2.79%	-2.84%	TRUE	-2.84%	2.85%	0.05%
4/24/2022	\$	157.65	-2.59%	-2.65%	-2.65%	\$	4,131.93	-3.33%	-3.38%	TRUE	-3.38%	2.95%	0.05%
5/1/2022	\$	157.28	-0.23%	-0.29%	-0.29%	\$	4,123.34	-0.21%	-0.26%	TRUE	-0.26%	2.91%	0.05%
5/8/2022	\$	147.11	-6.68%	-6.74%	-6.74%	\$	4,023.89	-2.44%	-2.50%	TRUE	-2.50%	3.10%	0.06%
5/15/2022	\$	137.59	-6.69%	-6.75%	-6.75%	\$	3,901.36	-3.09%	-3.15%	TRUE	-3.15%	3.09%	0.06%
5/22/2022	\$	149.64	8.40%	8.34%		\$	4,158.24	6.38%	6.32%	FALSE		3.07%	0.06%
5/29/2022	\$	145.38	-2.89%	-2.94%	-2.94%	\$	4,108.54	-1.20%	-1.26%	TRUE	-1.26%	3.00%	0.06%
6/5/2022	\$	137.13	-5.84%	-5.90%	-5.90%	\$	3,900.86	-5.19%	-5.24%	TRUE	-5.24%	3.09%	0.06%
6/12/2022	\$	131.56	-4.15%	-4.21%	-4.21%	\$	3,674.84	-5.97%	-6.03%	TRUE	-6.03%	3.18%	0.06%
6/19/2022	\$	141.66	7.40%	7.33%		\$	3,911.74	6.25%	6.18%	FALSE		3.38%	0.06%
6/26/2022	\$	138.93	-1.95%	-2.01%	-2.01%	\$	3,825.33	-2.23%	-2.29%	TRUE	-2.29%	3.28%	0.06%
7/3/2022	\$	147.04	5.67%	5.61%		\$	3,899.38	1.92%	1.86%	FALSE		3.22%	0.06%
7/10/2022	\$	150.17	2.11%	2.05%	2.05%	\$	3,863.16	-0.93%	-0.99%	TRUE	-0.99%	3.17%	0.06%
7/17/2022	\$	154.09	2.58%	2.52%		\$	3,961.63	2.52%	2.46%	FALSE		3.12%	0.06%
7/24/2022	\$	162.51	5.32%	5.26%		\$	4,130.29	4.17%	4.11%	FALSE		3.11%	0.06%
7/31/2022	\$	165.35	1.73%	1.68%		\$	4,145.19	0.36%	0.30%	FALSE		3.02%	0.06%
8/7/2022	\$	172.10	4.00%	3.95%		\$	4,280.15	3.20%	3.15%	FALSE		2.98%	0.06%
8/14/2022	\$	171.52	-0.34%	-0.39%	-0.39%	\$	4,228.48	-1.21%	-1.27%	TRUE	-1.27%	3.06%	0.06%
8/21/2022	\$	163.62	-4.72%	-4.77%	-4.77%	\$	4,057.66	-4.12%	-4.18%	TRUE	-4.18%	3.14%	0.06%
8/28/2022	\$	155.81	-4.89%	-4.95%	-4.95%	\$	3,924.26	-3.34%	-3.40%	TRUE	-3.40%	3.26%	0.06%
9/4/2022	\$	157.37	1.00%	0.94%		\$	4,067.36	3.58%	3.52%	FALSE		3.29%	0.06%
9/11/2022	\$	150.70	-4.33%	-4.39%	-4.39%	\$	3,873.33	-4.89%	-4.95%	TRUE	-4.95%	3.46%	0.06%
9/18/2022	\$	150.43	-0.18%	-0.24%	-0.24%	\$	3,693.23	-4.76%	-4.83%	TRUE	-4.83%	3.50%	0.06%
9/25/2022	\$	138.20	-8.48%	-8.55%	-8.55%	\$	3,585.62	-2.96%	-3.02%	TRUE	-3.02%	3.57%	0.07%
10/2/2022	\$	140.09	1.36%	1.29%		\$	3,639.66	1.50%	1.43%	FALSE		3.76%	0.07%
10/9/2022	\$	138.38	-1.23%	-1.30%	-1.30%	\$	3,583.07	-1.57%	-1.64%	TRUE	-1.64%	3.78%	0.07%
10/16/2022	\$	147.27	6.23%	6.15%		\$	3,752.75	4.63%	4.55%	FALSE		3.95%	0.07%
10/23/2022	\$	155.74	5.59%	5.51%		\$	3,901.06	3.88%	3.80%	FALSE		4.16%	0.08%
10/30/2022	\$	138.38	-11.82%	-11.90%	-11.90%	\$	3,770.55	-3.40%	-3.48%	TRUE	-3.48%	4.22%	0.08%
11/6/2022	\$	149.70	7.86%	7.79%		\$	3,992.93	5.73%	5.65%	FALSE		4.19%	0.08%
11/13/2022	\$	151.29	1.06%	0.98%	0.98%	\$	3,965.34	-0.69%	-0.77%	TRUE	-0.77%	4.24%	0.08%
11/20/2022	\$	148.11	-2.12%	-2.20%		\$	4,026.12	1.52%	1.45%	FALSE		3.94%	0.07%
11/27/2022	\$	147.81	-0.20%	-0.27%		\$	4,071.70	1.13%	1.06%	FALSE		3.81%	0.07%
12/4/2022	\$	142.16	-3.90%	-3.97%	-3.97%	\$	3,934.38	-3.43%	-3.50%	TRUE	-3.50%	3.71%	0.07%
12/11/2022	\$	134.51	-5.53%	-5.60%	-5.60%	\$	3,852.36	-2.11%	-2.17%	TRUE	-2.17%	3.51%	0.07%
12/18/2022	\$	131.86	-1.99%	-2.06%	-2.06%	\$	3,844.82	-0.20%	-0.26%	TRUE	-0.26%	3.53%	0.07%
12/25/2022	\$	129.93	-1.47%	-1.54%	-1.54%	\$	3,839.50	-0.14%	-0.21%	TRUE	-0.21%	3.73%	0.07%
1/1/2023	\$	129.62	-0.24%	-0.31%		\$	3,895.08	1.44%	1.36%	FALSE		3.95%	0.07%
1/8/2023	\$	134.76	3.89%	3.82%		\$	3,999.09	2.64%	2.57%	FALSE		3.79%	0.07%
1/15/2023	\$	137.87	2.28%	2.21%	2.21%	\$	3,972.61	-0.66%	-0.73%	TRUE	-0.73%	3.65%	0.07%
1/22/2023	\$	145.93	5.68%	5.61%		\$	4,070.56	2.44%	2.37%	FALSE		3.60%	0.07%
1/29/2023	\$	154.50	5.71%	5.64%		\$	4,136.48	1.61%	1.54%	FALSE		3.64%	0.07%
2/5/2023	\$	151.01	-2.28%	-2.35%	-2.35%	\$	4,090.46	-1.12%	-1.19%	TRUE	-1.19%	3.61%	0.07%
2/12/2023	\$	152.55	1.01%	0.95%	0.95%	\$	4,079.09	-0.28%	-0.35%	TRUE	-0.35%	3.73%	0.07%
2/19/2023	\$	146.71	-3.90%	-3.97%	-3.97%	\$	3,970.04	-2.71%	-2.78%	TRUE	-2.78%	3.85%	0.07%
2/26/2023	\$	151.03	2.90%	2.83%		\$	4,045.64	1.89%	1.81%	FALSE		3.93%	0.07%
3/5/2023	\$	148.50	-1.69%	-1.76%	-1.76%	\$	3,861.59	-4.66%	-4.73%	TRUE	-4.73%	3.95%	0.07%
3/12/2023	\$	155.00	4.28%	4.21%		\$	3,916.64	1.42%	1.34%	FALSE		3.85%	0.07%
3/19/2023	\$	160.25	3.33%	3.26%		\$	3,970.99	1.38%	1.31%	FALSE		3.70%	0.07%
3/26/2023	\$	164.90	2.86%	2.79%		\$	4,109.31	3.42%	3.36%	FALSE		3.67%	0.07%
4/2/2023	\$	164.66	-0.15%	-0.22%	-0.22%	\$	4,105.02	-0.10%	-0.17%	TRUE	-0.17%	3.75%	0.07%
4/9/2023	\$	165.21	0.33%	0.27%		\$	4,137.64	0.79%	0.73%	FALSE		3.59%	0.07%
4/16/2023	\$	165.02	-0.12%	-0.18%	-0.18%	\$	4,133.52	-0.10%	-0.17%	TRUE	-0.17%	3.66%	0.07%
4/23/2023	\$	169.68	2.78%	2.71%		\$	4,169.48	0.87%	0.80%	FALSE		3.78%	0.07%
4/30/2023	\$	173.57	2.27%	2.20%	2.20%	\$	4,136.25	-0.80%	-0.87%	TRUE	-0.87%	3.70%	0.07%
5/7/2023	\$	172.57	-0.58%	-0.65%	-0.65%	\$	4,124.08	-0.29%	-0.36%	TRUE	-0.36%	3.75%	0.07%
5/14/2023	\$	175.16	1.49%	1.42%		\$	4,191.98	1.63%	1.56%	FALSE		3.80%	0.07%
5/21/2023	\$	175.43	0.15%	0.08%		\$	4,205.45	0.32%	0.25%	FALSE		3.89%	0.07%
5/28/2023	\$	180.95	3.10%	3.02%		\$	4,282.37	1.81%	1.74%	FALSE		3.97%	0.07%
6/4/2023	\$	180.96	0.01%	-0.07%		\$	4,298.86	0.38%	0.31%	FALSE		3.87%	0.07%
6/11/2023	\$	184.92	2.16%	2.09%		\$	4,409.59	2.54%	2.47%	FALSE		3.90%	0.07%
6/18/2023	\$	186.68	0.95%	0.88%	0.88%	\$	4,348.33	-1.40%	-1.47%	TRUE	-1.47%	3.88%	0.07%
6/25/2023	\$	193.97	3.83%	3.76%		\$	4,450.38	2.32%	2.25%	FALSE		3.84%	0.07%
7/2/2023	\$	190.68	-1.71%	-1.78%	-1.78%	\$	4,398.95	-1.16%	-1.23%	TRUE	-1.23%	3.85%	0.07%
7/9/2023	\$	190.69	0.01%	-0.07%		\$	4,505.42	2.39%	2.32%	FALSE		3.97%	0.07%
7/16/2023	\$	191.94	0.65%	0.58%		\$	4,536.34	0.68%	0.61%	FALSE		3.97%	0.07%
7/23/2023	\$	195.83	2.01%	1.93%		\$	4,582.23	1.01%	0.93%	FALSE		3.90%	0.07%
7/30/2023	\$	181.99	-7.33%	-7.40%	-7.40%	\$	4,478.03	-2.30%	-2.37%	TRUE	-2.37%	3.98%	0.07%
8/6/2023	\$	177.79	-2.33%	-2.41%	-2.41%	\$	4,464.05	-0.31%	-0.39%	TRUE	-0.39%	4.17%	0.08%
8/13/2023	\$	174.49	-1.87%	-1.95%	-1.95%	\$	4,369.71	-2.14%	-2.21%	TRUE	-2.21%	4.23%	0.08%
8/20/2023	\$	178.61	2.33%	2.25%		\$	4,405.71	0.82%	0.74%	FALSE		4.36%	0.08%
8/27/2023	\$	189.46	5.90%	5.82%		\$	4,515.77	2.47%	2.39%	FALSE		4.35%	0.08%
9/3/2023	\$	178.18	-6.14%	-6.22%	-6.22%	\$	4,457.49	-1.30%	-1.38%	TRUE	-1.38%	4.25%	0.08%
9/10/2023	\$	175.01	-1.80%	-1.88%	-1.88%	\$	4,450.32	-0.16%	-0.24%	TRUE	-0.24%	4.36%	0.08%
9/17/2023	\$	174.79	-0.13%	-0.21%	-0.21%	\$	4,320.06	-2.97%	-3.05%	TRUE	-3.05%	4.37%	0.08%

9/24/2023	\$	171.21	-2.07%	-2.15%	-2.15%	\$	4,288.05	-0.74%	-0.83%	TRUE	-0.83%	4.46%	0.08%
10/1/2023	\$	177.49	3.60%	3.52%		\$	4,308.50	0.48%	0.39%	FALSE		4.71%	0.09%
10/8/2023	\$	178.85	0.76%	0.67%		\$	4,327.78	0.45%	0.36%	FALSE		4.89%	0.09%
10/15/2023	\$	172.88	-3.39%	-3.48%	-3.48%	\$	4,224.16	-2.42%	-2.51%	TRUE	-2.51%	4.81%	0.09%
10/22/2023	\$	168.22	-2.73%	-2.83%	-2.83%	\$	4,117.37	-2.56%	-2.65%	TRUE	-2.65%	5.00%	0.09%
10/29/2023	\$	176.65	4.89%	4.80%		\$	4,358.34	5.69%	5.59%	FALSE		5.02%	0.09%
11/5/2023	\$	186.40	5.37%	5.28%		\$	4,415.24	1.30%	1.21%	FALSE		4.93%	0.09%
11/12/2023	\$	189.69	1.75%	1.66%		\$	4,514.02	2.21%	2.12%	FALSE		4.75%	0.09%
11/19/2023	\$	189.97	0.15%	0.06%		\$	4,559.34	1.00%	0.91%	FALSE		4.65%	0.09%
11/26/2023	\$	191.24	0.67%	0.58%		\$	4,594.63	0.77%	0.69%	FALSE		4.57%	0.08%
12/3/2023	\$	195.71	2.31%	2.23%	2.23%	\$	4,604.37	0.21%	0.13%	TRUE	0.13%	4.49%	0.08%
12/10/2023	\$	197.57	0.95%	0.87%		\$	4,719.19	2.46%	2.38%	FALSE		4.30%	0.08%
12/17/2023	\$	193.60	-2.03%	-2.11%		\$	4,754.63	0.75%	0.67%	FALSE		4.17%	0.08%
12/24/2023	\$	192.53	-0.55%	-0.63%		\$	4,769.83	0.32%	0.24%	FALSE		4.03%	0.07%
12/31/2023	\$	181.18	-6.08%	-6.15%	-6.15%	\$	4,697.24	-1.53%	-1.61%	TRUE	-1.61%	4.00%	0.07%
1/7/2024	\$	185.92	2.58%	2.51%		\$	4,783.83	1.83%	1.75%	FALSE		4.12%	0.08%
1/14/2024	\$	191.56	2.99%	2.91%		\$	4,839.81	1.16%	1.09%	FALSE		4.19%	0.08%
1/21/2024	\$	192.42	0.45%	0.37%		\$	4,890.97	1.05%	0.97%	FALSE		4.34%	0.08%
1/28/2024	\$	185.85	-3.47%	-3.55%		\$	4,958.61	1.37%	1.29%	FALSE		4.37%	0.08%
2/4/2024	\$	188.85	1.60%	1.52%		\$	5,026.61	1.36%	1.28%	FALSE		4.23%	0.08%
2/11/2024	\$	182.31	-3.52%	-3.60%	-3.60%	\$	5,005.57	-0.42%	-0.50%	TRUE	-0.50%	4.34%	0.08%
2/18/2024	\$	182.52	0.12%	0.03%		\$	5,088.80	1.65%	1.57%	FALSE		4.43%	0.08%
2/25/2024	\$	179.66	-1.58%	-1.66%		\$	5,137.08	0.94%	0.86%	FALSE		4.44%	0.08%
3/3/2024	\$	170.73	-5.10%	-5.18%	-5.18%	\$	5,123.69	-0.26%	-0.34%	TRUE	-0.34%	4.39%	0.08%
3/10/2024	\$	172.62	1.10%	1.02%	1.02%	\$	5,117.09	-0.13%	-0.21%	TRUE	-0.21%	4.28%	0.08%
3/17/2024	\$	172.28	-0.20%	-0.28%		\$	5,234.18	2.26%	2.18%	FALSE		4.36%	0.08%
3/24/2024	\$	171.48	-0.47%	-0.55%		\$	5,254.35	0.38%	0.30%	FALSE		4.44%	0.08%
3/31/2024	\$	169.58	-1.11%	-1.20%	-1.20%	\$	5,204.34	-0.96%	-1.04%	TRUE	-1.04%	4.38%	0.08%
4/7/2024	\$	176.55	4.03%	3.94%	3.94%	\$	5,123.41	-1.57%	-1.65%	TRUE	-1.65%	4.50%	0.08%
4/14/2024	\$	165.00	-6.77%	-6.85%	-6.85%	\$	4,967.23	-3.10%	-3.18%	TRUE	-3.18%	4.59%	0.09%
4/21/2024	\$	169.30	2.57%	2.48%		\$	5,099.96	2.64%	2.55%	FALSE		4.74%	0.09%
4/28/2024	\$	183.38	7.99%	7.90%		\$	5,127.79	0.54%	0.46%	FALSE		4.77%	0.09%
5/5/2024	\$	183.05	-0.18%	-0.27%		\$	5,222.68	1.83%	1.75%	FALSE		4.73%	0.09%
5/12/2024	\$	189.87	3.66%	3.57%		\$	5,303.27	1.53%	1.45%	FALSE		4.63%	0.09%
5/19/2024	\$	189.98	0.06%	-0.03%	-0.03%	\$	5,304.72	0.03%	-0.06%	TRUE	-0.06%	4.56%	0.08%
5/26/2024	\$	192.25	1.19%	1.10%	1.10%	\$	5,277.51	-0.51%	-0.60%	TRUE	-0.60%	4.57%	0.08%
6/2/2024	\$	196.89	2.38%	2.30%		\$	5,346.99	1.31%	1.22%	FALSE		4.69%	0.09%
6/9/2024	\$	212.49	7.62%	7.54%		\$	5,431.60	1.57%	1.49%	FALSE		4.49%	0.08%
6/16/2024	\$	207.49	-2.38%	-2.46%		\$	5,464.62	0.61%	0.52%	FALSE		4.47%	0.08%
6/23/2024	\$	210.61	1.49%	1.41%	1.41%	\$	5,460.48	-0.08%	-0.16%	TRUE	-0.16%	4.39%	0.08%
6/30/2024	\$	226.34	7.20%	7.12%		\$	5,567.19	1.94%	1.85%	FALSE		4.43%	0.08%

## Sources:

Amazon stock prices: <https://www.investing.com/equities/amazon-com-inc-historical-data>S&P 500 prices: <https://www.investing.com/indices/us-spx-500-historical-data>30-Year Treasury yields: <https://fred.stlouisfed.org/series/DGS30#0>

## Average Returns

Amazon: 0.28%  
S&P 500: 0.55%

Levered Beta: 0.911248754

T-statistic: 3.227674484

Levered  
Downside Beta: 0.5033342679Standard Deviation of  
Downmarket Returns

## Average Excess Returns

Amazon: 0.22%  
S&P 500: 0.19%

Amazon: 0.0387077114  
S&P 500: 0.02285018501

Observations: 118

Average Downmarket  
Excess Returns

Amazon: -2.29%  
S&P 500: -1.92%

Covariance: 0.000260579229  
Standard Error  
of Slope: 0.1559433178

Amazon Return Data					S&P 500 Return Data				30-Year Treasuries Return Data			
Date	Closing Price	Logarithmic Returns	Excess Return (%)	Downmarket Excess Returns	Closing Price	Logarithmic Returns	Excess Return (%) (t)	Downside Periods	Downmarket Excess Returns	Yield	Returns	
6/30/2019	\$ 97.15				\$ 2,990.41						2.54%	0.05%
7/7/2019	\$ 100.55	3.44%	3.39%		\$ 3,013.77	0.78%	0.73%	FALSE			2.52%	0.05%
7/14/2019	\$ 98.23	-2.33%	-2.38%	-2.38%	\$ 2,976.61	-1.24%	-1.29%	TRUE	-1.29%		2.59%	0.05%
7/21/2019	\$ 97.15	-1.11%	-1.15%		\$ 3,025.86	1.64%	1.59%	FALSE			2.59%	0.05%
7/28/2019	\$ 91.16	-6.36%	-6.41%	-6.41%	\$ 2,932.05	-3.15%	-3.20%	TRUE	-3.20%		2.59%	0.05%
8/4/2019	\$ 90.38	-0.86%	-0.91%	-0.91%	\$ 2,918.65	-0.46%	-0.50%	TRUE	-0.50%		2.51%	0.05%
8/11/2019	\$ 89.63	-0.83%	-0.88%	-0.88%	\$ 2,888.68	-1.03%	-1.07%	TRUE	-1.07%		2.26%	0.04%
8/18/2019	\$ 87.48	-2.43%	-2.47%	-2.47%	\$ 2,847.11	-1.45%	-1.49%	TRUE	-1.49%		2.06%	0.04%
8/25/2019	\$ 88.81	1.51%	1.47%		\$ 2,926.46	2.75%	2.71%	FALSE			2.06%	0.04%
9/1/2019	\$ 91.68	3.18%	3.14%		\$ 2,978.71	1.77%	1.73%	FALSE			1.98%	0.04%
9/8/2019	\$ 91.97	0.32%	0.28%		\$ 3,007.39	0.96%	0.92%	FALSE			2.00%	0.04%
9/15/2019	\$ 89.71	-2.49%	-2.53%	-2.53%	\$ 2,992.07	-0.51%	-0.55%	TRUE	-0.55%		2.22%	0.04%
9/22/2019	\$ 86.27	-3.91%	-3.95%	-3.95%	\$ 2,961.79	-1.02%	-1.06%	TRUE	-1.06%		2.24%	0.04%
9/29/2019	\$ 86.98	0.82%	0.78%	0.78%	\$ 2,952.01	-0.33%	-0.37%	TRUE	-0.37%		2.14%	0.04%
10/6/2019	\$ 86.60	-0.44%	-0.48%		\$ 2,970.27	0.62%	0.58%	FALSE			2.07%	0.04%
10/13/2019	\$ 87.88	1.47%	1.43%		\$ 2,986.20	0.53%	0.50%	FALSE			2.11%	0.04%
10/20/2019	\$ 88.07	0.22%	0.17%		\$ 3,022.55	1.21%	1.17%	FALSE			2.24%	0.04%
10/27/2019	\$ 89.57	1.69%	1.65%		\$ 3,066.91	1.46%	1.41%	FALSE			2.27%	0.04%
11/3/2019	\$ 89.29	-0.31%	-0.35%		\$ 3,093.08	0.85%	0.81%	FALSE			2.26%	0.04%
11/10/2019	\$ 86.97	-2.63%	-2.68%		\$ 3,120.46	0.88%	0.84%	FALSE			2.35%	0.04%
11/17/2019	\$ 87.29	0.37%	0.32%	0.32%	\$ 3,110.29	-0.33%	-0.37%	TRUE	-0.37%		2.34%	0.04%
11/24/2019	\$ 90.04	3.10%	3.06%		\$ 3,140.98	0.98%	0.94%	FALSE			2.24%	0.04%
12/1/2019	\$ 87.58	-2.77%	-2.81%	-2.81%	\$ 3,145.91	0.16%	0.12%	TRUE	0.12%		2.20%	0.04%
12/8/2019	\$ 88.05	0.54%	0.49%		\$ 3,168.80	0.72%	0.68%	FALSE			2.24%	0.04%
12/15/2019	\$ 89.32	1.43%	1.39%		\$ 3,221.22	1.64%	1.60%	FALSE			2.27%	0.04%
12/22/2019	\$ 93.49	4.56%	4.52%		\$ 3,240.02	0.58%	0.54%	FALSE			2.33%	0.04%
12/29/2019	\$ 93.75	0.28%	0.23%	0.23%	\$ 3,234.85	-0.16%	-0.20%	TRUE	-0.20%		2.33%	0.04%
1/5/2020	\$ 94.16	0.44%	0.39%		\$ 3,265.35	0.94%	0.90%	FALSE			2.33%	0.04%
1/12/2020	\$ 93.24	-0.98%	-1.02%		\$ 3,329.62	1.95%	1.91%	FALSE			2.32%	0.04%
1/19/2020	\$ 93.08	-0.17%	-0.21%	-0.21%	\$ 3,295.47	-1.03%	-1.07%	TRUE	-1.07%		2.27%	0.04%
1/26/2020	\$ 100.44	7.61%	7.57%	7.57%	\$ 3,225.52	-2.15%	-2.19%	TRUE	-2.19%		2.19%	0.04%
2/2/2020	\$ 103.96	3.44%	3.41%		\$ 3,327.71	3.12%	3.08%	FALSE			2.05%	0.04%
2/9/2020	\$ 106.74	2.64%	2.60%		\$ 3,380.16	1.56%	1.53%	FALSE			2.08%	0.04%
2/16/2020	\$ 104.80	-1.83%	-1.87%		\$ 3,337.75	-1.26%	-1.30%	TRUE	-1.30%		2.06%	0.04%
2/23/2020	\$ 94.19	-10.67%	-10.71%	-10.71%	\$ 2,954.22	-12.21%	-12.24%	TRUE	-12.24%		1.97%	0.04%
3/1/2020	\$ 95.05	0.91%	0.88%		\$ 2,972.37	0.61%	0.58%	FALSE			1.78%	0.03%
3/8/2020	\$ 89.25	-6.30%	-6.33%	-6.33%	\$ 2,711.02	-9.20%	-9.23%	TRUE	-9.23%		1.56%	0.03%
3/15/2020	\$ 92.30	3.36%	3.34%	3.34%	\$ 2,304.92	-16.23%	-16.25%	TRUE	-16.25%		1.32%	0.02%
3/22/2020	\$ 95.00	2.88%	2.85%		\$ 2,541.47	9.77%	9.74%	FALSE			1.61%	0.03%
3/29/2020	\$ 95.33	0.35%	0.32%	0.32%	\$ 2,488.65	-2.10%	-2.13%	TRUE	-2.13%		1.38%	0.03%
4/5/2020	\$ 102.14	6.90%	6.88%		\$ 2,789.82	11.42%	11.40%	FALSE			1.29%	0.02%
4/12/2020	\$ 118.75	15.07%	15.04%		\$ 2,874.56	2.99%	2.97%	FALSE			1.33%	0.02%
4/19/2020	\$ 120.51	1.47%	1.45%	1.45%	\$ 2,836.74	-1.32%	-1.35%	TRUE	-1.35%		1.31%	0.02%
4/26/2020	\$ 114.30	-5.29%	-5.31%	-5.31%	\$ 2,830.71	-0.21%	-0.23%	TRUE	-0.23%		1.19%	0.02%
5/3/2020	\$ 118.98	4.01%	3.99%		\$ 2,929.80	3.44%	3.42%	FALSE			1.25%	0.02%
5/10/2020	\$ 120.49	1.26%	1.24%	1.24%	\$ 2,863.70	-2.28%	-2.31%	TRUE	-2.31%		1.34%	0.02%
5/17/2020	\$ 121.84	1.11%	1.09%		\$ 2,955.45	3.15%	3.13%	FALSE			1.36%	0.03%
5/24/2020	\$ 122.12	0.23%	0.20%		\$ 3,044.31	2.96%	2.94%	FALSE			1.41%	0.03%
5/31/2020	\$ 124.15	1.65%	1.62%		\$ 3,193.93	4.80%	4.77%	FALSE			1.44%	0.03%
6/7/2020	\$ 127.25	2.47%	2.44%	2.44%	\$ 3,041.31	-4.90%	-4.93%	TRUE	-4.93%		1.56%	0.03%
6/14/2020	\$ 133.75	4.98%	4.95%		\$ 3,097.74	1.84%	1.81%	FALSE			1.53%	0.03%
6/21/2020	\$ 134.64	0.66%	0.64%	0.64%	\$ 3,009.05	-2.90%	-2.93%	TRUE	-2.93%		1.49%	0.03%
6/28/2020	\$ 144.51	7.07%	7.05%		\$ 3,130.01	3.94%	3.91%	FALSE			1.44%	0.03%
7/5/2020	\$ 160.00	10.18%	10.16%		\$ 3,185.04	1.74%	1.72%	FALSE			1.42%	0.03%
7/12/2020	\$ 148.10	-7.73%	-7.75%		\$ 3,224.73	1.24%	1.21%	FALSE			1.37%	0.03%
7/19/2020	\$ 150.45	1.57%	1.55%	1.55%	\$ 3,215.63	-0.28%	-0.31%	TRUE	-0.31%		1.32%	0.02%
7/26/2020	\$ 158.23	5.04%	5.02%		\$ 3,271.12	1.71%	1.69%	FALSE			1.28%	0.02%
8/2/2020	\$ 158.37	0.09%	0.07%		\$ 3,351.28	2.42%	2.40%	FALSE			1.22%	0.02%
8/9/2020	\$ 157.40	-0.61%	-0.64%		\$ 3,372.85	0.64%	0.62%	FALSE			1.21%	0.02%
8/16/2020	\$ 164.24	4.25%	4.23%		\$ 3,397.16	0.72%	0.69%	FALSE			1.36%	0.03%
8/23/2020	\$ 170.09	3.50%	3.47%		\$ 3,508.01	3.21%	3.18%	FALSE			1.40%	0.03%

8/30/2020	\$	164.73	-3.20%	-3.23%	-3.23%	\$	3,426.96	-2.34%	-2.36%	TRUE	-2.36%	1.43%	0.03%
9/6/2020	\$	155.81	-5.57%	-5.59%	-5.59%	\$	3,340.97	-2.54%	-2.57%	TRUE	-2.57%	1.42%	0.03%
9/13/2020	\$	147.75	-5.31%	-5.34%	-5.34%	\$	3,319.47	-0.65%	-0.67%	TRUE	-0.67%	1.43%	0.03%
9/20/2020	\$	154.76	4.64%	4.61%	4.61%	\$	3,298.46	-0.63%	-0.66%	TRUE	-0.66%	1.44%	0.03%
9/27/2020	\$	156.25	0.96%	0.93%		\$	3,348.44	1.50%	1.48%	FALSE		1.41%	0.03%
10/4/2020	\$	164.33	5.04%	5.02%		\$	3,477.13	3.77%	3.74%	FALSE		1.44%	0.03%
10/11/2020	\$	163.64	-0.42%	-0.45%	-0.45%	\$	3,483.81	0.19%	0.16%	TRUE	0.16%	1.58%	0.03%
10/18/2020	\$	160.22	-2.11%	-2.14%	-2.14%	\$	3,465.39	-0.53%	-0.56%	TRUE	-0.56%	1.52%	0.03%
10/25/2020	\$	151.81	-5.39%	-5.42%	-5.42%	\$	3,269.96	-5.80%	-5.83%	TRUE	-5.83%	1.62%	0.03%
11/1/2020	\$	165.57	8.68%	8.65%		\$	3,509.44	7.07%	7.04%	FALSE		1.60%	0.03%
11/8/2020	\$	156.44	-5.67%	-5.70%		\$	3,585.15	2.13%	2.10%	FALSE		1.60%	0.03%
11/15/2020	\$	154.97	-0.94%	-0.98%	-0.98%	\$	3,557.54	-0.77%	-0.80%	TRUE	-0.80%	1.69%	0.03%
11/22/2020	\$	159.77	3.05%	3.02%		\$	3,638.35	2.25%	2.22%	FALSE		1.60%	0.03%
11/29/2020	\$	158.13	-1.03%	-1.06%		\$	3,699.12	1.66%	1.63%	FALSE		1.59%	0.03%
12/6/2020	\$	155.82	-1.47%	-1.50%	-1.50%	\$	3,663.46	-0.97%	-1.00%	TRUE	-1.00%	1.67%	0.03%
12/13/2020	\$	160.08	2.70%	2.67%		\$	3,709.41	1.25%	1.22%	FALSE		1.67%	0.03%
12/20/2020	\$	158.63	-0.91%	-0.94%	-0.94%	\$	3,703.06	-0.17%	-0.20%	TRUE	-0.20%	1.66%	0.03%
12/27/2020	\$	162.85	2.63%	2.59%		\$	3,756.07	1.42%	1.39%	FALSE		1.67%	0.03%
1/3/2021	\$	159.13	-2.31%	-2.34%		\$	3,824.68	1.81%	1.78%	FALSE		1.66%	0.03%
1/10/2021	\$	155.21	-2.49%	-2.53%	-2.53%	\$	3,768.25	-1.49%	-1.52%	TRUE	-1.52%	1.78%	0.03%
1/17/2021	\$	164.61	5.88%	5.85%		\$	3,841.47	1.92%	1.89%	FALSE		1.86%	0.03%
1/24/2021	\$	160.31	-2.65%	-2.68%	-2.68%	\$	3,714.24	-3.37%	-3.40%	TRUE	-3.40%	1.85%	0.03%
1/31/2021	\$	167.61	4.45%	4.42%		\$	3,886.83	4.54%	4.51%	FALSE		1.81%	0.03%
2/7/2021	\$	163.89	-2.24%	-2.28%		\$	3,934.83	1.23%	1.19%	FALSE		1.91%	0.04%
2/14/2021	\$	162.49	-0.86%	-0.89%	-0.89%	\$	3,906.71	-0.72%	-0.75%	TRUE	-0.75%	1.96%	0.04%
2/21/2021	\$	154.65	-4.95%	-4.98%	-4.98%	\$	3,811.15	-2.48%	-2.52%	TRUE	-2.52%	2.09%	0.04%
2/28/2021	\$	150.02	-3.04%	-3.08%		\$	3,841.94	0.80%	0.76%	FALSE		2.23%	0.04%
3/7/2021	\$	154.47	2.92%	2.88%		\$	3,943.34	2.61%	2.56%	FALSE		2.25%	0.04%
3/14/2021	\$	153.75	-0.47%	-0.51%	-0.51%	\$	3,913.10	-0.77%	-0.81%	TRUE	-0.81%	2.30%	0.04%
3/21/2021	\$	152.60	-0.75%	-0.80%		\$	3,974.54	1.56%	1.51%	FALSE		2.41%	0.04%
3/28/2021	\$	158.05	3.51%	3.47%		\$	4,019.87	1.13%	1.09%	FALSE		2.35%	0.04%
4/4/2021	\$	168.61	6.47%	6.42%		\$	4,128.80	2.67%	2.63%	FALSE		2.38%	0.04%
4/11/2021	\$	169.97	0.80%	0.76%		\$	4,185.47	1.36%	1.32%	FALSE		2.34%	0.04%
4/18/2021	\$	167.04	-1.74%	-1.78%	-1.78%	\$	4,180.17	-0.13%	-0.17%	TRUE	-0.17%	2.29%	0.04%
4/25/2021	\$	173.37	3.72%	3.68%	3.68%	\$	4,181.17	0.02%	-0.02%	TRUE	-0.02%	2.26%	0.04%
5/2/2021	\$	164.58	-5.20%	-5.25%		\$	4,232.60	1.22%	1.18%	FALSE		2.29%	0.04%
5/9/2021	\$	161.15	-2.11%	-2.15%	-2.15%	\$	4,173.85	-1.40%	-1.44%	TRUE	-1.44%	2.27%	0.04%
5/16/2021	\$	160.15	-0.62%	-0.67%	-0.67%	\$	4,155.86	-0.43%	-0.48%	TRUE	-0.48%	2.36%	0.04%
5/23/2021	\$	161.15	0.62%	0.58%		\$	4,204.11	1.15%	1.11%	FALSE		2.36%	0.04%
5/30/2021	\$	160.31	-0.52%	-0.56%		\$	4,229.89	0.61%	0.57%	FALSE		2.28%	0.04%
6/6/2021	\$	167.34	4.29%	4.25%		\$	4,247.44	0.41%	0.37%	FALSE		2.28%	0.04%
6/13/2021	\$	174.35	4.10%	4.06%	4.06%	\$	4,166.45	-1.93%	-1.97%	TRUE	-1.97%	2.19%	0.04%
6/20/2021	\$	170.07	-2.49%	-2.53%		\$	4,280.70	2.71%	2.67%	FALSE		2.14%	0.04%
6/27/2021	\$	175.55	3.17%	3.13%		\$	4,352.34	1.66%	1.62%	FALSE		2.12%	0.04%
7/4/2021	\$	185.97	5.77%	5.73%		\$	4,369.55	0.39%	0.36%	FALSE		2.08%	0.04%
7/11/2021	\$	178.68	-4.00%	-4.04%	-4.04%	\$	4,327.16	-0.97%	-1.01%	TRUE	-1.01%	1.96%	0.04%
7/18/2021	\$	182.83	2.30%	2.26%		\$	4,411.79	1.94%	1.90%	FALSE		1.97%	0.04%
7/25/2021	\$	166.38	-9.43%	-9.46%	-9.46%	\$	4,395.26	-0.38%	-0.41%	TRUE	-0.41%	1.89%	0.04%
8/1/2021	\$	167.25	0.52%	0.49%		\$	4,436.52	0.93%	0.90%	FALSE		1.90%	0.04%
8/8/2021	\$	164.70	-1.54%	-1.57%		\$	4,468.00	0.71%	0.67%	FALSE		1.87%	0.03%
8/15/2021	\$	160.00	-2.90%	-2.93%	-2.93%	\$	4,441.67	-0.59%	-0.63%	TRUE	-0.63%	1.98%	0.04%
8/22/2021	\$	167.48	4.57%	4.53%		\$	4,509.37	1.51%	1.48%	FALSE		1.90%	0.04%
8/29/2021	\$	173.90	3.76%	3.73%		\$	4,535.43	0.58%	0.54%	FALSE		1.92%	0.04%
9/5/2021	\$	173.46	-0.25%	-0.29%	-0.29%	\$	4,458.58	-1.71%	-1.74%	TRUE	-1.74%	1.92%	0.04%
9/12/2021	\$	173.13	-0.19%	-0.23%	-0.23%	\$	4,432.99	-0.58%	-0.61%	TRUE	-0.61%	1.95%	0.04%
9/19/2021	\$	171.28	-1.07%	-1.11%		\$	4,455.48	0.51%	0.47%	FALSE		1.88%	0.03%
9/26/2021	\$	164.16	-4.25%	-4.28%	-4.28%	\$	4,357.04	-2.23%	-2.27%	TRUE	-2.27%	1.89%	0.04%
10/3/2021	\$	164.43	0.16%	0.13%		\$	4,391.34	0.78%	0.75%	FALSE		2.05%	0.04%
10/10/2021	\$	170.45	3.60%	3.56%		\$	4,471.37	1.81%	1.77%	FALSE		2.10%	0.04%
10/17/2021	\$	166.78	-2.18%	-2.21%		\$	4,544.90	1.63%	1.59%	FALSE		2.06%	0.04%
10/24/2021	\$	168.62	1.10%	1.06%		\$	4,605.38	1.32%	1.28%	FALSE		2.09%	0.04%
10/31/2021	\$	175.95	4.26%	4.22%		\$	4,697.53	1.98%	1.94%	FALSE		2.00%	0.04%
11/7/2021	\$	176.26	0.18%	0.14%	0.14%	\$	4,682.85	-0.31%	-0.35%	TRUE	-0.35%	1.95%	0.04%
11/14/2021	\$	183.83	4.21%	4.17%		\$	4,697.96	0.32%	0.29%	FALSE		1.90%	0.04%
11/21/2021	\$	175.23	-4.79%	-4.83%	-4.83%	\$	4,594.62	-2.22%	-2.26%	TRUE	-2.26%	1.98%	0.04%
11/28/2021	\$	169.49	-3.33%	-3.37%	-3.37%	\$	4,538.43	-1.23%	-1.27%	TRUE	-1.27%	1.95%	0.04%
12/5/2021	\$	172.21	1.59%	1.56%		\$	4,712.02	3.75%	3.72%	FALSE		1.77%	0.03%
12/12/2021	\$	170.02	-1.28%	-1.31%	-1.31%	\$	4,620.64	-1.96%	-1.99%	TRUE	-1.99%	1.83%	0.03%
12/19/2021	\$	171.07	0.62%	0.58%		\$	4,725.79	2.25%	2.22%	FALSE		1.84%	0.03%
12/26/2021	\$	166.72	-2.58%	-2.61%		\$	4,766.18	0.85%	0.82%	FALSE		1.88%	0.03%
1/2/2022	\$	162.55	-2.53%	-2.57%	-2.57%	\$	4,677.03	-1.89%	-1.92%	TRUE	-1.92%	1.91%	0.04%
1/9/2022	\$	162.14	-0.25%	-0.29%	-0.29%	\$	4,662.85	-0.30%	-0.34%	TRUE	-0.34%	2.07%	0.04%
1/16/2022	\$	142.64	-12.81%	-12.85%	-12.85%	\$	4,397.94	-5.85%	-5.89%	TRUE	-5.89%	2.09%	0.04%
1/23/2022	\$	143.98	0.94%	0.90%		\$	4,431.85	0.77%	0.73%	FALSE		2.13%	0.04%
1/30/2022	\$	157.64	9.06%	9.02%		\$	4,500.53	1.54%	1.50%	FALSE		2.11%	0.04%
2/6/2022	\$	153.29	-2.80%	-2.84%	-2.84%	\$	4,418.64	-1.84%	-1.88%	TRUE	-1.88%	2.14%	0.04%
2/13/2022	\$	152.60	-0.45%	-0.49%	-0.49%	\$	4,348.87	-1.59%	-1.63%	TRUE	-1.63%	2.25%	0.04%
2/20/2022	\$	153.79	0.78%	0.73%		\$	4,384.65	0.82%	0.78%	FALSE		2.31%	0.04%
2/27/2022	\$	145.64	-5.45%	-5.49%	-5.49%	\$	4,328.87	-1.28%	-1.32%	TRUE	-1.32%	2.28%	0.04%
3/6/2022	\$	145.52	-0.08%	-0.12%	-0.12%	\$	4,204.31	-2.92%	-2.96%	TRUE	-2.96%	2.18%	0.04%
3/13/2022	\$	161.25	10.26%	10.22%		\$	4,463.12	5.97%	5.93%	FALSE		2.29%	0.04%
3/20/2022	\$	164.77	2.16%	2.11%		\$	4,543.06	1.78%	1.73%	FALSE		2.47%	0.05%
3/27/2022	\$	163.56	-0.74%	-0.78%	-0.78%	\$	4,545.86	0.06%	0.01%	TRUE	0.01%	2.56%	0.05%
4/3/2022	\$	154.46	-5.72%	-5.77%	-5.77%	\$	4,488.28	-1.27%	-1.32%	TRUE	-1.32%	2.49%	0.05%

4/10/2022	\$	151.71	-1.80%	-1.85%	-1.85%	\$	4,392.59	-2.16%	-2.20%	TRUE	-2.20%	2.63%	0.05%
4/17/2022	\$	144.35	-4.97%	-5.03%	-5.03%	\$	4,271.78	-2.79%	-2.84%	TRUE	-2.84%	2.85%	0.05%
4/24/2022	\$	124.28	-14.97%	-15.03%	-15.03%	\$	4,131.93	-3.33%	-3.38%	TRUE	-3.38%	2.95%	0.05%
5/1/2022	\$	114.77	-7.96%	-8.01%	-8.01%	\$	4,123.34	-0.21%	-0.26%	TRUE	-0.26%	2.91%	0.05%
5/8/2022	\$	113.06	-1.50%	-1.56%	-1.56%	\$	4,023.89	-2.44%	-2.50%	TRUE	-2.50%	3.10%	0.06%
5/15/2022	\$	107.59	-4.96%	-5.02%	-5.02%	\$	3,901.36	-3.09%	-3.15%	TRUE	-3.15%	3.09%	0.06%
5/22/2022	\$	115.15	6.79%	6.73%		\$	4,158.24	6.38%	6.32%	FALSE		3.07%	0.06%
5/29/2022	\$	122.35	6.07%	6.01%	6.01%	\$	4,108.54	-1.20%	-1.26%	TRUE	-1.26%	3.00%	0.06%
6/5/2022	\$	109.65	-10.96%	-11.02%	-11.02%	\$	3,900.86	-5.19%	-5.24%	TRUE	-5.24%	3.09%	0.06%
6/12/2022	\$	106.22	-3.18%	-3.24%	-3.24%	\$	3,674.84	-5.97%	-6.03%	TRUE	-6.03%	3.18%	0.06%
6/19/2022	\$	116.46	9.20%	9.14%		\$	3,911.74	6.25%	6.18%	FALSE		3.38%	0.06%
6/26/2022	\$	109.56	-6.11%	-6.17%	-6.17%	\$	3,825.33	-2.23%	-2.29%	TRUE	-2.29%	3.28%	0.06%
7/3/2022	\$	115.54	5.31%	5.25%		\$	3,899.38	1.92%	1.86%	FALSE		3.22%	0.06%
7/10/2022	\$	113.55	-1.74%	-1.80%	-1.80%	\$	3,863.16	-0.93%	-0.99%	TRUE	-0.99%	3.17%	0.06%
7/17/2022	\$	122.42	7.52%	7.46%		\$	3,961.63	2.52%	2.46%	FALSE		3.12%	0.06%
7/24/2022	\$	134.95	9.74%	9.69%		\$	4,130.29	4.17%	4.11%	FALSE		3.11%	0.06%
7/31/2022	\$	140.80	4.24%	4.19%		\$	4,145.19	0.36%	0.30%	FALSE		3.02%	0.06%
8/7/2022	\$	143.55	1.93%	1.88%		\$	4,280.15	3.20%	3.15%	FALSE		2.98%	0.06%
8/14/2022	\$	138.23	-3.78%	-3.83%	-3.83%	\$	4,228.48	-1.21%	-1.27%	TRUE	-1.27%	3.06%	0.06%
8/21/2022	\$	130.75	-5.56%	-5.62%	-5.62%	\$	4,057.66	-4.12%	-4.18%	TRUE	-4.18%	3.14%	0.06%
8/28/2022	\$	127.51	-2.51%	-2.57%	-2.57%	\$	3,924.26	-3.34%	-3.40%	TRUE	-3.40%	3.26%	0.06%
9/4/2022	\$	133.27	4.42%	4.36%		\$	4,067.36	3.58%	3.52%	FALSE		3.29%	0.06%
9/11/2022	\$	123.53	-7.59%	-7.65%	-7.65%	\$	3,873.33	-4.89%	-4.95%	TRUE	-4.95%	3.46%	0.06%
9/18/2022	\$	113.78	-8.22%	-8.29%	-8.29%	\$	3,693.23	-4.76%	-4.83%	TRUE	-4.83%	3.50%	0.06%
9/25/2022	\$	113.00	-0.69%	-0.75%	-0.75%	\$	3,585.62	-2.96%	-3.02%	TRUE	-3.02%	3.57%	0.07%
10/2/2022	\$	114.56	1.37%	1.30%		\$	3,639.66	1.50%	1.43%	FALSE		3.76%	0.07%
10/9/2022	\$	106.90	-6.92%	-6.99%	-6.99%	\$	3,583.07	-1.57%	-1.64%	TRUE	-1.64%	3.78%	0.07%
10/16/2022	\$	119.32	10.99%	10.92%		\$	3,752.75	4.63%	4.55%	FALSE		3.95%	0.07%
10/23/2022	\$	103.41	-14.31%	-14.39%		\$	3,901.06	3.88%	3.80%	FALSE		4.16%	0.08%
10/30/2022	\$	90.98	-12.81%	-12.88%	-12.88%	\$	3,770.55	-3.40%	-3.48%	TRUE	-3.48%	4.22%	0.08%
11/6/2022	\$	100.79	10.24%	10.16%		\$	3,992.93	5.73%	5.65%	FALSE		4.19%	0.08%
11/13/2022	\$	94.14	-6.83%	-6.90%	-6.90%	\$	3,965.34	-0.69%	-0.77%	TRUE	-0.77%	4.24%	0.08%
11/20/2022	\$	93.41	-0.78%	-0.85%		\$	4,026.12	1.52%	1.45%	FALSE		3.94%	0.07%
11/27/2022	\$	94.13	0.77%	0.70%		\$	4,071.70	1.13%	1.06%	FALSE		3.81%	0.07%
12/4/2022	\$	89.09	-5.50%	-5.57%	-5.57%	\$	3,934.38	-3.43%	-3.50%	TRUE	-3.50%	3.71%	0.07%
12/11/2022	\$	87.86	-1.39%	-1.46%	-1.46%	\$	3,852.36	-2.11%	-2.17%	TRUE	-2.17%	3.51%	0.07%
12/18/2022	\$	85.25	-3.02%	-3.08%	-3.08%	\$	3,844.82	-0.20%	-0.26%	TRUE	-0.26%	3.53%	0.07%
12/25/2022	\$	84.00	-1.48%	-1.55%	-1.55%	\$	3,839.50	-0.14%	-0.21%	TRUE	-0.21%	3.73%	0.07%
1/1/2023	\$	86.08	2.45%	2.37%		\$	3,895.08	1.44%	1.36%	FALSE		3.95%	0.07%
1/8/2023	\$	98.12	13.09%	13.02%		\$	3,999.09	2.64%	2.57%	FALSE		3.79%	0.07%
1/15/2023	\$	97.25	-0.89%	-0.96%	-0.96%	\$	3,972.61	-0.66%	-0.73%	TRUE	-0.73%	3.65%	0.07%
1/22/2023	\$	102.24	5.00%	4.94%		\$	4,070.56	2.44%	2.37%	FALSE		3.60%	0.07%
1/29/2023	\$	103.39	1.12%	1.05%		\$	4,136.48	1.61%	1.54%	FALSE		3.64%	0.07%
2/5/2023	\$	97.61	-5.75%	-5.82%	-5.82%	\$	4,090.46	-1.12%	-1.19%	TRUE	-1.19%	3.61%	0.07%
2/12/2023	\$	97.20	-0.42%	-0.49%	-0.49%	\$	4,079.09	-0.28%	-0.35%	TRUE	-0.35%	3.73%	0.07%
2/19/2023	\$	93.50	-3.88%	-3.95%	-3.95%	\$	3,970.04	-2.71%	-2.78%	TRUE	-2.78%	3.85%	0.07%
2/26/2023	\$	94.90	1.49%	1.41%		\$	4,045.64	1.89%	1.81%	FALSE		3.93%	0.07%
3/5/2023	\$	90.73	-4.49%	-4.57%	-4.57%	\$	3,861.59	-4.66%	-4.73%	TRUE	-4.73%	3.95%	0.07%
3/12/2023	\$	98.95	8.67%	8.60%		\$	3,916.64	1.42%	1.34%	FALSE		3.85%	0.07%
3/19/2023	\$	98.13	-0.83%	-0.90%		\$	3,970.99	1.38%	1.31%	FALSE		3.70%	0.07%
3/26/2023	\$	103.29	5.12%	5.06%		\$	4,109.31	3.42%	3.36%	FALSE		3.67%	0.07%
4/2/2023	\$	102.06	-1.20%	-1.27%	-1.27%	\$	4,105.02	-0.10%	-0.17%	TRUE	-0.17%	3.75%	0.07%
4/9/2023	\$	102.51	0.44%	0.37%		\$	4,137.64	0.79%	0.73%	FALSE		3.59%	0.07%
4/16/2023	\$	106.96	4.25%	4.18%	4.18%	\$	4,133.52	-0.10%	-0.17%	TRUE	-0.17%	3.66%	0.07%
4/23/2023	\$	105.45	-1.42%	-1.49%		\$	4,169.48	0.87%	0.80%	FALSE		3.78%	0.07%
4/30/2023	\$	105.65	0.19%	0.12%	0.12%	\$	4,136.25	-0.80%	-0.87%	TRUE	-0.87%	3.70%	0.07%
5/7/2023	\$	110.26	4.27%	4.20%	4.20%	\$	4,124.08	-0.29%	-0.36%	TRUE	-0.36%	3.75%	0.07%
5/14/2023	\$	116.25	5.29%	5.22%		\$	4,191.98	1.63%	1.56%	FALSE		3.80%	0.07%
5/21/2023	\$	120.11	3.27%	3.19%		\$	4,205.45	0.32%	0.25%	FALSE		3.89%	0.07%
5/28/2023	\$	124.25	3.39%	3.32%		\$	4,282.37	1.81%	1.74%	FALSE		3.97%	0.07%
6/4/2023	\$	123.43	-0.66%	-0.73%		\$	4,298.86	0.38%	0.31%	FALSE		3.87%	0.07%
6/11/2023	\$	125.49	1.66%	1.58%		\$	4,409.59	2.54%	2.47%	FALSE		3.90%	0.07%
6/18/2023	\$	129.33	3.01%	2.94%	2.94%	\$	4,348.33	-1.40%	-1.47%	TRUE	-1.47%	3.88%	0.07%
6/25/2023	\$	130.36	0.79%	0.72%		\$	4,450.38	2.32%	2.25%	FALSE		3.84%	0.07%
7/2/2023	\$	129.78	-0.45%	-0.52%	-0.52%	\$	4,398.95	-1.16%	-1.23%	TRUE	-1.23%	3.85%	0.07%
7/9/2023	\$	134.68	3.71%	3.63%		\$	4,505.42	2.39%	2.32%	FALSE		3.97%	0.07%
7/16/2023	\$	130.00	-3.54%	-3.61%		\$	4,536.34	0.68%	0.61%	FALSE		3.97%	0.07%
7/23/2023	\$	132.21	1.69%	1.61%		\$	4,582.23	1.01%	0.93%	FALSE		3.90%	0.07%
7/30/2023	\$	139.57	5.42%	5.34%	5.34%	\$	4,478.03	-2.30%	-2.37%	TRUE	-2.37%	3.98%	0.07%
8/6/2023	\$	138.41	-0.83%	-0.91%	-0.91%	\$	4,464.05	-0.31%	-0.39%	TRUE	-0.39%	4.17%	0.08%
8/13/2023	\$	133.22	-3.82%	-3.90%	-3.90%	\$	4,369.71	-2.14%	-2.21%	TRUE	-2.21%	4.23%	0.08%
8/20/2023	\$	133.26	0.03%	-0.05%		\$	4,405.71	0.82%	0.74%	FALSE		4.36%	0.08%
8/27/2023	\$	138.12	3.58%	3.50%		\$	4,515.77	2.47%	2.39%	FALSE		4.35%	0.08%
9/3/2023	\$	138.23	0.08%	0.00%	0.00%	\$	4,457.49	-1.30%	-1.38%	TRUE	-1.38%	4.25%	0.08%
9/10/2023	\$	140.39	1.55%	1.47%	1.47%	\$	4,450.32	-0.16%	-0.24%	TRUE	-0.24%	4.36%	0.08%
9/17/2023	\$	129.12	-8.37%	-8.45%	-8.45%	\$	4,320.06	-2.97%	-3.05%	TRUE	-3.05%	4.37%	0.08%
9/24/2023	\$	127.12	-1.56%	-1.64%	-1.64%	\$	4,288.05	-0.74%	-0.83%	TRUE	-0.83%	4.46%	0.08%
10/1/2023	\$	127.96	0.66%	0.57%		\$	4,308.50	0.48%	0.39%	FALSE		4.71%	0.09%
10/8/2023	\$	129.79	1.42%	1.33%		\$	4,327.78	0.45%	0.36%	FALSE		4.89%	0.09%
10/15/2023	\$	125.17	-3.62%	-3.71%	-3.71%	\$	4,224.16	-2.42%	-2.51%	TRUE	-2.51%	4.81%	0.09%
10/22/2023	\$	127.74	2.03%	1.94%	1.94%	\$	4,117.37	-2.56%	-2.65%	TRUE	-2.65%	5.00%	0.09%
10/29/2023	\$	138.60	8.16%	8.07%		\$	4,358.34	5.69%	5.59%	FALSE		5.02%	0.09%
11/5/2023	\$	143.56	3.52%	3.42%		\$	4,415.24	1.30%	1.21%	FALSE		4.93%	0.09%
11/12/2023	\$	145.18	1.12%	1.03%		\$	4,514.02	2.21%	2.12%	FALSE		4.75%	0.09%



11/19/2023	\$ 146.74	1.07%	0.98%		\$ 4,559.34	1.00%	0.91%	FALSE		4.65%	0.09%
11/26/2023	\$ 147.03	0.20%	0.11%		\$ 4,594.63	0.77%	0.69%	FALSE		4.57%	0.08%
12/3/2023	\$ 147.42	0.26%	0.18%	0.18%	\$ 4,604.37	0.21%	0.13%	TRUE	0.13%	4.49%	0.08%
12/10/2023	\$ 149.97	1.71%	1.64%		\$ 4,719.19	2.46%	2.38%	FALSE		4.30%	0.08%
12/17/2023	\$ 153.42	2.27%	2.20%		\$ 4,754.63	0.75%	0.67%	FALSE		4.17%	0.08%
12/24/2023	\$ 151.94	-0.97%	-1.04%		\$ 4,769.83	0.32%	0.24%	FALSE		4.03%	0.07%
12/31/2023	\$ 145.24	-4.51%	-4.58%	-4.58%	\$ 4,697.24	-1.53%	-1.61%	TRUE	-1.61%	4.00%	0.07%
1/7/2024	\$ 154.62	6.26%	6.18%		\$ 4,783.83	1.83%	1.75%	FALSE		4.12%	0.08%
1/14/2024	\$ 155.34	0.46%	0.39%		\$ 4,839.81	1.16%	1.09%	FALSE		4.19%	0.08%
1/21/2024	\$ 159.12	2.40%	2.32%		\$ 4,890.97	1.05%	0.97%	FALSE		4.34%	0.08%
1/28/2024	\$ 171.81	7.67%	7.59%		\$ 4,958.61	1.37%	1.29%	FALSE		4.37%	0.08%
2/4/2024	\$ 174.45	1.52%	1.45%		\$ 5,026.61	1.36%	1.28%	FALSE		4.23%	0.08%
2/11/2024	\$ 169.51	-2.87%	-2.95%	-2.95%	\$ 5,005.57	-0.42%	-0.50%	TRUE	-0.50%	4.34%	0.08%
2/18/2024	\$ 174.99	3.18%	3.10%		\$ 5,088.80	1.65%	1.57%	FALSE		4.43%	0.08%
2/25/2024	\$ 178.22	1.83%	1.75%		\$ 5,137.08	0.94%	0.86%	FALSE		4.44%	0.08%
3/3/2024	\$ 175.35	-1.62%	-1.70%	-1.70%	\$ 5,123.69	-0.26%	-0.34%	TRUE	-0.34%	4.39%	0.08%
3/10/2024	\$ 174.42	-0.53%	-0.61%	-0.61%	\$ 5,117.09	-0.13%	-0.21%	TRUE	-0.21%	4.28%	0.08%
3/17/2024	\$ 178.87	2.52%	2.44%		\$ 5,234.18	2.26%	2.18%	FALSE		4.36%	0.08%
3/24/2024	\$ 180.38	0.84%	0.76%		\$ 5,254.35	0.38%	0.30%	FALSE		4.44%	0.08%
3/31/2024	\$ 185.07	2.57%	2.49%	2.49%	\$ 5,204.34	-0.96%	-1.04%	TRUE	-1.04%	4.38%	0.08%
4/7/2024	\$ 186.13	0.57%	0.49%	0.49%	\$ 5,123.41	-1.57%	-1.65%	TRUE	-1.65%	4.50%	0.08%
4/14/2024	\$ 174.63	-6.38%	-6.46%	-6.46%	\$ 4,967.23	-3.10%	-3.18%	TRUE	-3.18%	4.59%	0.09%
4/21/2024	\$ 179.62	2.82%	2.73%		\$ 5,099.96	2.64%	2.55%	FALSE		4.74%	0.09%
4/28/2024	\$ 186.21	3.60%	3.51%		\$ 5,127.79	0.54%	0.46%	FALSE		4.77%	0.09%
5/5/2024	\$ 187.48	0.68%	0.59%		\$ 5,222.68	1.83%	1.75%	FALSE		4.73%	0.09%
5/12/2024	\$ 184.70	-1.49%	-1.58%		\$ 5,303.27	1.53%	1.45%	FALSE		4.63%	0.09%
5/19/2024	\$ 180.75	-2.16%	-2.25%	-2.25%	\$ 5,304.72	0.03%	-0.06%	TRUE	-0.06%	4.56%	0.08%
5/26/2024	\$ 176.44	-2.41%	-2.50%	-2.50%	\$ 5,277.51	-0.51%	-0.60%	TRUE	-0.60%	4.57%	0.08%
6/2/2024	\$ 184.30	4.36%	4.27%		\$ 5,346.99	1.31%	1.22%	FALSE		4.69%	0.09%
6/9/2024	\$ 183.66	-0.35%	-0.43%		\$ 5,431.60	1.57%	1.49%	FALSE		4.49%	0.08%
6/16/2024	\$ 189.08	2.91%	2.83%		\$ 5,464.62	0.61%	0.52%	FALSE		4.47%	0.08%
6/23/2024	\$ 193.25	2.18%	2.10%	2.10%	\$ 5,460.48	-0.08%	-0.16%	TRUE	-0.16%	4.39%	0.08%
6/30/2024	\$ 200.00	3.43%	3.35%		\$ 5,567.19	1.94%	1.85%	FALSE		4.43%	0.08%

## Sources:

Microsoft stock prices: <https://www.investing.com/equities/microsoft-corp-historical-data>S&P 500 prices: <https://www.investing.com/indices/us-spx-500-historical-data>30-Year Treasury yields: <https://fred.stlouisfed.org/series/DGS30#0>

**Average Returns**  
 Microsoft: 0.47%  
 S&P 500: 0.55%

Levered Beta: 0.9607941852  
 Levered Downsi: 0.7677746196

T-statistic: 6.767414969

**Average Excess Returns**  
 Microsoft: 0.42%  
 S&P 500: 0.19%

**Standard Deviation of Downmarket Returns**  
 Microsoft: 0.02816058472  
 S&P 500: 0.02285018501

Observations: 118

**Average Downmarket Excess Returns**  
 Microsoft: -1.86%  
 S&P 500: -1.92%

Covariance: 0.000397481616  
 Standard Error of Slope: 0.1134516833

Microsoft Return Data					S&P 500 Return Data					30-Year Treasuries Return Data		
Date	Closing Price	Logarithmic Returns	Excess Return (%)	Downmarket Excess Returns	Closing Price	Logarithmic Returns	Excess Return (%) (t)	Downside Periods	Downmarket Excess Returns	Yield	Returns	
6/30/2019	\$ 137.06				\$ 2,990.41					2.54%	0.05%	
7/7/2019	\$ 138.90	1.33%	1.29%		\$ 3,013.77	0.78%	0.73%	FALSE		2.52%	0.05%	
7/14/2019	\$ 136.62	-1.66%	-1.70%	-1.70%	\$ 2,976.61	-1.24%	-1.29%	TRUE	-1.29%	2.59%	0.05%	
7/21/2019	\$ 141.34	3.40%	3.35%		\$ 3,025.86	1.64%	1.59%	FALSE		2.59%	0.05%	
7/28/2019	\$ 136.90	-3.19%	-3.24%	-3.24%	\$ 2,932.05	-3.15%	-3.20%	TRUE	-3.20%	2.59%	0.05%	
8/4/2019	\$ 137.71	0.59%	0.54%	0.54%	\$ 2,918.65	-0.46%	-0.50%	TRUE	-0.50%	2.51%	0.05%	
8/11/2019	\$ 136.13	-1.15%	-1.20%	-1.20%	\$ 2,888.68	-1.03%	-1.07%	TRUE	-1.07%	2.26%	0.04%	
8/18/2019	\$ 133.39	-2.03%	-2.07%	-2.07%	\$ 2,847.11	-1.45%	-1.49%	TRUE	-1.49%	2.06%	0.04%	
8/25/2019	\$ 137.86	3.30%	3.26%		\$ 2,926.46	2.75%	2.71%	FALSE		2.06%	0.04%	
9/1/2019	\$ 139.10	0.90%	0.86%		\$ 2,978.71	1.77%	1.73%	FALSE		1.98%	0.04%	
9/8/2019	\$ 137.32	-1.29%	-1.32%		\$ 3,007.39	0.96%	0.92%	FALSE		2.00%	0.04%	
9/15/2019	\$ 139.44	1.53%	1.49%	1.49%	\$ 2,992.07	-0.51%	-0.55%	TRUE	-0.55%	2.22%	0.04%	
9/22/2019	\$ 137.73	-1.23%	-1.28%	-1.28%	\$ 2,961.79	-1.02%	-1.06%	TRUE	-1.06%	2.24%	0.04%	
9/29/2019	\$ 138.12	0.28%	0.24%	0.24%	\$ 2,952.01	-0.33%	-0.37%	TRUE	-0.37%	2.14%	0.04%	
10/6/2019	\$ 139.68	1.12%	1.08%		\$ 2,970.27	0.62%	0.58%	FALSE		2.07%	0.04%	
10/13/2019	\$ 137.41	-1.64%	-1.68%		\$ 2,986.20	0.53%	0.50%	FALSE		2.11%	0.04%	
10/20/2019	\$ 140.73	2.39%	2.35%		\$ 3,022.55	1.21%	1.17%	FALSE		2.24%	0.04%	
10/27/2019	\$ 143.72	2.10%	2.06%		\$ 3,066.91	1.46%	1.41%	FALSE		2.27%	0.04%	
11/3/2019	\$ 145.96	1.55%	1.50%		\$ 3,093.08	0.85%	0.81%	FALSE		2.26%	0.04%	
11/10/2019	\$ 149.97	2.71%	2.67%		\$ 3,120.46	0.88%	0.84%	FALSE		2.35%	0.04%	
11/17/2019	\$ 149.59	-0.25%	-0.30%	-0.30%	\$ 3,110.29	-0.33%	-0.37%	TRUE	-0.37%	2.34%	0.04%	
11/24/2019	\$ 151.38	1.19%	1.15%		\$ 3,140.98	0.98%	0.94%	FALSE		2.24%	0.04%	
12/1/2019	\$ 151.75	0.24%	0.20%	0.20%	\$ 3,145.91	0.16%	0.12%	TRUE	0.12%	2.20%	0.04%	
12/8/2019	\$ 154.53	1.82%	1.77%		\$ 3,168.80	0.72%	0.68%	FALSE		2.24%	0.04%	
12/15/2019	\$ 157.41	1.85%	1.80%		\$ 3,221.22	1.64%	1.60%	FALSE		2.27%	0.04%	
12/22/2019	\$ 158.96	0.98%	0.94%		\$ 3,240.02	0.58%	0.54%	FALSE		2.33%	0.04%	
12/29/2019	\$ 158.62	-0.21%	-0.26%	-0.26%	\$ 3,234.85	-0.16%	-0.20%	TRUE	-0.20%	2.33%	0.04%	
1/5/2020	\$ 161.34	1.70%	1.66%		\$ 3,265.35	0.94%	0.90%	FALSE		2.33%	0.04%	
1/12/2020	\$ 167.10	3.51%	3.46%		\$ 3,329.62	1.95%	1.91%	FALSE		2.32%	0.04%	
1/19/2020	\$ 165.04	-1.24%	-1.28%	-1.28%	\$ 3,295.47	-1.03%	-1.07%	TRUE	-1.07%	2.27%	0.04%	
1/26/2020	\$ 170.23	3.10%	3.06%	3.06%	\$ 3,225.52	-2.15%	-2.19%	TRUE	-2.19%	2.19%	0.04%	
2/2/2020	\$ 183.89	7.72%	7.68%		\$ 3,327.71	3.12%	3.08%	FALSE		2.05%	0.04%	
2/9/2020	\$ 185.35	0.79%	0.75%		\$ 3,380.16	1.56%	1.53%	FALSE		2.08%	0.04%	
2/16/2020	\$ 178.59	-3.72%	-3.75%	-3.75%	\$ 3,337.75	-1.26%	-1.30%	TRUE	-1.30%	2.06%	0.04%	
2/23/2020	\$ 162.01	-9.74%	-9.78%	-9.78%	\$ 2,954.22	-12.21%	-12.24%	TRUE	-12.24%	1.97%	0.04%	
3/1/2020	\$ 161.57	-0.27%	-0.30%		\$ 2,972.37	0.61%	0.58%	FALSE		1.78%	0.03%	
3/8/2020	\$ 158.83	-1.71%	-1.74%	-1.74%	\$ 2,711.02	-9.20%	-9.23%	TRUE	-9.23%	1.56%	0.03%	
3/15/2020	\$ 137.35	-14.53%	-14.55%	-14.55%	\$ 2,304.92	-16.23%	-16.25%	TRUE	-16.25%	1.32%	0.02%	
3/22/2020	\$ 149.70	8.61%	8.58%		\$ 2,541.47	9.77%	9.74%	FALSE		1.61%	0.03%	
3/29/2020	\$ 153.83	2.72%	2.70%	2.70%	\$ 2,488.65	-2.10%	-2.13%	TRUE	-2.13%	1.38%	0.03%	
4/5/2020	\$ 165.14	7.09%	7.07%		\$ 2,789.82	11.42%	11.40%	FALSE		1.29%	0.02%	
4/12/2020	\$ 178.60	7.84%	7.81%		\$ 2,874.56	2.99%	2.97%	FALSE		1.33%	0.02%	
4/19/2020	\$ 174.55	-2.29%	-2.32%	-2.32%	\$ 2,836.74	-1.32%	-1.35%	TRUE	-1.35%	1.31%	0.02%	
4/26/2020	\$ 174.57	0.01%	-0.01%	-0.01%	\$ 2,830.71	-0.21%	-0.23%	TRUE	-0.23%	1.19%	0.02%	
5/3/2020	\$ 184.68	5.63%	5.61%		\$ 2,929.80	3.44%	3.42%	FALSE		1.25%	0.02%	
5/10/2020	\$ 183.16	-0.83%	-0.85%	-0.85%	\$ 2,863.70	-2.28%	-2.31%	TRUE	-2.31%	1.34%	0.02%	
5/17/2020	\$ 183.51	0.19%	0.17%		\$ 2,955.45	3.15%	3.13%	FALSE		1.36%	0.03%	
5/24/2020	\$ 183.25	-0.14%	-0.17%		\$ 3,044.31	2.96%	2.94%	FALSE		1.41%	0.03%	
5/31/2020	\$ 187.20	2.13%	2.11%		\$ 3,193.93	4.80%	4.77%	FALSE		1.44%	0.03%	
6/7/2020	\$ 187.74	0.29%	0.26%	0.26%	\$ 3,041.31	-4.90%	-4.93%	TRUE	-4.93%	1.56%	0.03%	
6/14/2020	\$ 195.15	3.87%	3.84%		\$ 3,097.74	1.84%	1.81%	FALSE		1.53%	0.03%	
6/21/2020	\$ 196.33	0.60%	0.58%	0.58%	\$ 3,009.05	-2.90%	-2.93%	TRUE	-2.93%	1.49%	0.03%	
6/28/2020	\$ 206.26	4.93%	4.91%		\$ 3,130.01	3.94%	3.91%	FALSE		1.44%	0.03%	
7/5/2020	\$ 213.67	3.53%	3.50%		\$ 3,185.04	1.74%	1.72%	FALSE		1.42%	0.03%	
7/12/2020	\$ 202.88	-5.18%	-5.21%		\$ 3,224.73	1.24%	1.21%	FALSE		1.37%	0.03%	
7/19/2020	\$ 201.30	-0.78%	-0.81%	-0.81%	\$ 3,215.63	-0.28%	-0.31%	TRUE	-0.31%	1.32%	0.02%	
7/26/2020	\$ 205.01	1.83%	1.80%		\$ 3,271.12	1.71%	1.69%	FALSE		1.28%	0.02%	
8/2/2020	\$ 212.48	3.58%	3.56%		\$ 3,351.28	2.42%	2.40%	FALSE		1.22%	0.02%	
8/9/2020	\$ 208.90	-1.70%	-1.72%		\$ 3,372.85	0.64%	0.62%	FALSE		1.21%	0.02%	
8/16/2020	\$ 213.02	1.95%	1.93%		\$ 3,397.16	0.72%	0.69%	FALSE		1.36%	0.03%	
8/23/2020	\$ 228.91	7.19%	7.17%		\$ 3,508.01	3.21%	3.18%	FALSE		1.40%	0.03%	

8/30/2020	\$	214.25	-6.62%	-6.65%	-6.65%	\$	3,426.96	-2.34%	-2.36%	TRUE	-2.36%	1.43%	0.03%
9/6/2020	\$	204.03	-4.89%	-4.91%	-4.91%	\$	3,340.97	-2.54%	-2.57%	TRUE	-2.57%	1.42%	0.03%
9/13/2020	\$	200.39	-1.80%	-1.83%	-1.83%	\$	3,319.47	-0.65%	-0.67%	TRUE	-0.67%	1.43%	0.03%
9/20/2020	\$	207.82	3.64%	3.61%	3.61%	\$	3,298.46	-0.63%	-0.66%	TRUE	-0.66%	1.44%	0.03%
9/27/2020	\$	206.19	-0.79%	-0.81%		\$	3,348.44	1.50%	1.48%	FALSE		1.41%	0.03%
10/4/2020	\$	215.81	4.56%	4.53%		\$	3,477.13	3.77%	3.74%	FALSE		1.44%	0.03%
10/11/2020	\$	219.66	1.77%	1.74%	1.74%	\$	3,483.81	0.19%	0.16%	TRUE	0.16%	1.58%	0.03%
10/18/2020	\$	216.23	-1.57%	-1.60%	-1.60%	\$	3,465.39	-0.53%	-0.56%	TRUE	-0.56%	1.52%	0.03%
10/25/2020	\$	202.47	-6.58%	-6.61%	-6.61%	\$	3,269.96	-5.80%	-5.83%	TRUE	-5.83%	1.62%	0.03%
11/1/2020	\$	223.72	9.98%	9.95%		\$	3,509.44	7.07%	7.04%	FALSE		1.60%	0.03%
11/8/2020	\$	216.51	-3.28%	-3.31%		\$	3,585.15	2.13%	2.10%	FALSE		1.60%	0.03%
11/15/2020	\$	210.39	-2.87%	-2.90%	-2.90%	\$	3,557.54	-0.77%	-0.80%	TRUE	-0.80%	1.69%	0.03%
11/22/2020	\$	215.23	2.27%	2.24%		\$	3,638.35	2.25%	2.22%	FALSE		1.60%	0.03%
11/29/2020	\$	214.36	-0.41%	-0.43%		\$	3,699.12	1.66%	1.63%	FALSE		1.59%	0.03%
12/6/2020	\$	213.26	-0.51%	-0.55%	-0.55%	\$	3,663.46	-0.97%	-1.00%	TRUE	-1.00%	1.67%	0.03%
12/13/2020	\$	218.59	2.47%	2.44%		\$	3,709.41	1.25%	1.22%	FALSE		1.67%	0.03%
12/20/2020	\$	222.75	1.89%	1.85%	1.85%	\$	3,703.06	-0.17%	-0.20%	TRUE	-0.20%	1.66%	0.03%
12/27/2020	\$	222.42	-0.15%	-0.18%		\$	3,756.07	1.42%	1.39%	FALSE		1.67%	0.03%
1/3/2021	\$	219.62	-1.27%	-1.30%		\$	3,824.68	1.81%	1.78%	FALSE		1.66%	0.03%
1/10/2021	\$	212.65	-3.23%	-3.26%	-3.26%	\$	3,768.25	-1.49%	-1.52%	TRUE	-1.52%	1.78%	0.03%
1/17/2021	\$	225.95	6.07%	6.03%		\$	3,841.47	1.92%	1.89%	FALSE		1.86%	0.03%
1/24/2021	\$	231.96	2.63%	2.59%	2.59%	\$	3,714.24	-3.37%	-3.40%	TRUE	-3.40%	1.85%	0.03%
1/31/2021	\$	242.20	4.32%	4.29%		\$	3,886.83	4.54%	4.51%	FALSE		1.81%	0.03%
2/7/2021	\$	244.99	1.15%	1.11%		\$	3,934.83	1.23%	1.19%	FALSE		1.91%	0.04%
2/14/2021	\$	240.97	-1.65%	-1.69%	-1.69%	\$	3,906.71	-0.72%	-0.75%	TRUE	-0.75%	1.96%	0.04%
2/21/2021	\$	232.38	-3.63%	-3.67%	-3.67%	\$	3,811.15	-2.48%	-2.52%	TRUE	-2.52%	2.09%	0.04%
2/28/2021	\$	231.60	-0.34%	-0.38%		\$	3,841.94	0.80%	0.76%	FALSE		2.23%	0.04%
3/7/2021	\$	235.75	1.78%	1.73%		\$	3,943.34	2.61%	2.56%	FALSE		2.25%	0.04%
3/14/2021	\$	230.35	-2.32%	-2.36%	-2.36%	\$	3,913.10	-0.77%	-0.81%	TRUE	-0.81%	2.30%	0.04%
3/21/2021	\$	236.48	2.63%	2.58%		\$	3,974.54	1.56%	1.51%	FALSE		2.41%	0.04%
3/28/2021	\$	242.35	2.45%	2.41%		\$	4,019.87	1.13%	1.09%	FALSE		2.35%	0.04%
4/4/2021	\$	255.85	5.42%	5.38%		\$	4,128.80	2.67%	2.63%	FALSE		2.38%	0.04%
4/11/2021	\$	260.74	1.89%	1.85%		\$	4,185.47	1.36%	1.32%	FALSE		2.34%	0.04%
4/18/2021	\$	261.15	0.16%	0.11%	0.11%	\$	4,180.17	-0.13%	-0.17%	TRUE	-0.17%	2.29%	0.04%
4/25/2021	\$	252.18	-3.50%	-3.54%	-3.54%	\$	4,181.17	0.02%	-0.02%	TRUE	-0.02%	2.26%	0.04%
5/2/2021	\$	252.46	0.11%	0.07%		\$	4,232.60	1.22%	1.18%	FALSE		2.29%	0.04%
5/9/2021	\$	248.15	-1.72%	-1.76%	-1.76%	\$	4,173.85	-1.40%	-1.44%	TRUE	-1.44%	2.27%	0.04%
5/16/2021	\$	245.17	-1.21%	-1.25%	-1.25%	\$	4,155.86	-0.43%	-0.48%	TRUE	-0.48%	2.36%	0.04%
5/23/2021	\$	249.68	1.82%	1.78%		\$	4,204.11	1.15%	1.11%	FALSE		2.36%	0.04%
5/30/2021	\$	250.79	0.44%	0.40%		\$	4,229.89	0.61%	0.57%	FALSE		2.28%	0.04%
6/6/2021	\$	257.89	2.79%	2.75%		\$	4,247.44	0.41%	0.37%	FALSE		2.28%	0.04%
6/13/2021	\$	259.43	0.60%	0.55%	0.55%	\$	4,166.45	-1.93%	-1.97%	TRUE	-1.97%	2.19%	0.04%
6/20/2021	\$	265.02	2.13%	2.09%		\$	4,280.70	2.71%	2.67%	FALSE		2.14%	0.04%
6/27/2021	\$	277.65	4.66%	4.62%		\$	4,352.34	1.66%	1.62%	FALSE		2.12%	0.04%
7/4/2021	\$	277.94	0.10%	0.07%		\$	4,369.55	0.39%	0.36%	FALSE		2.08%	0.04%
7/11/2021	\$	280.75	1.01%	0.97%	0.97%	\$	4,327.16	-0.97%	-1.01%	TRUE	-1.01%	1.96%	0.04%
7/18/2021	\$	289.67	3.13%	3.09%		\$	4,411.79	1.94%	1.90%	FALSE		1.97%	0.04%
7/25/2021	\$	284.91	-1.66%	-1.69%	-1.69%	\$	4,395.26	-0.38%	-0.41%	TRUE	-0.41%	1.89%	0.04%
8/1/2021	\$	289.46	1.58%	1.55%		\$	4,436.52	0.93%	0.90%	FALSE		1.90%	0.04%
8/8/2021	\$	292.85	1.16%	1.13%		\$	4,468.00	0.71%	0.67%	FALSE		1.87%	0.03%
8/15/2021	\$	304.36	3.86%	3.82%	3.82%	\$	4,441.67	-0.59%	-0.63%	TRUE	-0.63%	1.98%	0.04%
8/22/2021	\$	299.72	-1.54%	-1.57%		\$	4,509.37	1.51%	1.48%	FALSE		1.90%	0.04%
8/29/2021	\$	301.14	0.47%	0.44%		\$	4,535.43	0.58%	0.54%	FALSE		1.92%	0.04%
9/5/2021	\$	295.71	-1.82%	-1.86%	-1.86%	\$	4,458.58	-1.71%	-1.74%	TRUE	-1.74%	1.92%	0.04%
9/12/2021	\$	299.87	1.40%	1.36%	1.36%	\$	4,432.99	-0.58%	-0.61%	TRUE	-0.61%	1.95%	0.04%
9/19/2021	\$	299.35	-0.17%	-0.21%		\$	4,455.48	0.51%	0.47%	FALSE		1.88%	0.03%
9/26/2021	\$	289.10	-3.48%	-3.52%	-3.52%	\$	4,357.04	-2.23%	-2.27%	TRUE	-2.27%	1.89%	0.04%
10/3/2021	\$	294.85	1.97%	1.93%		\$	4,391.34	0.78%	0.75%	FALSE		2.05%	0.04%
10/10/2021	\$	304.21	3.13%	3.09%		\$	4,471.37	1.81%	1.77%	FALSE		2.10%	0.04%
10/17/2021	\$	309.16	1.61%	1.58%		\$	4,544.90	1.63%	1.59%	FALSE		2.06%	0.04%
10/24/2021	\$	331.62	7.01%	6.97%		\$	4,605.38	1.32%	1.28%	FALSE		2.09%	0.04%
10/31/2021	\$	336.06	1.33%	1.29%		\$	4,697.53	1.98%	1.94%	FALSE		2.00%	0.04%
11/7/2021	\$	336.72	0.20%	0.16%	0.16%	\$	4,682.85	-0.31%	-0.35%	TRUE	-0.35%	1.95%	0.04%
11/14/2021	\$	343.11	1.88%	1.84%		\$	4,697.96	0.32%	0.29%	FALSE		1.90%	0.04%
11/21/2021	\$	329.68	-3.99%	-4.03%	-4.03%	\$	4,594.62	-2.22%	-2.26%	TRUE	-2.26%	1.98%	0.04%
11/28/2021	\$	323.01	-2.04%	-2.08%	-2.08%	\$	4,538.43	-1.23%	-1.27%	TRUE	-1.27%	1.95%	0.04%
12/5/2021	\$	342.54	5.87%	5.84%		\$	4,712.02	3.75%	3.72%	FALSE		1.77%	0.03%
12/12/2021	\$	323.80	-5.63%	-5.66%	-5.66%	\$	4,620.64	-1.96%	-1.99%	TRUE	-1.99%	1.83%	0.03%
12/19/2021	\$	334.69	3.31%	3.27%		\$	4,725.79	2.25%	2.22%	FALSE		1.84%	0.03%
12/26/2021	\$	336.32	0.49%	0.45%		\$	4,766.18	0.85%	0.82%	FALSE		1.88%	0.03%
1/2/2022	\$	314.04	-6.85%	-6.89%	-6.89%	\$	4,677.03	-1.89%	-1.92%	TRUE	-1.92%	1.91%	0.04%
1/9/2022	\$	310.20	-1.23%	-1.27%	-1.27%	\$	4,662.85	-0.30%	-0.34%	TRUE	-0.34%	2.07%	0.04%
1/16/2022	\$	296.03	-4.68%	-4.71%	-4.71%	\$	4,397.94	-5.85%	-5.89%	TRUE	-5.89%	2.09%	0.04%
1/23/2022	\$	308.26	4.05%	4.01%		\$	4,431.85	0.77%	0.73%	FALSE		2.13%	0.04%
1/30/2022	\$	305.94	-0.76%	-0.79%		\$	4,500.53	1.54%	1.50%	FALSE		2.11%	0.04%
2/6/2022	\$	295.04	-3.63%	-3.67%	-3.67%	\$	4,418.64	-1.84%	-1.88%	TRUE	-1.88%	2.14%	0.04%
2/13/2022	\$	287.93	-2.44%	-2.48%	-2.48%	\$	4,348.87	-1.59%	-1.63%	TRUE	-1.63%	2.25%	0.04%
2/20/2022	\$	297.31	3.21%	3.16%		\$	4,384.65	0.82%	0.78%	FALSE		2.31%	0.04%
2/27/2022	\$	289.86	-2.54%	-2.58%	-2.58%	\$	4,328.87	-1.28%	-1.32%	TRUE	-1.32%	2.28%	0.04%
3/6/2022	\$	280.07	-3.44%	-3.48%	-3.48%	\$	4,204.31	-2.92%	-2.96%	TRUE	-2.96%	2.18%	0.04%
3/13/2022	\$	300.43	7.02%	6.98%		\$	4,463.12	5.97%	5.93%	FALSE		2.29%	0.04%
3/20/2022	\$	303.68	1.08%	1.03%		\$	4,543.06	1.78%	1.73%	FALSE		2.47%	0.05%
3/27/2022	\$	309.42	1.87%	1.83%	1.83%	\$	4,545.86	0.06%	0.01%	TRUE	0.01%	2.56%	0.05%
4/3/2022	\$	296.97	-4.11%	-4.15%	-4.15%	\$	4,488.28	-1.27%	-1.32%	TRUE	-1.32%	2.49%	0.05%

4/10/2022	\$	279.83	-5.94%	-5.99%	-5.99%	\$	4,392.59	-2.16%	-2.20%	TRUE	-2.20%	2.63%	0.05%
4/17/2022	\$	274.03	-2.09%	-2.15%	-2.15%	\$	4,271.78	-2.79%	-2.84%	TRUE	-2.84%	2.85%	0.05%
4/24/2022	\$	277.52	1.27%	1.21%	1.21%	\$	4,131.93	-3.33%	-3.38%	TRUE	-3.38%	2.95%	0.05%
5/1/2022	\$	274.73	-1.01%	-1.06%	-1.06%	\$	4,123.34	-0.21%	-0.26%	TRUE	-0.26%	2.91%	0.05%
5/8/2022	\$	261.12	-5.08%	-5.14%	-5.14%	\$	4,023.89	-2.44%	-2.50%	TRUE	-2.50%	3.10%	0.06%
5/15/2022	\$	252.56	-3.33%	-3.39%	-3.39%	\$	3,901.36	-3.09%	-3.15%	TRUE	-3.15%	3.09%	0.06%
5/22/2022	\$	273.24	7.87%	7.81%		\$	4,158.24	6.38%	6.32%	FALSE		3.07%	0.06%
5/29/2022	\$	270.02	-1.19%	-1.24%	-1.24%	\$	4,108.54	-1.20%	-1.26%	TRUE	-1.26%	3.00%	0.06%
6/5/2022	\$	252.99	-6.51%	-6.57%	-6.57%	\$	3,900.86	-5.19%	-5.24%	TRUE	-5.24%	3.09%	0.06%
6/12/2022	\$	247.65	-2.13%	-2.19%	-2.19%	\$	3,674.84	-5.97%	-6.03%	TRUE	-6.03%	3.18%	0.06%
6/19/2022	\$	267.70	7.79%	7.72%		\$	3,911.74	6.25%	6.18%	FALSE		3.38%	0.06%
6/26/2022	\$	259.58	-3.08%	-3.14%	-3.14%	\$	3,825.33	-2.23%	-2.29%	TRUE	-2.29%	3.28%	0.06%
7/3/2022	\$	267.66	3.07%	3.01%		\$	3,899.38	1.92%	1.86%	FALSE		3.22%	0.06%
7/10/2022	\$	256.72	-4.17%	-4.23%	-4.23%	\$	3,863.16	-0.93%	-0.99%	TRUE	-0.99%	3.17%	0.06%
7/17/2022	\$	260.36	1.41%	1.35%		\$	3,961.63	2.52%	2.46%	FALSE		3.12%	0.06%
7/24/2022	\$	280.74	7.54%	7.48%		\$	4,130.29	4.17%	4.11%	FALSE		3.11%	0.06%
7/31/2022	\$	282.91	0.77%	0.71%		\$	4,145.19	0.36%	0.30%	FALSE		3.02%	0.06%
8/7/2022	\$	291.91	3.13%	3.08%		\$	4,280.15	3.20%	3.15%	FALSE		2.98%	0.06%
8/14/2022	\$	286.15	-1.99%	-2.05%	-2.05%	\$	4,228.48	-1.21%	-1.27%	TRUE	-1.27%	3.06%	0.06%
8/21/2022	\$	268.09	-6.52%	-6.58%	-6.58%	\$	4,057.66	-4.12%	-4.18%	TRUE	-4.18%	3.14%	0.06%
8/28/2022	\$	256.06	-4.59%	-4.65%	-4.65%	\$	3,924.26	-3.34%	-3.40%	TRUE	-3.40%	3.26%	0.06%
9/4/2022	\$	264.46	3.23%	3.17%		\$	4,067.36	3.58%	3.52%	FALSE		3.29%	0.06%
9/11/2022	\$	244.74	-7.75%	-7.81%	-7.81%	\$	3,873.33	-4.89%	-4.95%	TRUE	-4.95%	3.46%	0.06%
9/18/2022	\$	237.92	-2.83%	-2.89%	-2.89%	\$	3,693.23	-4.76%	-4.83%	TRUE	-4.83%	3.50%	0.06%
9/25/2022	\$	232.90	-2.13%	-2.20%	-2.20%	\$	3,585.62	-2.96%	-3.02%	TRUE	-3.02%	3.57%	0.07%
10/2/2022	\$	234.24	0.57%	0.50%		\$	3,639.66	1.50%	1.43%	FALSE		3.76%	0.07%
10/9/2022	\$	228.56	-2.45%	-2.52%	-2.52%	\$	3,583.07	-1.57%	-1.64%	TRUE	-1.64%	3.78%	0.07%
10/16/2022	\$	242.12	5.76%	5.69%		\$	3,752.75	4.63%	4.55%	FALSE		3.95%	0.07%
10/23/2022	\$	235.87	-2.62%	-2.69%		\$	3,901.06	3.88%	3.80%	FALSE		4.16%	0.08%
10/30/2022	\$	221.39	-6.34%	-6.41%	-6.41%	\$	3,770.55	-3.40%	-3.48%	TRUE	-3.48%	4.22%	0.08%
11/6/2022	\$	247.11	10.99%	10.91%		\$	3,992.93	5.73%	5.65%	FALSE		4.19%	0.08%
11/13/2022	\$	241.22	-2.41%	-2.49%	-2.49%	\$	3,965.34	-0.69%	-0.77%	TRUE	-0.77%	4.24%	0.08%
11/20/2022	\$	247.49	2.57%	2.49%		\$	4,026.12	1.52%	1.45%	FALSE		3.94%	0.07%
11/27/2022	\$	255.02	3.00%	2.93%		\$	4,071.70	1.13%	1.06%	FALSE		3.81%	0.07%
12/4/2022	\$	245.42	-3.84%	-3.91%	-3.91%	\$	3,934.38	-3.43%	-3.50%	TRUE	-3.50%	3.71%	0.07%
12/11/2022	\$	244.69	-0.30%	-0.36%	-0.36%	\$	3,852.36	-2.11%	-2.17%	TRUE	-2.17%	3.51%	0.07%
12/18/2022	\$	238.73	-2.47%	-2.53%	-2.53%	\$	3,844.82	-0.20%	-0.26%	TRUE	-0.26%	3.53%	0.07%
12/25/2022	\$	239.82	0.46%	0.39%	0.39%	\$	3,839.50	-0.14%	-0.21%	TRUE	-0.21%	3.73%	0.07%
1/1/2023	\$	224.93	-6.41%	-6.48%		\$	3,895.08	1.44%	1.36%	FALSE		3.95%	0.07%
1/8/2023	\$	239.23	6.16%	6.09%		\$	3,999.09	2.64%	2.57%	FALSE		3.79%	0.07%
1/15/2023	\$	240.22	0.41%	0.35%	0.35%	\$	3,972.61	-0.66%	-0.73%	TRUE	-0.73%	3.65%	0.07%
1/22/2023	\$	248.16	3.25%	3.19%		\$	4,070.56	2.44%	2.37%	FALSE		3.60%	0.07%
1/29/2023	\$	258.35	4.02%	3.96%		\$	4,136.48	1.61%	1.54%	FALSE		3.64%	0.07%
2/5/2023	\$	263.10	1.82%	1.76%	1.76%	\$	4,090.46	-1.12%	-1.19%	TRUE	-1.19%	3.61%	0.07%
2/12/2023	\$	258.06	-1.93%	-2.00%	-2.00%	\$	4,079.09	-0.28%	-0.35%	TRUE	-0.35%	3.73%	0.07%
2/19/2023	\$	249.22	-3.49%	-3.56%	-3.56%	\$	3,970.04	-2.71%	-2.78%	TRUE	-2.78%	3.85%	0.07%
2/26/2023	\$	255.29	2.41%	2.33%		\$	4,045.64	1.89%	1.81%	FALSE		3.93%	0.07%
3/5/2023	\$	248.59	-2.66%	-2.73%	-2.73%	\$	3,861.59	-4.66%	-4.73%	TRUE	-4.73%	3.95%	0.07%
3/12/2023	\$	279.43	11.69%	11.62%		\$	3,916.64	1.42%	1.34%	FALSE		3.85%	0.07%
3/19/2023	\$	280.57	0.41%	0.34%		\$	3,970.99	1.38%	1.31%	FALSE		3.70%	0.07%
3/26/2023	\$	288.30	2.72%	2.65%		\$	4,109.31	3.42%	3.36%	FALSE		3.67%	0.07%
4/2/2023	\$	291.60	1.14%	1.07%	1.07%	\$	4,105.02	-0.10%	-0.17%	TRUE	-0.17%	3.75%	0.07%
4/9/2023	\$	286.14	-1.89%	-1.96%		\$	4,137.64	0.79%	0.73%	FALSE		3.59%	0.07%
4/16/2023	\$	285.76	-0.13%	-0.20%	-0.20%	\$	4,133.52	-0.10%	-0.17%	TRUE	-0.17%	3.66%	0.07%
4/23/2023	\$	307.26	7.25%	7.18%		\$	4,169.48	0.87%	0.80%	FALSE		3.78%	0.07%
4/30/2023	\$	310.65	1.10%	1.03%	1.03%	\$	4,136.25	-0.80%	-0.87%	TRUE	-0.87%	3.70%	0.07%
5/7/2023	\$	308.97	-0.54%	-0.61%	-0.61%	\$	4,124.08	-0.29%	-0.36%	TRUE	-0.36%	3.75%	0.07%
5/14/2023	\$	318.34	2.99%	2.92%		\$	4,191.98	1.63%	1.56%	FALSE		3.80%	0.07%
5/21/2023	\$	332.89	4.47%	4.40%		\$	4,205.45	0.32%	0.25%	FALSE		3.89%	0.07%
5/28/2023	\$	335.40	0.75%	0.68%		\$	4,282.37	1.81%	1.74%	FALSE		3.97%	0.07%
6/4/2023	\$	326.79	-2.60%	-2.67%		\$	4,298.86	0.38%	0.31%	FALSE		3.87%	0.07%
6/11/2023	\$	342.33	4.65%	4.57%		\$	4,409.59	2.54%	2.47%	FALSE		3.90%	0.07%
6/18/2023	\$	335.02	-2.16%	-2.23%	-2.23%	\$	4,348.33	-1.40%	-1.47%	TRUE	-1.47%	3.88%	0.07%
6/25/2023	\$	340.54	1.63%	1.56%		\$	4,450.38	2.32%	2.25%	FALSE		3.84%	0.07%
7/2/2023	\$	337.22	-0.98%	-1.05%	-1.05%	\$	4,398.95	-1.16%	-1.23%	TRUE	-1.23%	3.85%	0.07%
7/9/2023	\$	345.24	2.35%	2.28%		\$	4,505.42	2.39%	2.32%	FALSE		3.97%	0.07%
7/16/2023	\$	343.77	-0.43%	-0.50%		\$	4,536.34	0.68%	0.61%	FALSE		3.97%	0.07%
7/23/2023	\$	338.37	-1.58%	-1.66%		\$	4,582.23	1.01%	0.93%	FALSE		3.90%	0.07%
7/30/2023	\$	327.78	-3.18%	-3.25%	-3.25%	\$	4,478.03	-2.30%	-2.37%	TRUE	-2.37%	3.98%	0.07%
8/6/2023	\$	321.01	-2.09%	-2.16%	-2.16%	\$	4,464.05	-0.31%	-0.39%	TRUE	-0.39%	4.17%	0.08%
8/13/2023	\$	316.48	-1.42%	-1.50%	-1.50%	\$	4,369.71	-2.14%	-2.21%	TRUE	-2.21%	4.23%	0.08%
8/20/2023	\$	322.98	2.03%	1.95%		\$	4,405.71	0.82%	0.74%	FALSE		4.36%	0.08%
8/27/2023	\$	328.66	1.74%	1.66%		\$	4,515.77	2.47%	2.39%	FALSE		4.35%	0.08%
9/3/2023	\$	334.27	1.69%	1.61%	1.61%	\$	4,457.49	-1.30%	-1.38%	TRUE	-1.38%	4.25%	0.08%
9/10/2023	\$	330.22	-1.22%	-1.30%	-1.30%	\$	4,450.32	-0.16%	-0.24%	TRUE	-0.24%	4.36%	0.08%
9/17/2023	\$	317.01	-4.08%	-4.16%	-4.16%	\$	4,320.06	-2.97%	-3.05%	TRUE	-3.05%	4.37%	0.08%
9/24/2023	\$	315.75	-0.40%	-0.48%	-0.48%	\$	4,288.05	-0.74%	-0.83%	TRUE	-0.83%	4.46%	0.08%
10/1/2023	\$	327.26	3.58%	3.49%		\$	4,308.50	0.48%	0.39%	FALSE		4.71%	0.09%
10/8/2023	\$	327.73	0.14%	0.05%		\$	4,327.78	0.45%	0.36%	FALSE		4.89%	0.09%
10/15/2023	\$	326.67	-0.32%	-0.41%	-0.41%	\$	4,224.16	-2.42%	-2.51%	TRUE	-2.51%	4.81%	0.09%
10/22/2023	\$	329.81	0.96%	0.86%	0.86%	\$	4,117.37	-2.56%	-2.65%	TRUE	-2.65%	5.00%	0.09%
10/29/2023	\$	352.80	6.74%	6.65%		\$	4,358.34	5.69%	5.59%	FALSE		5.02%	0.09%
11/5/2023	\$	369.67	4.67%	4.58%		\$	4,415.24	1.30%	1.21%	FALSE		4.93%	0.09%
11/12/2023	\$	369.85	0.05%	-0.04%		\$	4,514.02	2.21%	2.12%	FALSE		4.75%	0.09%

11/19/2023	\$	377.43	2.03%	1.94%		\$	4,559.34	1.00%	0.91%	FALSE		4.65%	0.09%
11/26/2023	\$	374.51	-0.78%	-0.86%		\$	4,594.63	0.77%	0.69%	FALSE		4.57%	0.08%
12/3/2023	\$	374.23	-0.07%	-0.16%	-0.16%	\$	4,604.37	0.21%	0.13%	TRUE	0.13%	4.49%	0.08%
12/10/2023	\$	370.73	-0.94%	-1.02%		\$	4,719.19	2.46%	2.38%	FALSE		4.30%	0.08%
12/17/2023	\$	374.58	1.03%	0.96%		\$	4,754.63	0.75%	0.67%	FALSE		4.17%	0.08%
12/24/2023	\$	376.04	0.39%	0.31%		\$	4,769.83	0.32%	0.24%	FALSE		4.03%	0.07%
12/31/2023	\$	367.75	-2.23%	-2.30%	-2.30%	\$	4,697.24	-1.53%	-1.61%	TRUE	-1.61%	4.00%	0.07%
1/7/2024	\$	388.47	5.48%	5.40%		\$	4,783.83	1.83%	1.75%	FALSE		4.12%	0.08%
1/14/2024	\$	398.67	2.59%	2.51%		\$	4,839.81	1.16%	1.09%	FALSE		4.19%	0.08%
1/21/2024	\$	403.93	1.31%	1.23%		\$	4,890.97	1.05%	0.97%	FALSE		4.34%	0.08%
1/28/2024	\$	411.22	1.79%	1.71%		\$	4,958.61	1.37%	1.29%	FALSE		4.37%	0.08%
2/4/2024	\$	420.55	2.24%	2.17%		\$	5,026.61	1.36%	1.28%	FALSE		4.23%	0.08%
2/11/2024	\$	404.06	-4.00%	-4.08%	-4.08%	\$	5,005.57	-0.42%	-0.50%	TRUE	-0.50%	4.34%	0.08%
2/18/2024	\$	410.34	1.54%	1.46%		\$	5,088.80	1.65%	1.57%	FALSE		4.43%	0.08%
2/25/2024	\$	415.50	1.25%	1.17%		\$	5,137.08	0.94%	0.86%	FALSE		4.44%	0.08%
3/3/2024	\$	406.22	-2.26%	-2.34%	-2.34%	\$	5,123.69	-0.26%	-0.34%	TRUE	-0.34%	4.39%	0.08%
3/10/2024	\$	416.42	2.48%	2.40%	2.40%	\$	5,117.09	-0.13%	-0.21%	TRUE	-0.21%	4.28%	0.08%
3/17/2024	\$	428.74	2.92%	2.83%		\$	5,234.18	2.26%	2.18%	FALSE		4.36%	0.08%
3/24/2024	\$	420.72	-1.89%	-1.97%		\$	5,254.35	0.38%	0.30%	FALSE		4.44%	0.08%
3/31/2024	\$	425.52	1.13%	1.05%	1.05%	\$	5,204.34	-0.96%	-1.04%	TRUE	-1.04%	4.38%	0.08%
4/7/2024	\$	421.90	-0.85%	-0.94%	-0.94%	\$	5,123.41	-1.57%	-1.65%	TRUE	-1.65%	4.50%	0.08%
4/14/2024	\$	399.12	-5.55%	-5.64%	-5.64%	\$	4,967.23	-3.10%	-3.18%	TRUE	-3.18%	4.59%	0.09%
4/21/2024	\$	406.32	1.79%	1.70%		\$	5,099.96	2.64%	2.55%	FALSE		4.74%	0.09%
4/28/2024	\$	406.66	0.08%	0.00%		\$	5,127.79	0.54%	0.46%	FALSE		4.77%	0.09%
5/5/2024	\$	414.74	1.97%	1.88%		\$	5,222.68	1.83%	1.75%	FALSE		4.73%	0.09%
5/12/2024	\$	420.21	1.31%	1.22%		\$	5,303.27	1.53%	1.45%	FALSE		4.63%	0.09%
5/19/2024	\$	430.16	2.34%	2.26%	2.26%	\$	5,304.72	0.03%	-0.06%	TRUE	-0.06%	4.56%	0.08%
5/26/2024	\$	415.13	-3.56%	-3.64%	-3.64%	\$	5,277.51	-0.51%	-0.60%	TRUE	-0.60%	4.57%	0.08%
6/2/2024	\$	423.85	2.08%	1.99%		\$	5,346.99	1.31%	1.22%	FALSE		4.69%	0.09%
6/9/2024	\$	442.57	4.32%	4.24%		\$	5,431.60	1.57%	1.49%	FALSE		4.49%	0.08%
6/16/2024	\$	449.78	1.62%	1.53%		\$	5,464.62	0.61%	0.52%	FALSE		4.47%	0.08%
6/23/2024	\$	446.95	-0.63%	-0.71%	-0.71%	\$	5,460.48	-0.08%	-0.16%	TRUE	-0.16%	4.39%	0.08%
6/30/2024	\$	467.56	4.51%	4.43%		\$	5,567.19	1.94%	1.85%	FALSE		4.43%	0.08%