Relationship Of Volatility & Market Returns
(S&P 500 Index: 1962–Dec 31, 2016)

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% - 1.0%	75%	25%	2.9%	-1.7%	1.7%
2nd	1.0% - 1.3%	62%	38%	2.9%	-2.0%	1.0%
3rd	1.3% - 1.7%	56%	44%	3.1%	-3.1%	0.4%
4th	1.7% - 6.6%	43%	57%	5.1%	-4.9%	-0.6%

ANNUAL DATA (1962–2014): 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%	92%	8%	15.4%	-1.5%	14.1%
2nd	1.0% - 1.4%	77%	23%	14.4%	-6.3%	9.6%
3rd	1.4% - 1.8%	79%	21%	17.9%	-7.7%	12.4%
4th	1.8% - 2.7%	43%	57%	15.1%	-19.4%	-4.6%

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

1962 - Dec 31, 2016