

Relationship Of Volatility & Market Returns (S&P 500 Index: 1962–Dec 31, 2011)

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%	70%	30%	2.9%	-1.9%	1.5%
2nd	1.0% - 1.4%	61%	39%	3.0%	-2.1%	1.0%
3rd	1.4% - 1.8%	59%	41%	3.2%	-3.2%	0.6%
4th	1.8% - 6.6%	41%	59%	5.2%	-5.0%	-0.8%

ANNUAL DATA (1962–2009): 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% - 1.1%	92%	8%	15.8%	-1.5%	14.5%
2nd	1.1% - 1.5%	75%	25%	15.7%	-6.0%	10.3%
3rd	1.5% - 1.8%	83%	17%	14.2%	-11.6%	9.9%
4th	1.8% - 2.7%	38%	62%	17.7%	-19.4%	-5.1%

Avg Daily Range: S&P 500 Index (3 Mo Moving Average)
1962 - Dec 31, 2011

