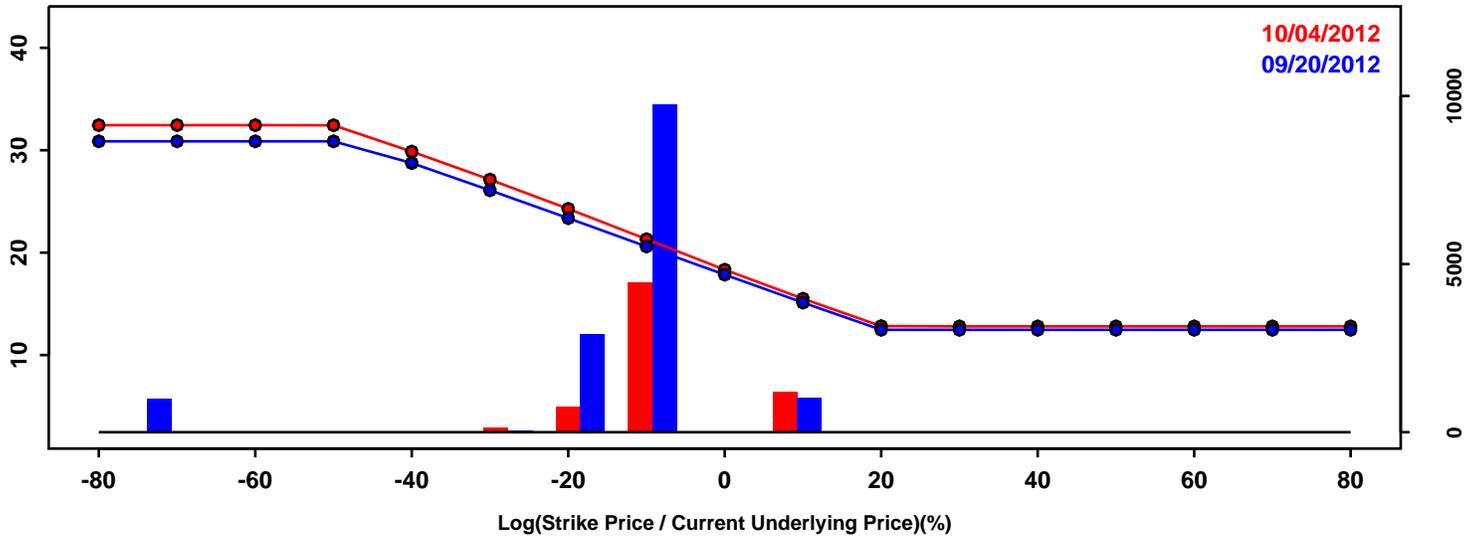


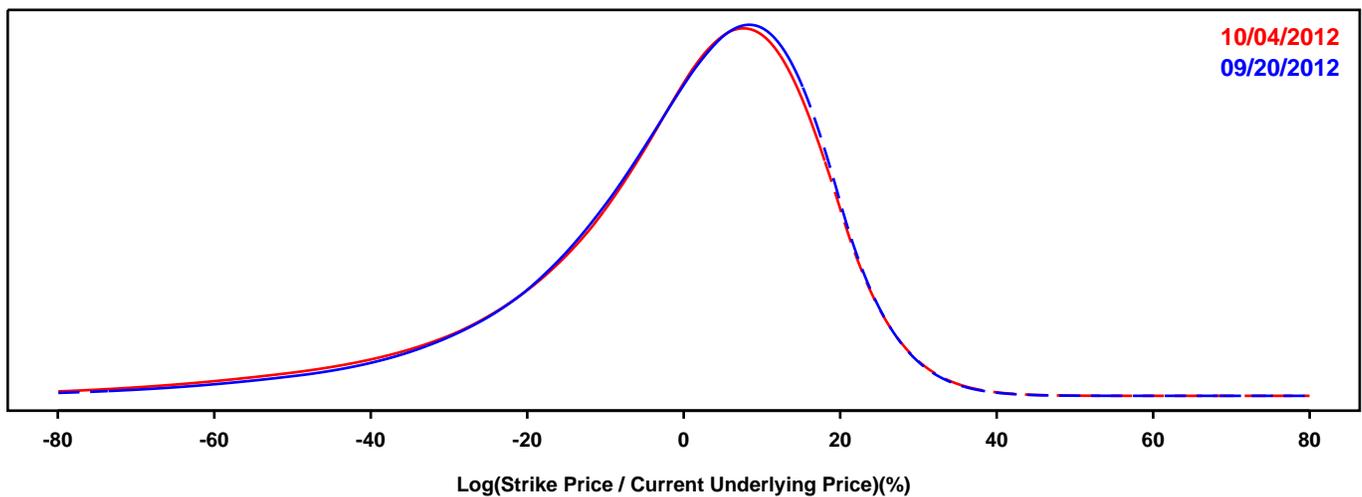
# RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- S&P 500

Log returns are based on the risk neutral density function of the underlying asset derived from options that expire in approximately 12 months.

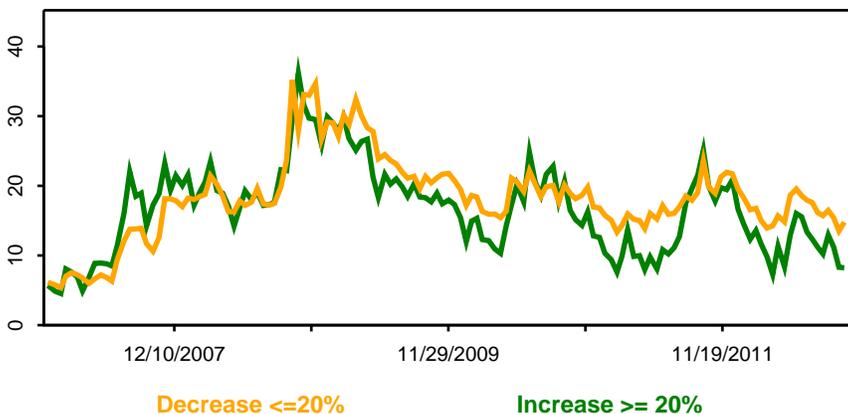
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Statistics of the Log Return Distributions			
	09/20/2012	10/04/2012	Change
10th Pct	-25.22%	-27.51%	-2.29%
50th Pct	2.90%	2.52%	-0.38%
90th Pct	18.90%	18.84%	-0.06%
Mean	-0.67%	-1.49%	-0.82%
Std Dev	18.79%	19.90%	1.11%
Skew	-1.24	-1.33	-0.09
Kurtosis	2.38	2.62	0.24