

## Relationship Of Volatility & Market Returns (S&P 500 Index: 1962–December 31, 2008)

### 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%	68%	32%	2.8%	-1.9%	1.3%
2nd	1.0% - 1.4%	63%	37%	3.0%	-2.1%	1.1%
3rd	1.4% - 1.8%	58%	42%	3.1%	-3.1%	0.5%
4th	1.8% - 6.6%	43%	57%	5.0%	-4.9%	-0.7%

### ANNUAL DATA (1962–2006): 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%	14.9%	-1.5%	13.5%
2nd	1.1% - 1.5%	82%	18%	17.2%	-9.0%	12.5%
3rd	1.5% - 1.8%	83%	17%	14.2%	-11.6%	9.9%
4th	1.8% - 2.7%	33%	67%	16.3%	-19.4%	-7.5%

Avg Daily Range: S&P 500 Index (3 Mo Moving Average)  
1962 - December 31, 2008

