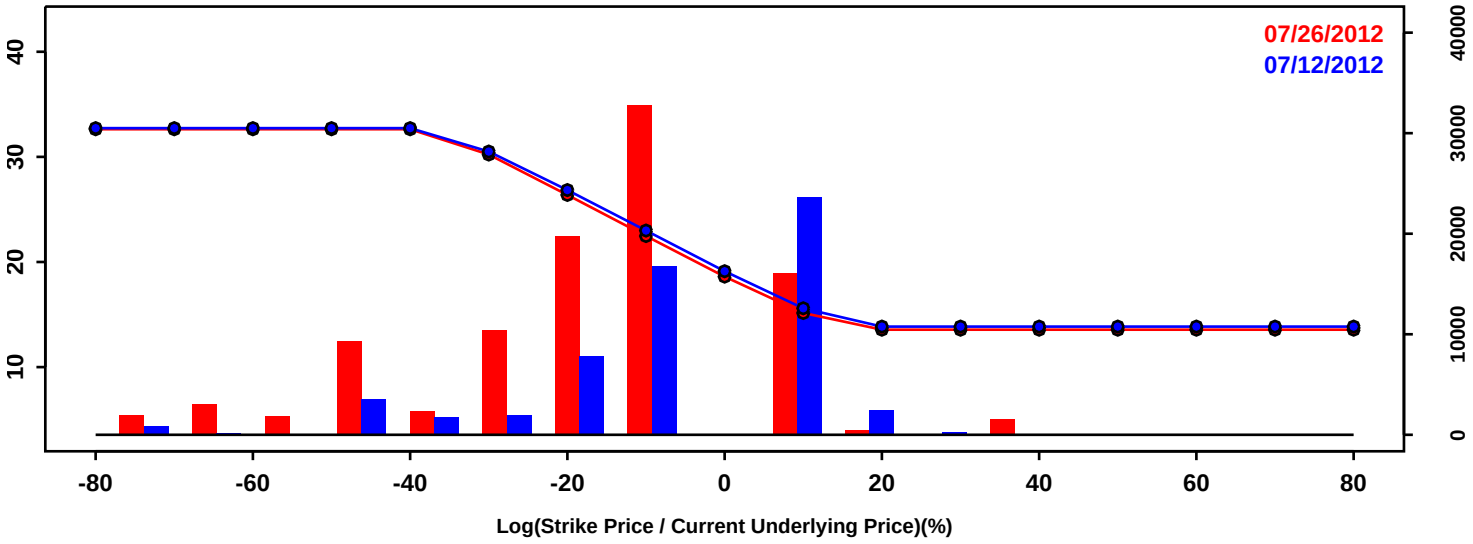
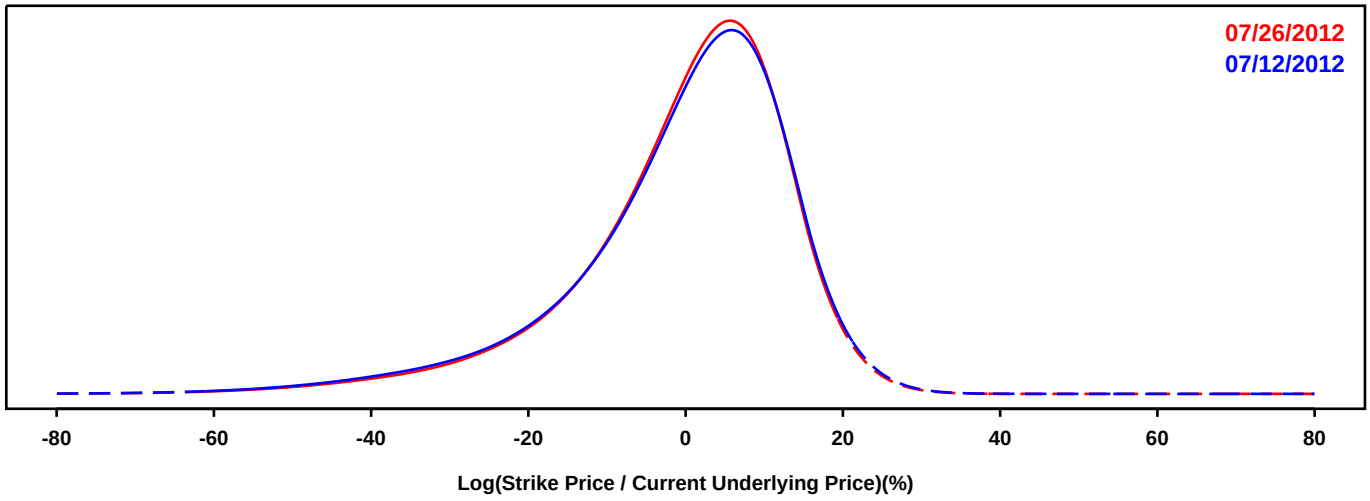
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- S&P 500

Log returns are based on the risk neutral density function of the underlying asset derived from options that expire in approximately 6 months.

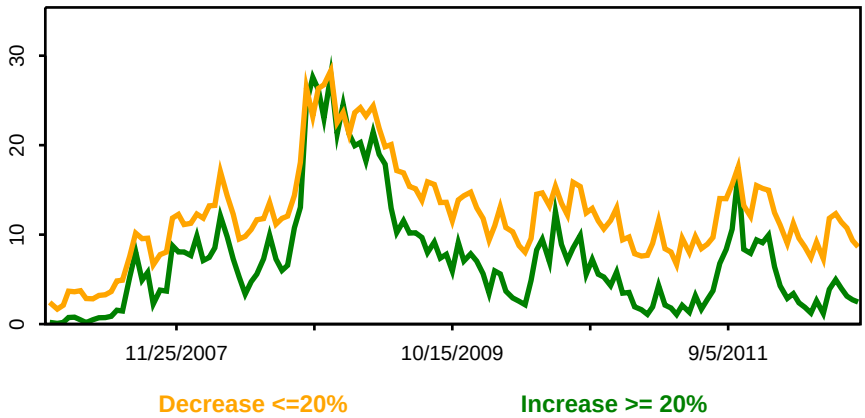
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



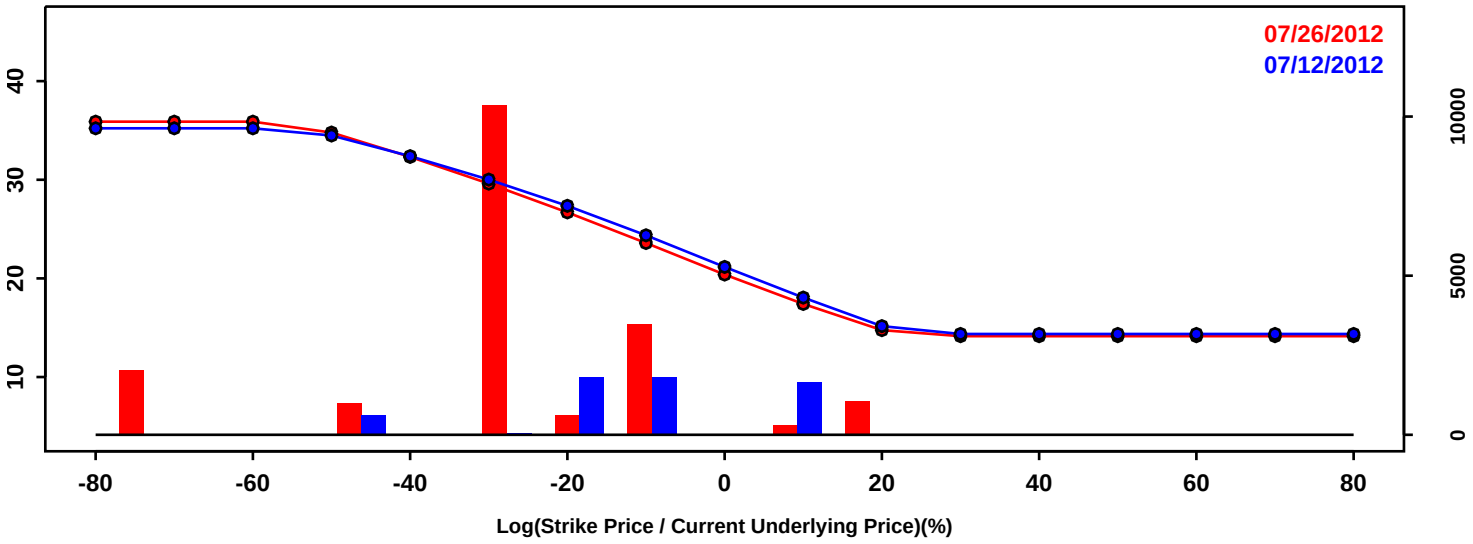
Statistics of the Log Return Distributions

	07/12/2012	07/26/2012	Change
10th Pct	-19.08%	-18.09%	0.99%
50th Pct	2.16%	2.17%	0.00%
90th Pct	14.40%	14.12%	-0.28%
Mean	-0.47%	-0.29%	0.18%
Std Dev	14.29%	13.80%	-0.49%
Skew	-1.23	-1.23	-0.01
Kurtosis	2.37	2.50	0.14

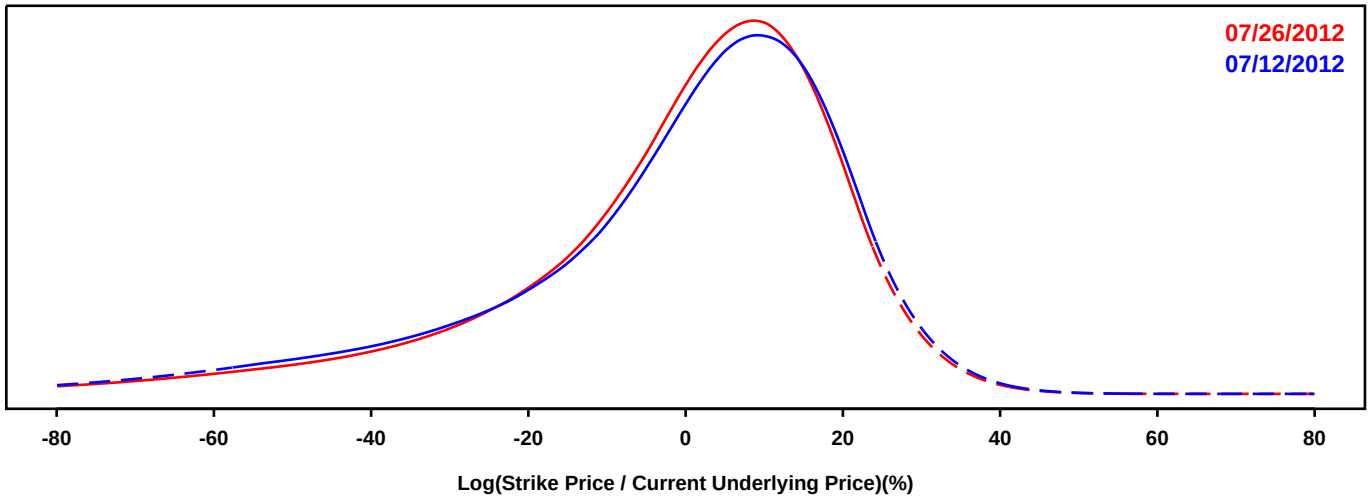
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- S&P 500

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

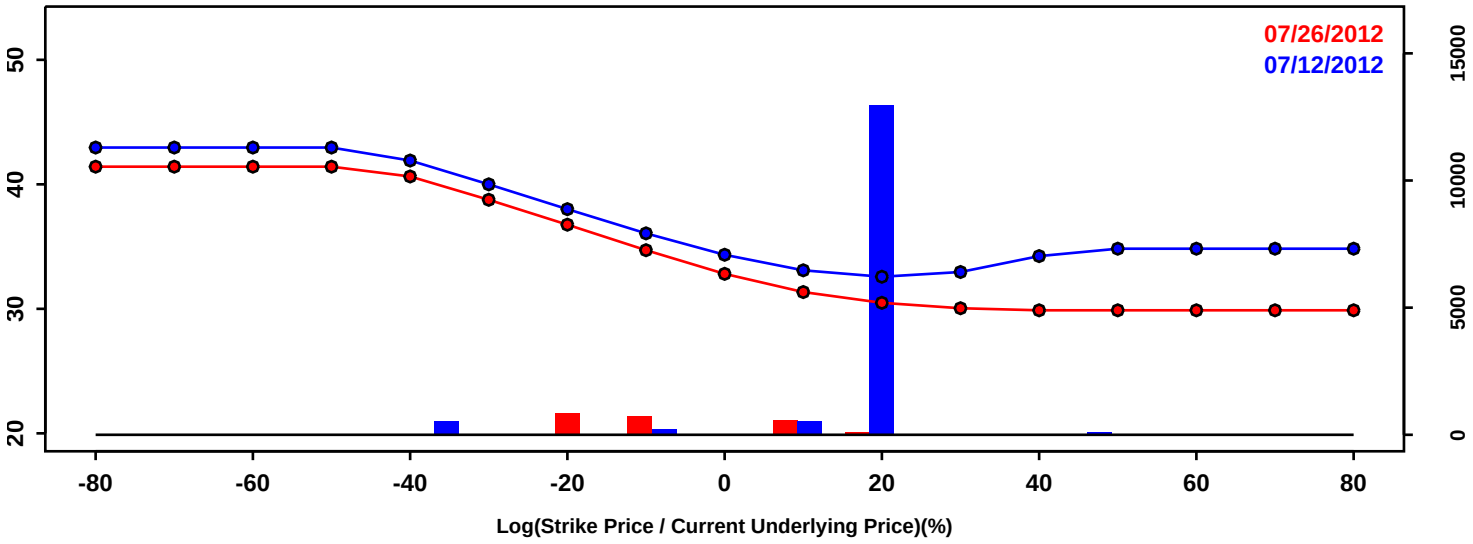
Statistics of the Log Return Distributions

	07/12/2012	07/26/2012	Change
10th Pct	-34.00%	-30.81%	3.19%
50th Pct	3.49%	3.29%	-0.20%
90th Pct	21.52%	20.79%	-0.73%
Mean	-1.80%	-1.43%	0.38%
Std Dev	23.32%	22.20%	-1.12%
Skew	-1.32	-1.38	-0.07
Kurtosis	2.21	2.72	0.51

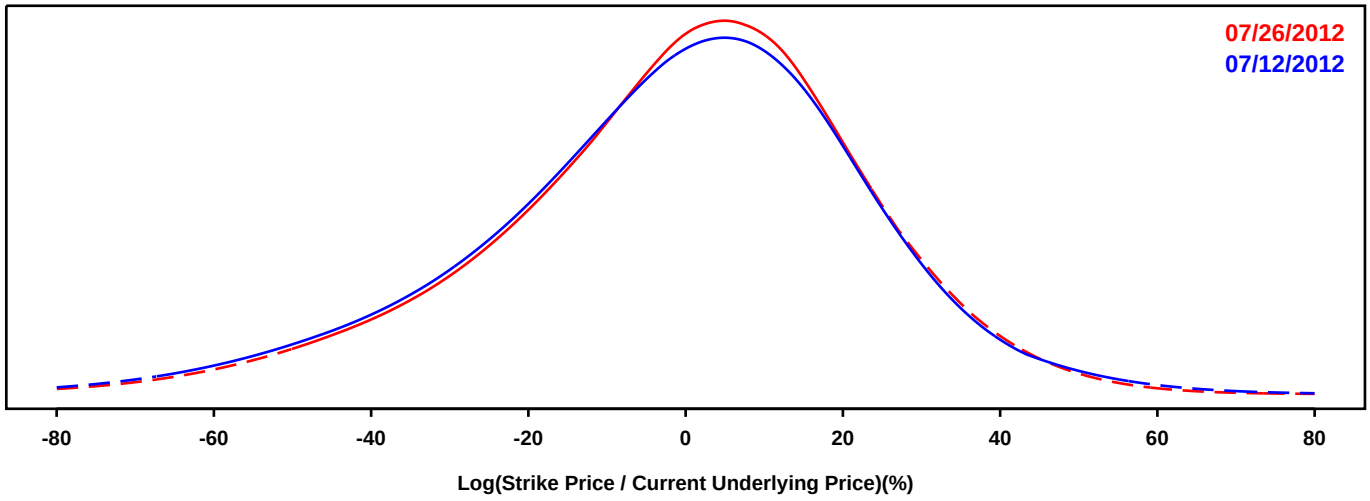
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- CRUDE OIL FUTURES (WTI)

Log returns are based on the risk neutral density function of the underlying asset derived from options that expire in approximately 6 months.

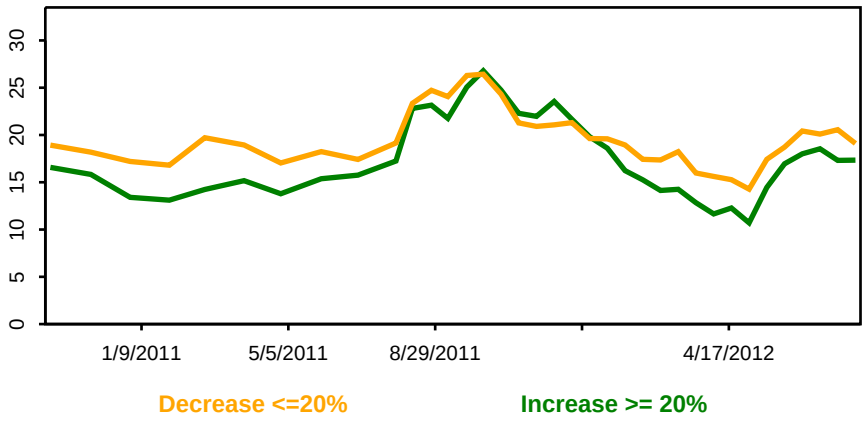
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



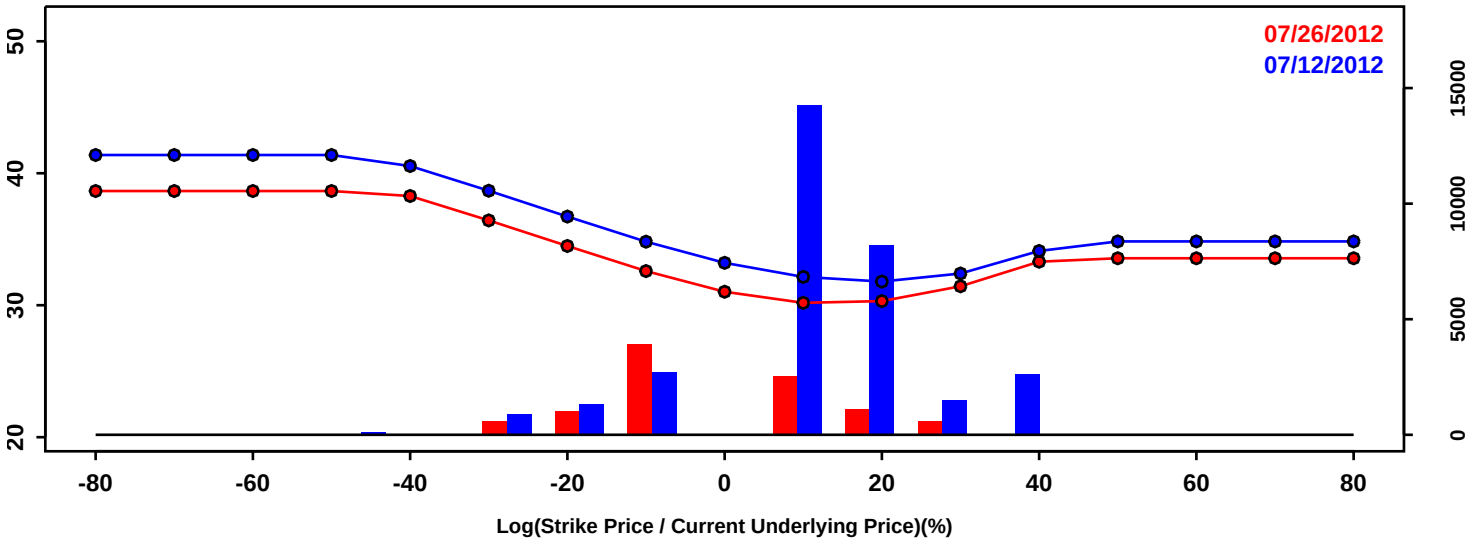
Statistics of the Log Return Distributions

	07/12/2012	07/26/2012	Change
10th Pct	-34.21%	-32.32%	1.89%
50th Pct	0.68%	1.37%	0.69%
90th Pct	26.87%	26.79%	-0.08%
Mean	-1.61%	-0.87%	0.74%
Std Dev	24.60%	23.60%	-1.00%
Skew	-0.46	-0.51	-0.04
Kurtosis	0.64	0.60	-0.05

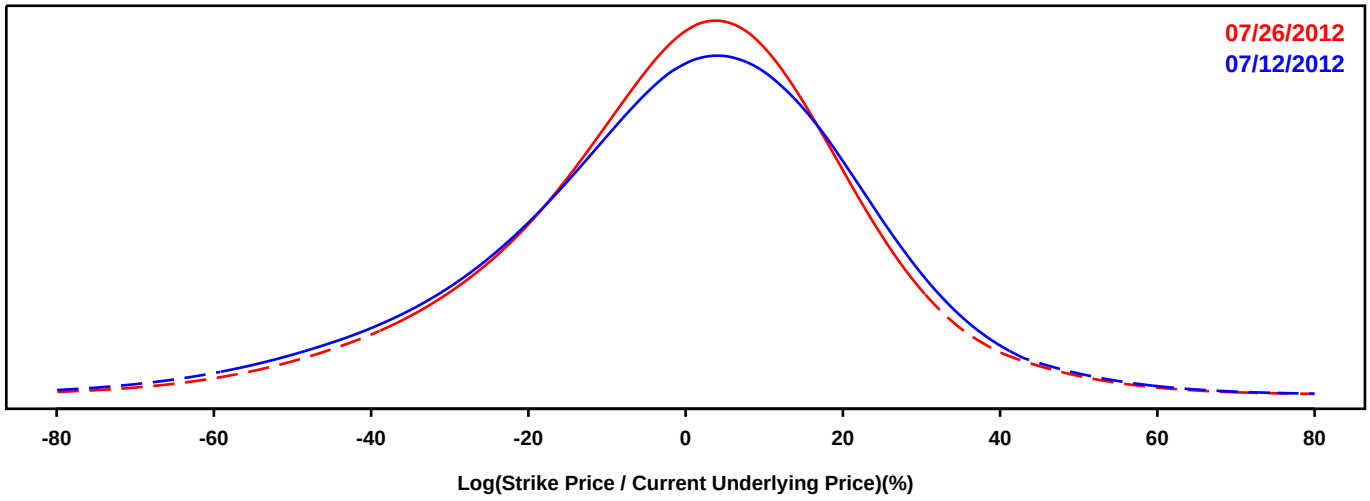
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- CRUDE OIL FUTURES (Brent)

Log returns are based on the risk neutral density function of the underlying asset derived from options that expire in approximately 6 months.

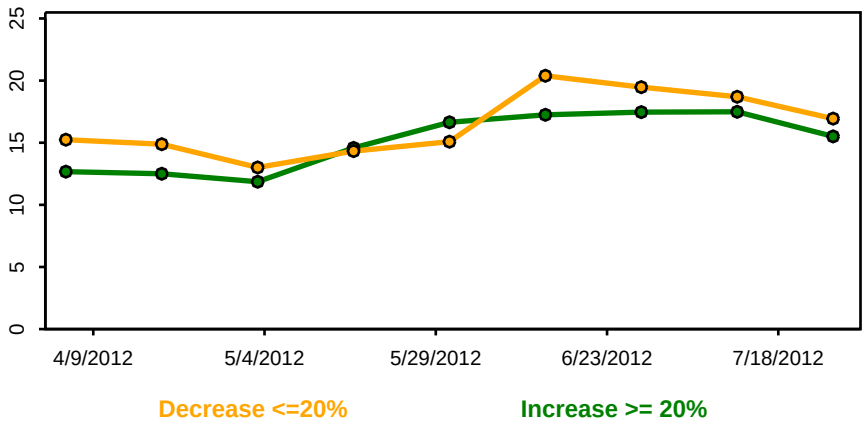
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



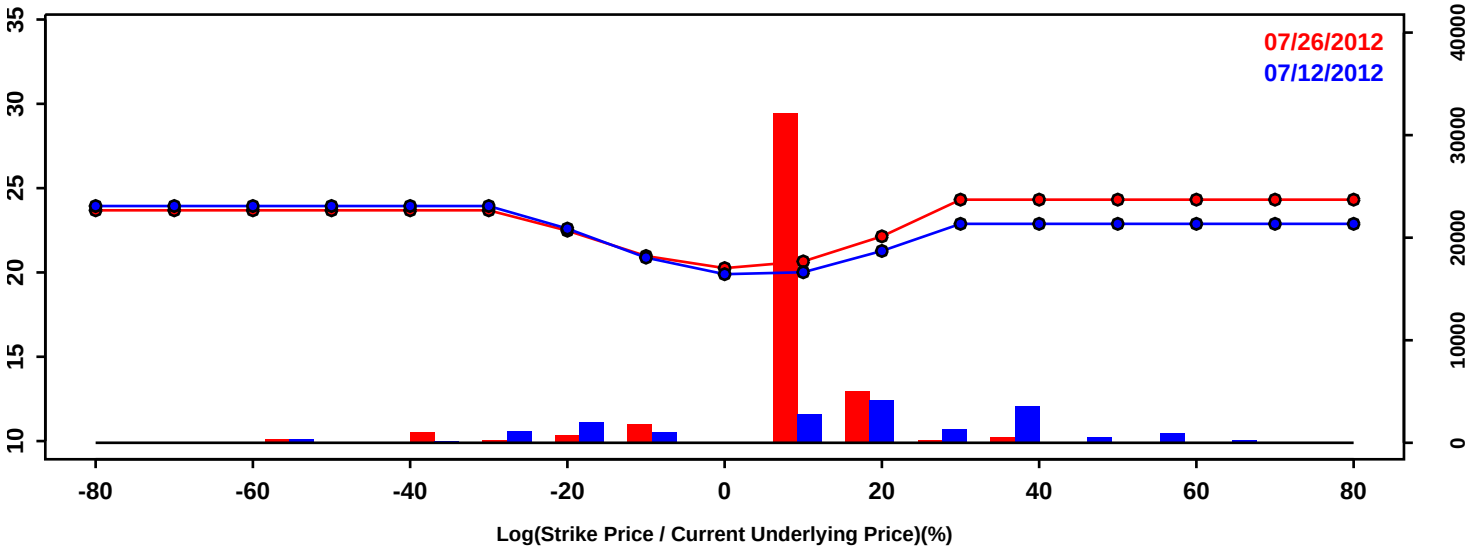
Statistics of the Log Return Distributions

	07/12/2012	07/26/2012	Change
10th Pct	-31.65%	-29.00%	2.65%
50th Pct	1.26%	1.28%	0.02%
90th Pct	26.86%	25.16%	-1.70%
Mean	-0.64%	-0.35%	0.29%
Std Dev	23.60%	21.97%	-1.63%
Skew	-0.42	-0.37	0.05
Kurtosis	0.68	0.75	0.07

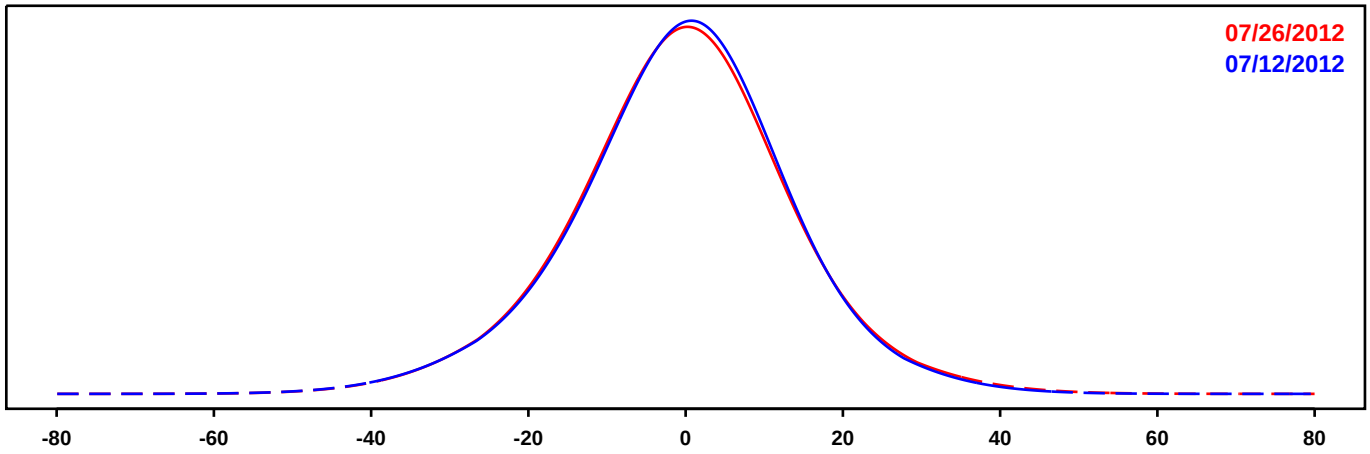
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- GOLD FUTURES

Log returns are based on the risk neutral density function of the underlying asset derived from options that expire in approximately 6 months.

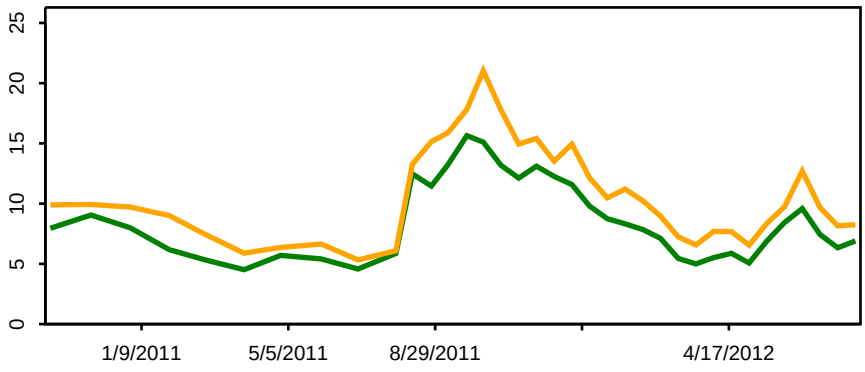
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <=20% Increase >= 20%

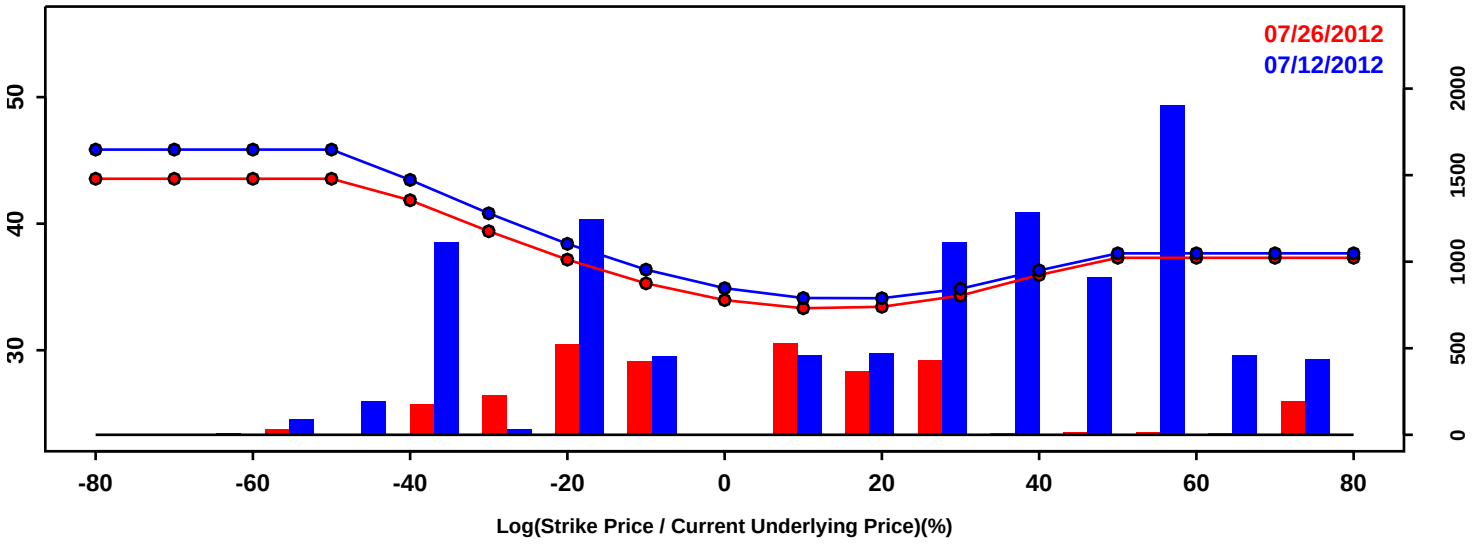
Statistics of the Log Return Distributions

	07/12/2012	07/26/2012	Change
10th Pct	-18.14%	-18.21%	-0.07%
50th Pct	-0.05%	-0.22%	-0.17%
90th Pct	16.44%	16.89%	0.45%
Mean	-0.44%	-0.41%	0.04%
Std Dev	14.04%	14.28%	0.24%
Skew	-0.16	-0.06	0.10
Kurtosis	0.69	0.70	0.01

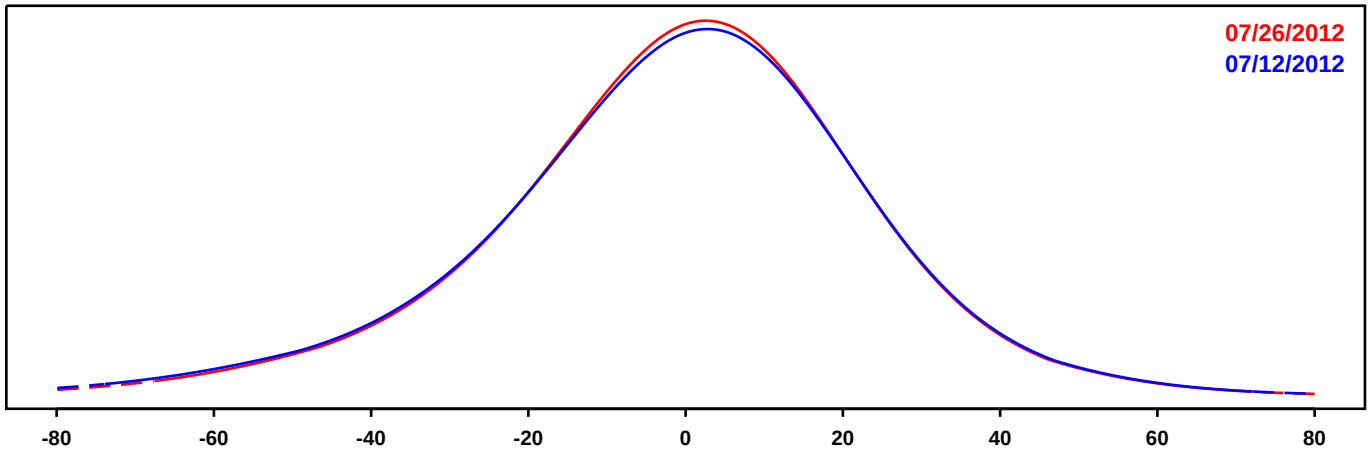
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- SILVER FUTURES

Log returns are based on the risk neutral density function of the underlying asset derived from options that expire in approximately 6 months.

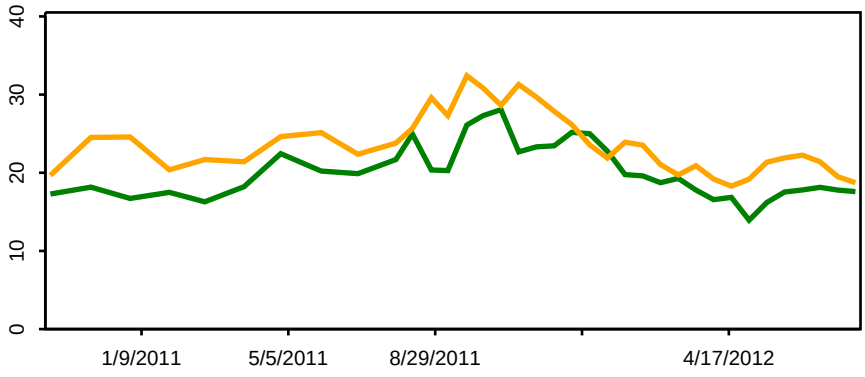
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <=20% Increase >= 20%

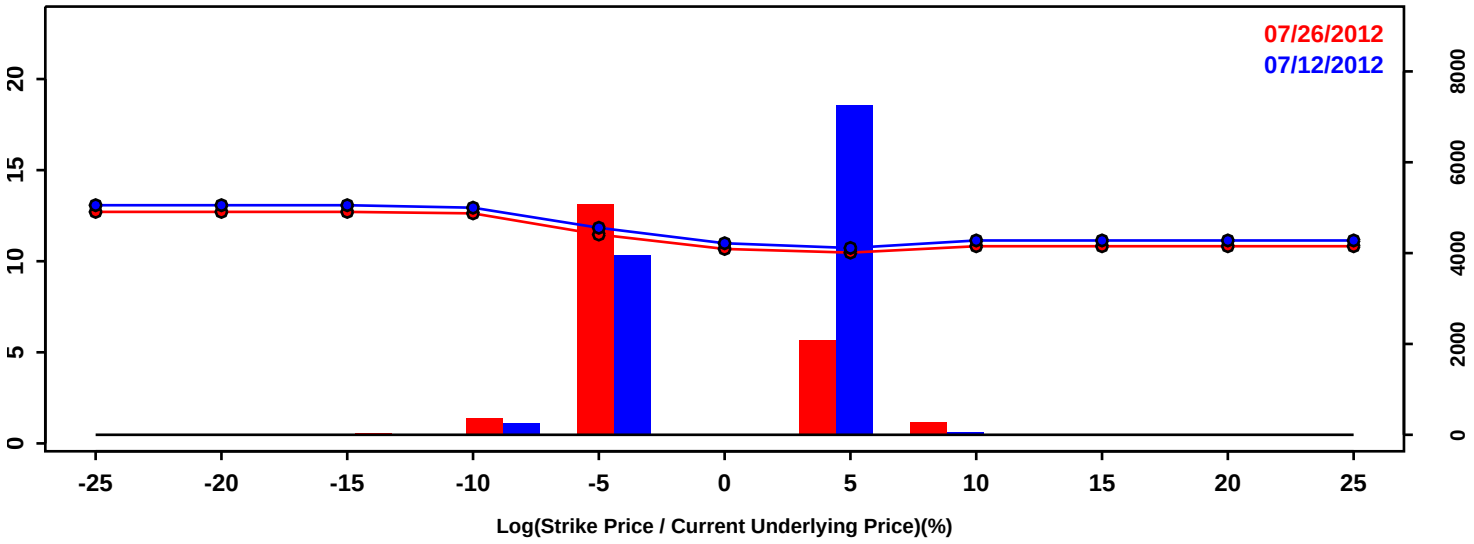
Statistics of the Log Return Distributions

	07/12/2012	07/26/2012	Change
10th Pct	-32.41%	-31.09%	1.31%
50th Pct	0.47%	0.60%	0.13%
90th Pct	27.90%	27.62%	-0.29%
Mean	-1.08%	-0.70%	0.38%
Std Dev	24.73%	24.00%	-0.73%
Skew	-0.40	-0.33	0.06
Kurtosis	0.91	0.84	-0.07

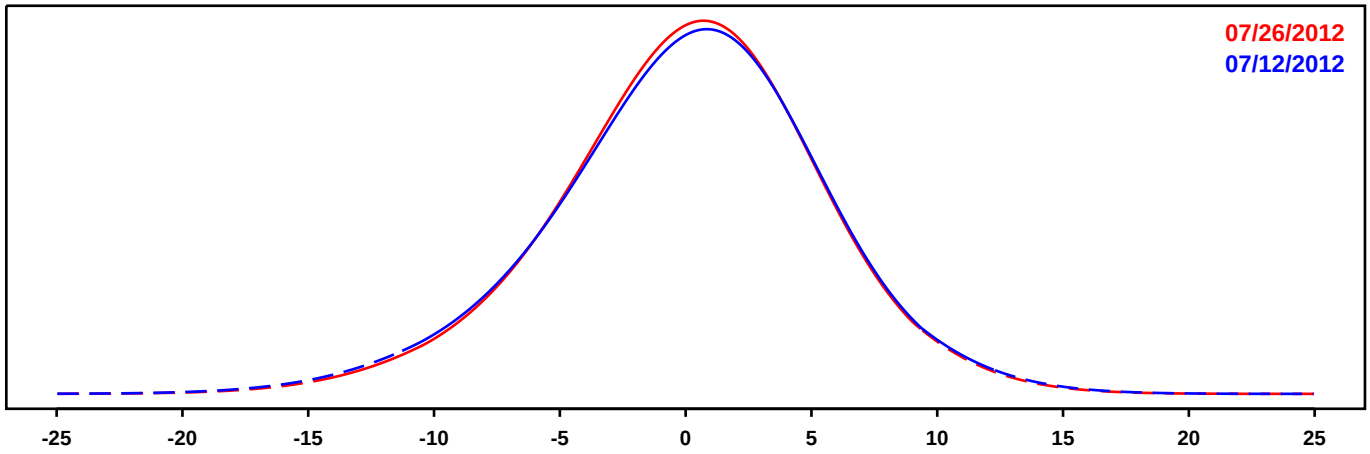
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- DOLLAR-EURO EXCHANGE RATE FUTURES

Log returns are based on the risk neutral density function of the underlying asset derived from options that expire in approximately 3 months.

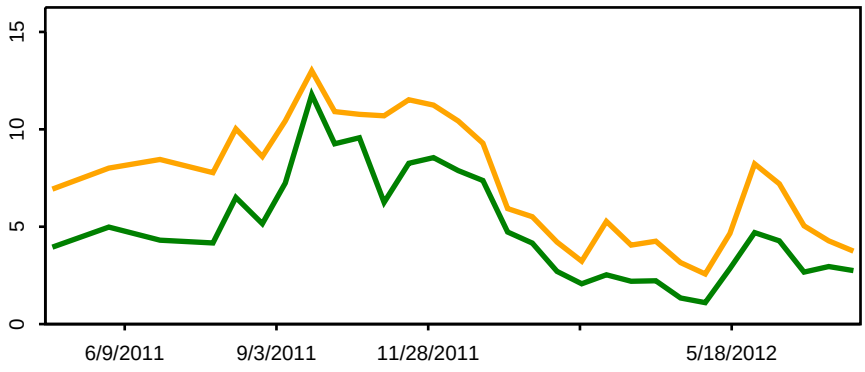
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <=10% Increase >= 10%

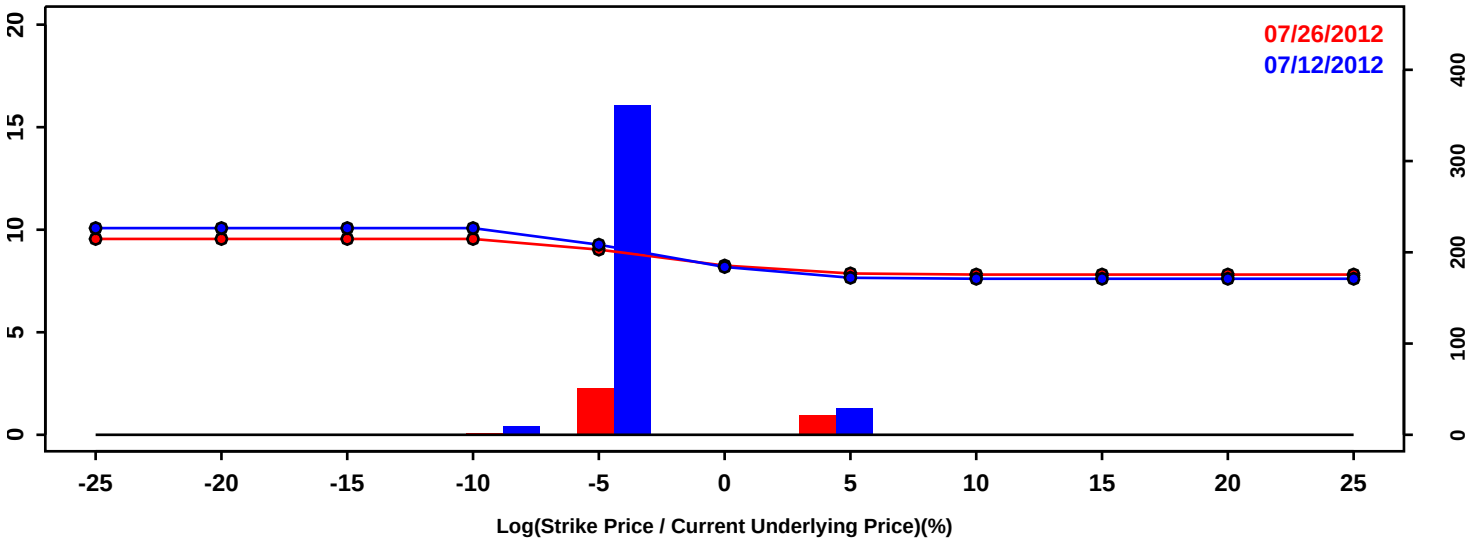
Statistics of the Log Return Distributions

	07/12/2012	07/26/2012	Change
10th Pct	-7.00%	-6.71%	0.29%
50th Pct	0.34%	0.33%	-0.01%
90th Pct	6.69%	6.55%	-0.14%
Mean	0.08%	0.12%	0.03%
Std Dev	5.48%	5.32%	-0.16%
Skew	-0.26	-0.23	0.03
Kurtosis	0.46	0.45	-0.01

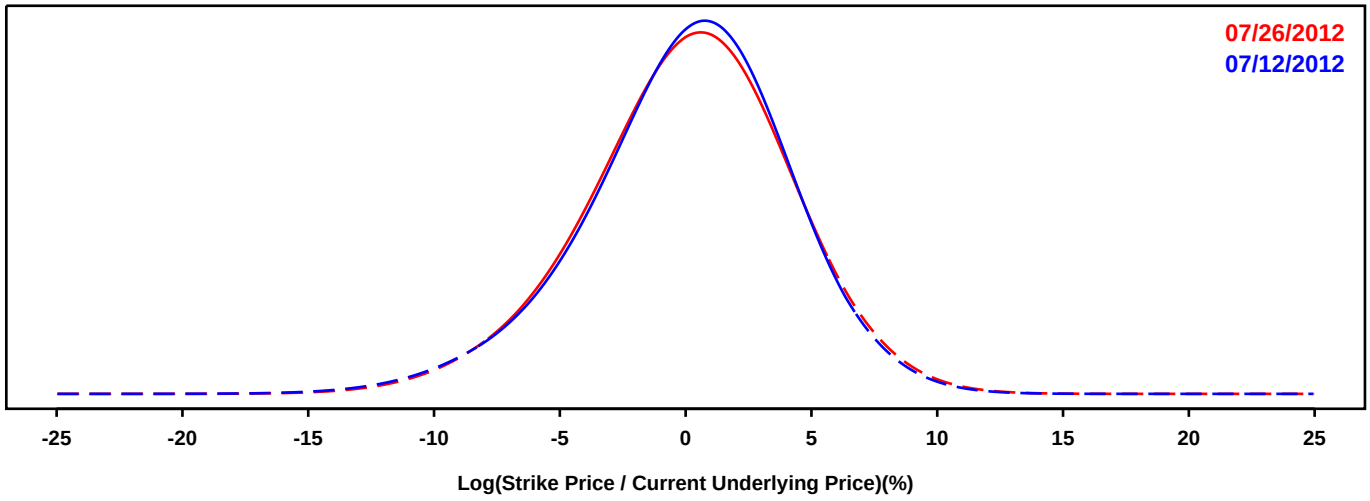
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- DOLLAR-POUND EXCHANGE RATE FUTURES

Log returns are based on the risk neutral density function of the underlying asset derived from options that expire in approximately 3 months.

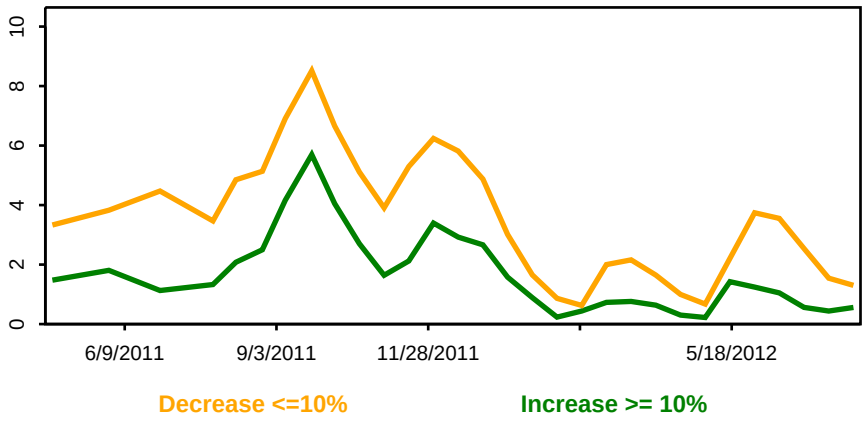
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



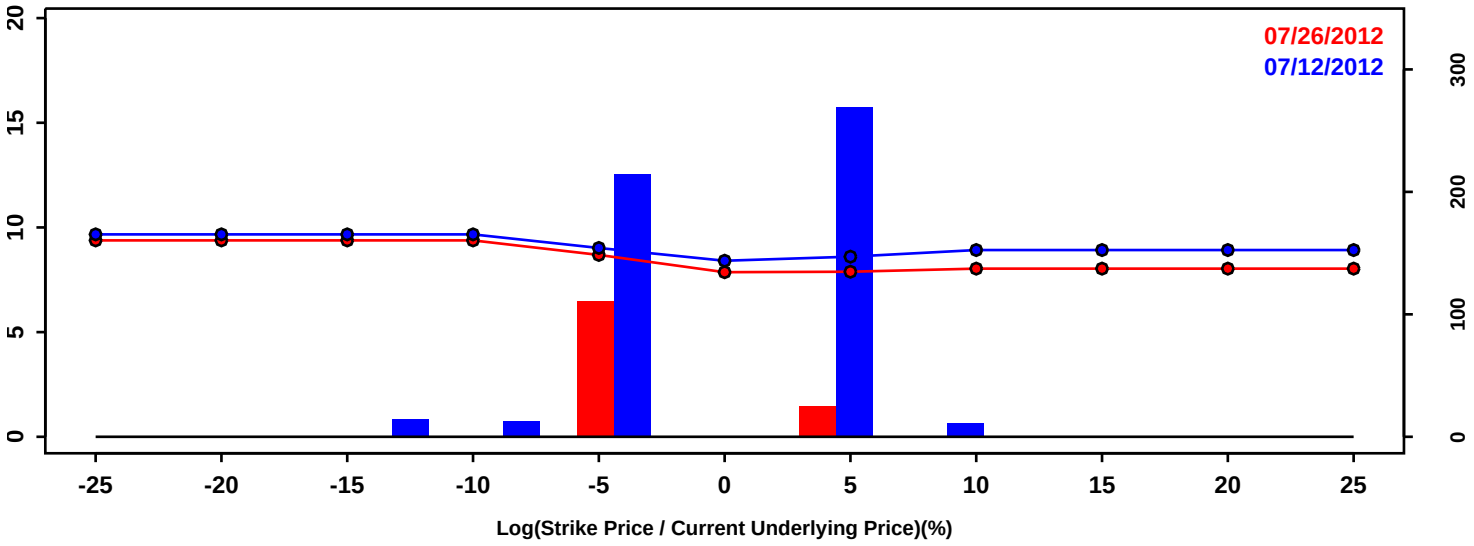
Statistics of the Log Return Distributions

	07/12/2012	07/26/2012	Change
10th Pct	-5.26%	-5.26%	-0.01%
50th Pct	0.34%	0.27%	-0.08%
90th Pct	5.00%	5.15%	0.15%
Mean	0.08%	0.11%	0.03%
Std Dev	4.10%	4.12%	0.03%
Skew	-0.37	-0.26	0.11
Kurtosis	0.47	0.28	-0.19

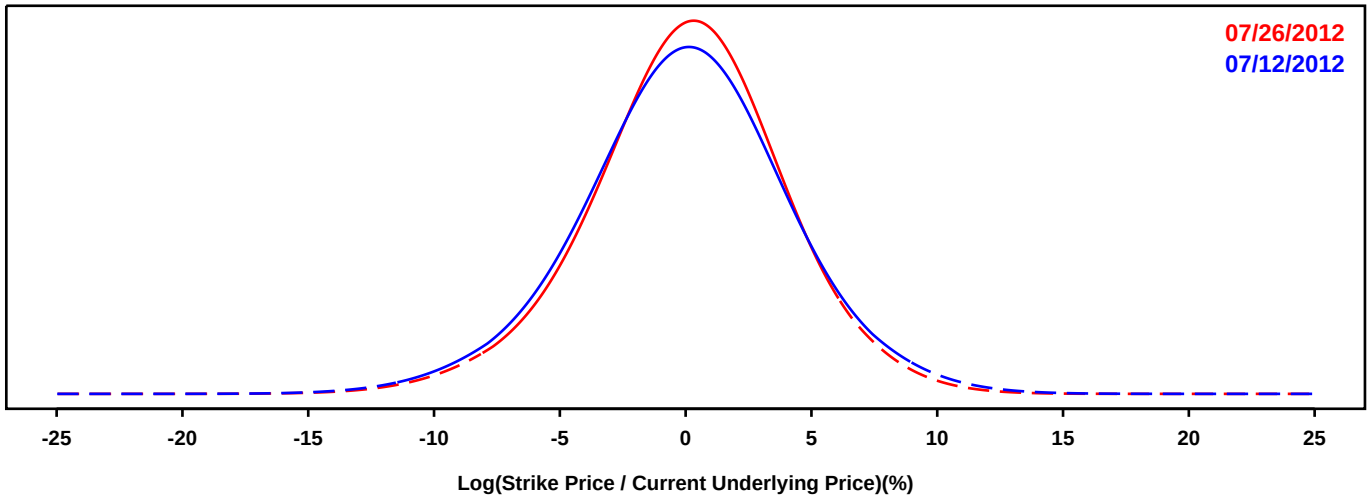
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- YEN-DOLLAR EXCHANGE RATE FUTURES

Log returns are based on the risk neutral density function of the underlying asset derived from options that expire in approximately 3 months.

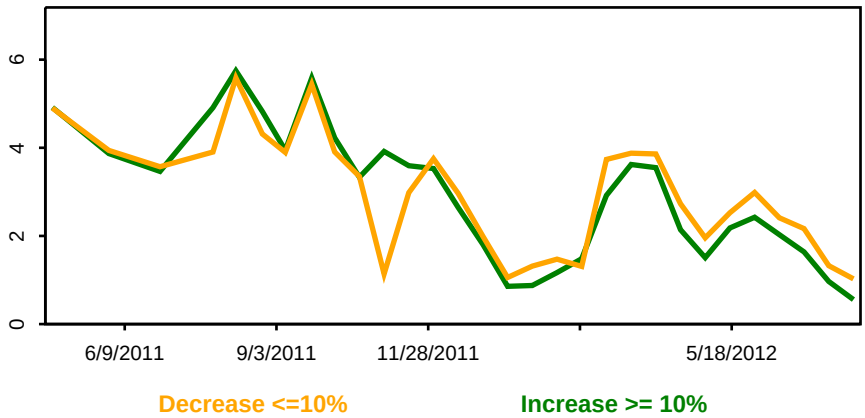
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



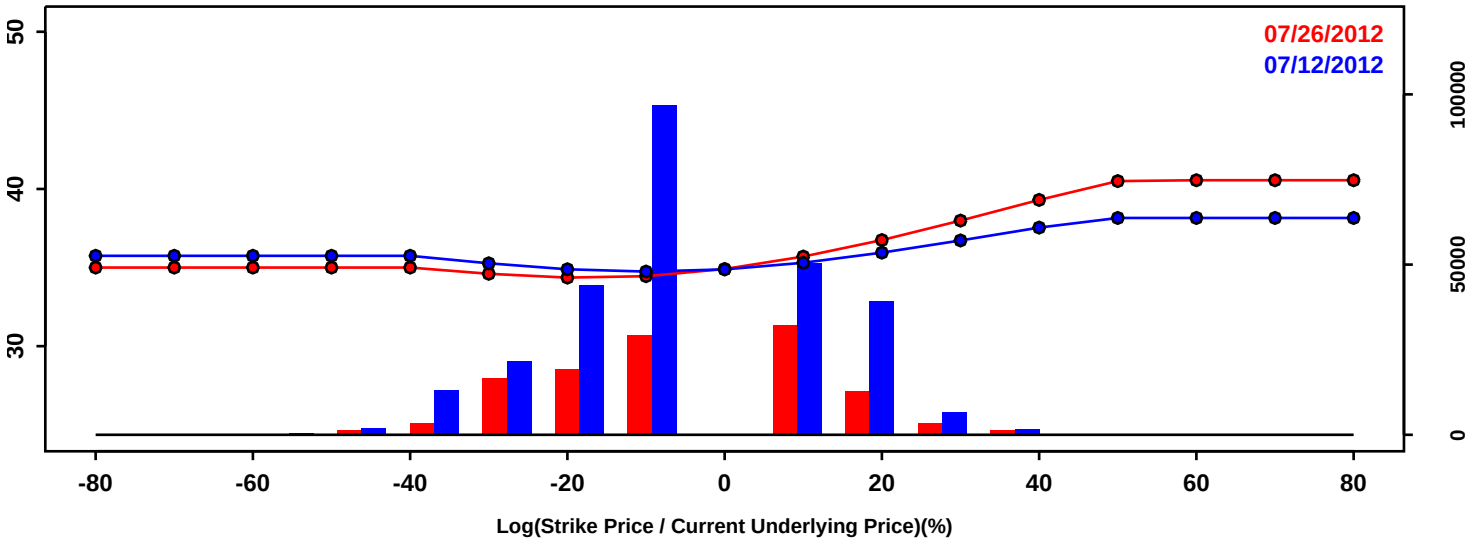
Statistics of the Log Return Distributions

	07/12/2012	07/26/2012	Change
10th Pct	-5.26%	-4.92%	0.34%
50th Pct	0.06%	0.13%	0.08%
90th Pct	5.22%	4.89%	-0.32%
Mean	0.02%	0.09%	0.06%
Std Dev	4.19%	3.92%	-0.27%
Skew	-0.10	-0.19	-0.09
Kurtosis	0.42	0.46	0.04

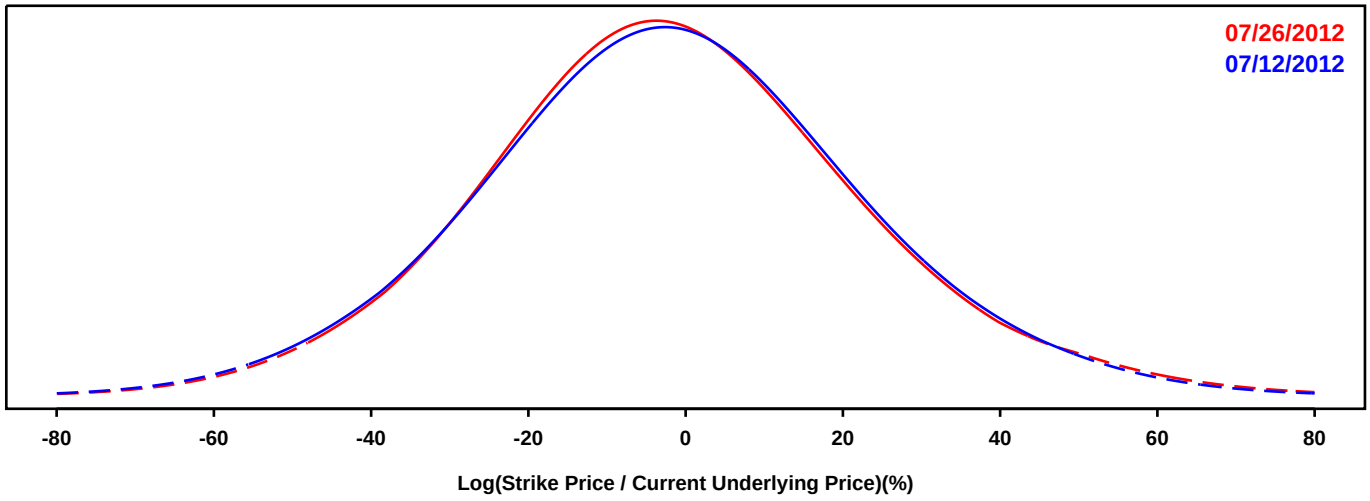
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- CORN FUTURES

Log returns are based on the risk neutral density function of the underlying asset derived from options that expire in approximately 6 months.

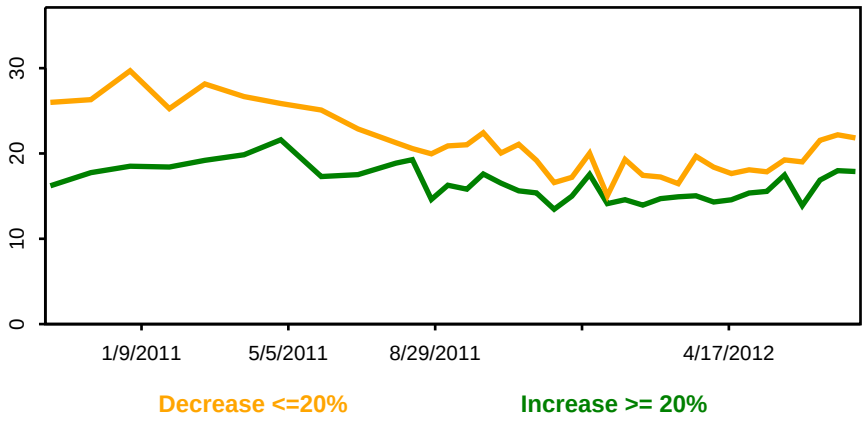
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



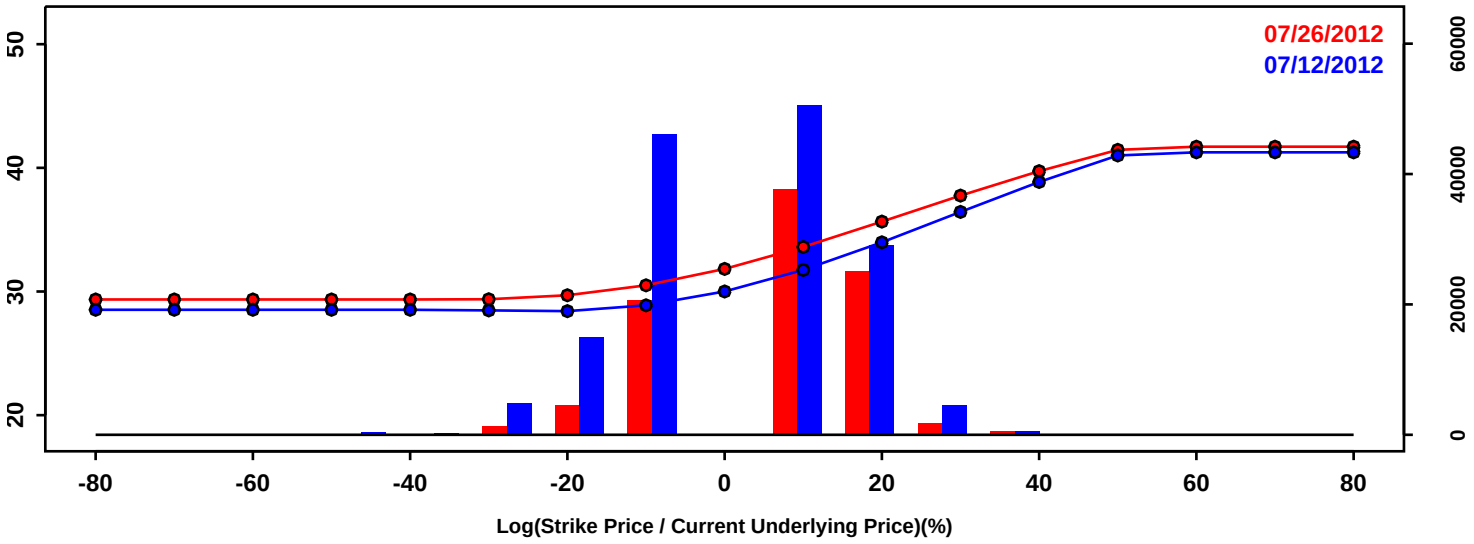
Statistics of the Log Return Distributions

	07/12/2012	07/26/2012	Change
10th Pct	-32.69%	-31.91%	0.78%
50th Pct	-2.12%	-2.29%	-0.18%
90th Pct	29.60%	29.80%	0.20%
Mean	-1.75%	-1.52%	0.23%
Std Dev	24.61%	24.60%	-0.01%
Skew	0.07	0.19	0.11
Kurtosis	0.24	0.38	0.13

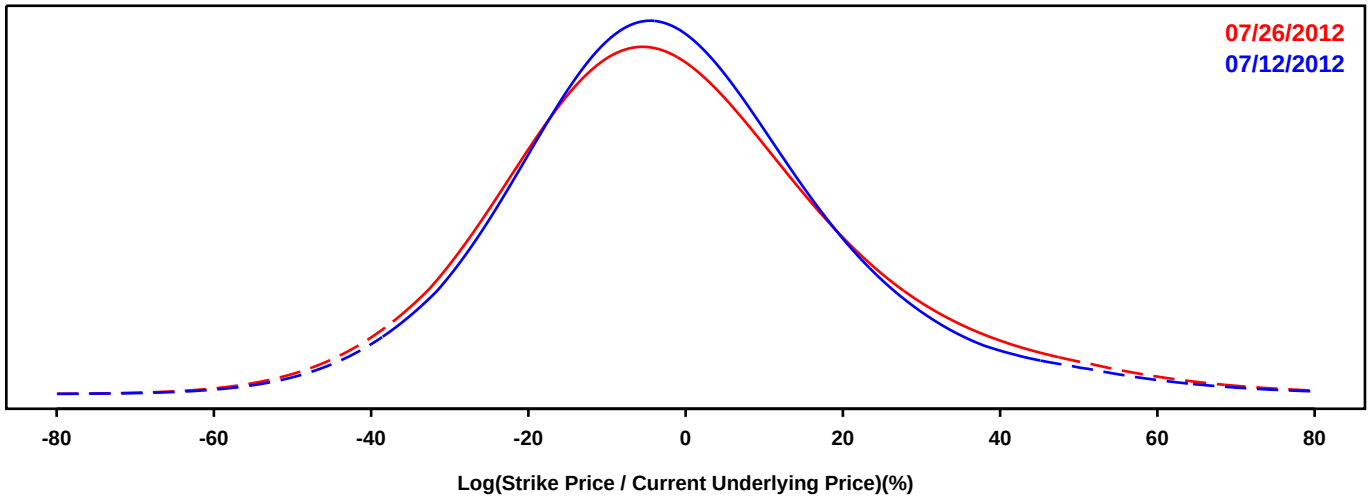
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- SOYBEAN FUTURES

Log returns are based on the risk neutral density function of the underlying asset derived from options that expire in approximately 6 months.

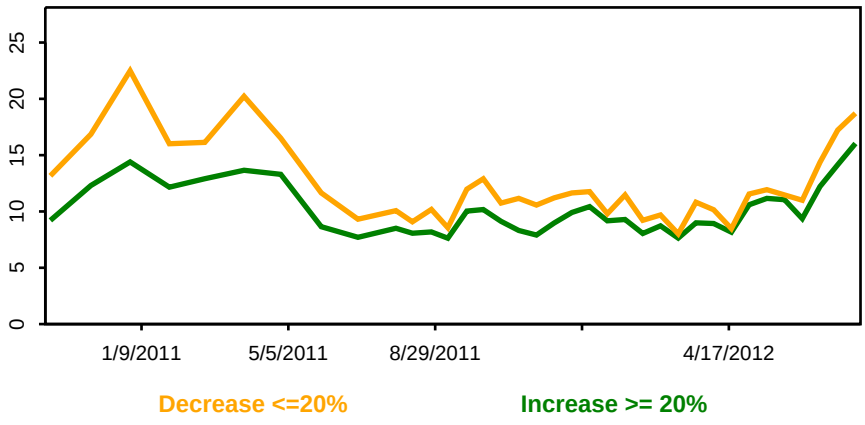
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



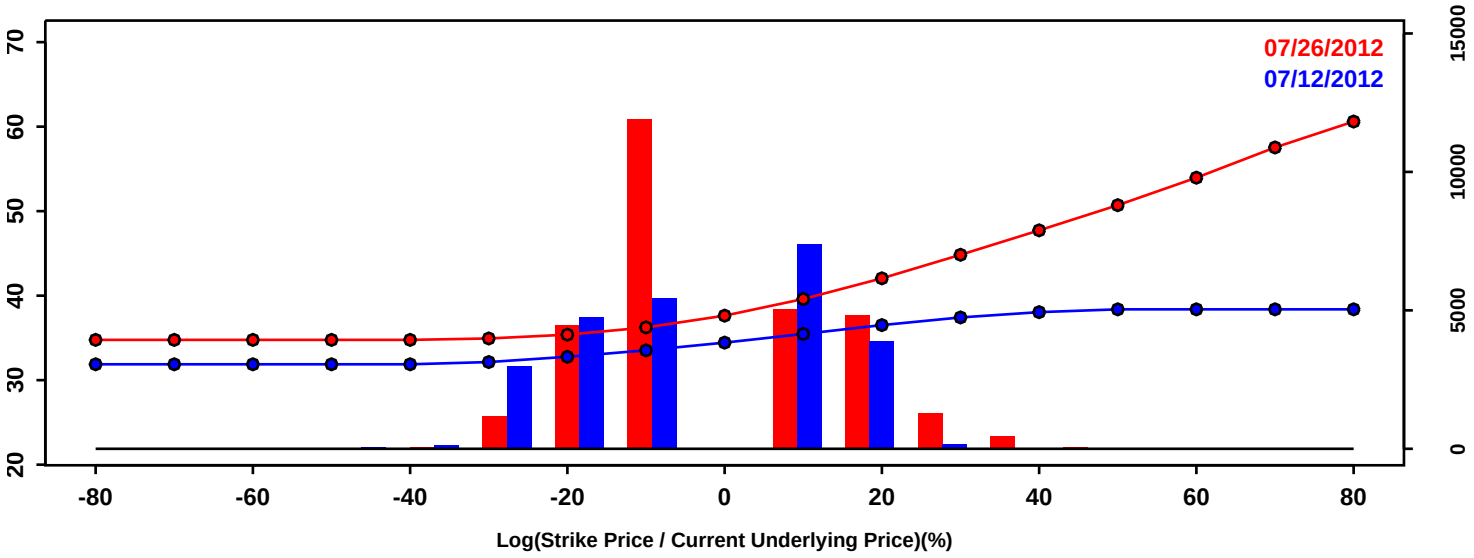
Statistics of the Log Return Distributions

	07/12/2012	07/26/2012	Change
10th Pct	-26.30%	-27.65%	-1.35%
50th Pct	-2.67%	-2.81%	-0.14%
90th Pct	25.50%	28.34%	2.85%
Mean	-1.21%	-0.93%	0.28%
Std Dev	21.26%	22.65%	1.38%
Skew	0.50	0.51	0.01
Kurtosis	0.97	0.76	-0.21

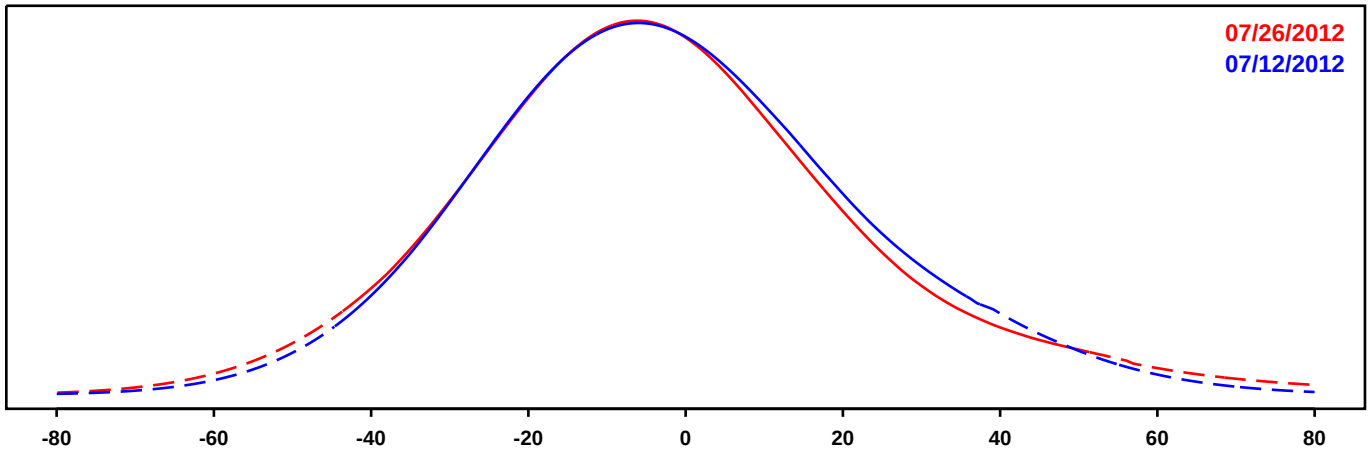
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- WHEAT FUTURES

Log returns are based on the risk neutral density function of the underlying asset derived from options that expire in approximately 6 months.

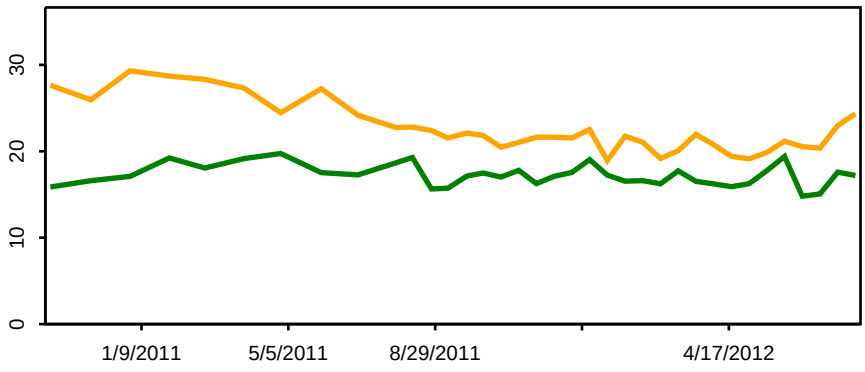
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <=20% Increase >= 20%

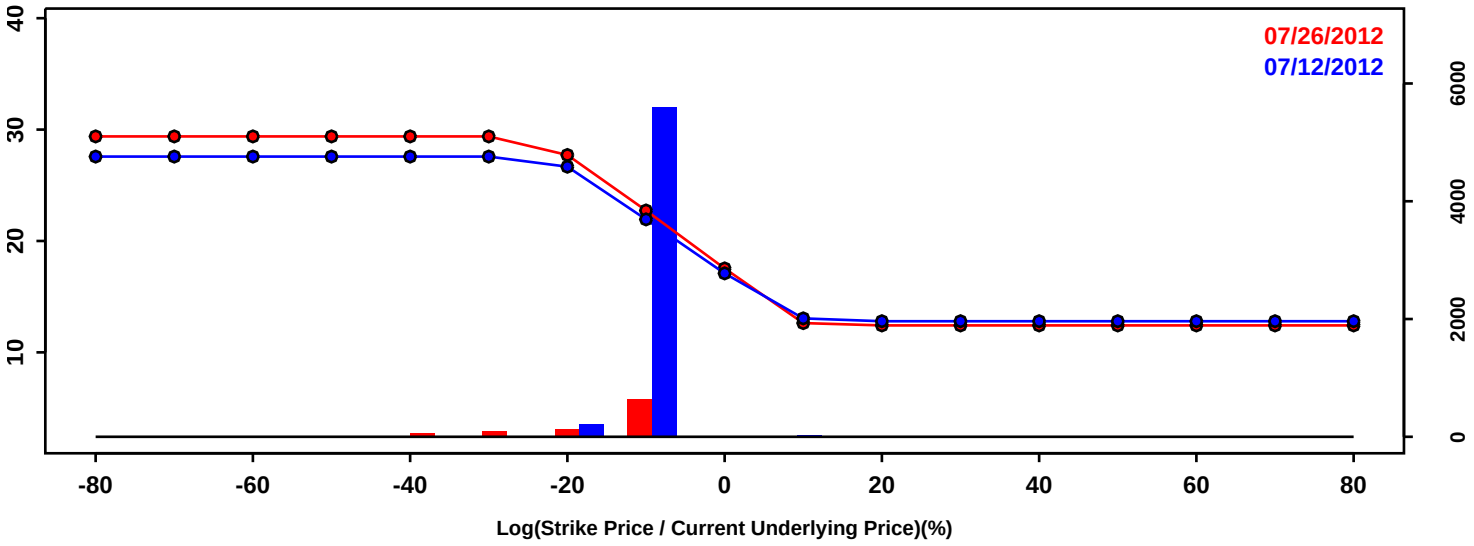
Statistics of the Log Return Distributions

	07/12/2012	07/26/2012	Change
10th Pct	-31.86%	-33.57%	-1.71%
50th Pct	-3.40%	-4.23%	-0.83%
90th Pct	30.09%	31.06%	0.97%
Mean	-2.04%	-2.31%	-0.28%
Std Dev	24.29%	26.50%	2.21%
Skew	0.28	0.54	0.26
Kurtosis	0.18	0.98	0.79

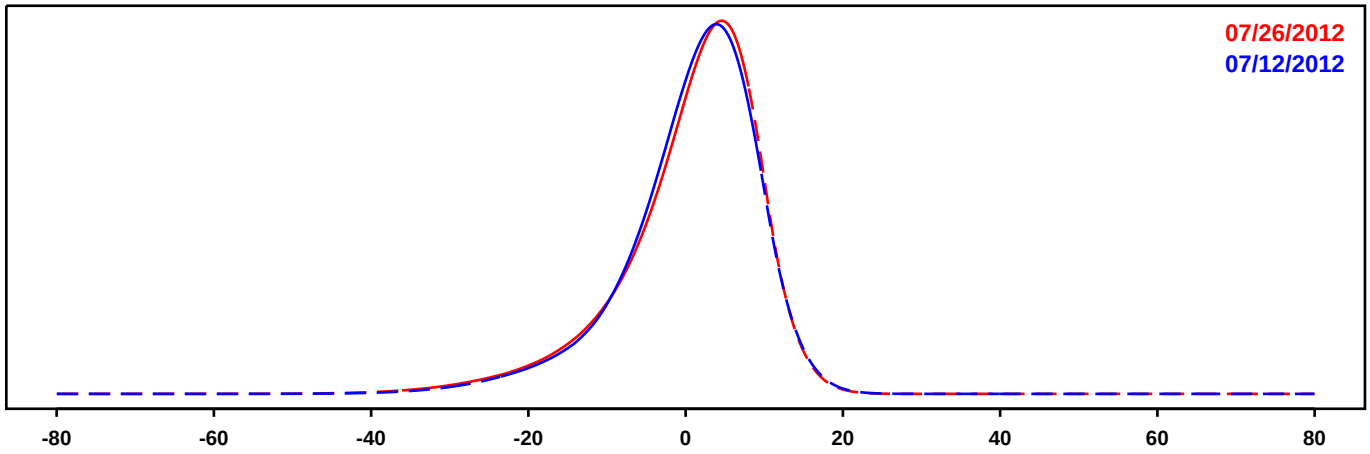
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- iSHARES DOW JONES US REAL ESTATE

Log returns are based on the risk neutral density function of the underlying asset derived from options that expire in approximately 3 months.

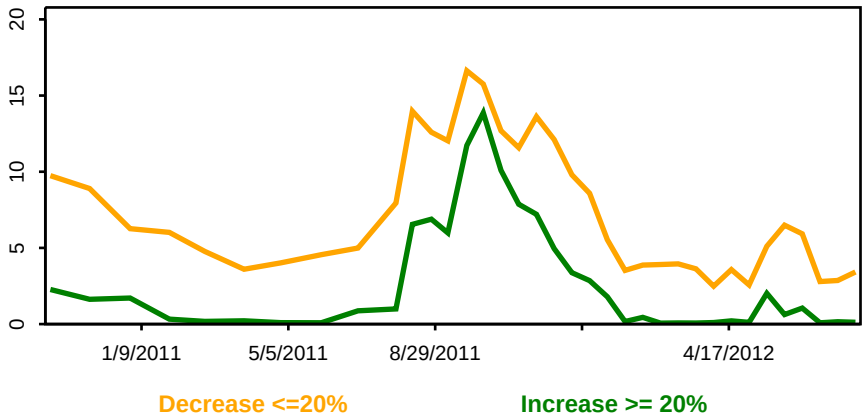
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Statistics of the Log Return Distributions

	07/12/2012	07/26/2012	Change
10th Pct	-10.38%	-11.20%	-0.82%
50th Pct	1.97%	2.19%	0.22%
90th Pct	10.07%	10.03%	-0.04%
Mean	0.72%	0.59%	-0.12%
Std Dev	8.62%	9.00%	0.37%
Skew	-1.05	-1.18	-0.13
Kurtosis	1.97	2.22	0.25