Minneapolis Options Report August 24th

Commodity Markets

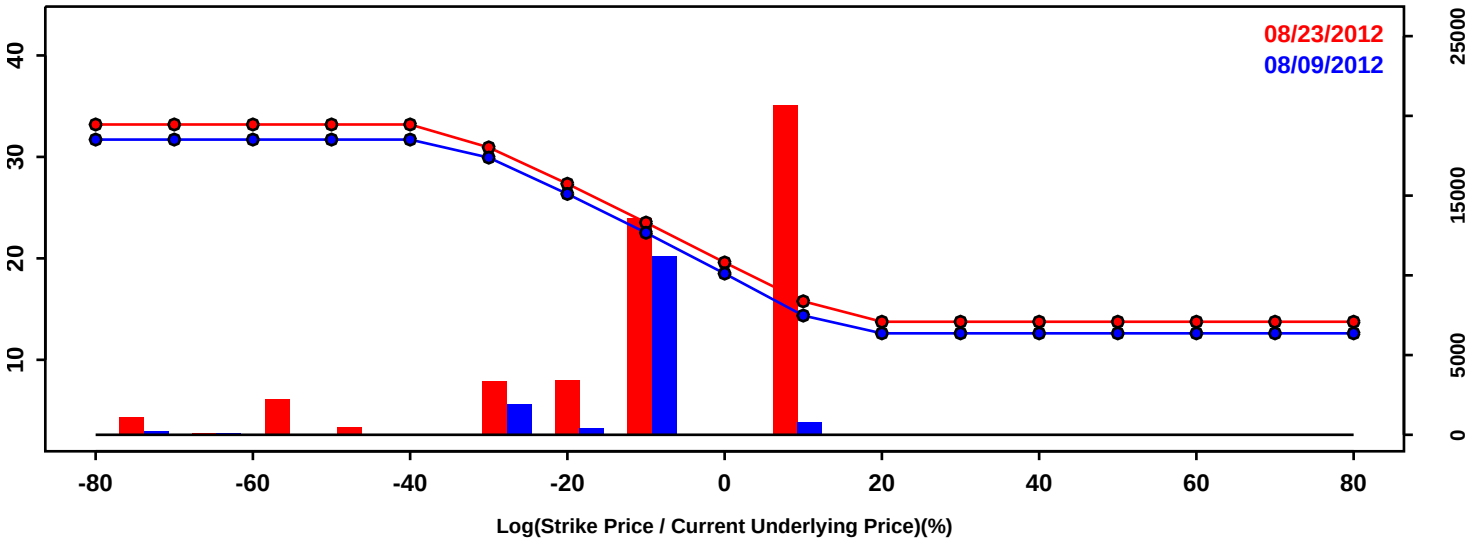
Market Notes:

- Trading on S&P 500 Index options was light this week for both expiries that we follow. RNPD standard deviations rose slightly but are still below recent highs (see S&P 500 reports).
- RNPD standard deviations rose in the two oil markets that we follow (see WTI and Brent reports) and options trading rose for the first time since June.
- Trading activity fell again in the exchange rate markets as did the RNPD standard deviations. (see Dollar-Euro, Dollar-Pound, and Yen-Dollar reports).
- Activity in the grain markets remained well off the recent highs and RNPD standard deviations shrank again. RNPD skews remain positive for these three markets.
- Traders in options on the Dow Jones Real Estate Index remained active. Last week was the sixth highest level of trading we have recorded since October of 2010 (See DJ Real Estate report).

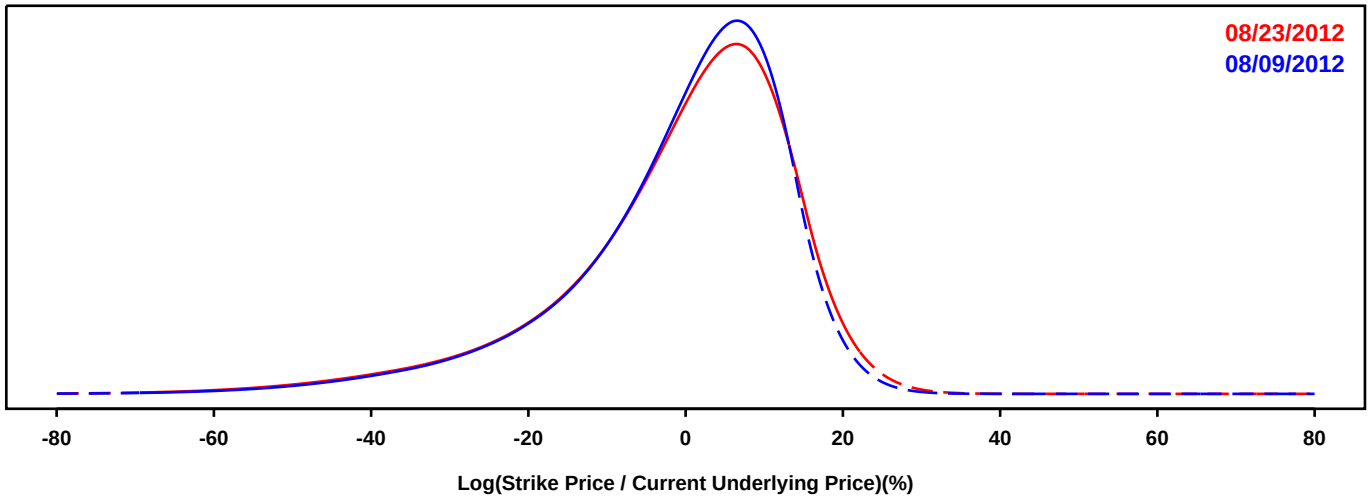
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- S&P 500

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

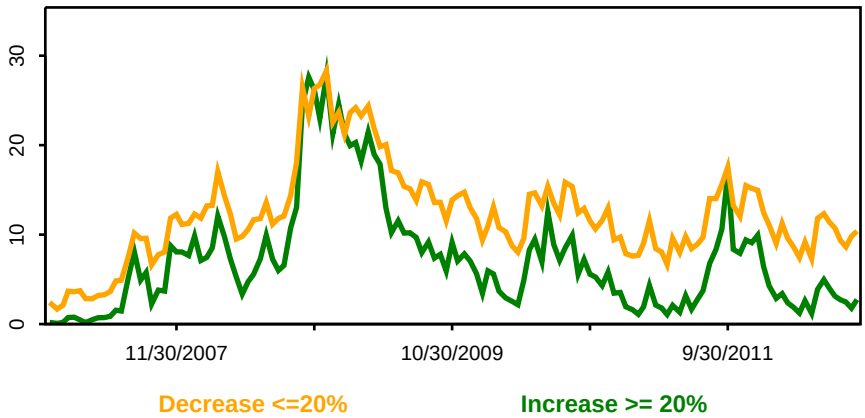
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



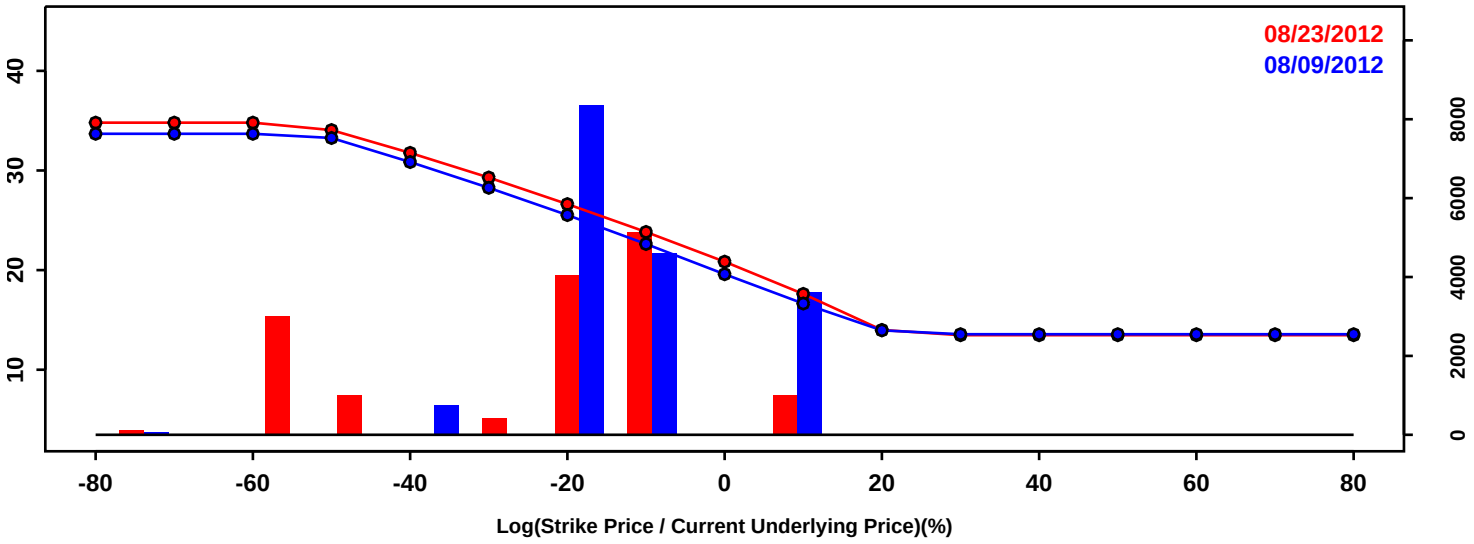
Statistics of the Log Return Distributions

	08/09/2012	08/23/2012	Change
10th Pct	-19.76%	-20.54%	-0.77%
50th Pct	2.14%	2.13%	-0.01%
90th Pct	13.67%	14.57%	0.90%
Mean	-0.83%	-0.82%	0.01%
Std Dev	14.17%	14.89%	0.72%
Skew	-1.27	-1.24	0.04
Kurtosis	2.30	2.25	-0.05

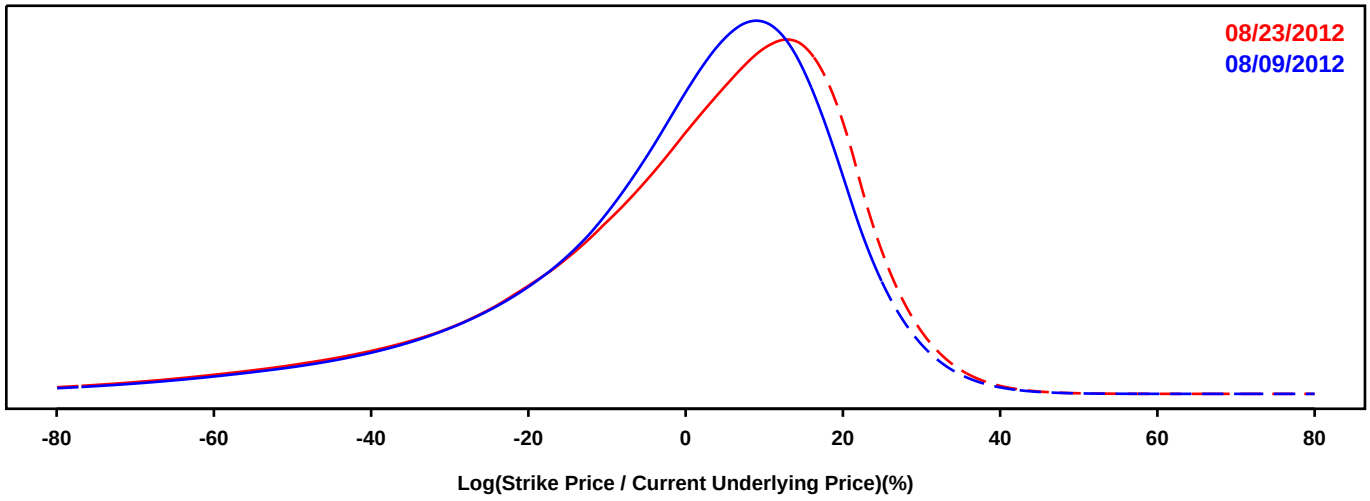
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- S&P 500

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

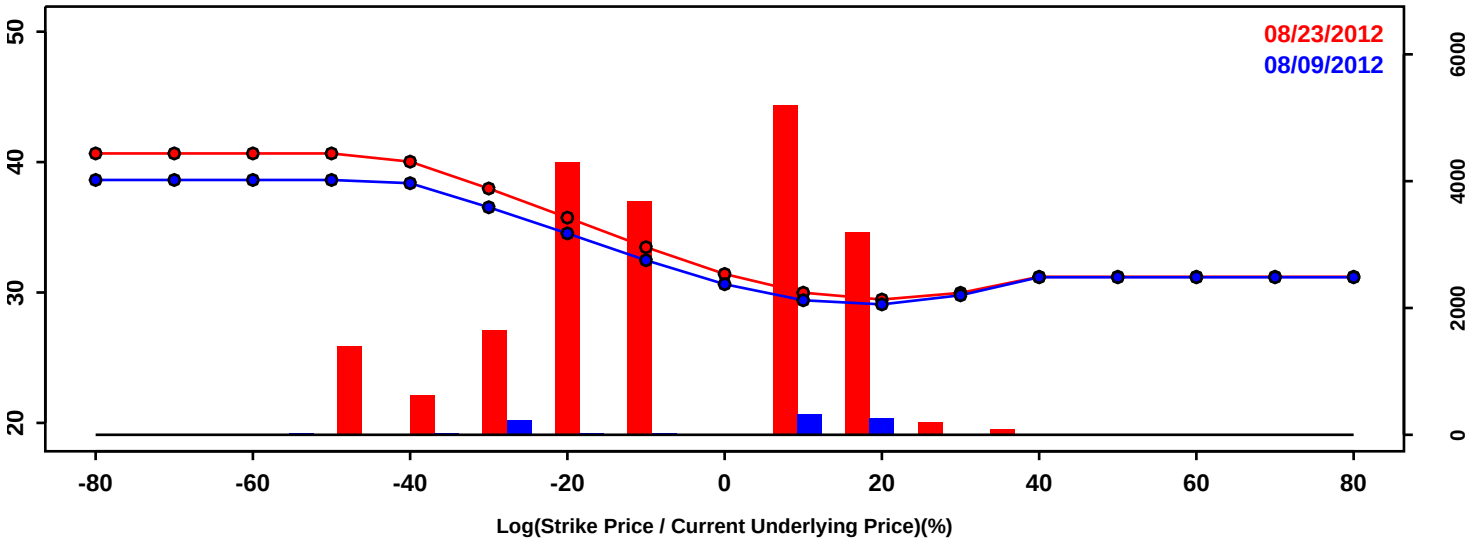
Statistics of the Log Return Distributions

	08/09/2012	08/23/2012	Change
10th Pct	-29.34%	-30.86%	-1.52%
50th Pct	3.22%	4.24%	1.02%
90th Pct	20.15%	21.67%	1.52%
Mean	-1.24%	-0.77%	0.47%
Std Dev	21.10%	22.31%	1.21%
Skew	-1.31	-1.30	0.01
Kurtosis	2.45	2.26	-0.20

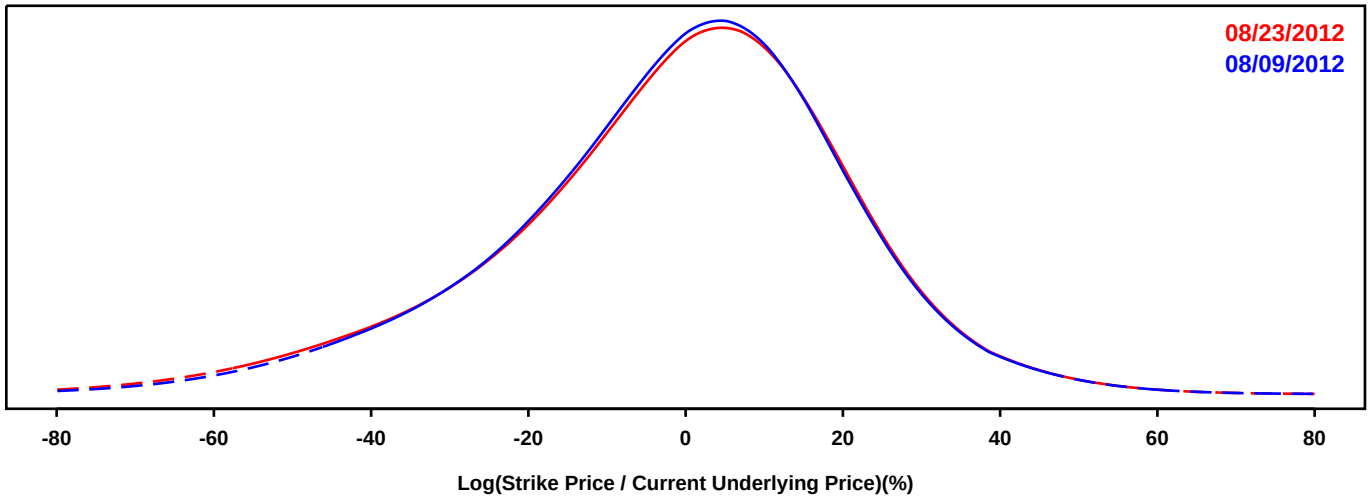
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- CRUDE OIL FUTURES (WTI)

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

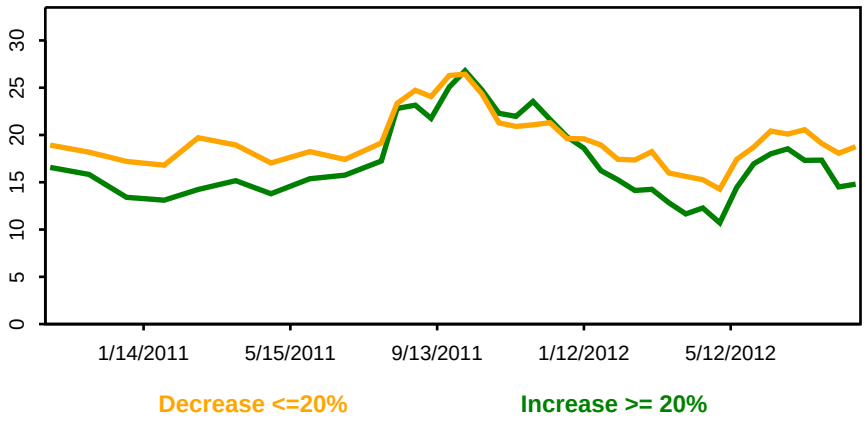
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



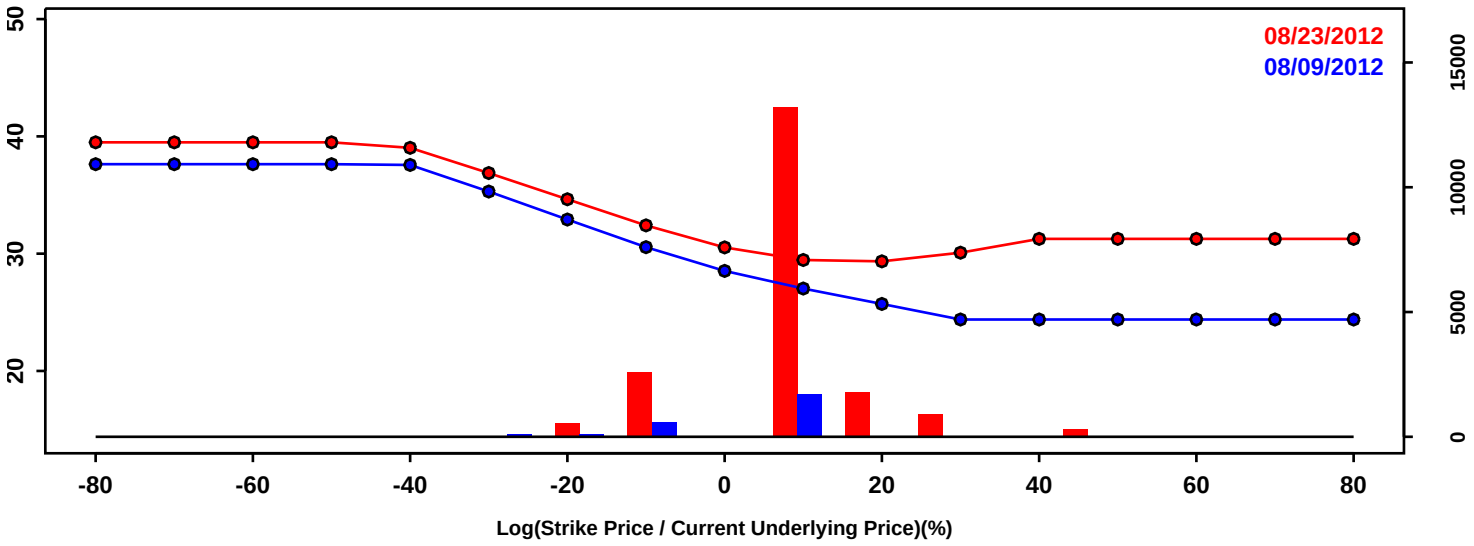
Statistics of the Log Return Distributions

	08/09/2012	08/23/2012	Change
10th Pct	-30.56%	-31.94%	-1.38%
50th Pct	0.81%	0.82%	0.01%
90th Pct	24.09%	24.29%	0.20%
Mean	-1.30%	-1.61%	-0.31%
Std Dev	22.01%	22.71%	0.70%
Skew	-0.48	-0.56	-0.08
Kurtosis	0.69	0.78	0.09

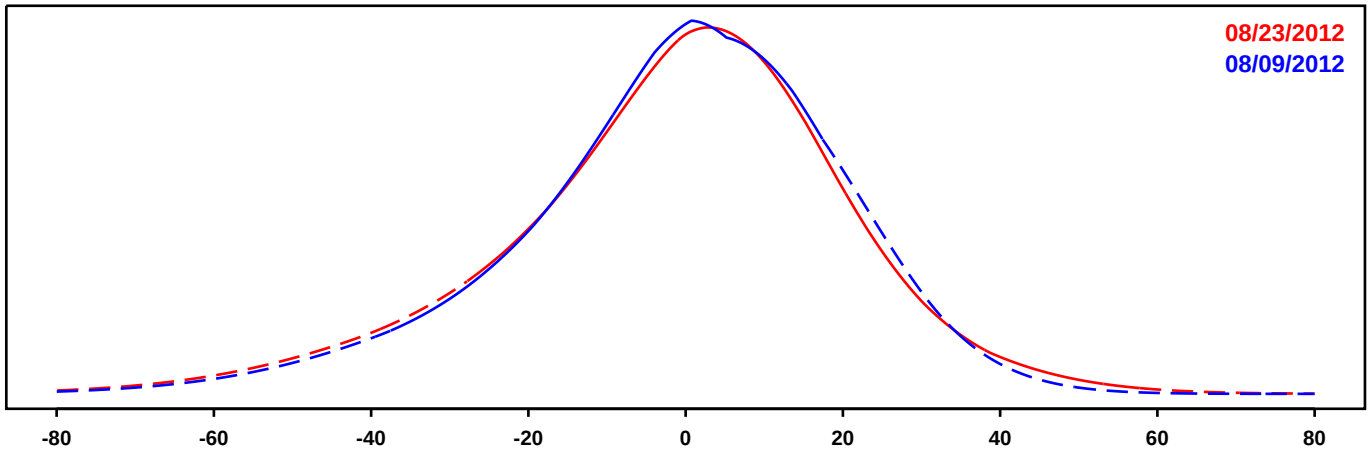
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- CRUDE OIL FUTURES (Brent)

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

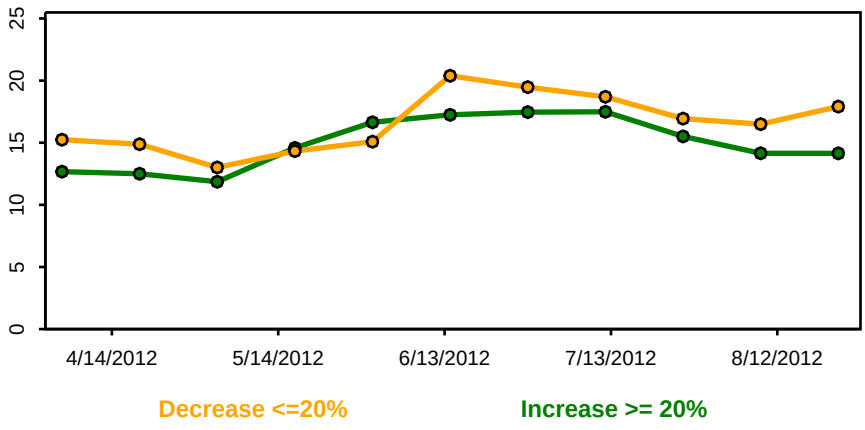
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



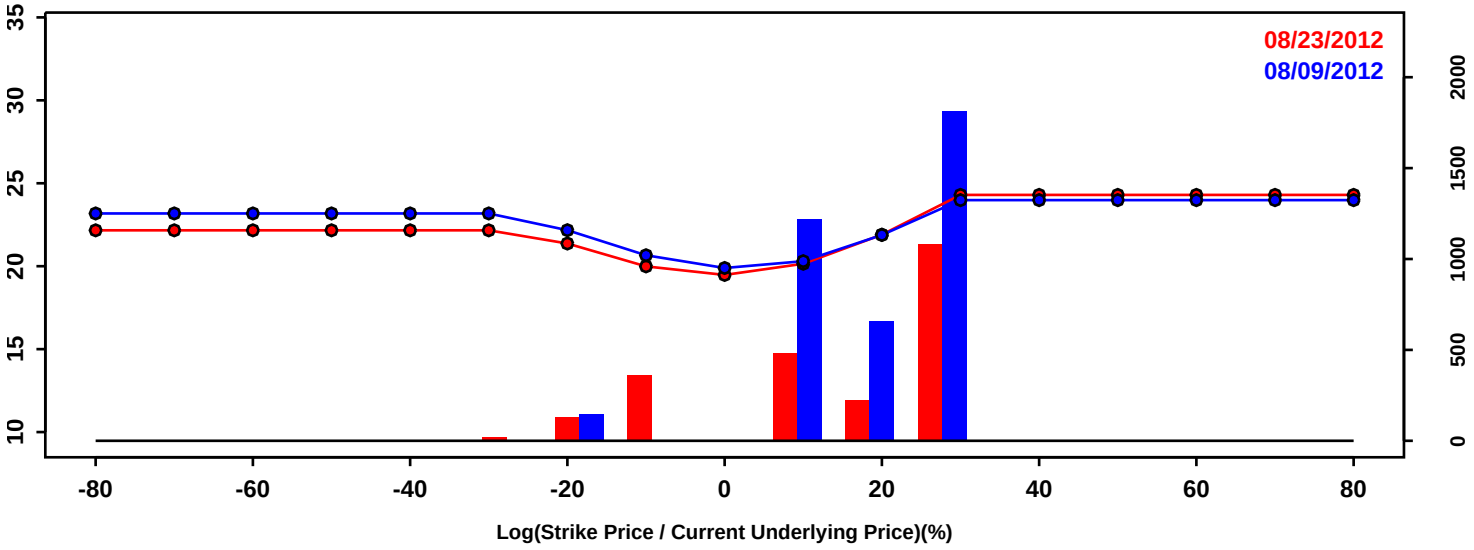
Statistics of the Log Return Distributions

	08/09/2012	08/23/2012	Change
10th Pct	-28.38%	-30.43%	-2.05%
50th Pct	0.85%	0.56%	-0.29%
90th Pct	23.49%	23.95%	0.46%
Mean	-1.01%	-1.46%	-0.45%
Std Dev	20.74%	22.02%	1.28%
Skew	-0.58	-0.49	0.10
Kurtosis	0.71	0.81	0.10

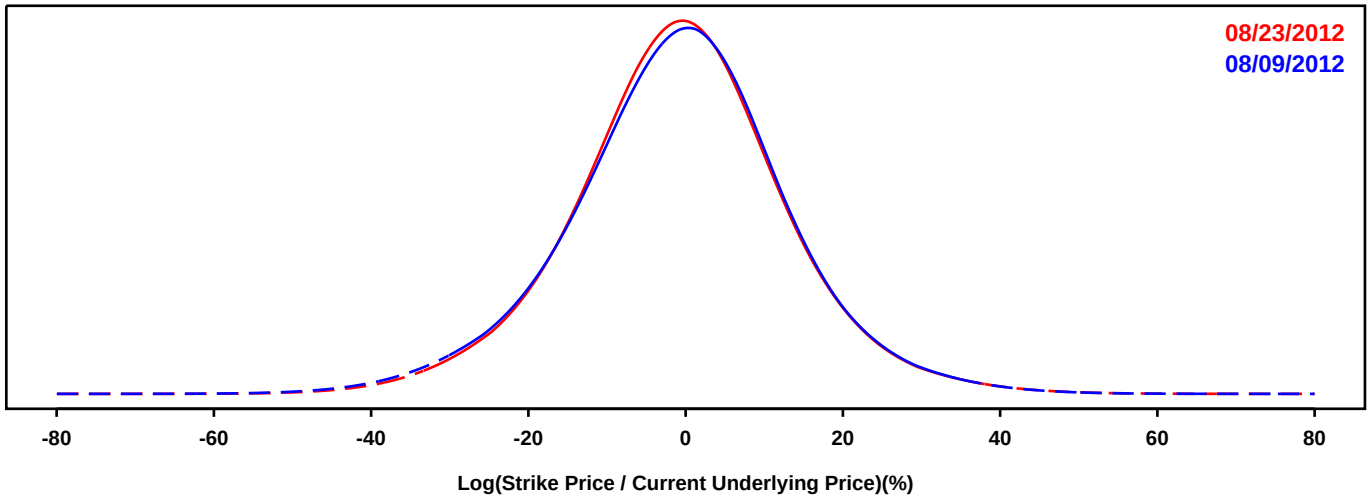
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- GOLD FUTURES

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

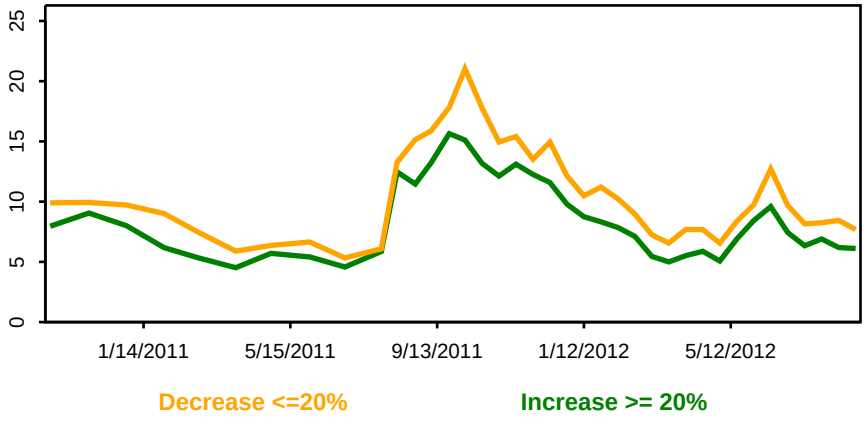
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



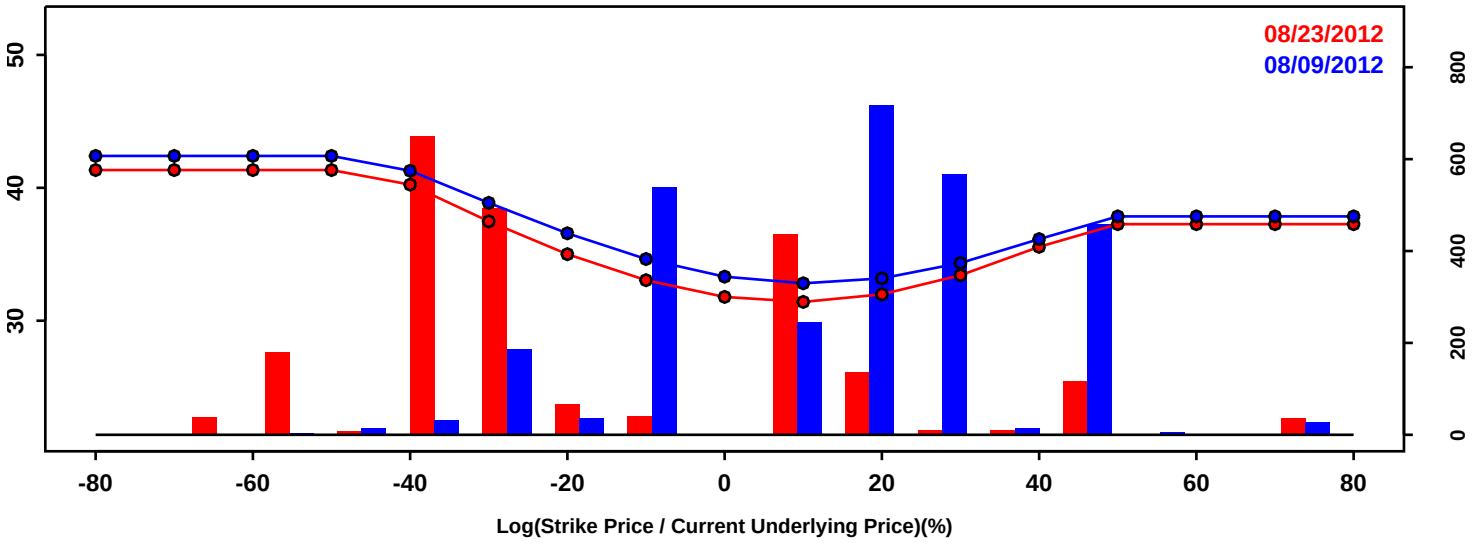
Statistics of the Log Return Distributions

	08/09/2012	08/23/2012	Change
10th Pct	-18.45%	-17.72%	0.73%
50th Pct	-0.51%	-0.68%	-0.17%
90th Pct	16.05%	15.93%	-0.12%
Mean	-0.83%	-0.73%	0.10%
Std Dev	14.04%	13.71%	-0.33%
Skew	-0.08	0.01	0.09
Kurtosis	0.71	0.73	0.02

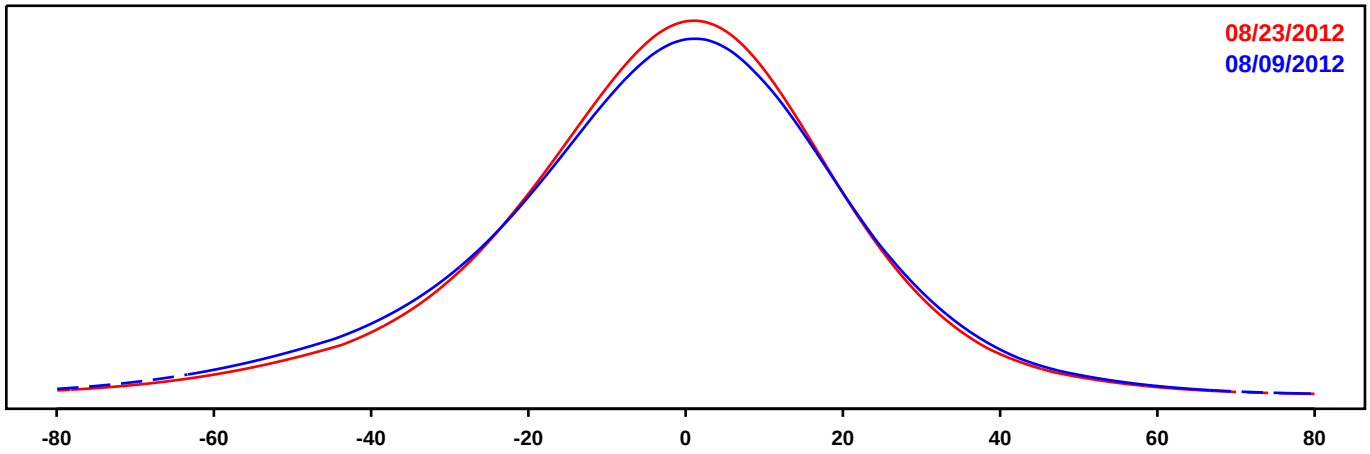
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- SILVER FUTURES

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

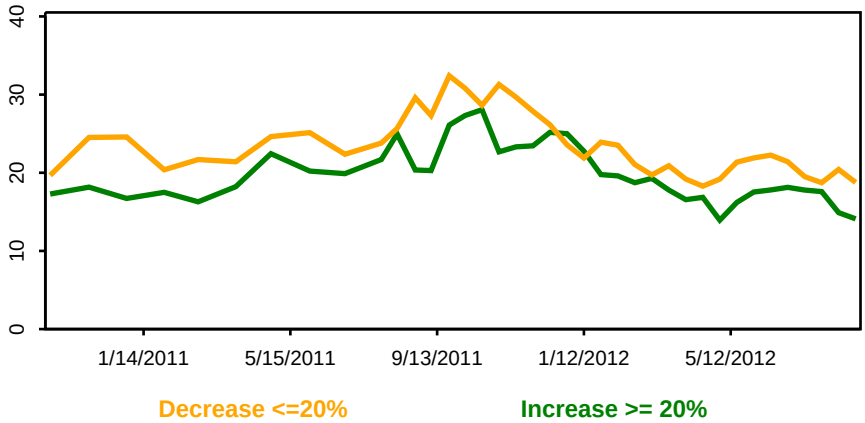
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



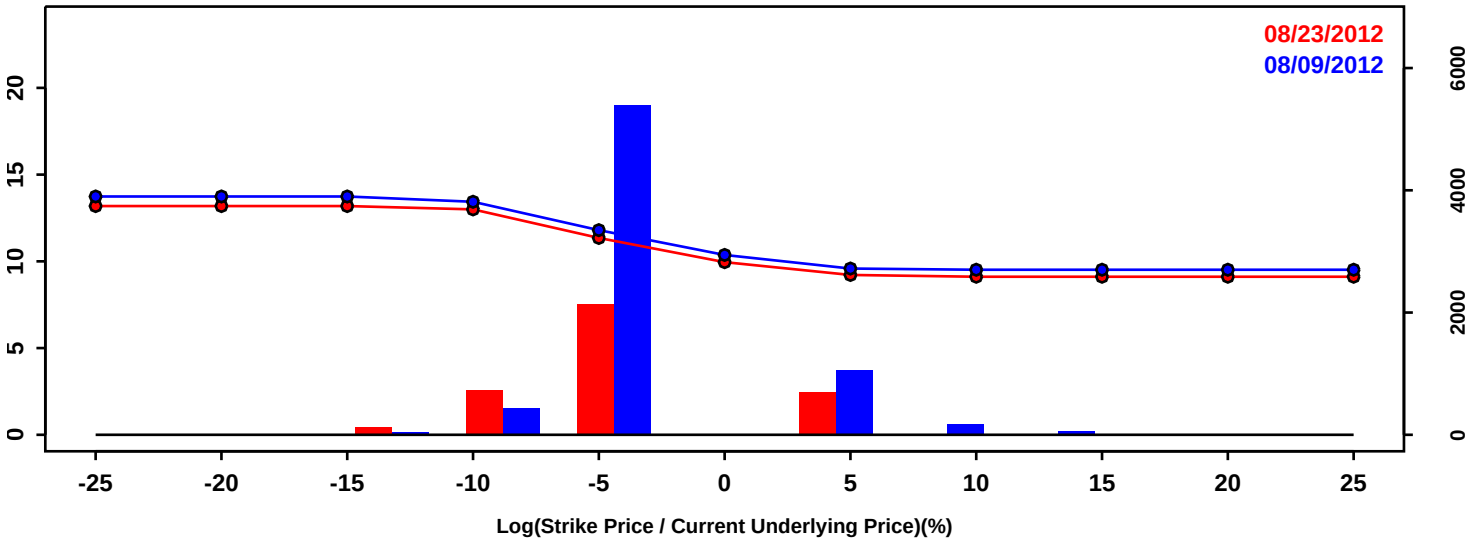
Statistics of the Log Return Distributions

	08/09/2012	08/23/2012	Change
10th Pct	-33.05%	-30.42%	2.63%
50th Pct	-1.08%	-0.85%	0.23%
90th Pct	25.19%	24.24%	-0.95%
Mean	-2.62%	-2.10%	0.53%
Std Dev	23.77%	22.53%	-1.24%
Skew	-0.38	-0.34	0.03
Kurtosis	0.83	0.95	0.12

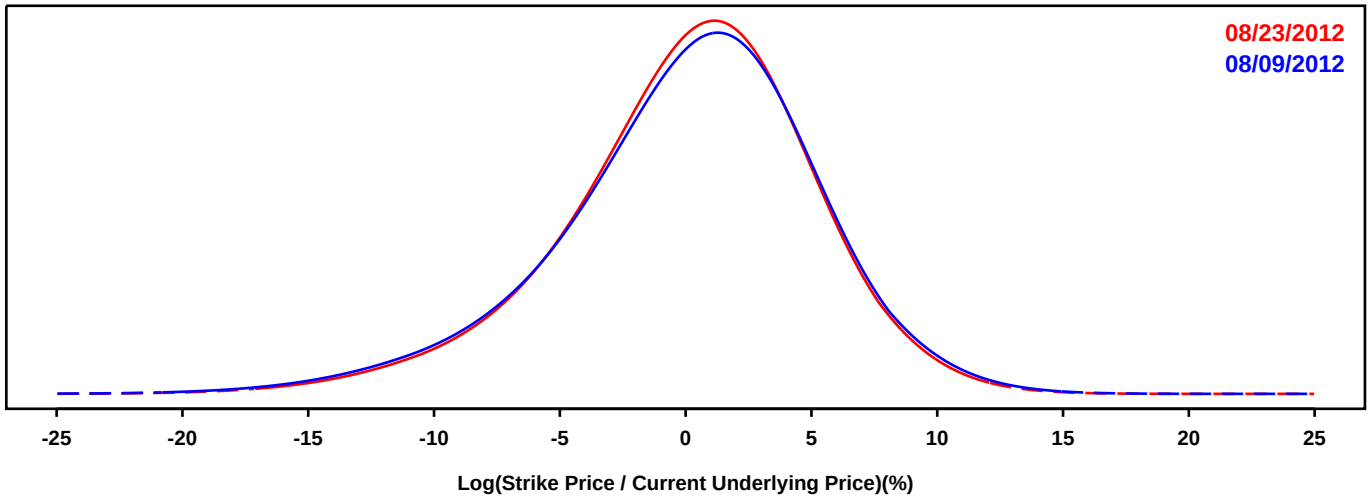
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- DOLLAR-EURO EXCHANGE RATE FUTURES

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

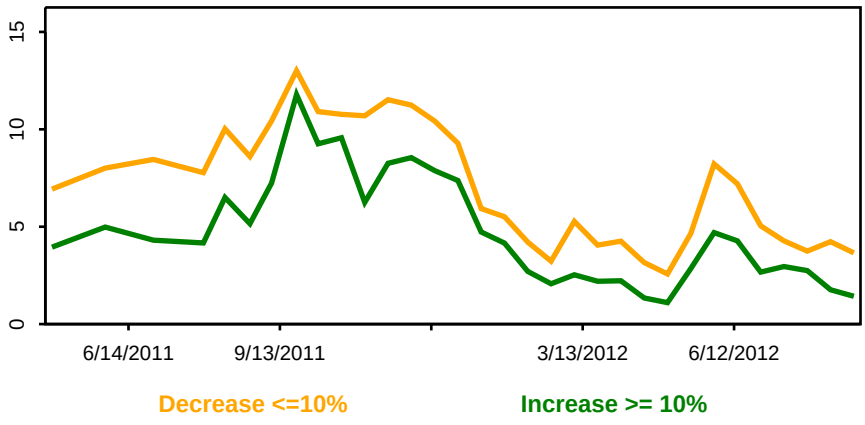
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



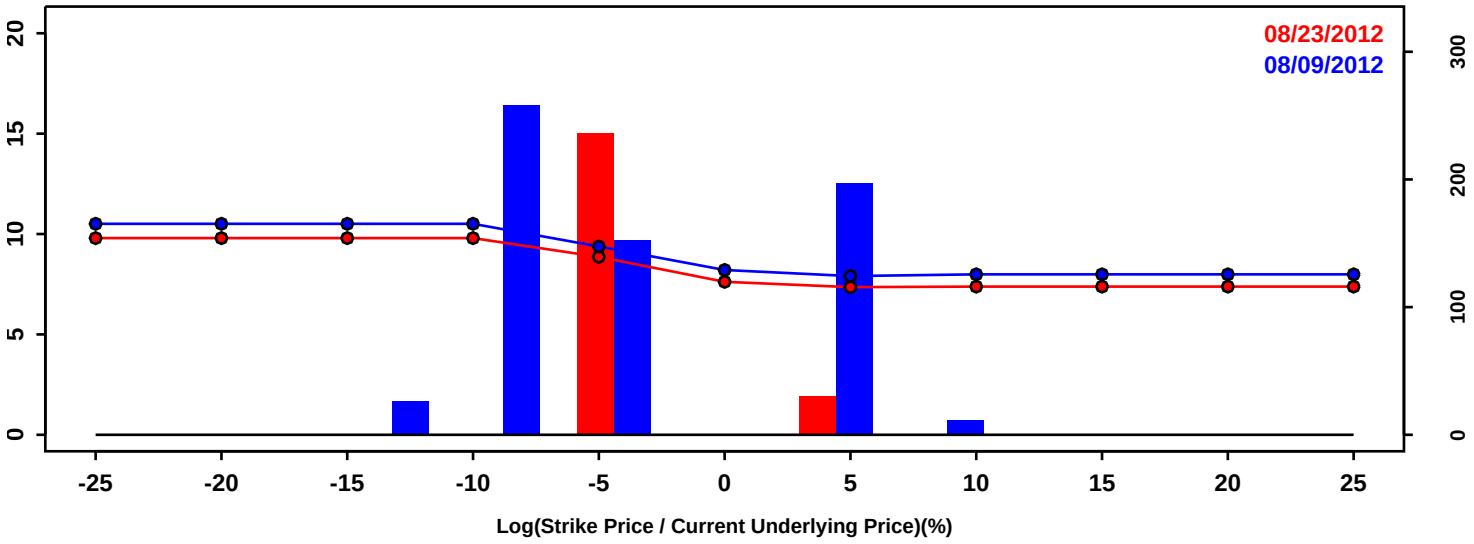
Statistics of the Log Return Distributions

	08/09/2012	08/23/2012	Change
10th Pct	-6.74%	-6.42%	0.32%
50th Pct	0.55%	0.50%	-0.05%
90th Pct	6.18%	5.97%	-0.22%
Mean	0.09%	0.09%	0.01%
Std Dev	5.22%	5.00%	-0.22%
Skew	-0.53	-0.51	0.02
Kurtosis	0.78	0.76	-0.03

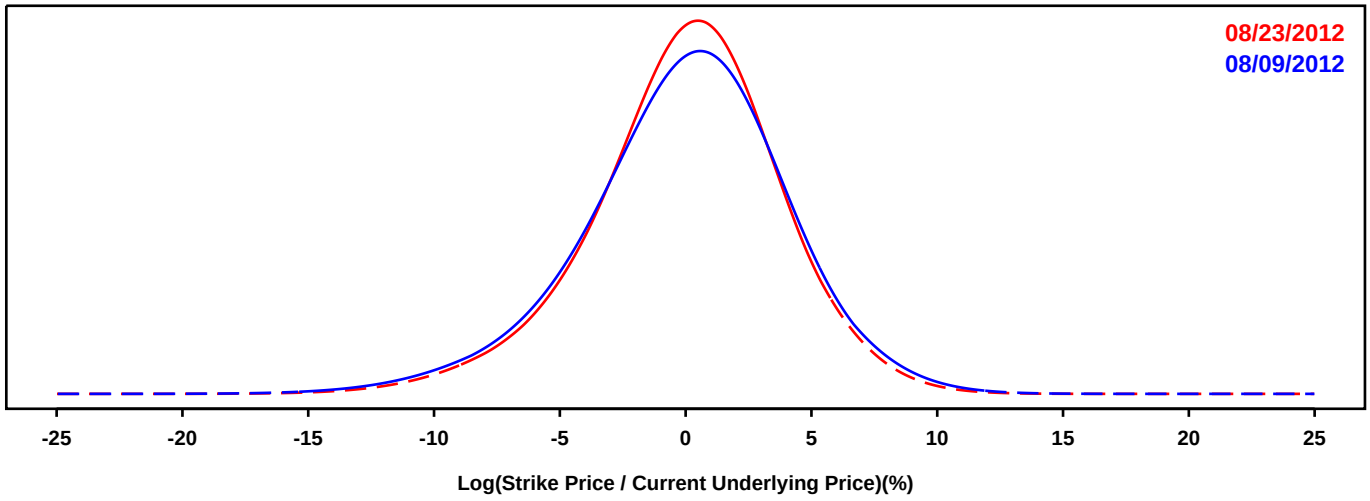
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- DOLLAR-POUND EXCHANGE RATE FUTURES

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

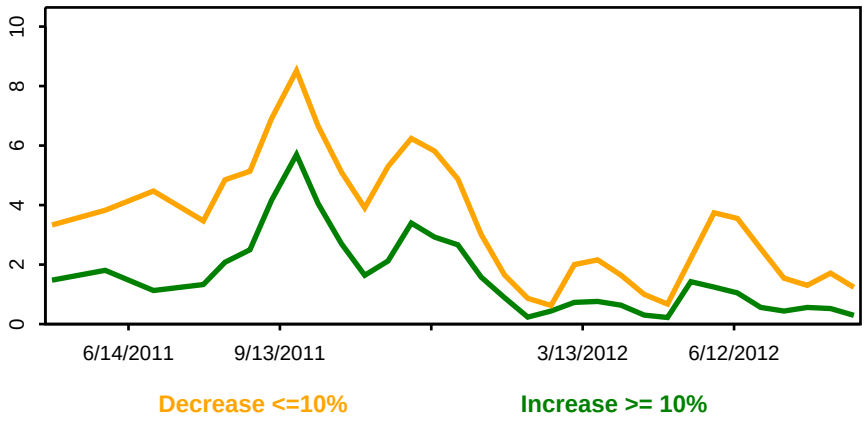
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



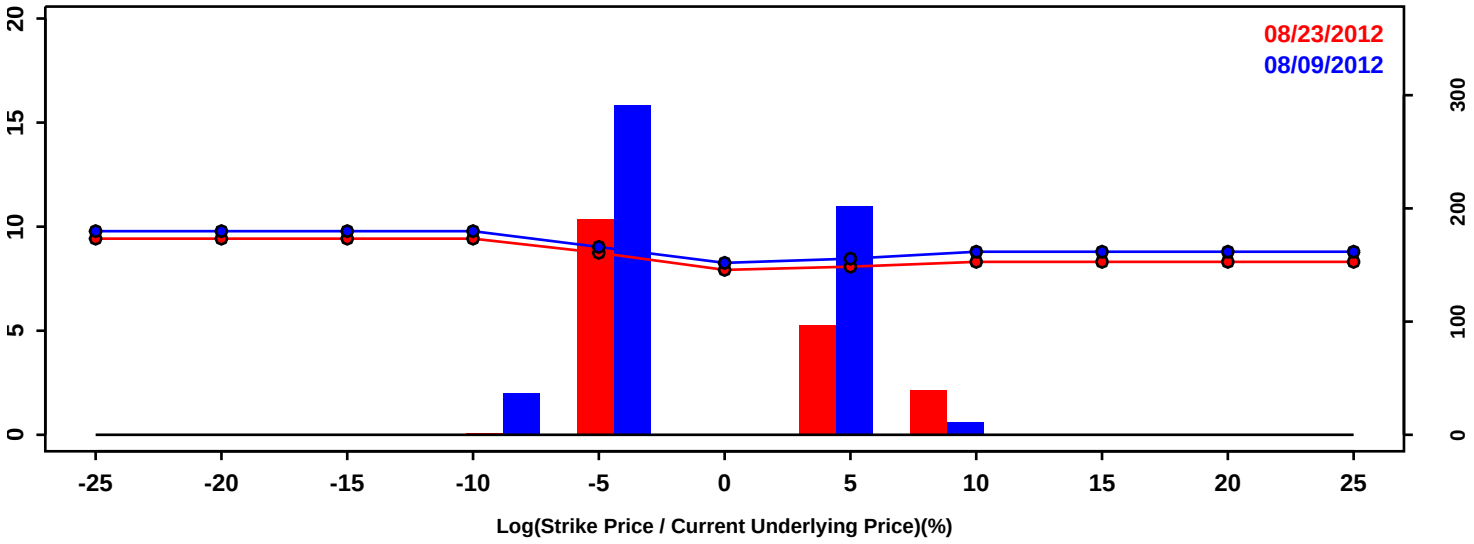
Statistics of the Log Return Distributions

	08/09/2012	08/23/2012	Change
10th Pct	-5.31%	-4.91%	0.40%
50th Pct	0.20%	0.21%	0.01%
90th Pct	4.90%	4.59%	-0.31%
Mean	-0.02%	-0.00%	0.02%
Std Dev	4.11%	3.83%	-0.29%
Skew	-0.37	-0.37	-0.00
Kurtosis	0.64	0.67	0.03

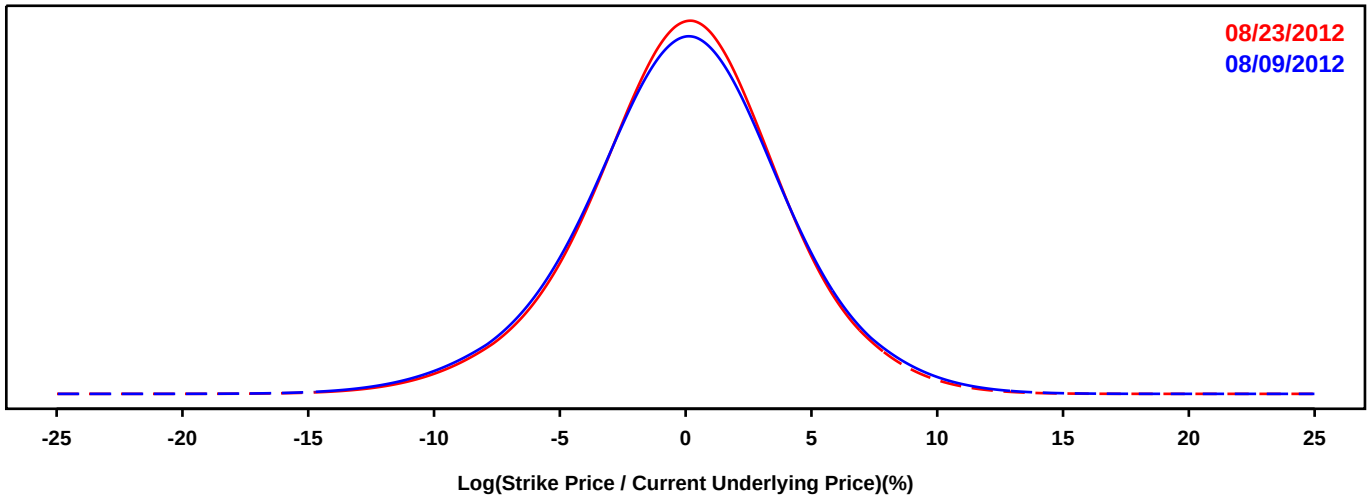
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- YEN-DOLLAR EXCHANGE RATE FUTURES

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

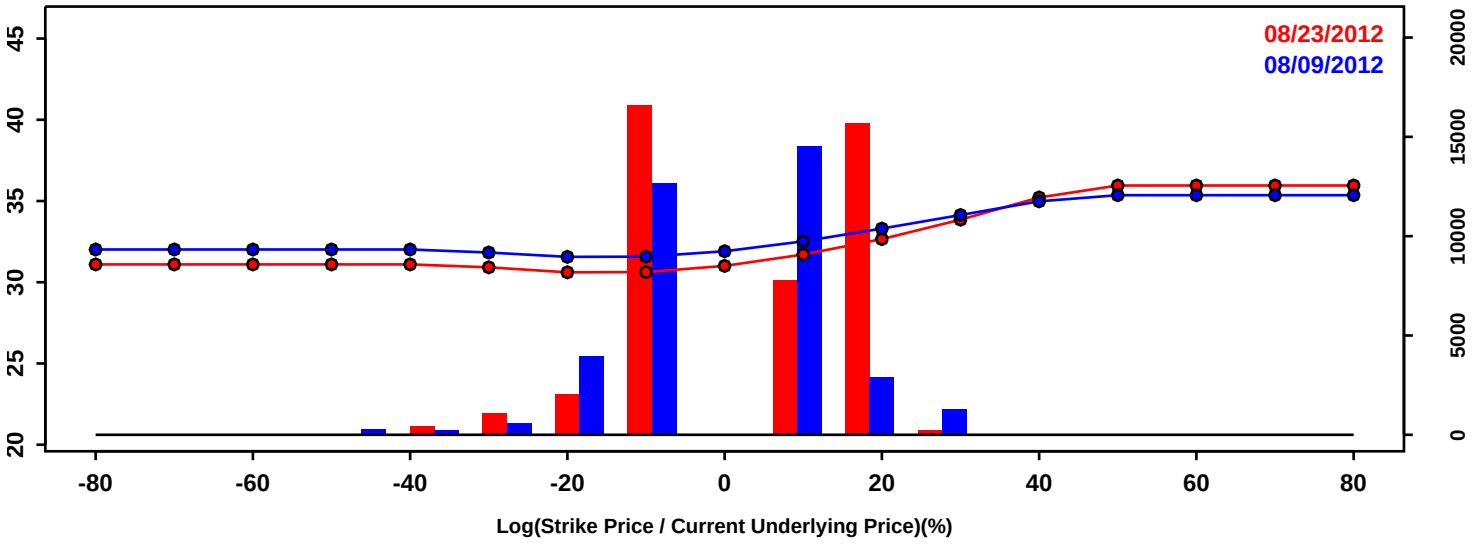
Statistics of the Log Return Distributions

	08/09/2012	08/23/2012	Change
10th Pct	-5.27%	-5.04%	0.23%
50th Pct	0.00%	0.04%	0.04%
90th Pct	5.01%	4.83%	-0.19%
Mean	-0.05%	-0.03%	0.03%
Std Dev	4.12%	3.96%	-0.17%
Skew	-0.14	-0.16	-0.02
Kurtosis	0.52	0.51	-0.01

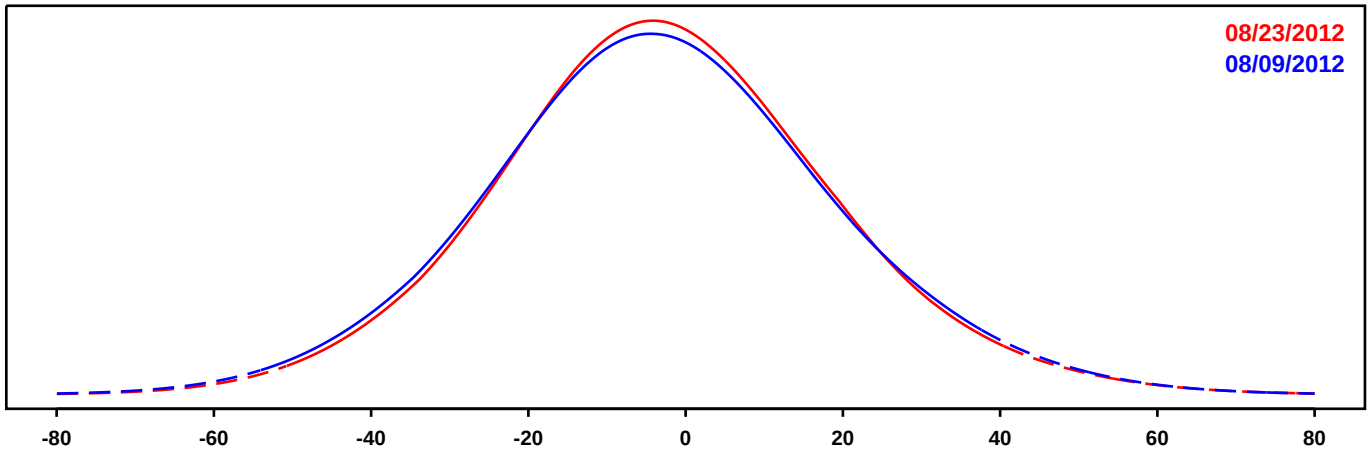
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- CORN FUTURES

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

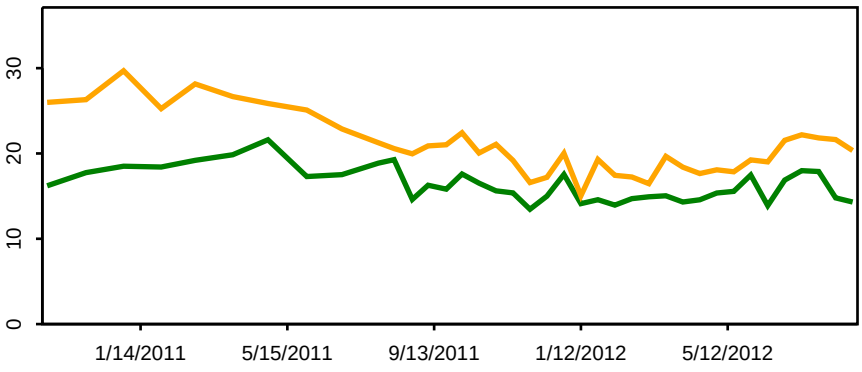
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <=20% Increase >= 20%

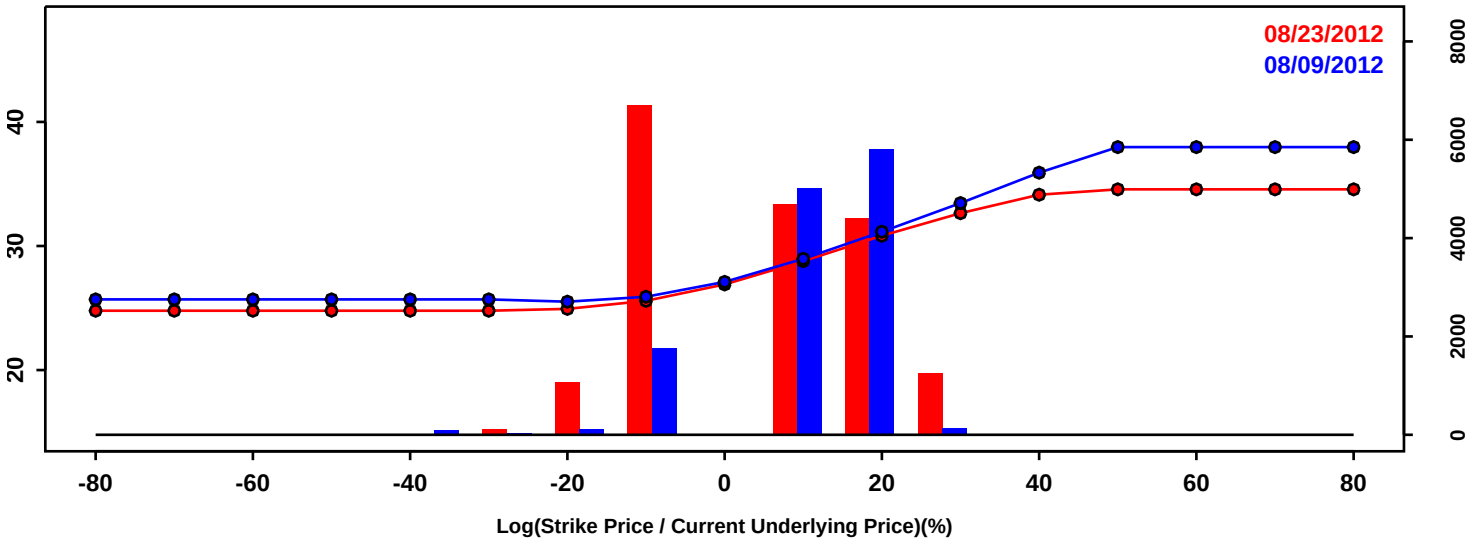
Statistics of the Log Return Distributions

	08/09/2012	08/23/2012	Change
10th Pct	-30.95%	-29.58%	1.38%
50th Pct	-3.43%	-3.10%	0.33%
90th Pct	25.82%	25.04%	-0.78%
Mean	-2.92%	-2.55%	0.36%
Std Dev	22.39%	21.72%	-0.67%
Skew	0.11	0.14	0.03
Kurtosis	0.23	0.32	0.09

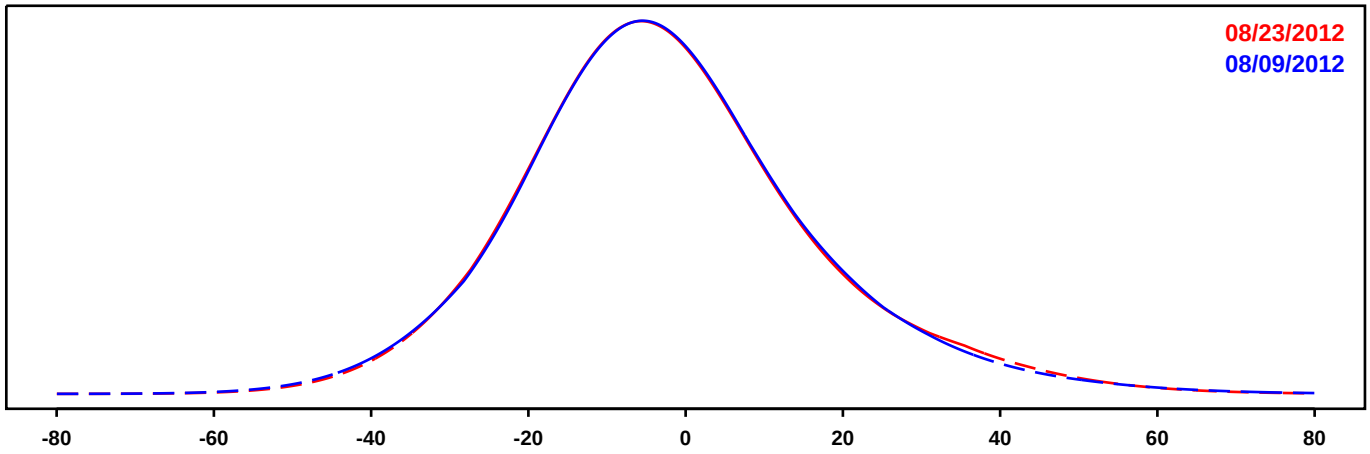
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- SOYBEAN FUTURES

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

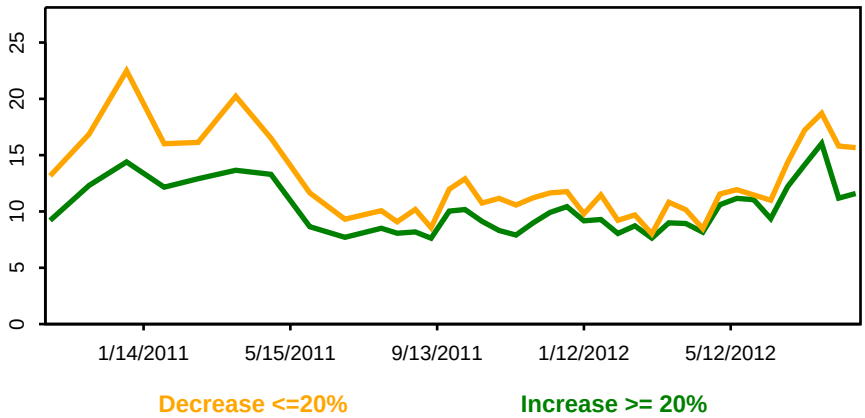
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



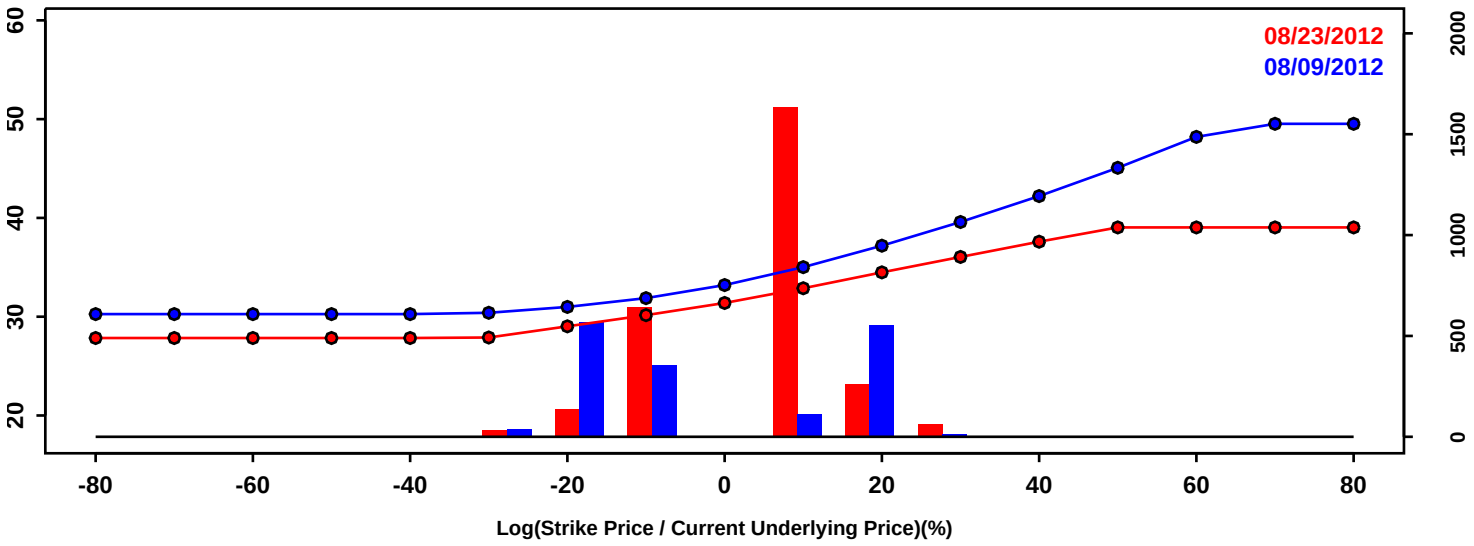
Statistics of the Log Return Distributions

	08/09/2012	08/23/2012	Change
10th Pct	-24.79%	-24.53%	0.26%
50th Pct	-3.74%	-3.75%	-0.00%
90th Pct	21.52%	22.17%	0.65%
Mean	-2.46%	-2.25%	0.21%
Std Dev	18.83%	18.84%	0.01%
Skew	0.45	0.48	0.03
Kurtosis	0.85	0.72	-0.13

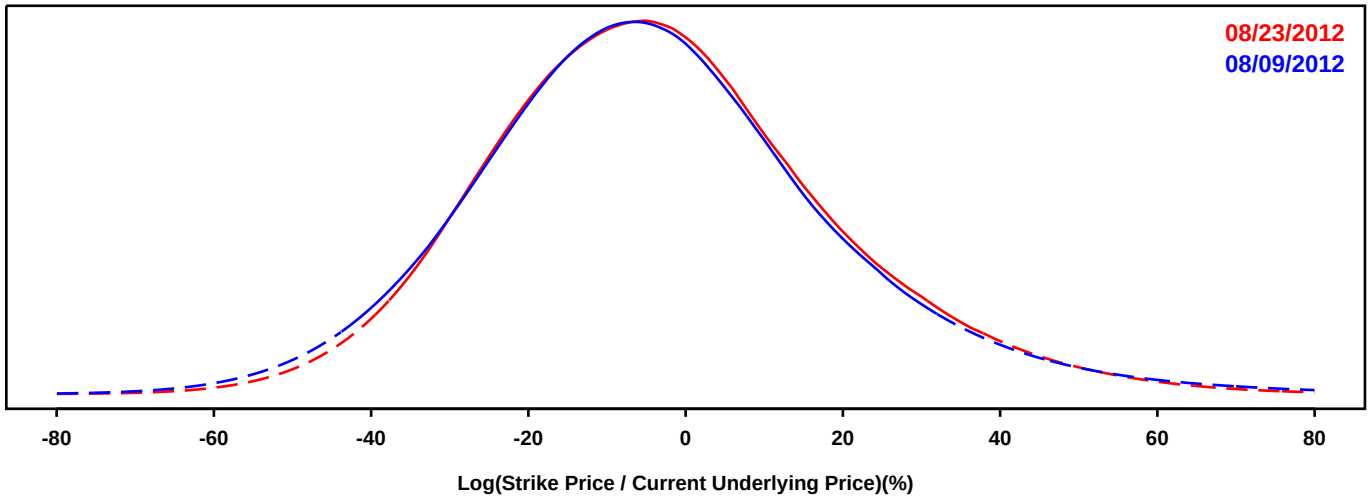
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- WHEAT FUTURES

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

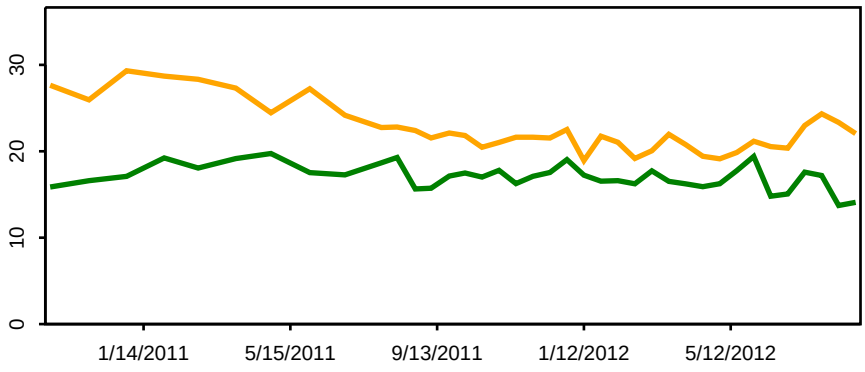
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <=20% Increase >= 20%

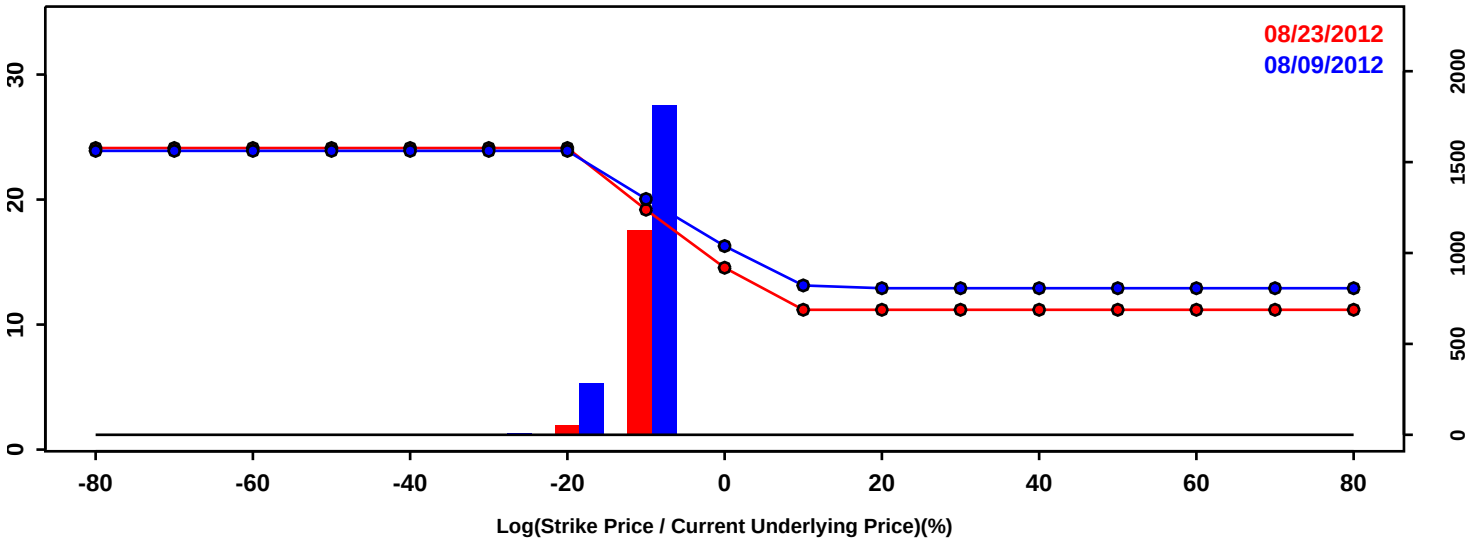
Statistics of the Log Return Distributions

	08/09/2012	08/23/2012	Change
10th Pct	-31.31%	-29.64%	1.67%
50th Pct	-5.24%	-4.54%	0.69%
90th Pct	25.22%	25.53%	0.31%
Mean	-3.86%	-3.14%	0.72%
Std Dev	22.76%	21.88%	-0.87%
Skew	0.41	0.39	-0.01
Kurtosis	0.62	0.39	-0.23

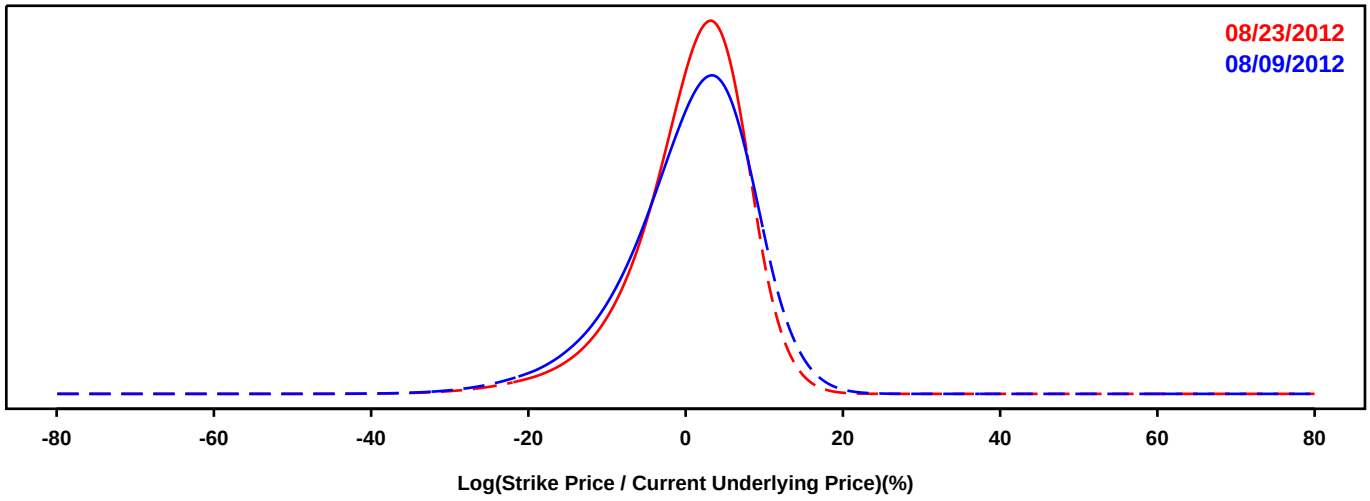
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- iSHARES DOW JONES US REAL ESTATE

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

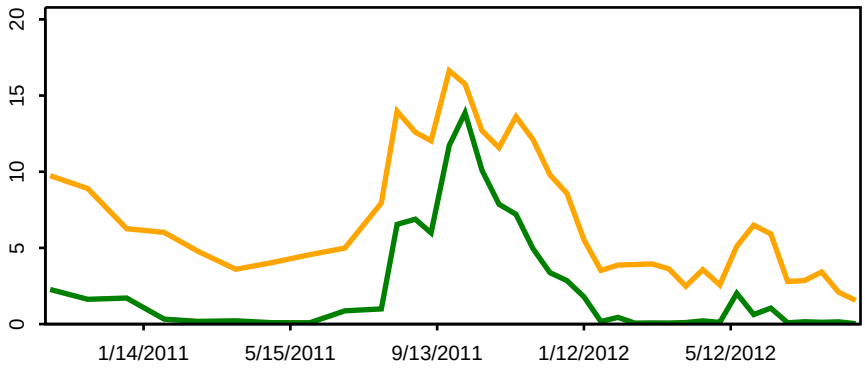
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <=20% Increase >= 20%

Statistics of the Log Return Distributions

	08/09/2012	08/23/2012	Change
10th Pct	-10.33%	-8.72%	1.60%
50th Pct	1.48%	1.57%	0.09%
90th Pct	9.70%	8.62%	-1.09%
Mean	0.47%	0.62%	0.15%
Std Dev	8.19%	7.29%	-0.90%
Skew	-0.79	-0.99	-0.19
Kurtosis	1.17	1.91	0.74