Relationship Of Volatility & Market Returns
(S&P 500 Index: 1962–Dec 31, 2017)

MONTHLY DATA: S&P 500 INDEX AVERAGE DAILY RANGE

Quartile	Volatility Range	% Chance Up Month	% Chance Dn Month	If Up Avg Gain	If Down Avg Loss	Expected Gain/(Loss)
1st	0% - 0.9%	75%	25%	2.8%	-1.6%	1.7%
2nd	0.9% - 1.3%	64%	36%	2.8%	-2.0%	1.1%
3rd	1.3% - 1.7%	55%	45%	3.1%	-3.1%	0.4%
4th	1.7% - 6.6%	43%	57%	5.0%	-4.9%	-0.6%

ANNUAL DATA (1962–2017): S&P 500 INDEX AVERAGE DAILY RANGE

Quartile	Volatility Range	% Chance Up Year	% Chance Dn Year	If Up Avg Gain	If Down Avg Loss	Expected Gain/(Loss)
1st	0% - 1.0%	93%	7%	15.1%	-1.5%	13.9%
2nd	1.0% - 1.4%	79%	21%	14.7%	-6.3%	10.2%
3rd	1.4% - 1.7%	79%	21%	17.9%	-7.7%	12.4%
4th	1.7% - 2.7%	43%	57%	15.1%	-19.4%	-4.6%

Avg Daily Range: S&P 500 Index (3 Mo Moving Average)

1962 - Dec 31, 2017