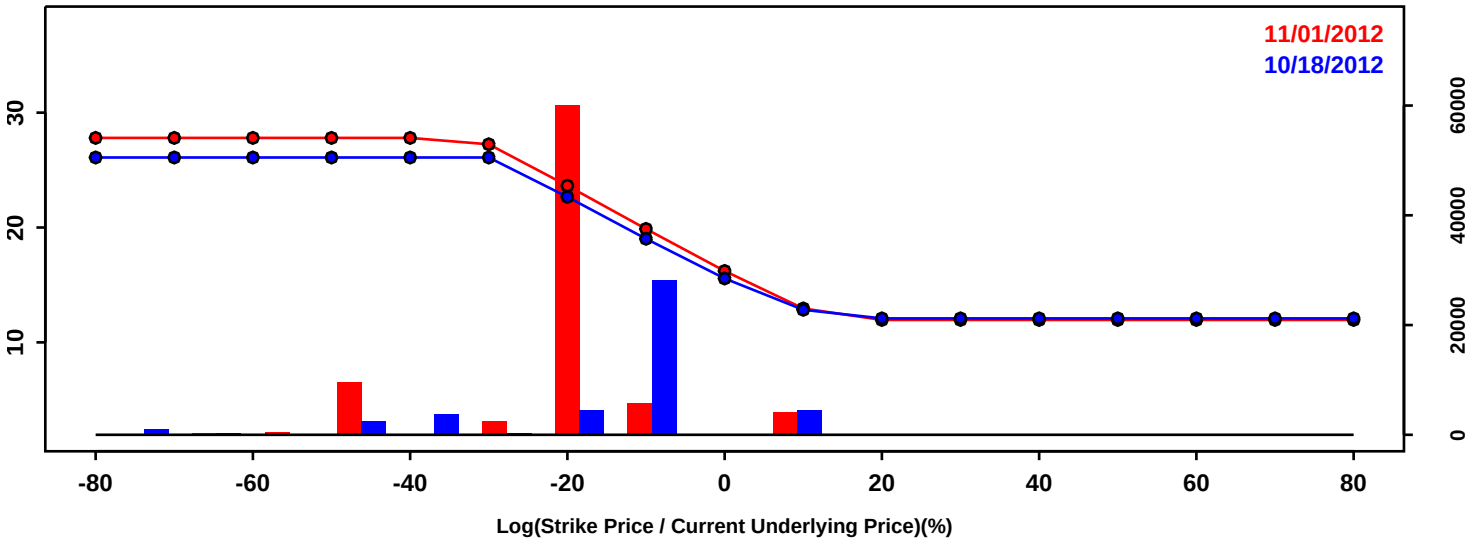
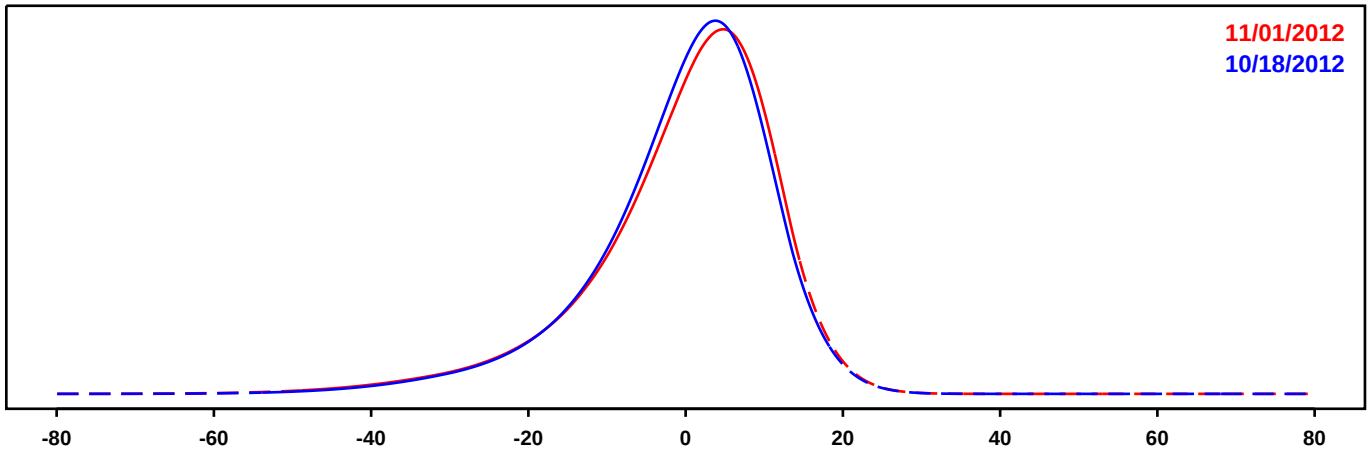
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- S&P 500

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

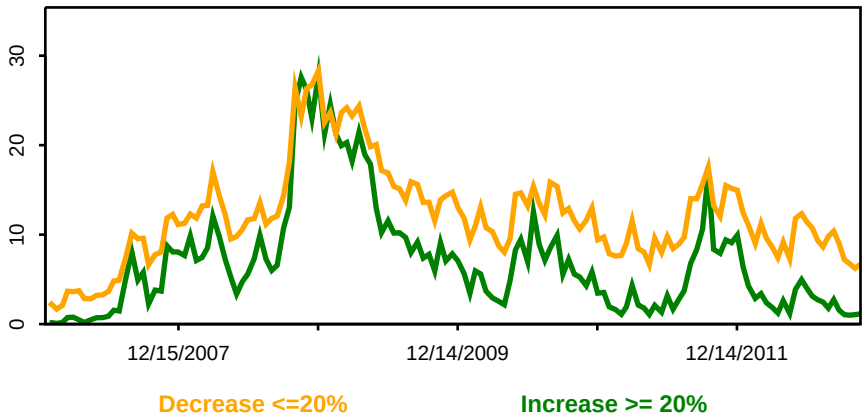
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



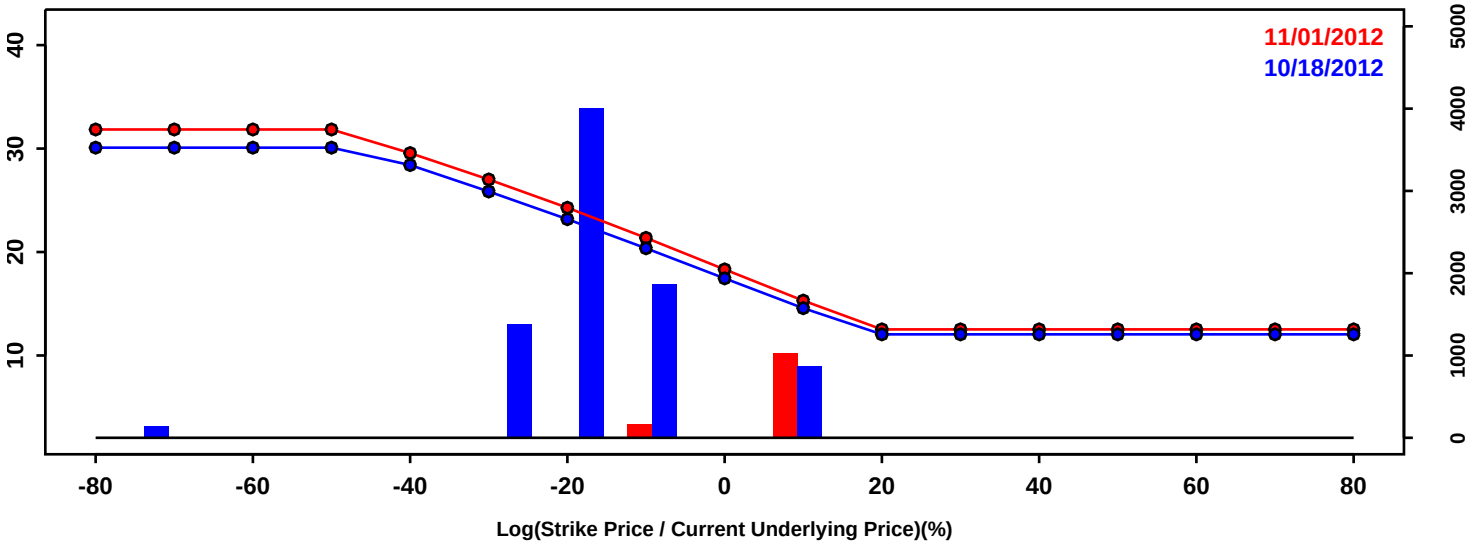
Statistics of the Log Return Distributions

	10/18/2012	11/01/2012	Change
10th Pct	-15.21%	-15.69%	-0.48%
50th Pct	1.33%	1.80%	0.47%
90th Pct	11.92%	12.43%	0.51%
Mean	-0.44%	-0.23%	0.21%
Std Dev	11.45%	11.94%	0.49%
Skew	-1.07	-1.16	-0.09
Kurtosis	2.06	2.27	0.21

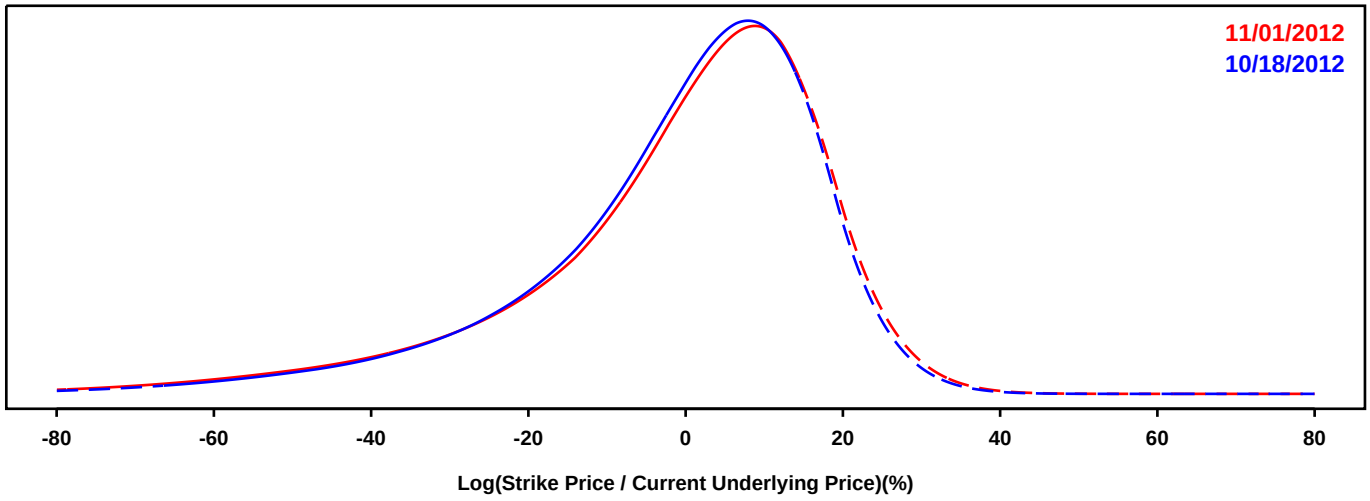
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- S&P 500

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

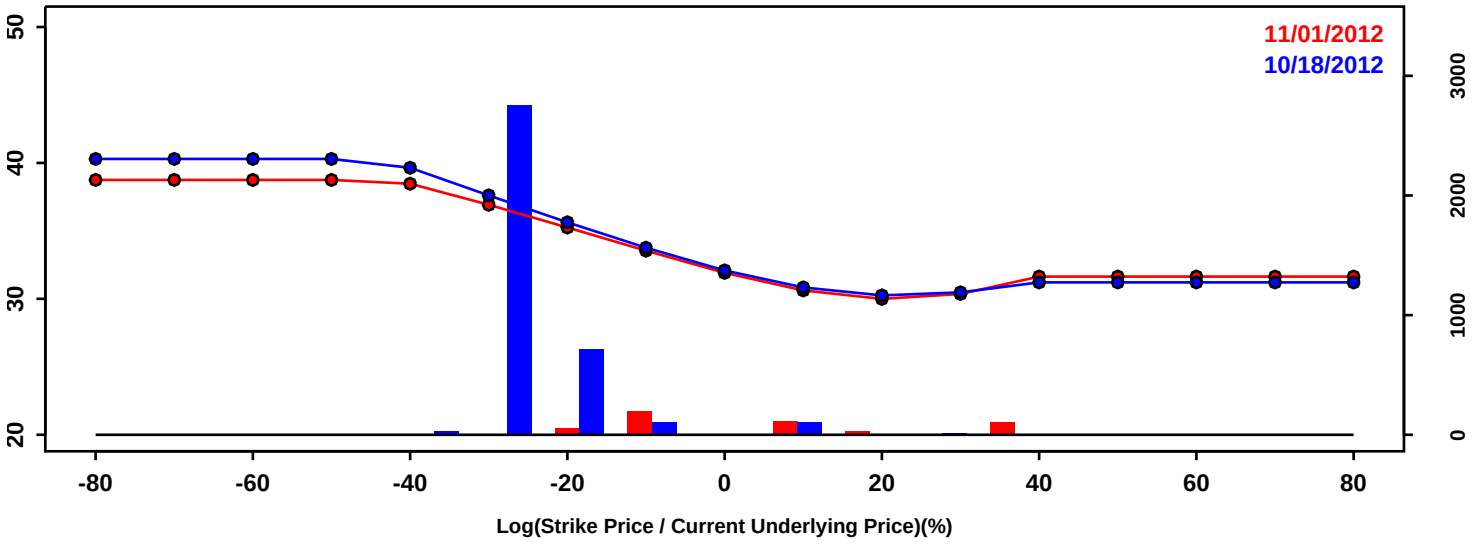
Statistics of the Log Return Distributions

	10/18/2012	11/01/2012	Change
10th Pct	-26.39%	-27.84%	-1.45%
50th Pct	2.53%	2.95%	0.42%
90th Pct	18.02%	18.78%	0.76%
Mean	-1.30%	-1.30%	-0.00%
Std Dev	18.85%	19.88%	1.03%
Skew	-1.28	-1.33	-0.05
Kurtosis	2.36	2.49	0.14

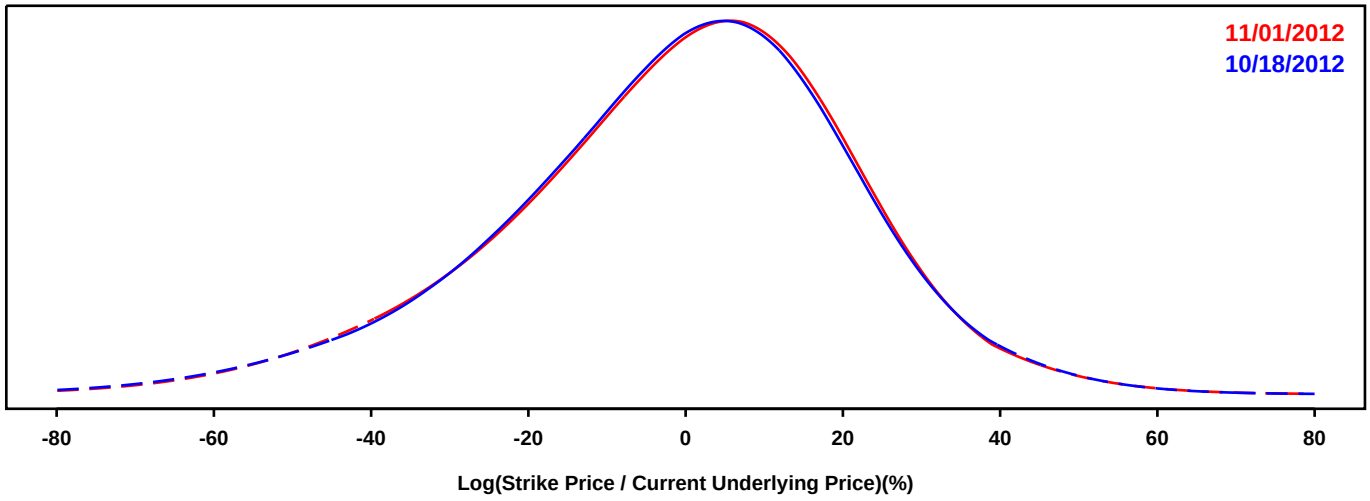
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- CRUDE OIL FUTURES (WTI)

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

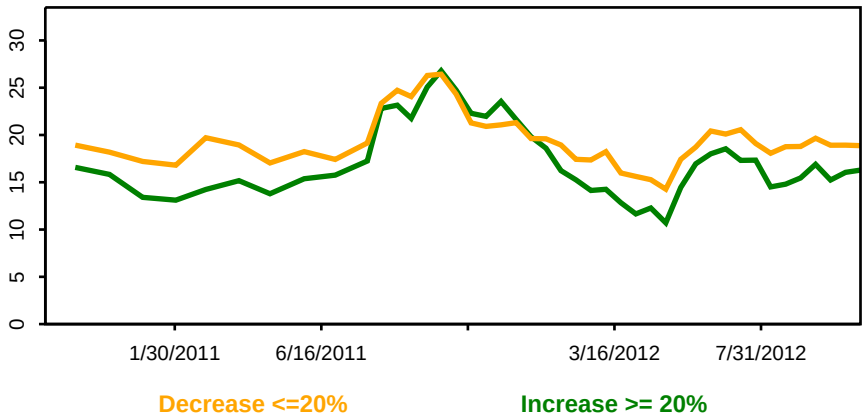
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



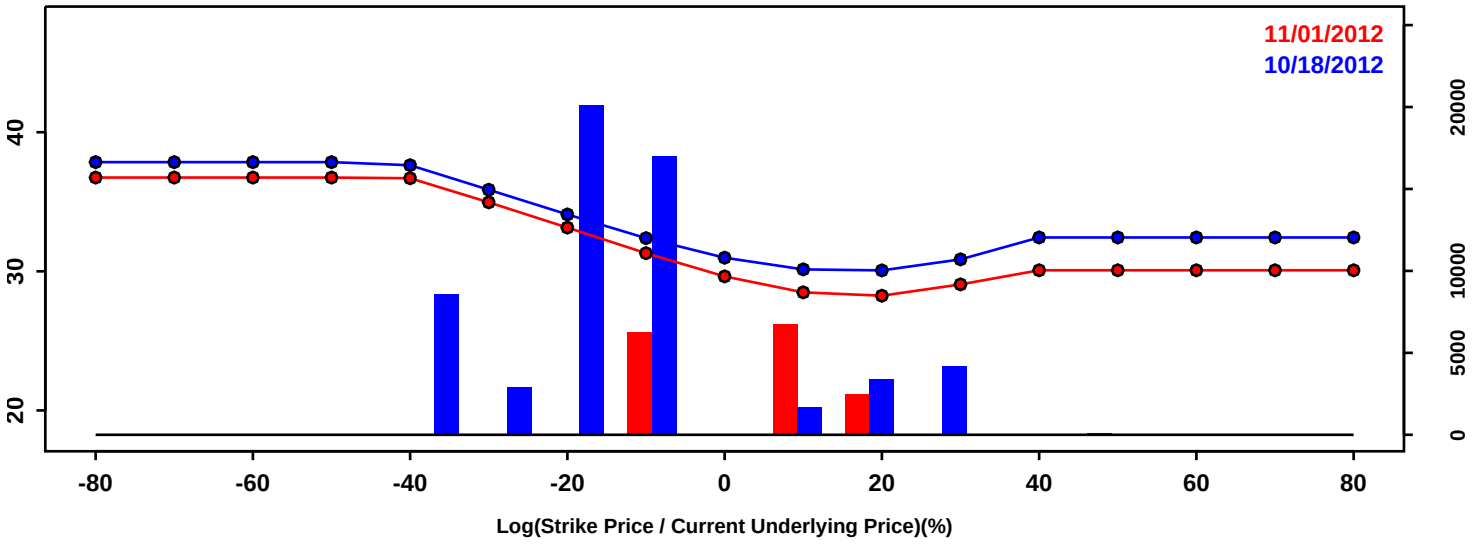
Statistics of the Log Return Distributions

	10/18/2012	11/01/2012	Change
10th Pct	-31.25%	-31.30%	-0.05%
50th Pct	0.84%	1.14%	0.30%
90th Pct	25.49%	25.54%	0.05%
Mean	-1.19%	-0.96%	0.23%
Std Dev	22.86%	22.73%	-0.13%
Skew	-0.45	-0.43	0.02
Kurtosis	0.61	0.51	-0.11

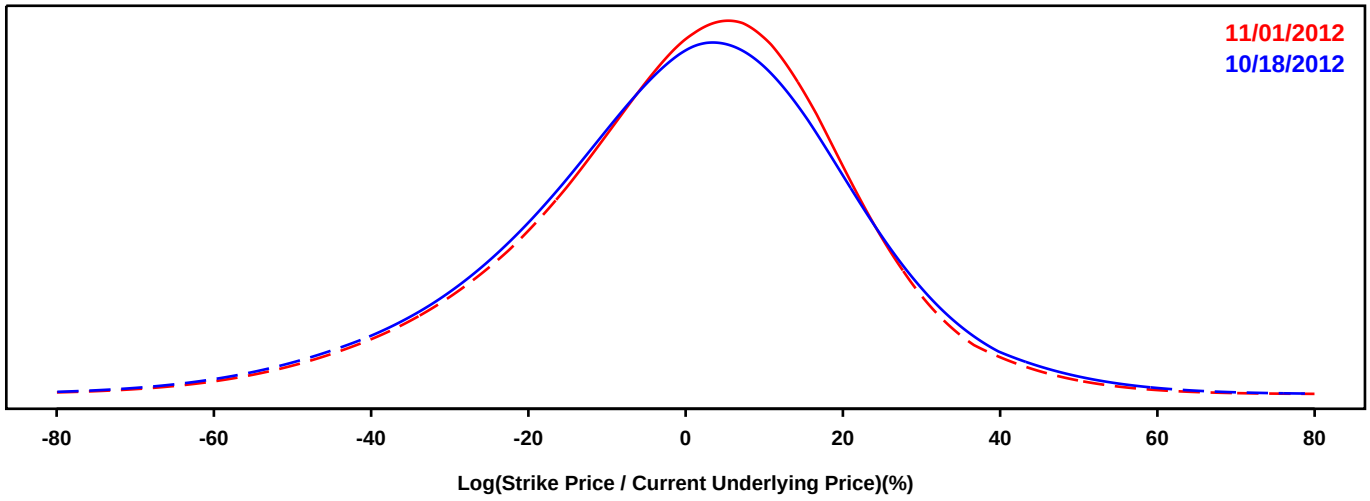
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- CRUDE OIL FUTURES (Brent)

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

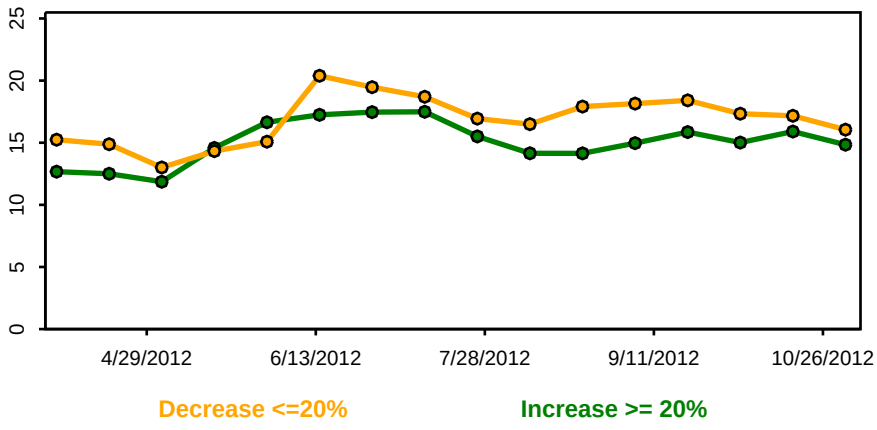
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



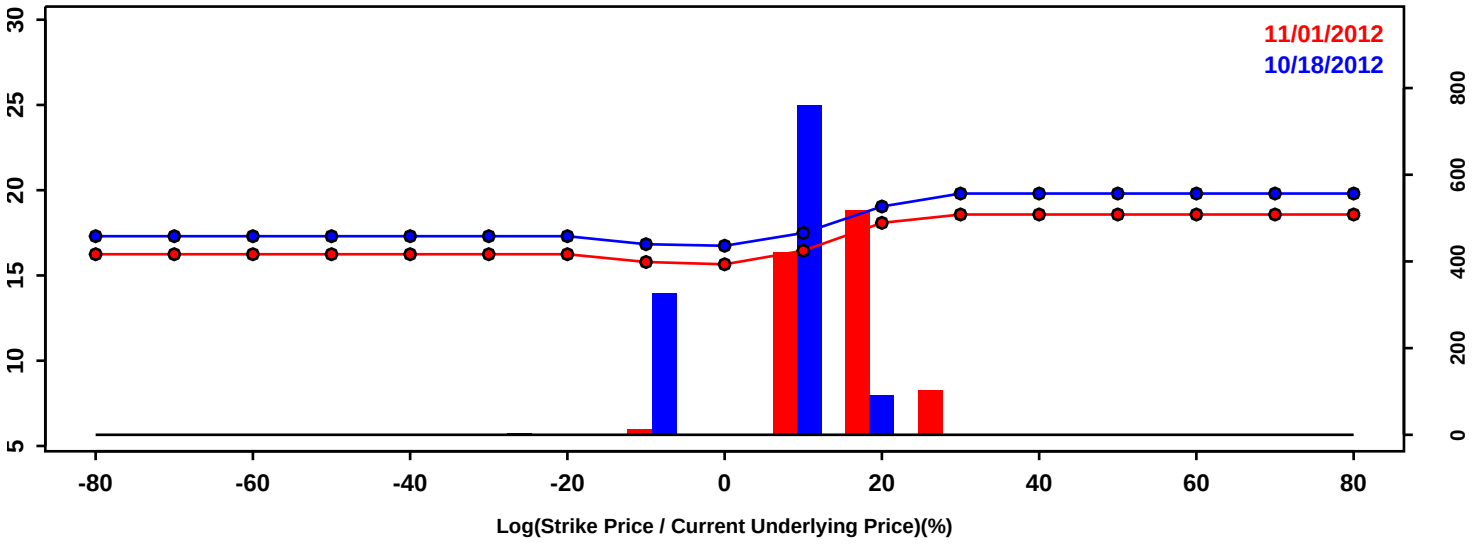
Statistics of the Log Return Distributions

	10/18/2012	11/01/2012	Change
10th Pct	-28.97%	-27.68%	1.29%
50th Pct	1.08%	1.76%	0.67%
90th Pct	25.45%	24.17%	-1.28%
Mean	-0.39%	-0.07%	0.32%
Std Dev	21.93%	20.91%	-1.02%
Skew	-0.34	-0.42	-0.08
Kurtosis	0.61	0.65	0.04

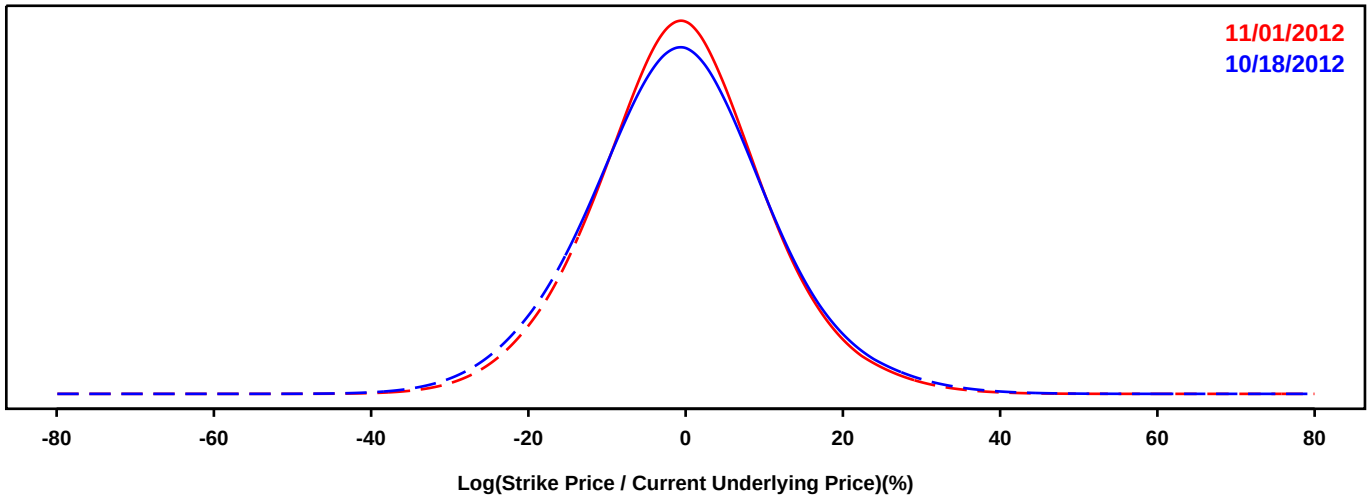
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- GOLD FUTURES

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

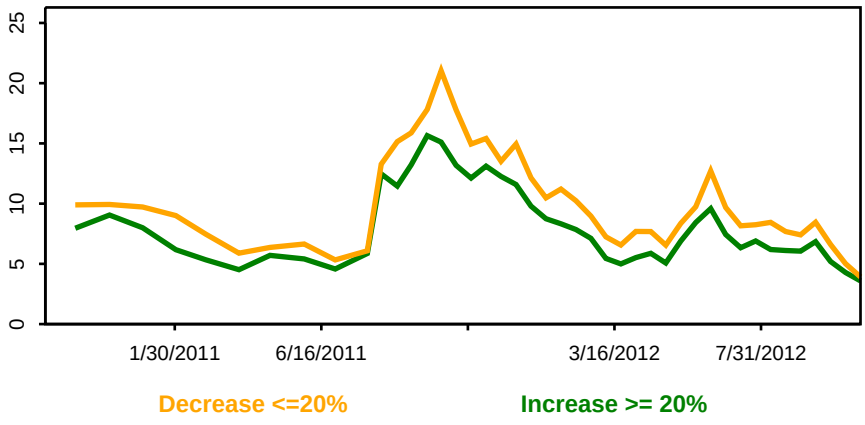
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



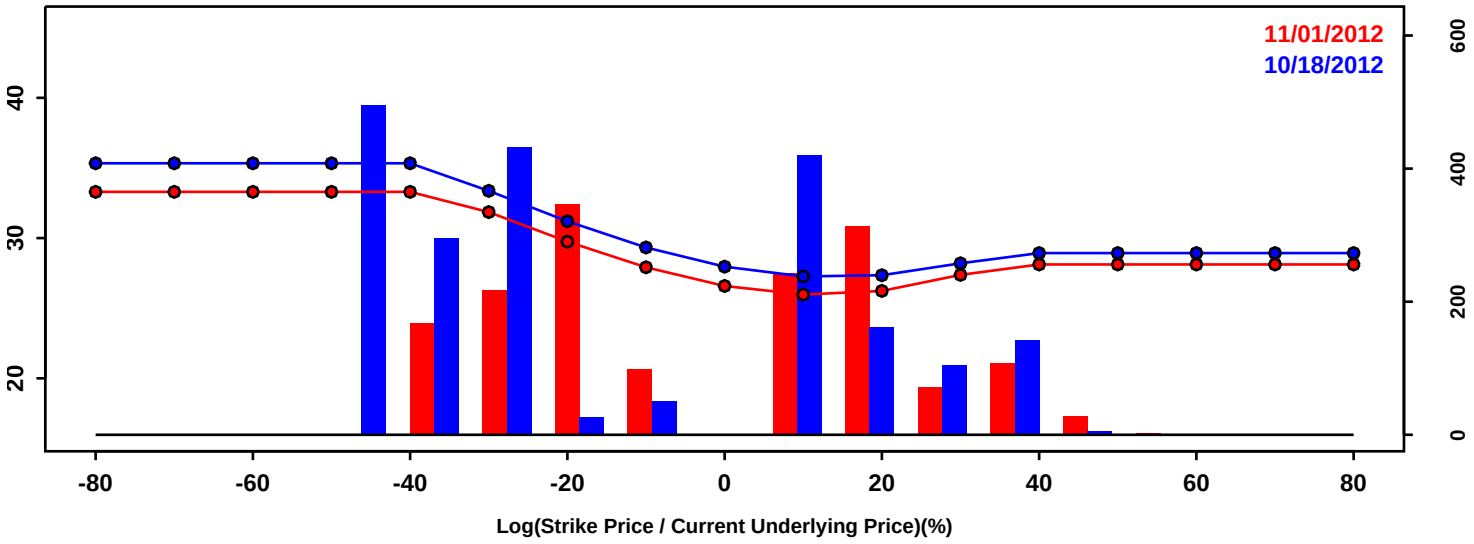
Statistics of the Log Return Distributions

	10/18/2012	11/01/2012	Change
10th Pct	-15.49%	-14.39%	1.09%
50th Pct	-0.77%	-0.60%	0.17%
90th Pct	14.03%	13.33%	-0.70%
Mean	-0.67%	-0.50%	0.17%
Std Dev	11.80%	11.06%	-0.74%
Skew	0.10	0.10	0.00
Kurtosis	0.42	0.43	0.01

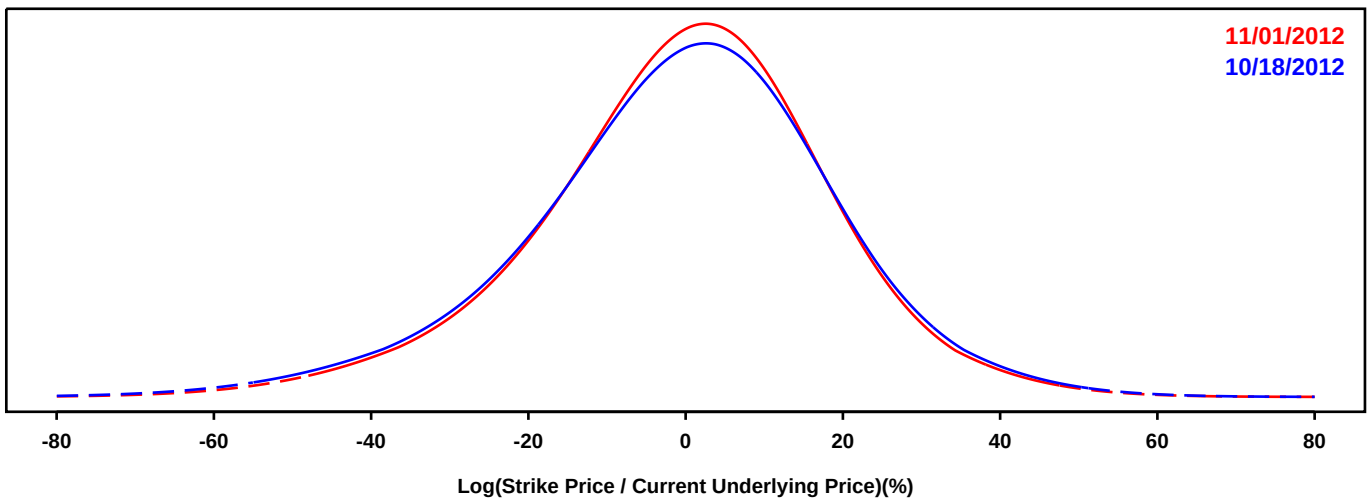
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- SILVER FUTURES

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

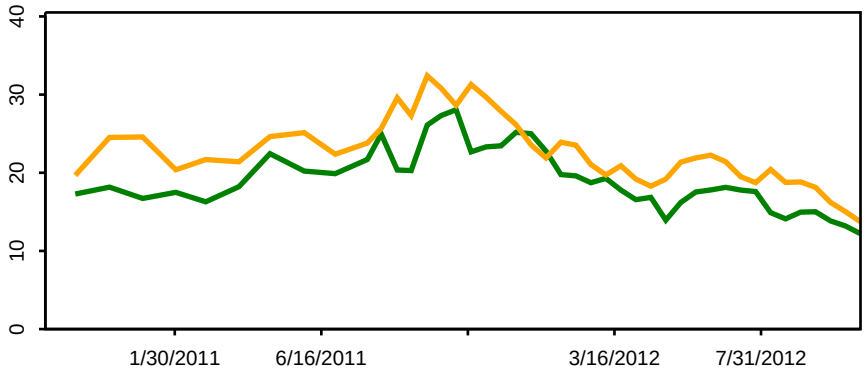
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <=20% Increase >= 20%

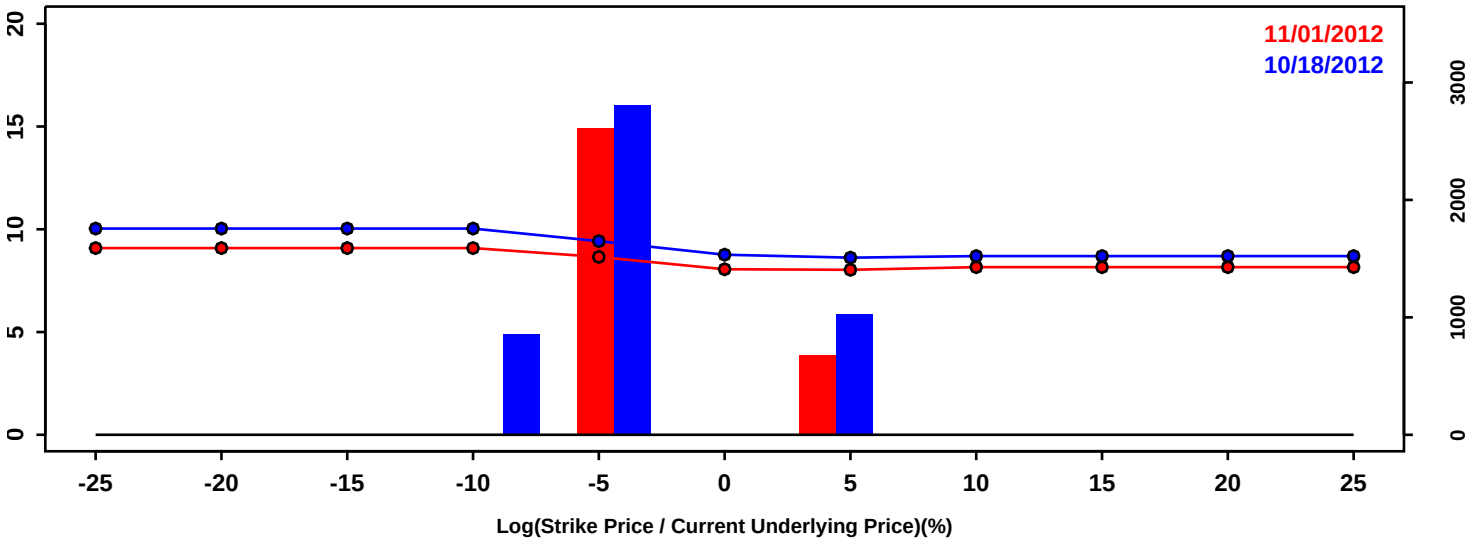
Statistics of the Log Return Distributions

	10/18/2012	11/01/2012	Change
10th Pct	-25.90%	-24.30%	1.60%
50th Pct	0.59%	0.73%	0.14%
90th Pct	22.99%	22.06%	-0.92%
Mean	-0.54%	-0.27%	0.27%
Std Dev	19.81%	18.80%	-1.02%
Skew	-0.34	-0.32	0.03
Kurtosis	0.70	0.69	-0.00

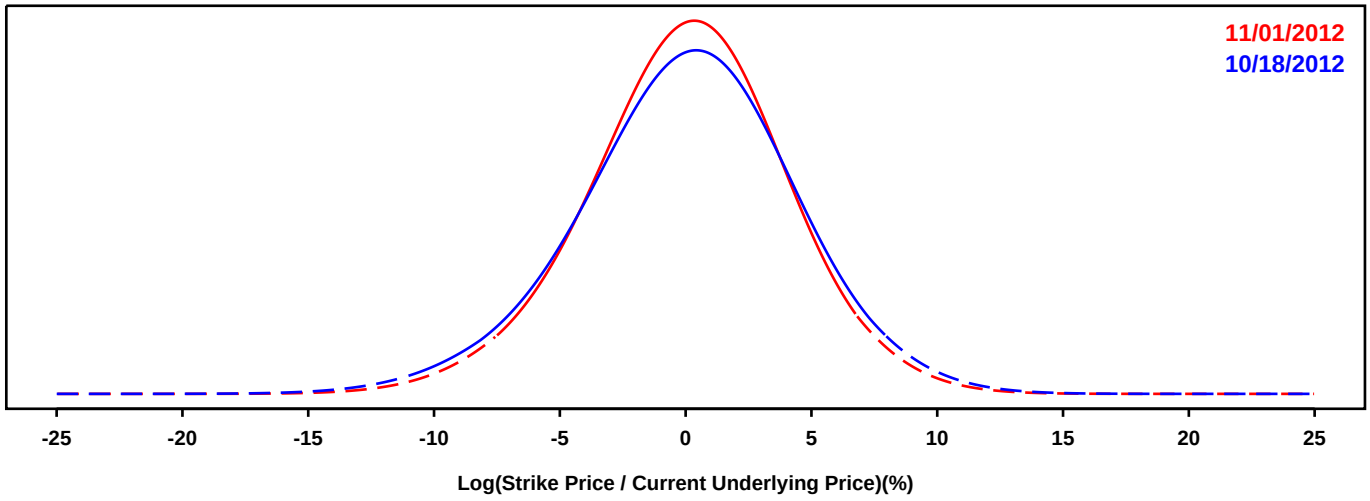
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- DOLLAR-EURO EXCHANGE RATE FUTURES

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

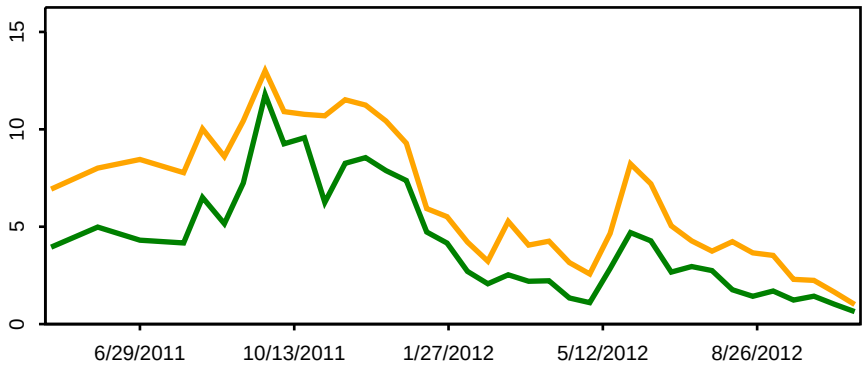
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <=10% Increase >= 10%

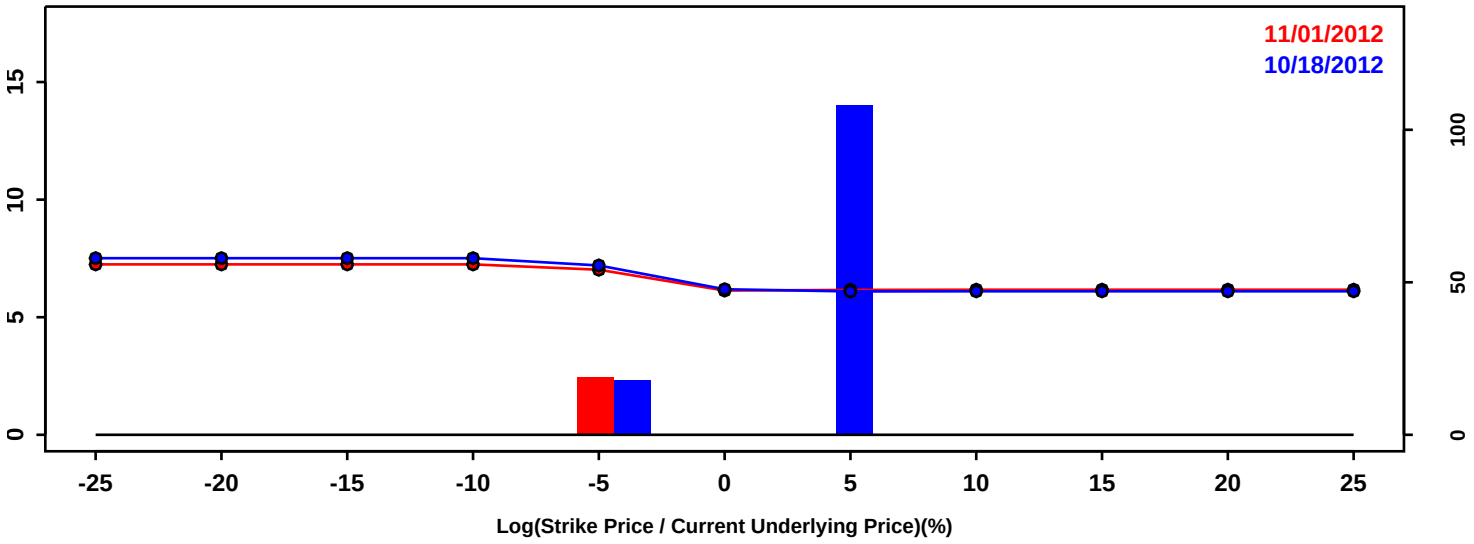
Statistics of the Log Return Distributions

	10/18/2012	11/01/2012	Change
10th Pct	-5.57%	-5.10%	0.47%
50th Pct	0.18%	0.14%	-0.04%
90th Pct	5.47%	5.01%	-0.45%
Mean	0.09%	0.09%	-0.00%
Std Dev	4.37%	4.02%	-0.36%
Skew	-0.18	-0.14	0.04
Kurtosis	0.31	0.29	-0.01

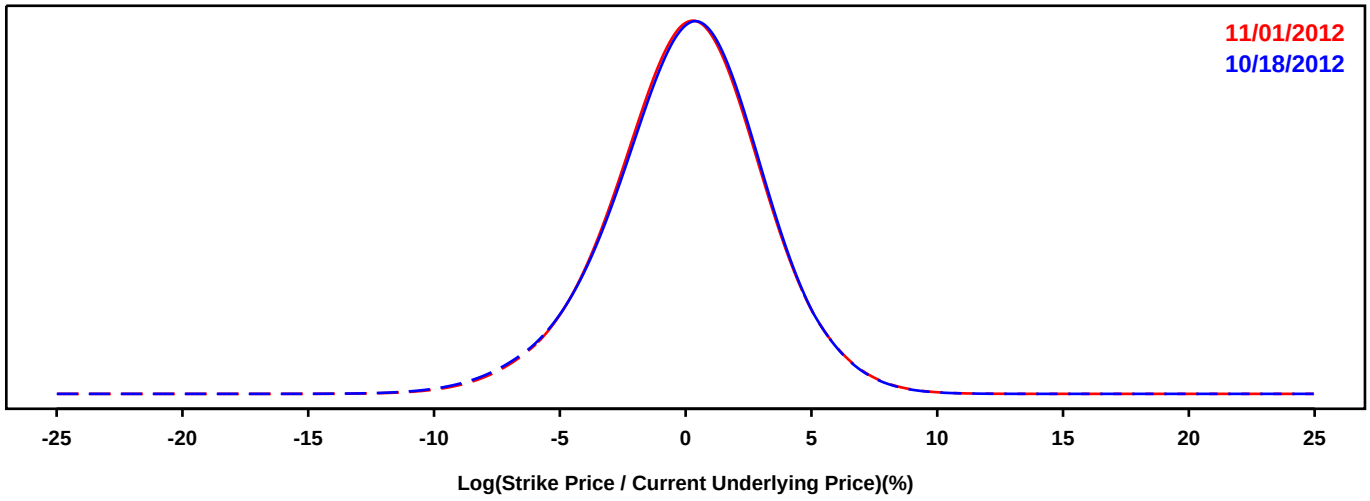
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- DOLLAR-POUND EXCHANGE RATE FUTURES

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

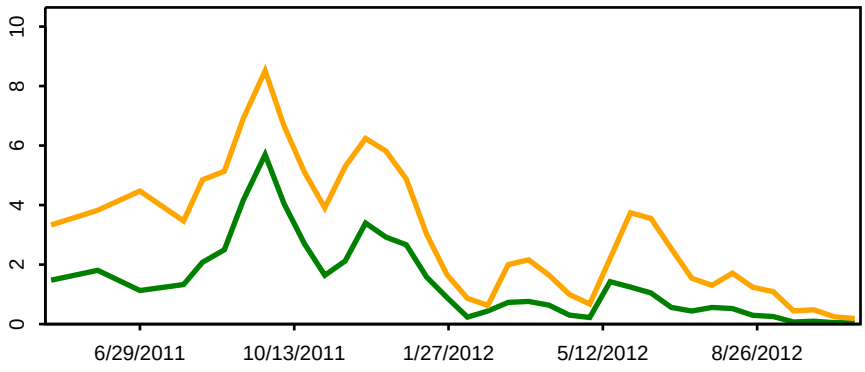
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <=10% Increase >= 10%

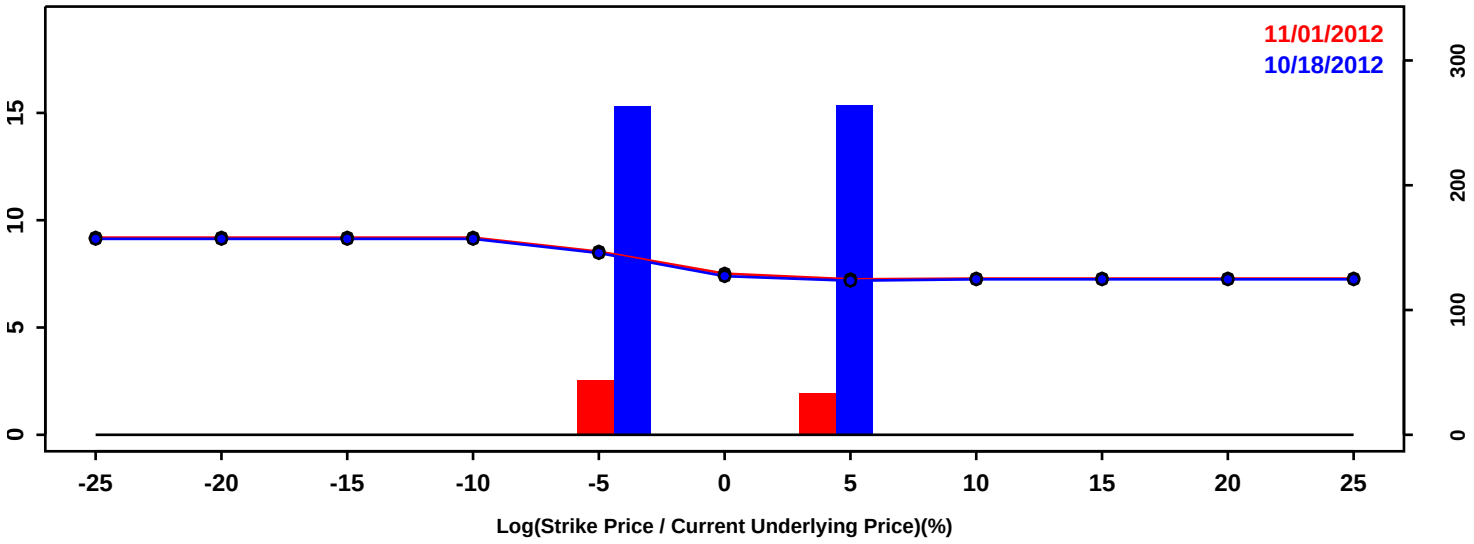
Statistics of the Log Return Distributions

	10/18/2012	11/01/2012	Change
10th Pct	-3.94%	-3.86%	0.07%
50th Pct	0.18%	0.14%	-0.04%
90th Pct	3.83%	3.78%	-0.05%
Mean	0.07%	0.08%	0.01%
Std Dev	3.09%	3.06%	-0.03%
Skew	-0.27	-0.20	0.07
Kurtosis	0.47	0.41	-0.06

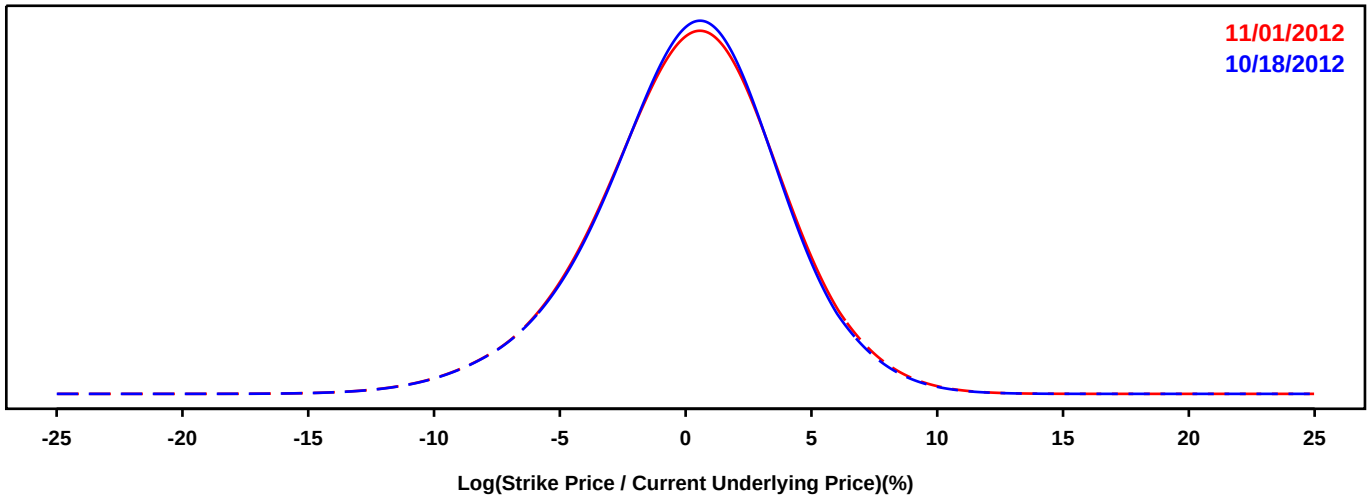
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- YEN-DOLLAR EXCHANGE RATE FUTURES

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

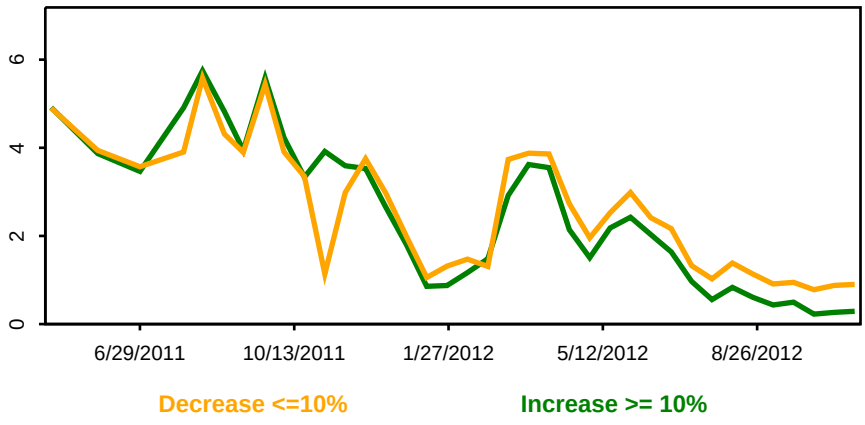
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



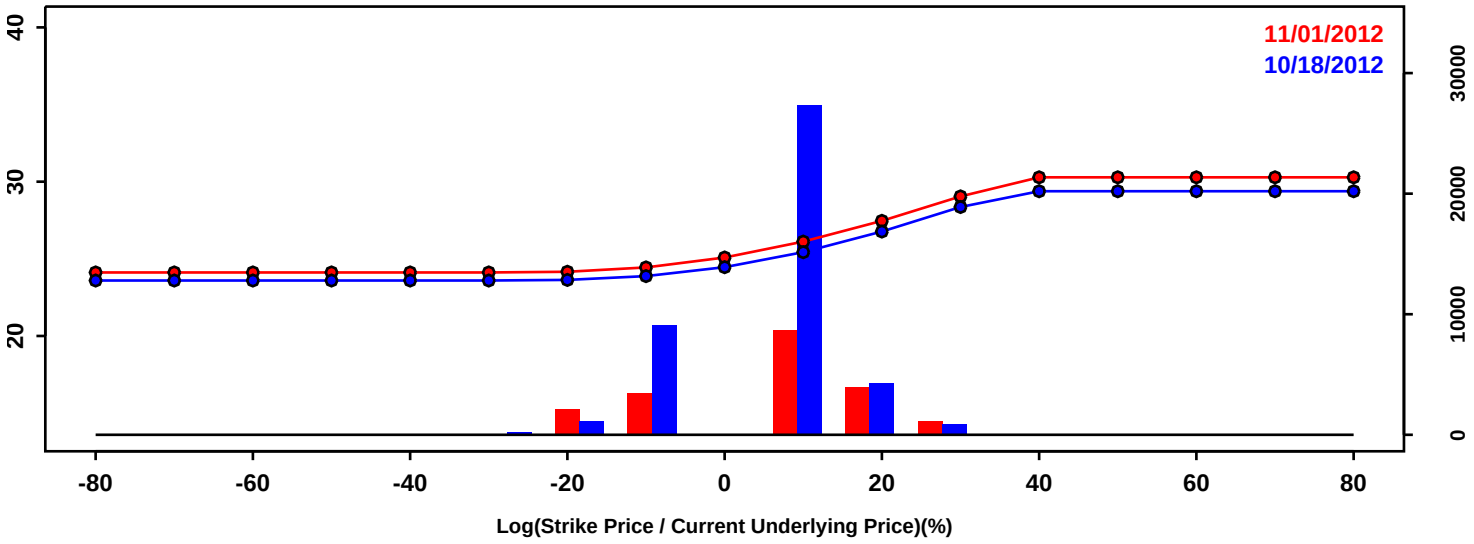
Statistics of the Log Return Distributions

	10/18/2012	11/01/2012	Change
10th Pct	-4.69%	-4.74%	-0.05%
50th Pct	0.24%	0.28%	0.04%
90th Pct	4.53%	4.67%	0.14%
Mean	0.09%	0.12%	0.03%
Std Dev	3.69%	3.74%	0.05%
Skew	-0.32	-0.30	0.02
Kurtosis	0.54	0.48	-0.05

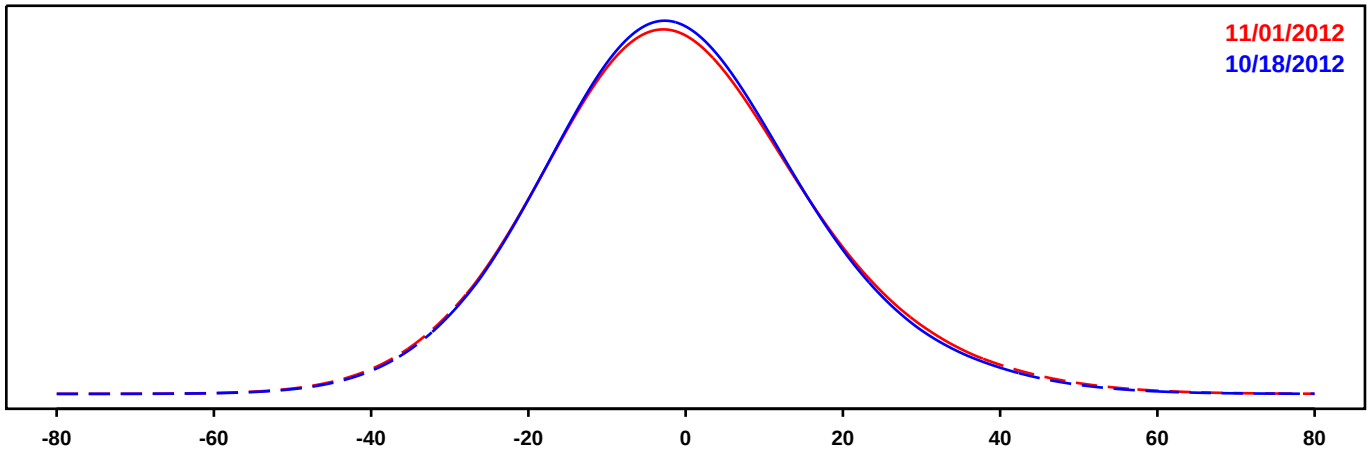
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- CORN FUTURES

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

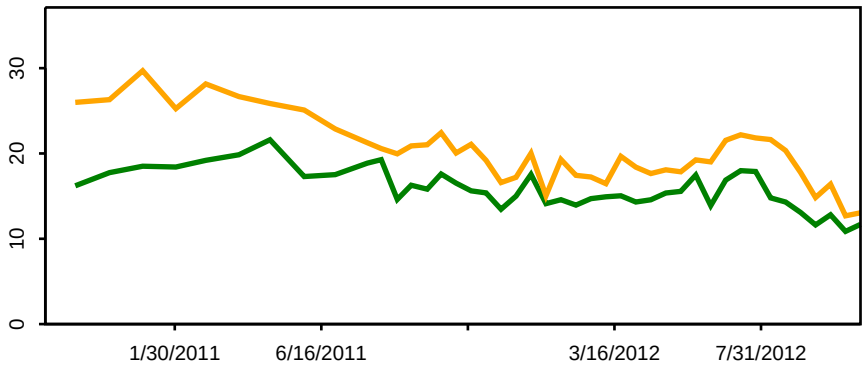
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <=20% Increase >= 20%

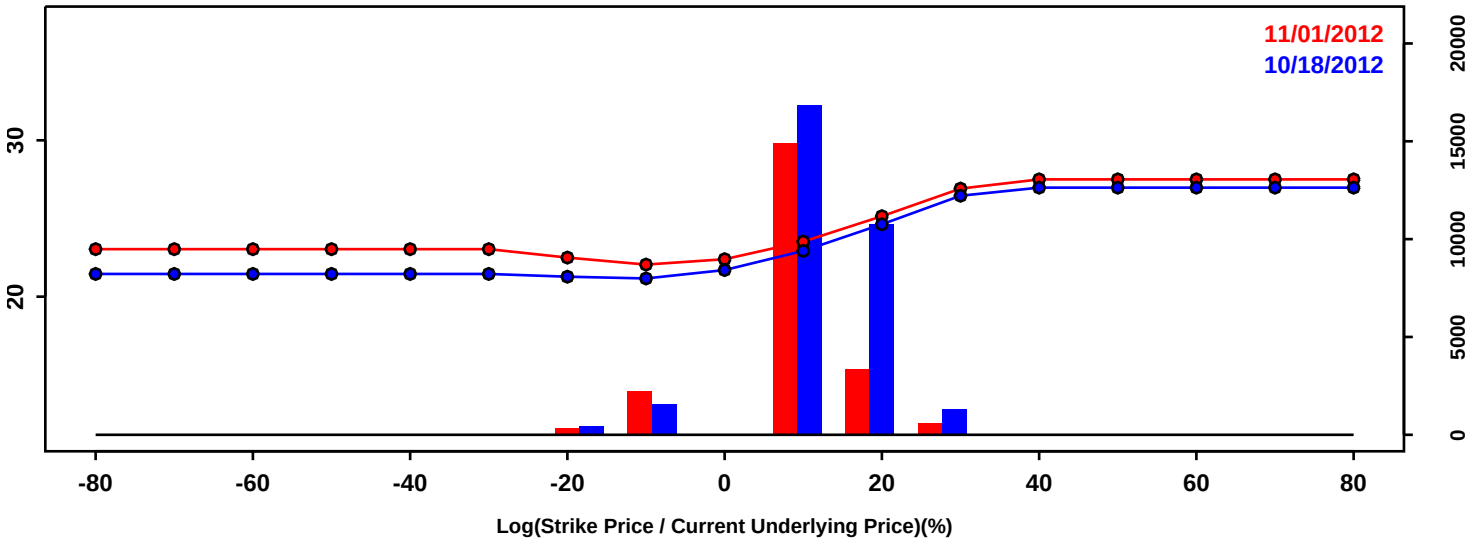
Statistics of the Log Return Distributions

	10/18/2012	11/01/2012	Change
10th Pct	-22.32%	-22.63%	-0.31%
50th Pct	-1.68%	-1.60%	0.08%
90th Pct	20.97%	21.88%	0.91%
Mean	-1.03%	-0.84%	0.18%
Std Dev	17.22%	17.71%	0.48%
Skew	0.24	0.26	0.02
Kurtosis	0.38	0.40	0.01

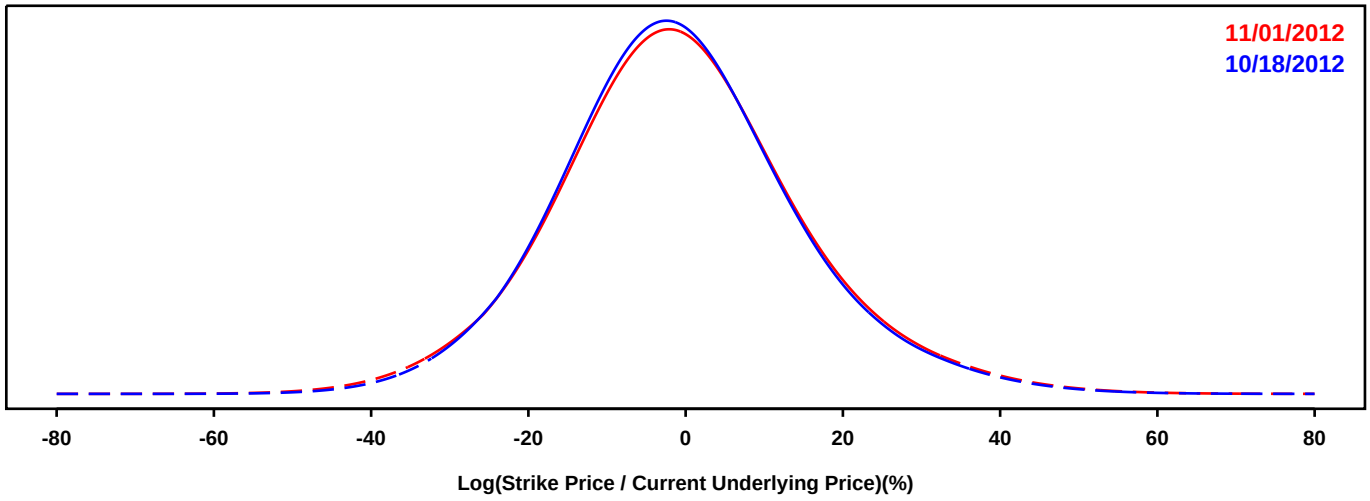
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- SOYBEAN FUTURES

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

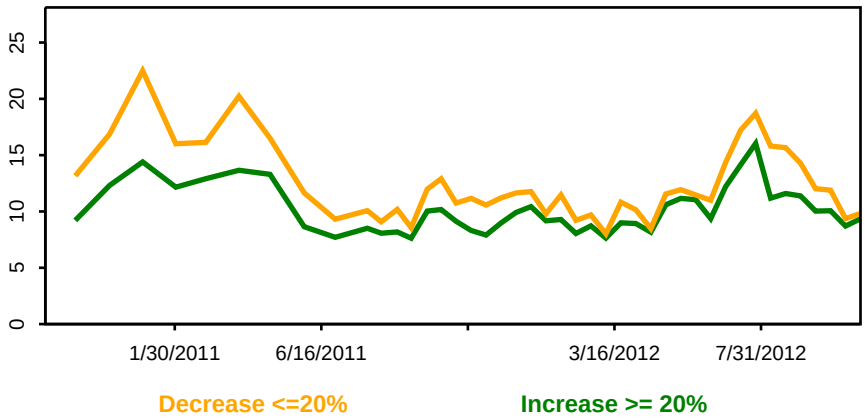
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



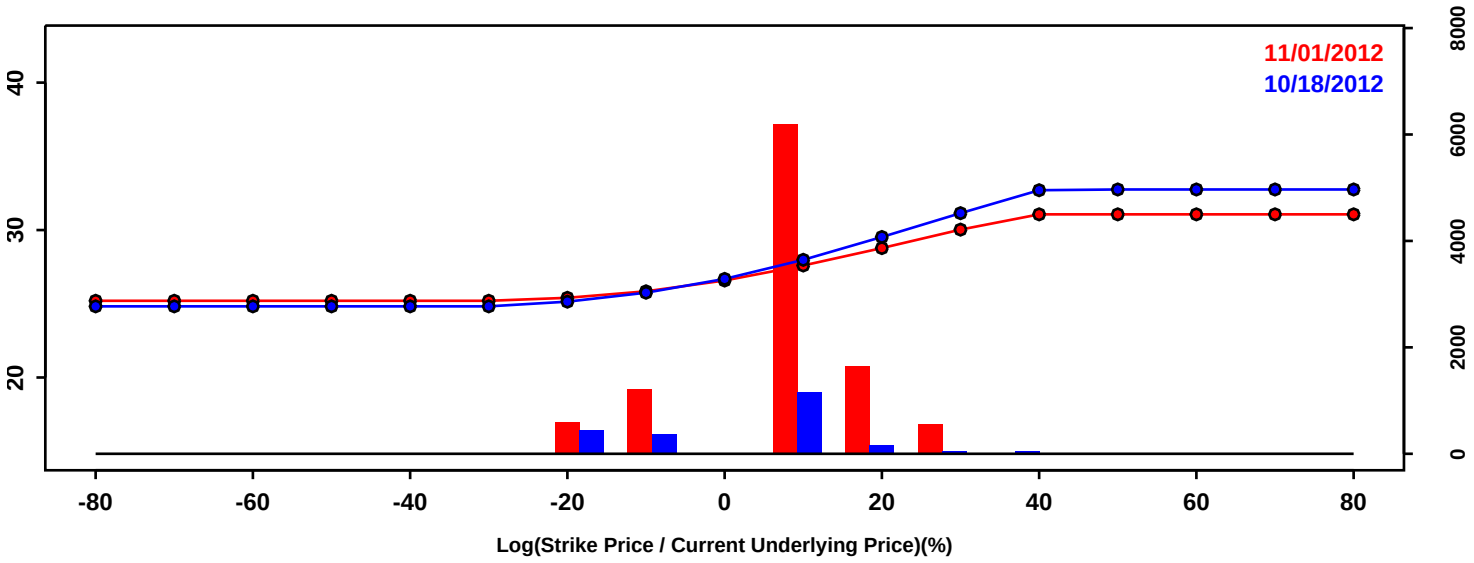
Statistics of the Log Return Distributions

	10/18/2012	11/01/2012	Change
10th Pct	-19.43%	-19.87%	-0.44%
50th Pct	-1.52%	-1.26%	0.26%
90th Pct	18.55%	19.26%	0.71%
Mean	-0.83%	-0.65%	0.18%
Std Dev	15.29%	15.78%	0.49%
Skew	0.28	0.23	-0.05
Kurtosis	0.56	0.59	0.03

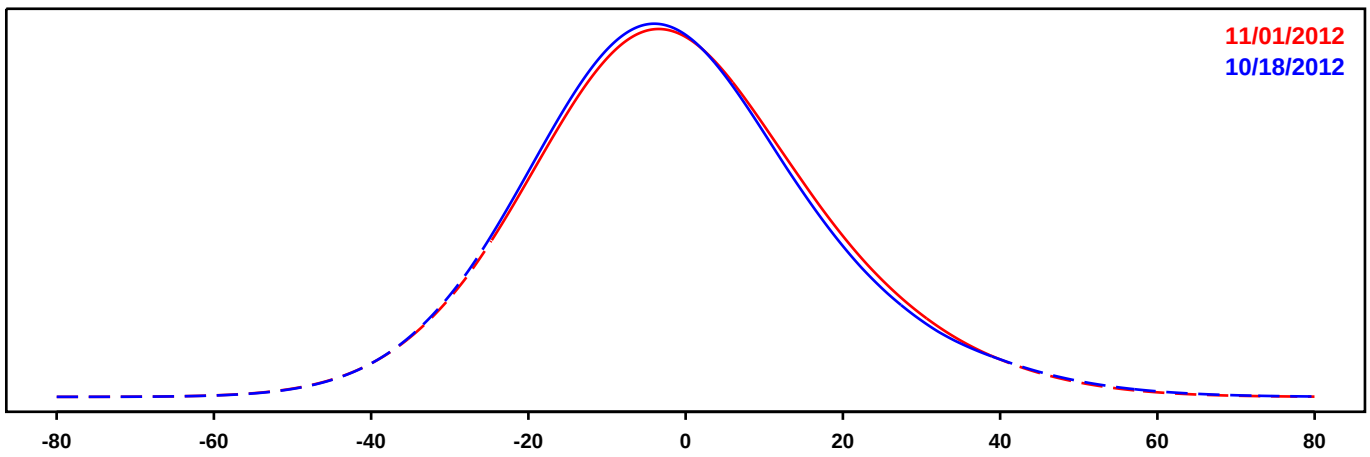
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- WHEAT FUTURES

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

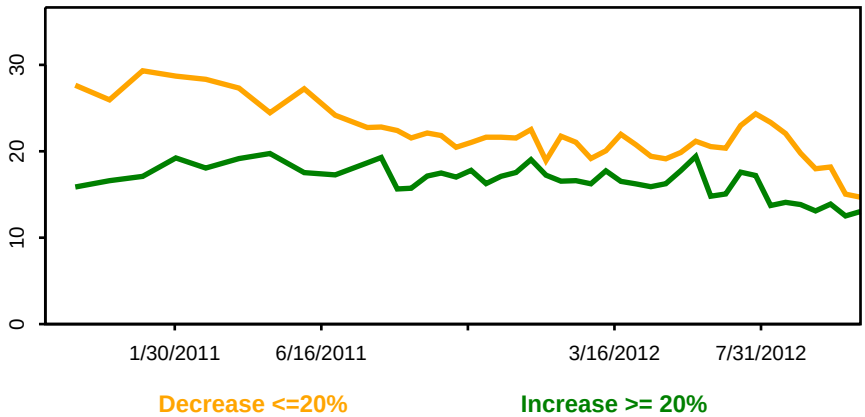
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



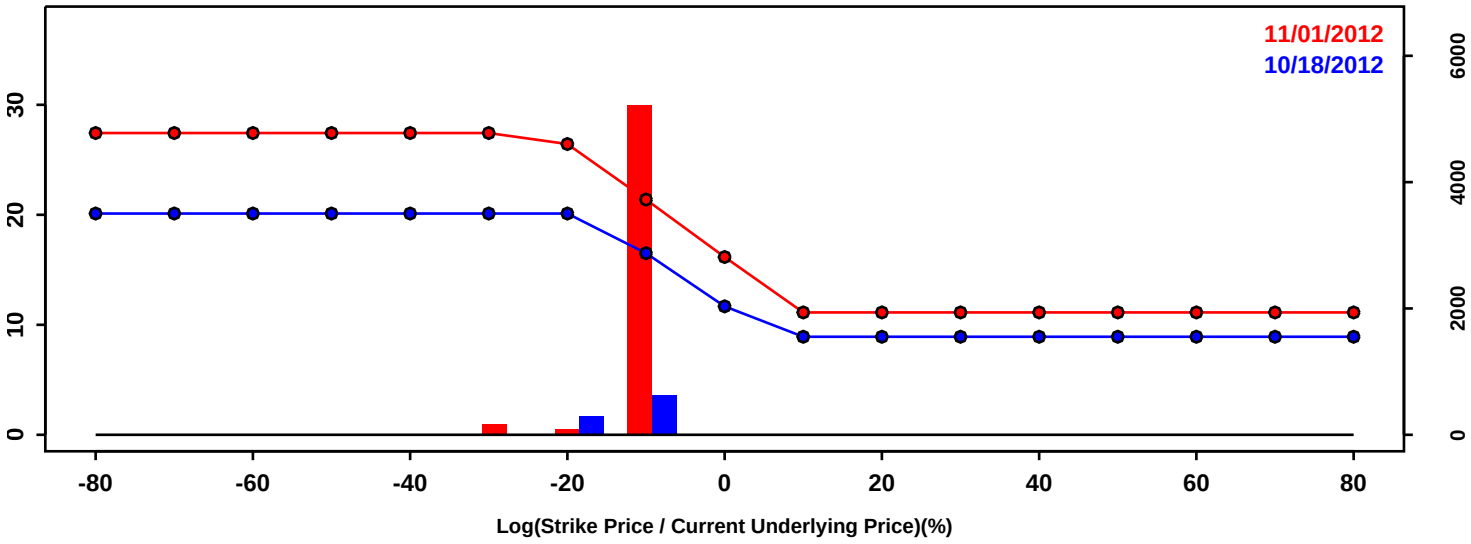
Statistics of the Log Return Distributions

	10/18/2012	11/01/2012	Change
10th Pct	-24.21%	-24.00%	0.21%
50th Pct	-2.39%	-1.83%	0.56%
90th Pct	23.04%	23.41%	0.37%
Mean	-1.29%	-0.93%	0.36%
Std Dev	18.83%	18.77%	-0.06%
Skew	0.35	0.27	-0.09
Kurtosis	0.46	0.31	-0.15

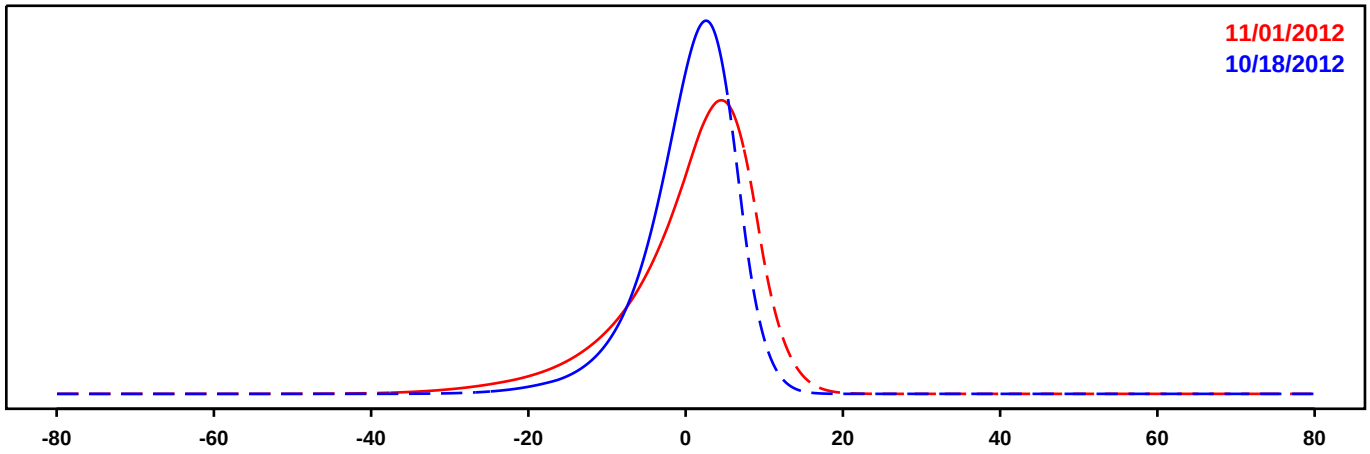
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- iSHARES DOW JONES US REAL ESTATE

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

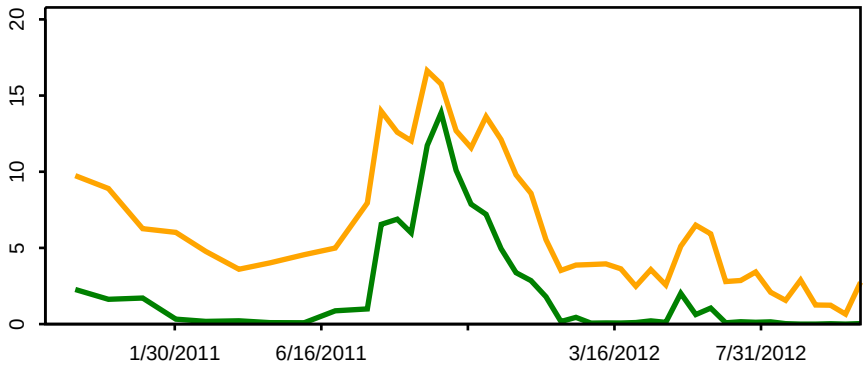
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <=20% Increase >= 20%

Statistics of the Log Return Distributions

	10/18/2012	11/01/2012	Change
10th Pct	-6.99%	-10.38%	-3.39%
50th Pct	1.26%	2.24%	0.98%
90th Pct	6.88%	9.19%	2.31%
Mean	0.50%	0.61%	0.11%
Std Dev	5.86%	8.29%	2.43%
Skew	-1.01	-1.23	-0.22
Kurtosis	2.05	2.31	0.27