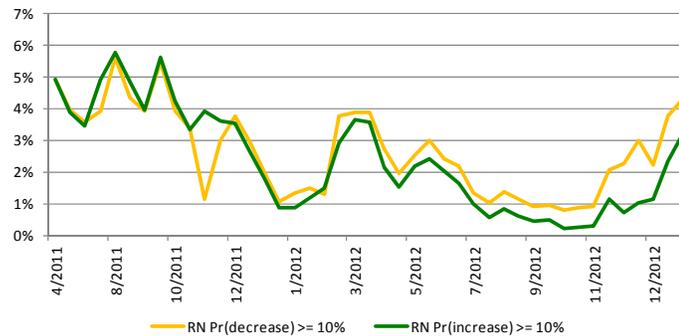


Minneapolis Options Report – January 25th

Commodity Markets

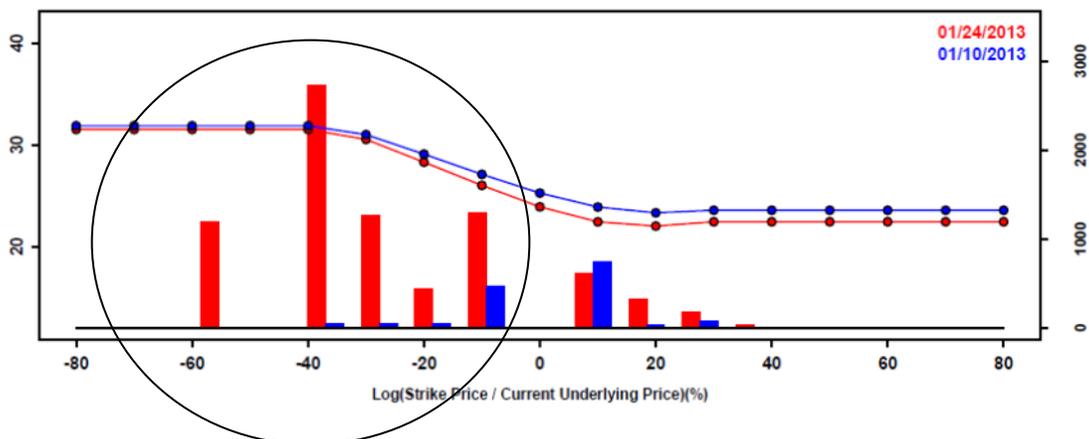
- The standard deviations of the RNPDs derived from options on the S&P 500 index shrank again last week. The drop was over 100 basis points after falling 200 basis points last week for the two expiries that we follow. Downside risk-neutral probabilities remain elevated, especially 12-months out. (See *S&P 500 reports*)
- Trading activity was strong in exchange rate markets last week. Like in our last report, this was true in the Yen/Dollar market but trading also jumped in the markets for options on Dollar/Pound and Dollar/Euro futures. Tail risks continued to climb in the Yen markets. (See *exchange rate reports*)

Probability of a Large Change - Yen/Dollar

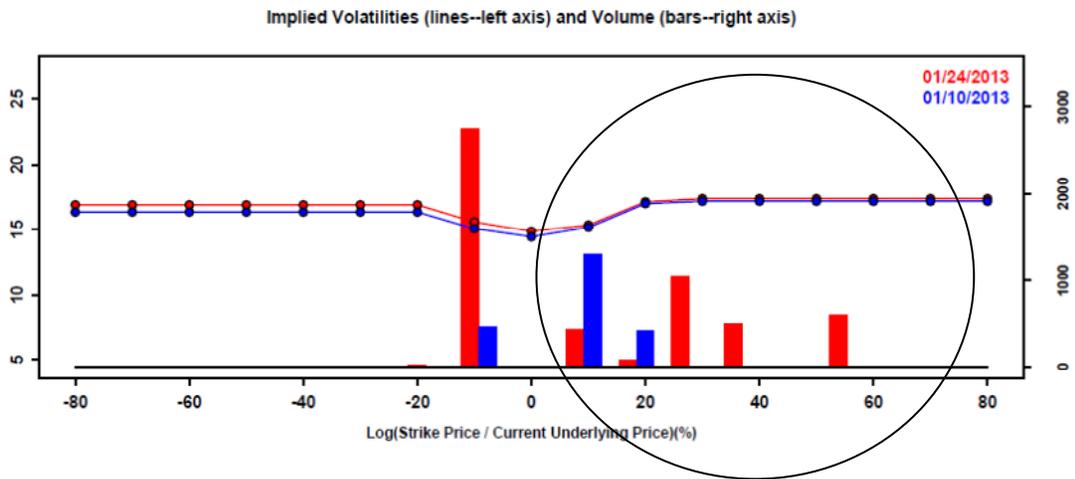


- RNPD standard deviations continue their decline in both oil markets that we follow as do the risk-neutral tail probabilities. Strong trading in options on WTI crude futures favored strikes below the spot. (See *WTI and Brent reports*)

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



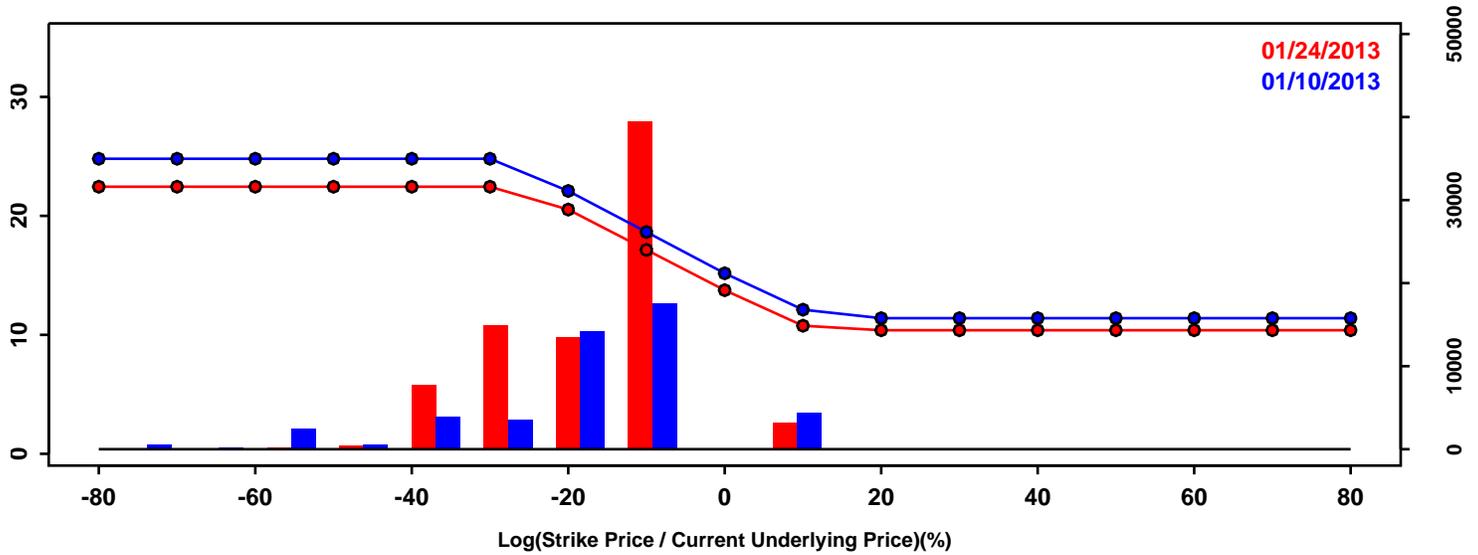
- Trading in options on gold futures was about average and skewed to the upside. (See *Gold report*)



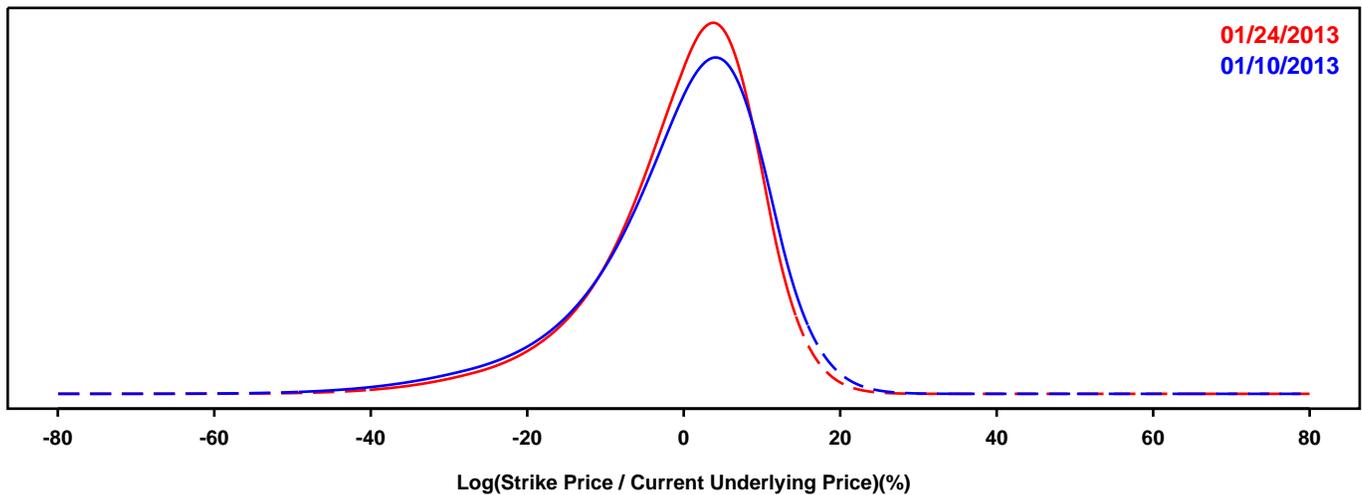
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- S&P 500

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

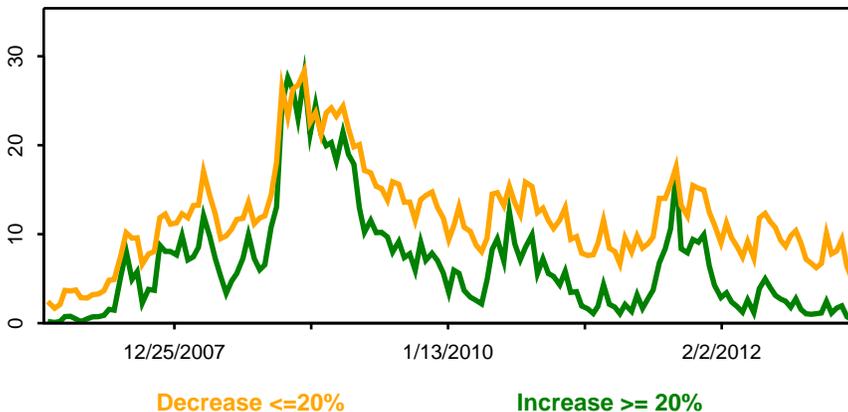
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change

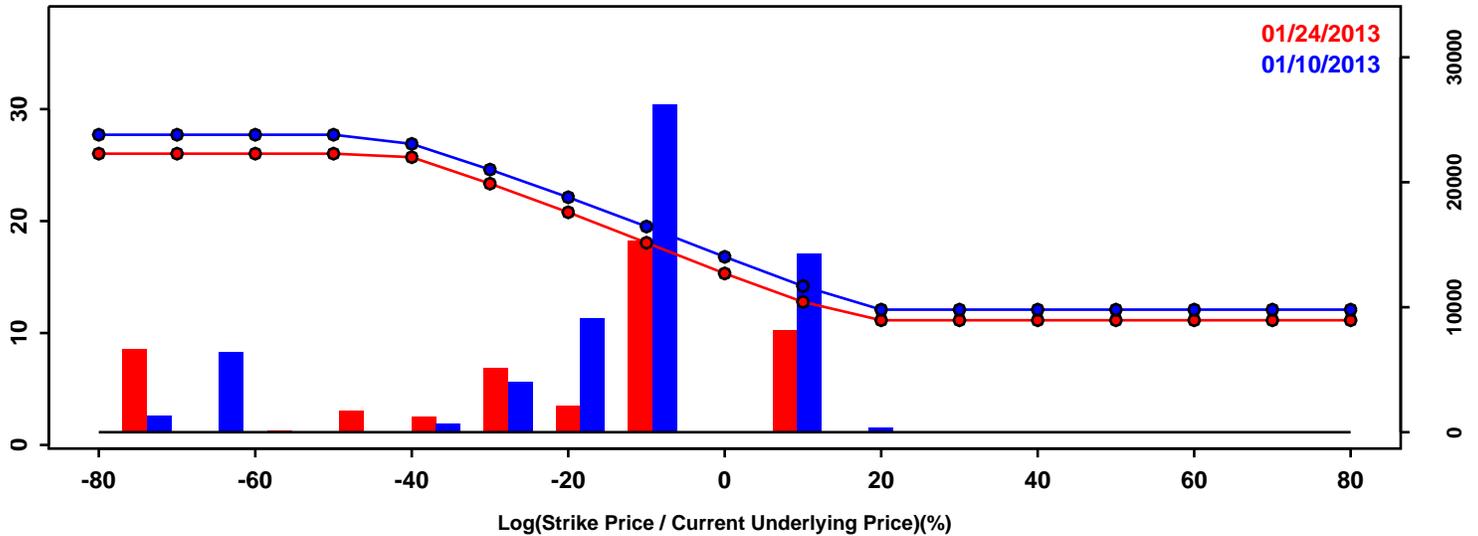


Statistics of the Log Return Distributions			
	01/10/2013	01/24/2013	Change
10th Pct	-15.41%	-13.80%	1.60%
50th Pct	1.31%	1.23%	-0.09%
90th Pct	11.47%	10.44%	-1.03%
Mean	-0.60%	-0.47%	0.13%
Std Dev	11.28%	10.14%	-1.14%
Skew	-1.08	-1.05	0.03
Kurtosis	1.90	1.85	-0.06

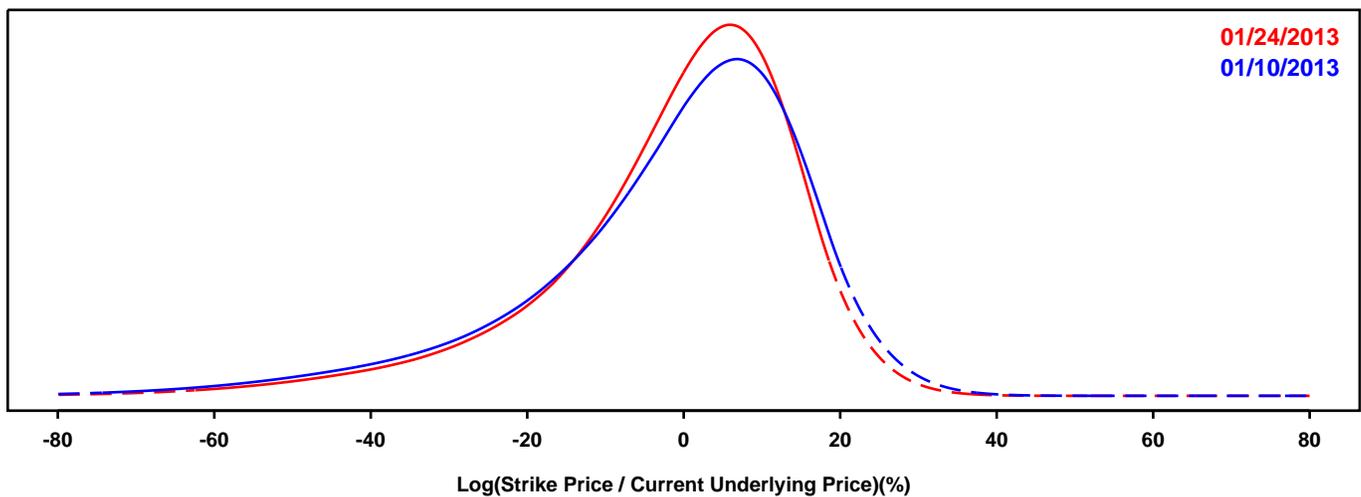
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- S&P 500

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

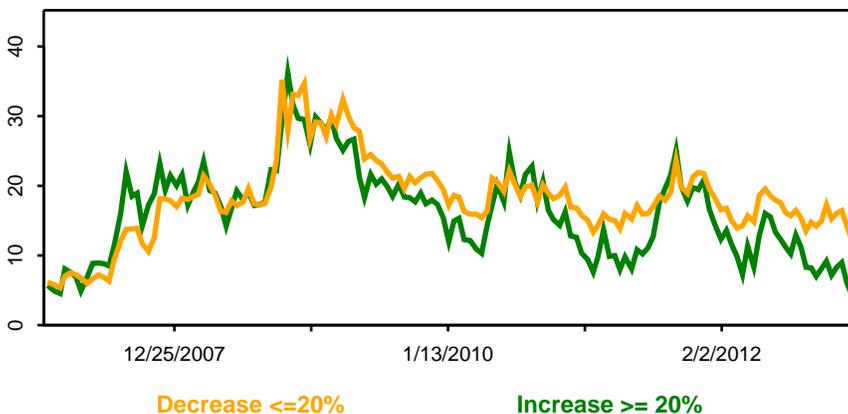
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change

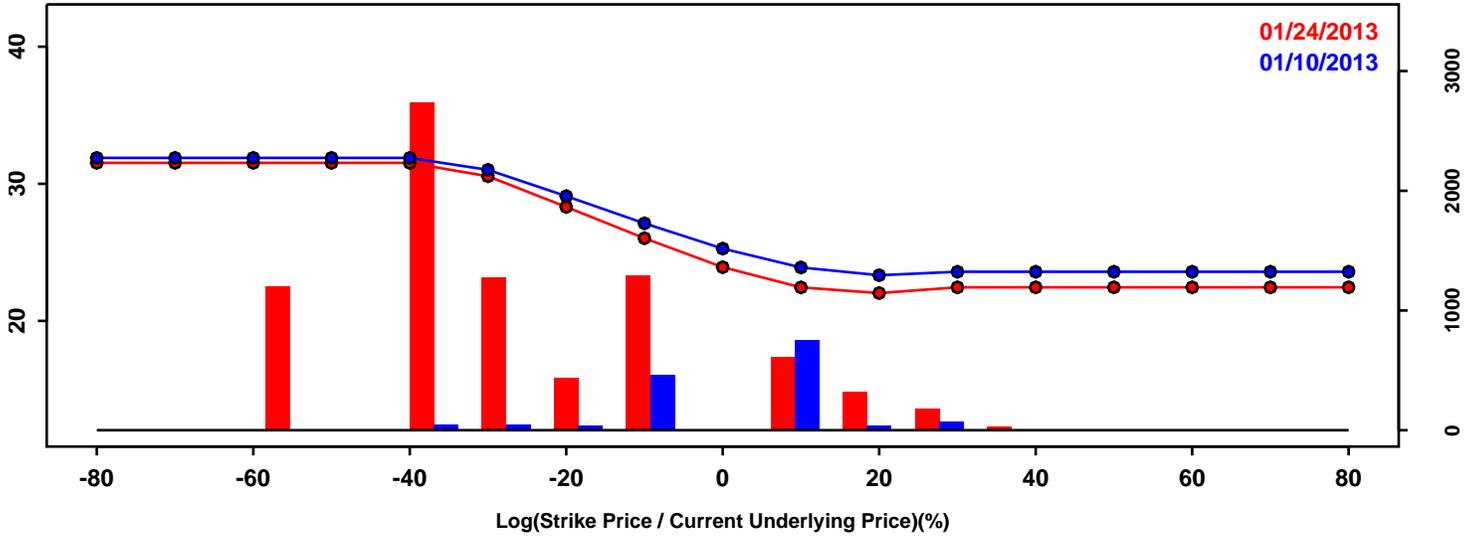


Statistics of the Log Return Distributions			
	01/10/2013	01/24/2013	Change
10th Pct	-26.01%	-23.00%	3.02%
50th Pct	1.82%	1.68%	-0.15%
90th Pct	17.19%	15.71%	-1.48%
Mean	-1.74%	-1.39%	0.35%
Std Dev	18.14%	16.40%	-1.74%
Skew	-1.17	-1.21	-0.03
Kurtosis	1.98	2.23	0.25

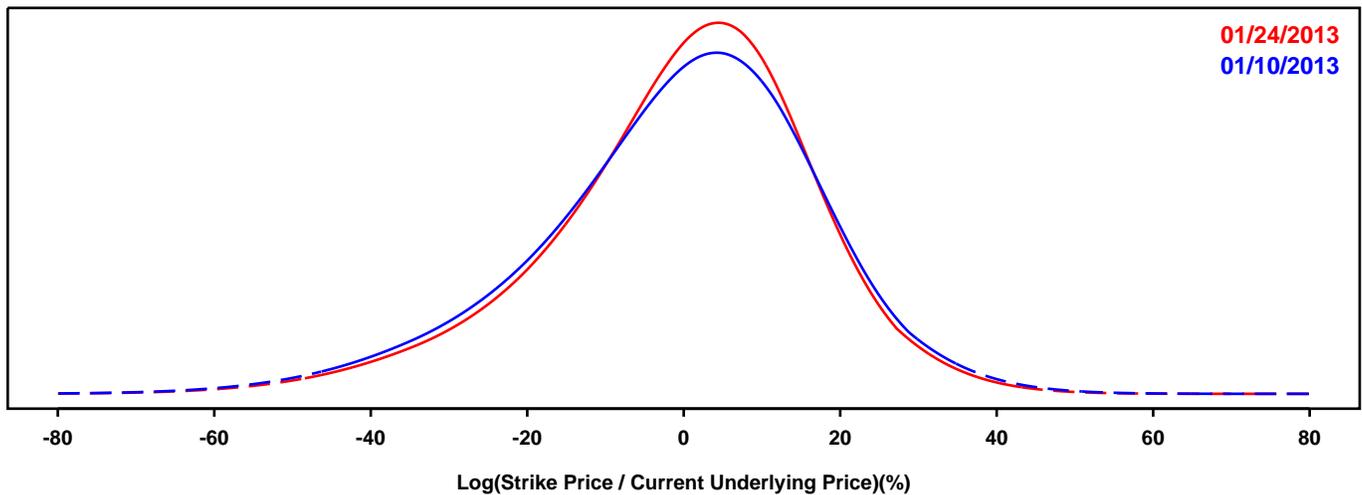
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- CRUDE OIL FUTURES (WTI)

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

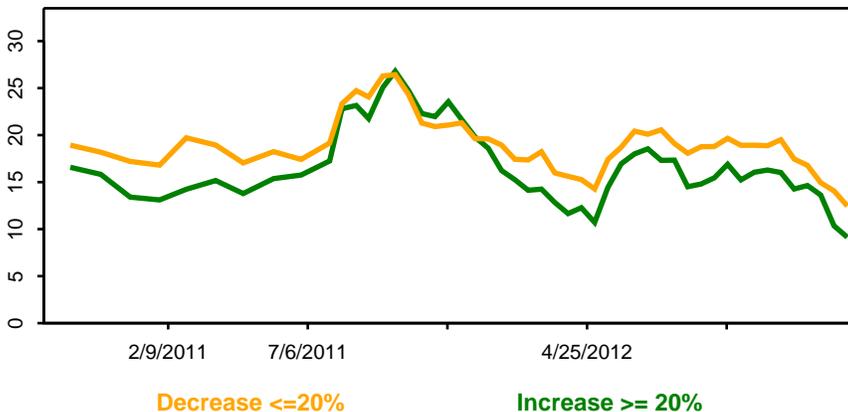
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change

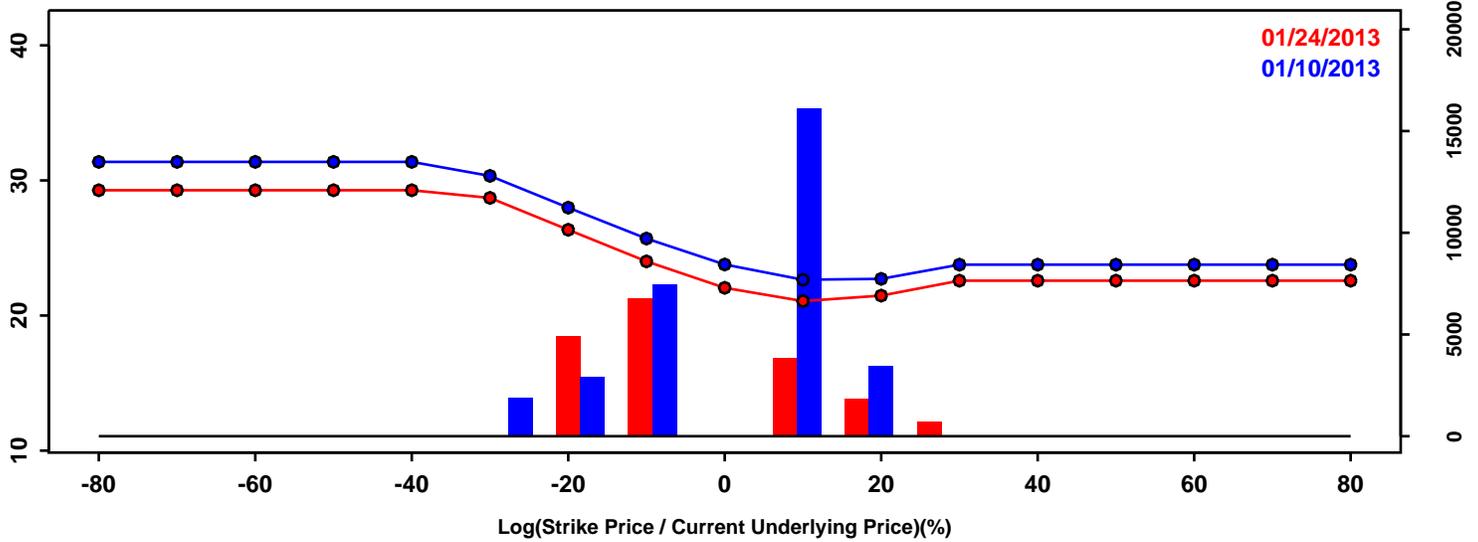


Statistics of the Log Return Distributions			
	01/10/2013	01/24/2013	Change
10th Pct	-24.85%	-22.98%	1.87%
50th Pct	1.00%	1.40%	0.40%
90th Pct	20.28%	19.28%	-1.00%
Mean	-0.75%	-0.37%	0.38%
Std Dev	18.09%	17.12%	-0.98%
Skew	-0.50	-0.57	-0.07
Kurtosis	0.60	0.81	0.21

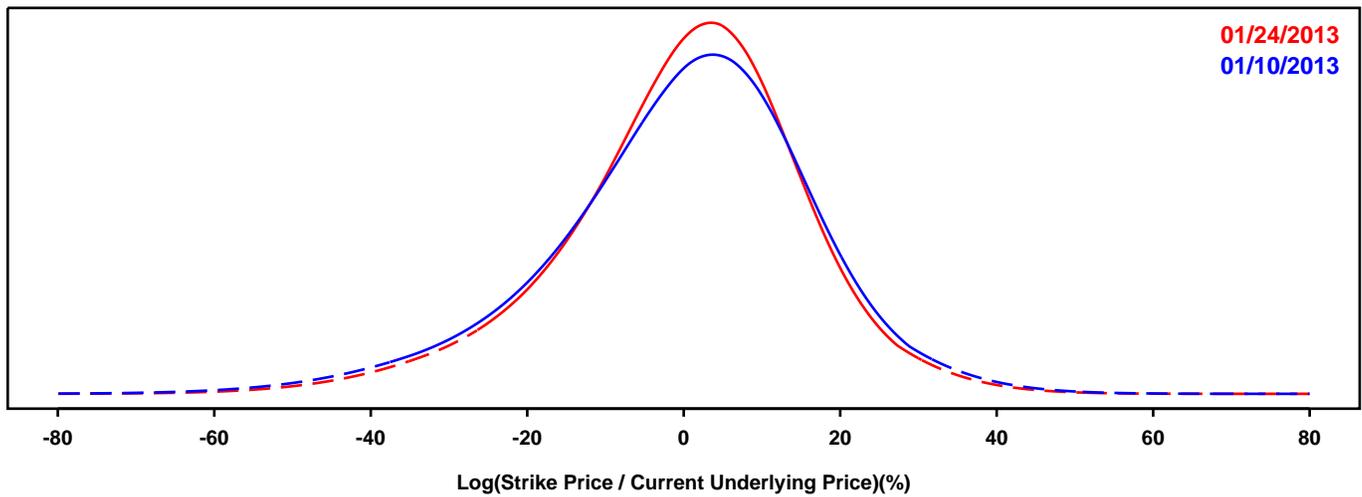
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- CRUDE OIL FUTURES (Brent)

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

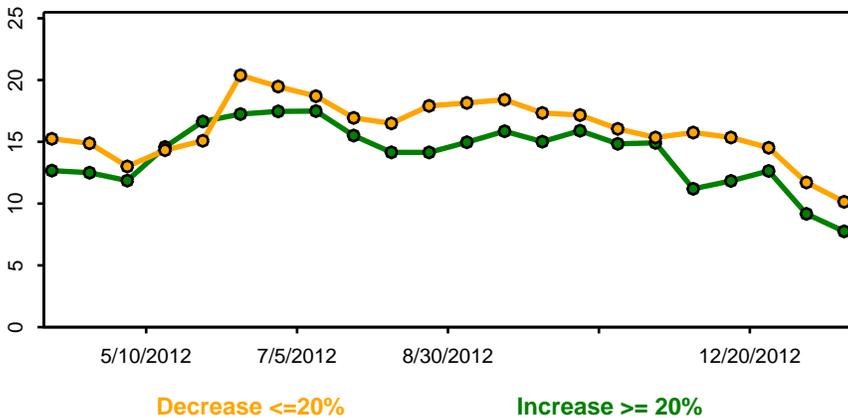
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change

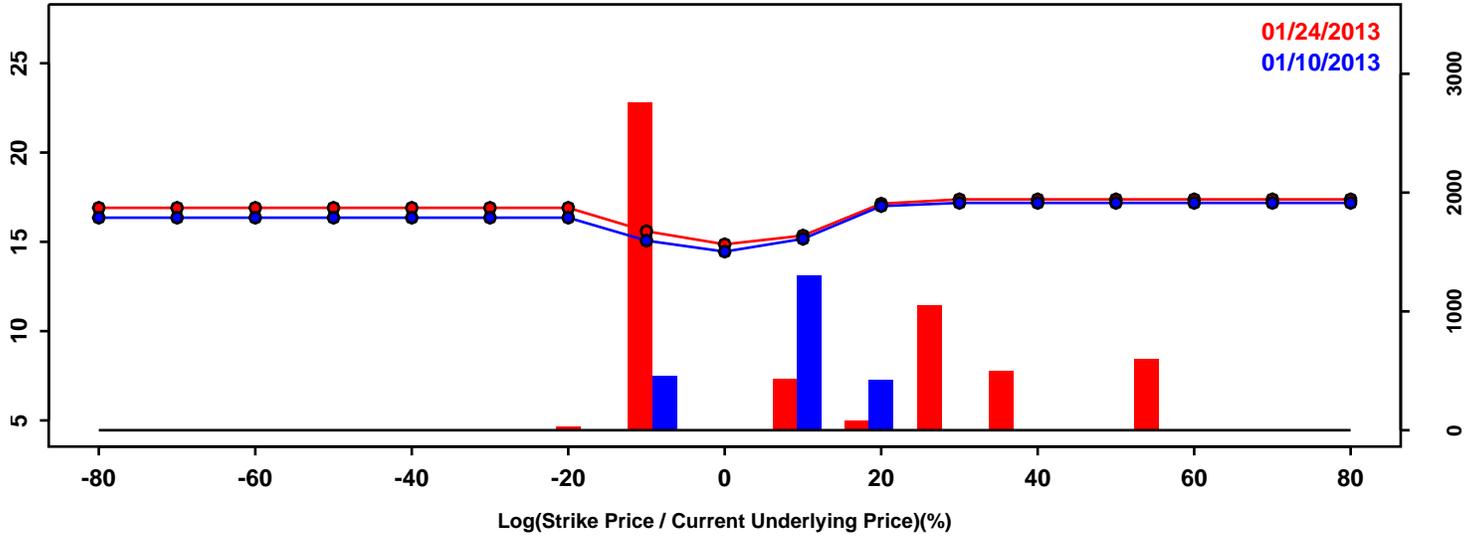


	01/10/2013	01/24/2013	Change
10th Pct	-22.08%	-20.19%	1.89%
50th Pct	1.29%	1.32%	0.02%
90th Pct	19.27%	18.00%	-1.27%
Mean	-0.17%	0.03%	0.20%
Std Dev	16.87%	15.62%	-1.25%
Skew	-0.50	-0.49	0.01
Kurtosis	0.87	0.93	0.06

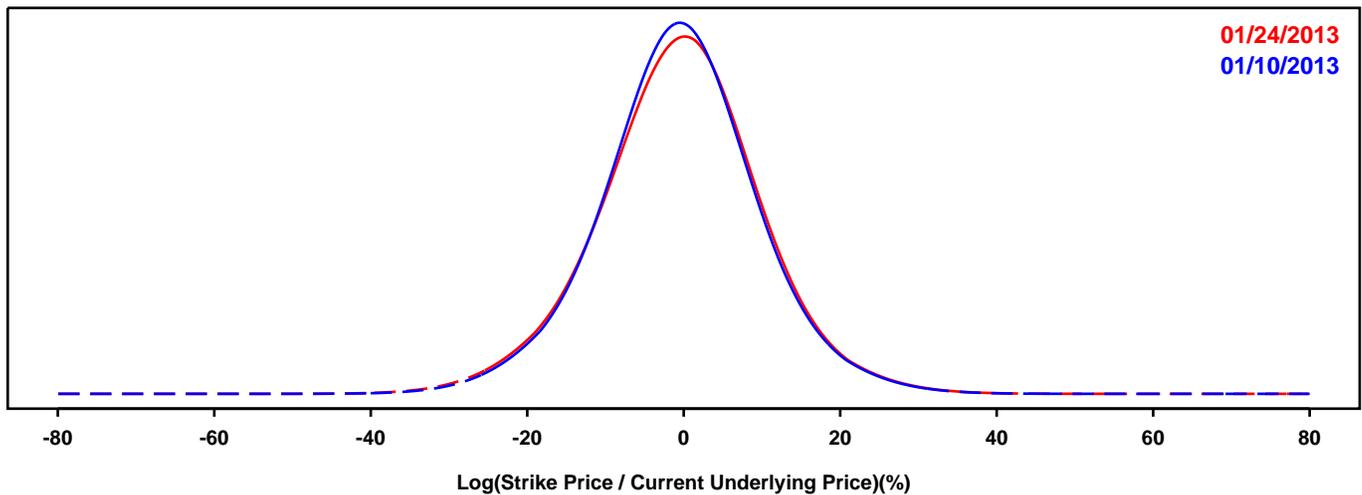
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- GOLD FUTURES

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

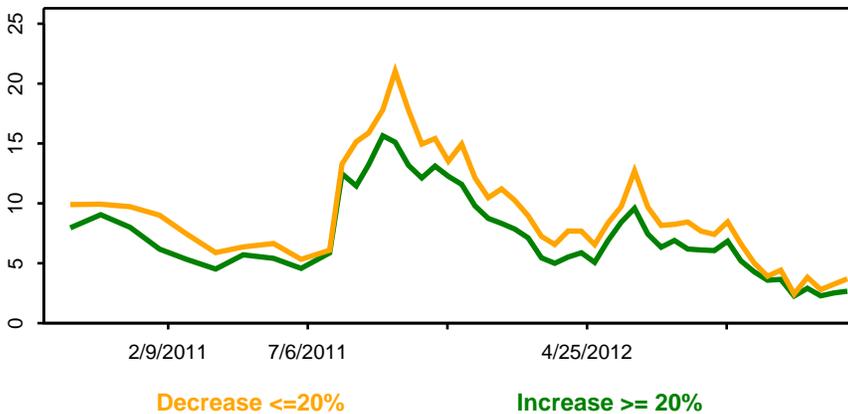
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change

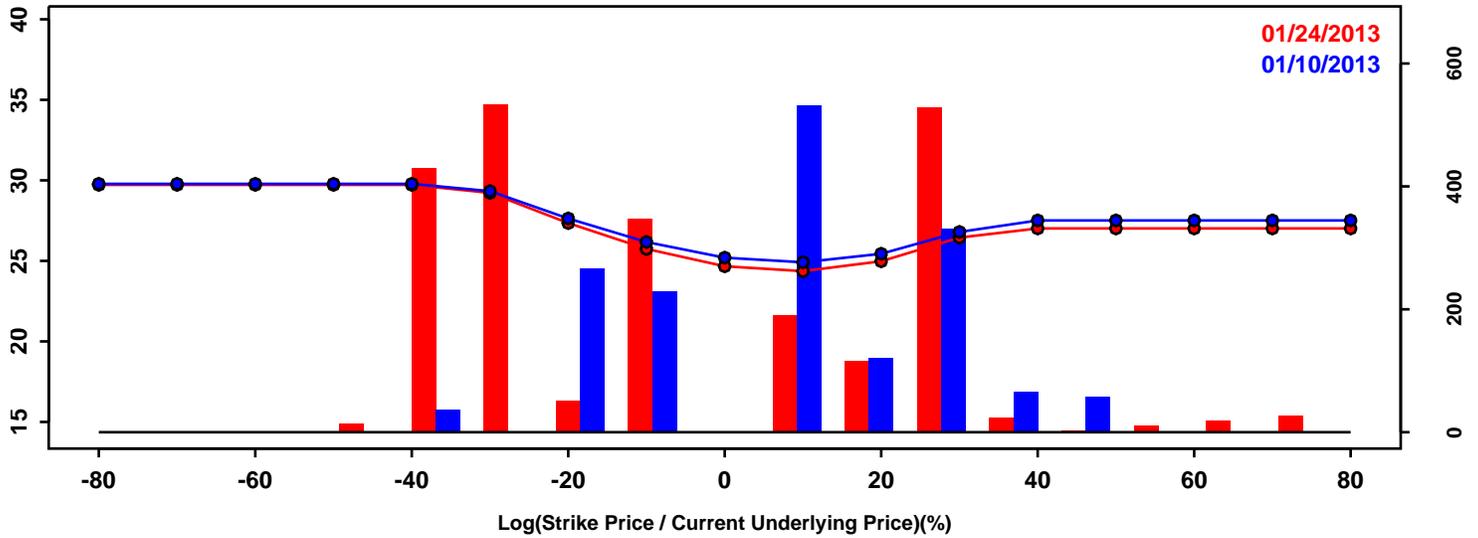


Statistics of the Log Return Distributions			
	01/10/2013	01/24/2013	Change
10th Pct	-13.20%	-13.70%	-0.50%
50th Pct	-0.52%	-0.36%	0.16%
90th Pct	11.95%	12.28%	0.34%
Mean	-0.55%	-0.50%	0.05%
Std Dev	10.18%	10.49%	0.30%
Skew	-0.00	-0.06	-0.06
Kurtosis	0.60	0.56	-0.04

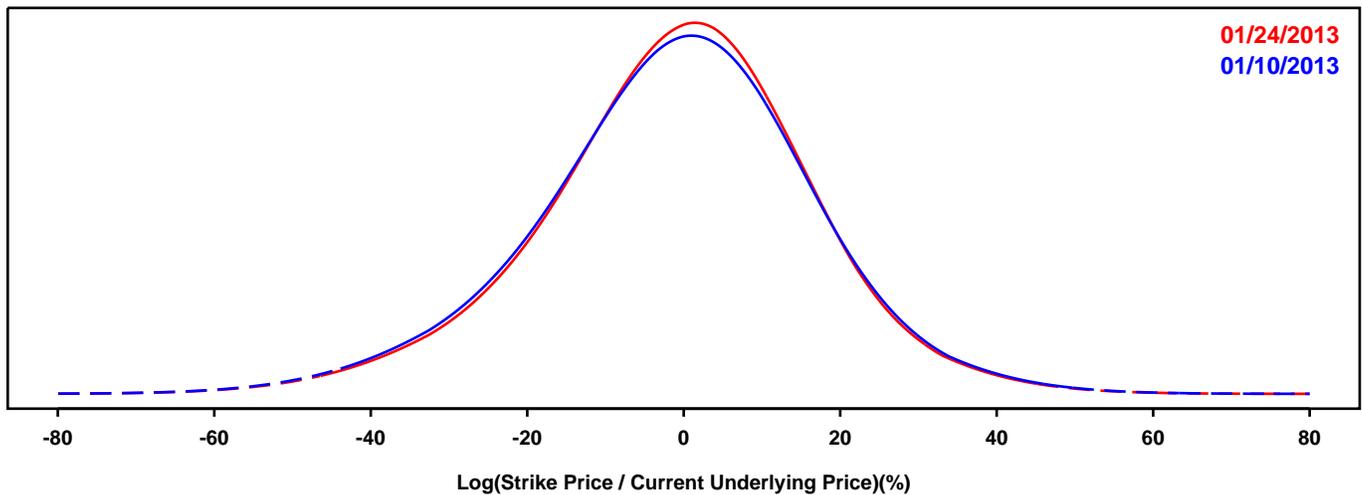
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- SILVER FUTURES

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

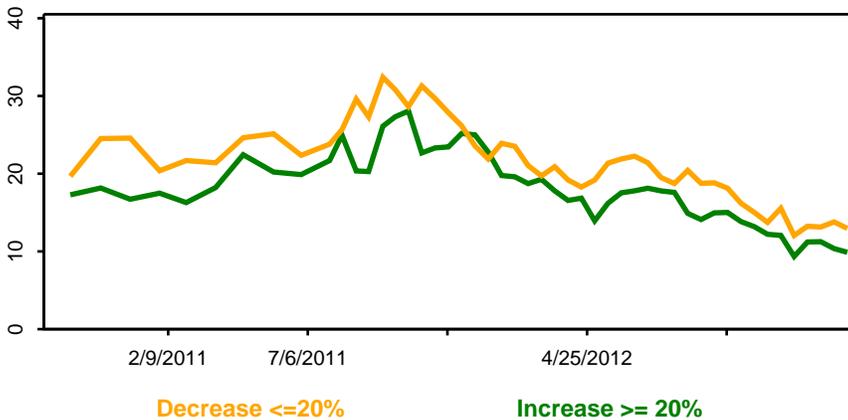
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change

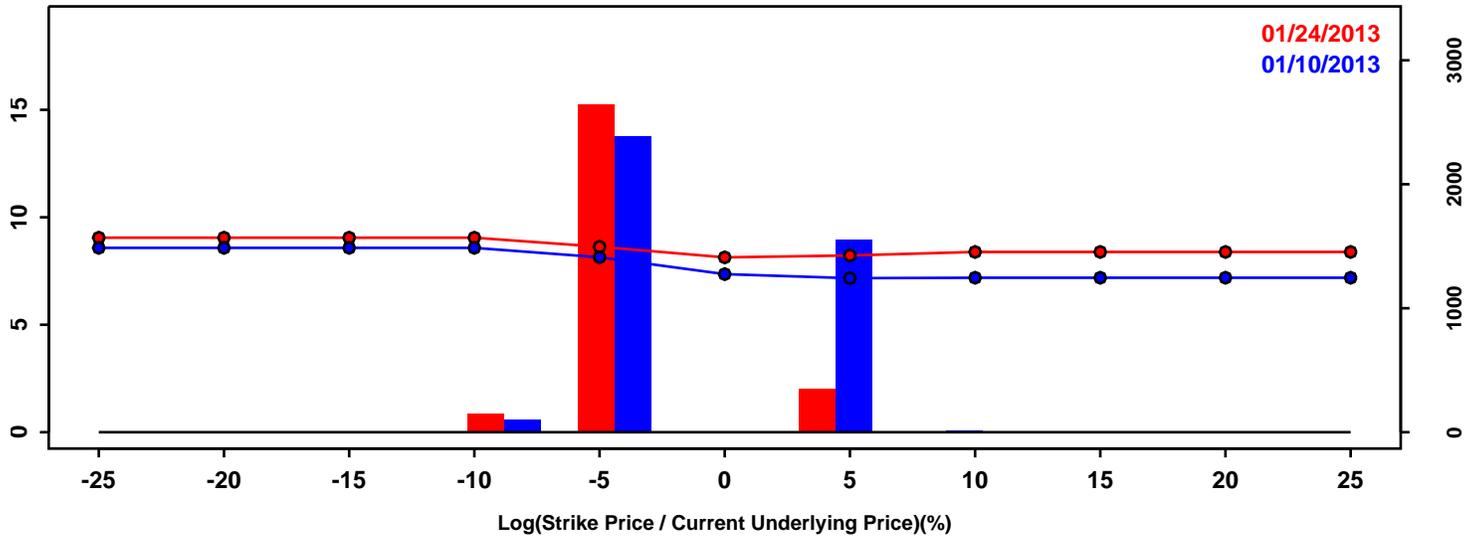


Statistics of the Log Return Distributions			
	01/10/2013	01/24/2013	Change
10th Pct	-24.06%	-23.20%	0.86%
50th Pct	-0.37%	-0.10%	0.28%
90th Pct	20.36%	19.86%	-0.49%
Mean	-1.13%	-0.91%	0.22%
Std Dev	17.87%	17.42%	-0.45%
Skew	-0.22	-0.25	-0.03
Kurtosis	0.54	0.62	0.08

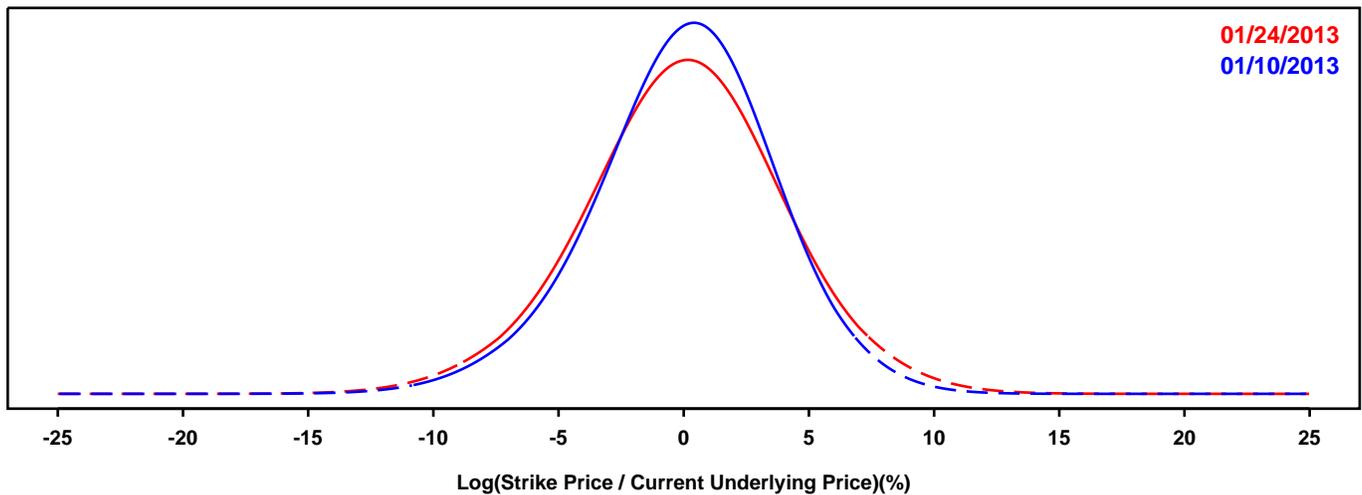
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- DOLLAR-EURO EXCHANGE RATE FUTURES

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

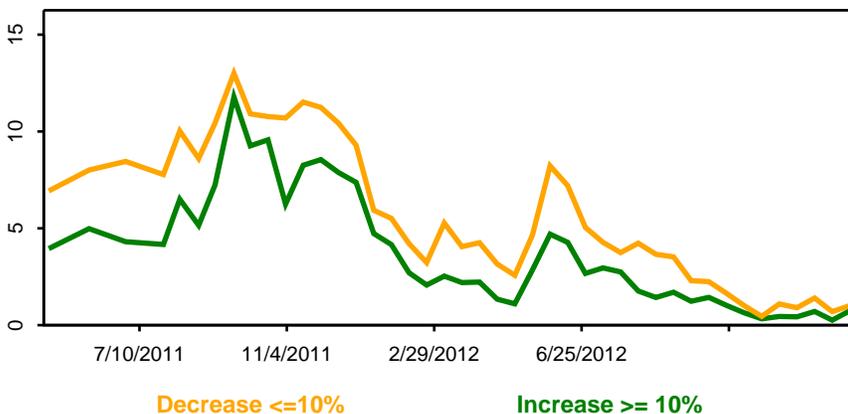
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change

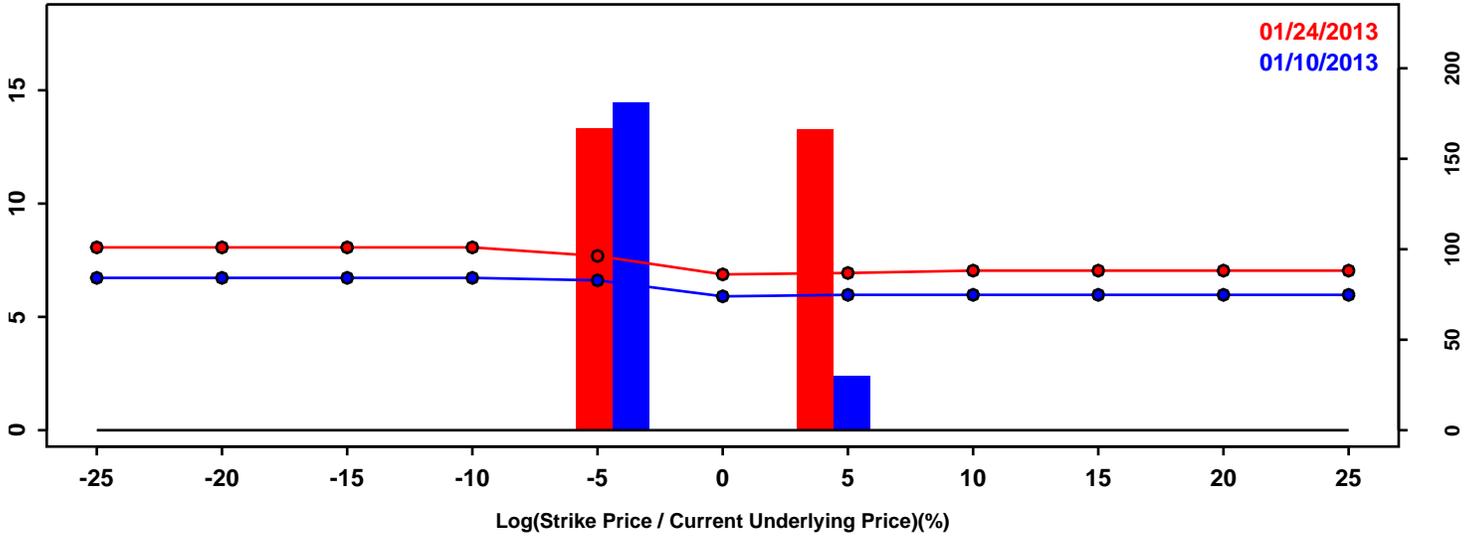


Statistics of the Log Return Distributions			
	01/10/2013	01/24/2013	Change
10th Pct	-4.65%	-5.14%	-0.49%
50th Pct	0.17%	0.07%	-0.10%
90th Pct	4.54%	5.09%	0.55%
Mean	0.07%	0.05%	-0.01%
Std Dev	3.67%	4.06%	0.39%
Skew	-0.22	-0.09	0.13
Kurtosis	0.33	0.29	-0.05

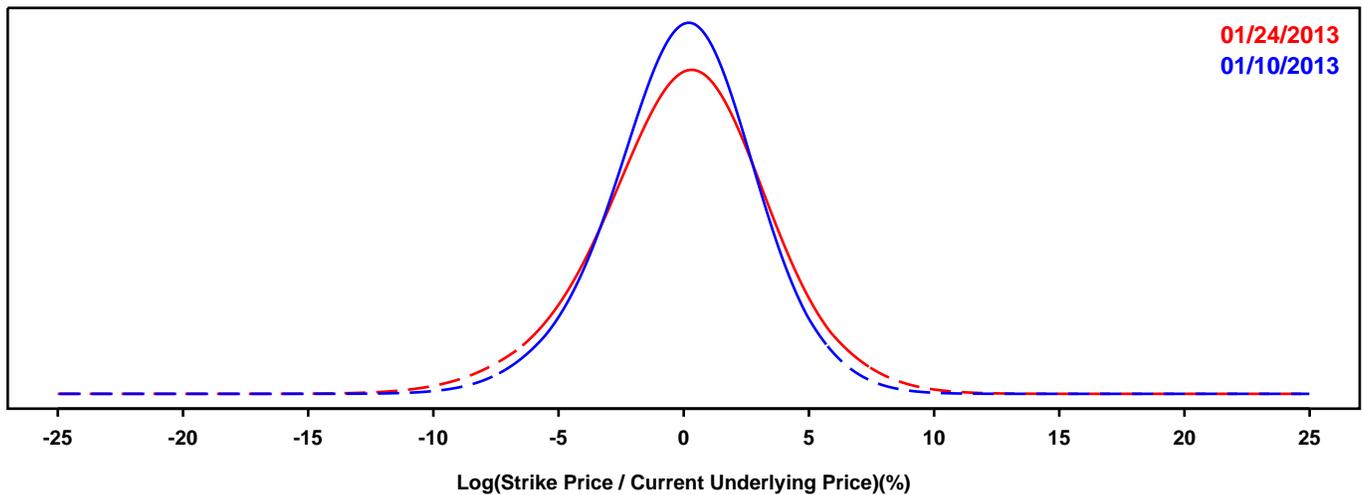
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- DOLLAR-POUND EXCHANGE RATE FUTURES

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

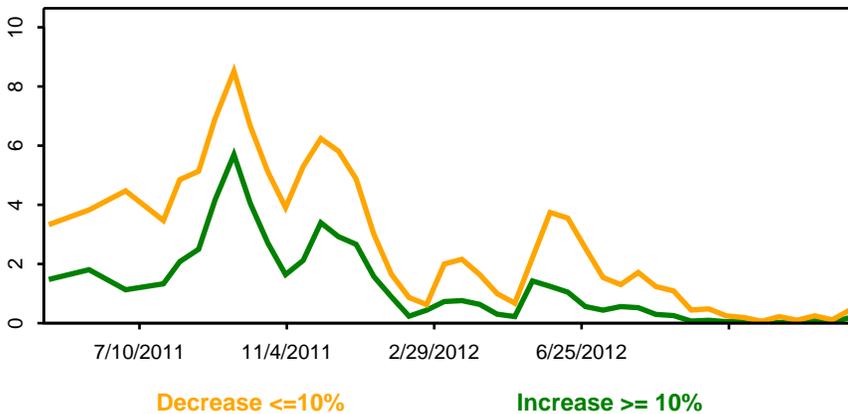
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change

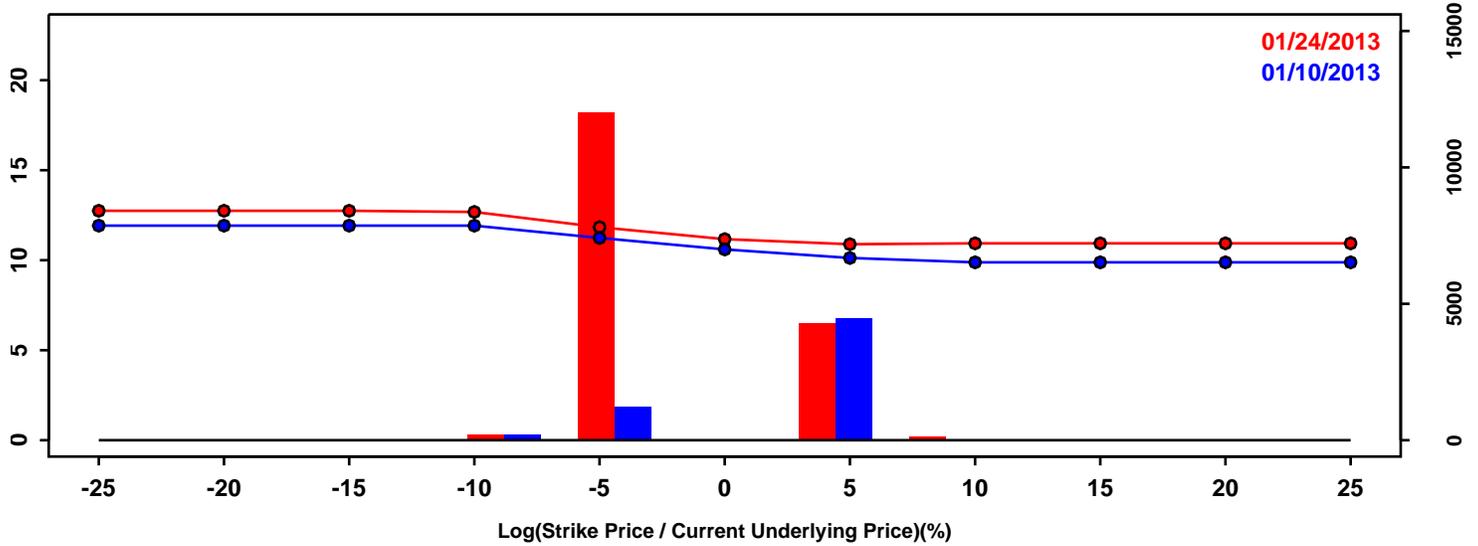


Statistics of the Log Return Distributions			
	01/10/2013	01/24/2013	Change
10th Pct	-3.79%	-4.35%	-0.56%
50th Pct	0.06%	0.13%	0.07%
90th Pct	3.63%	4.23%	0.60%
Mean	0.01%	0.06%	0.04%
Std Dev	2.95%	3.43%	0.48%
Skew	-0.15	-0.18	-0.03
Kurtosis	0.31	0.42	0.11

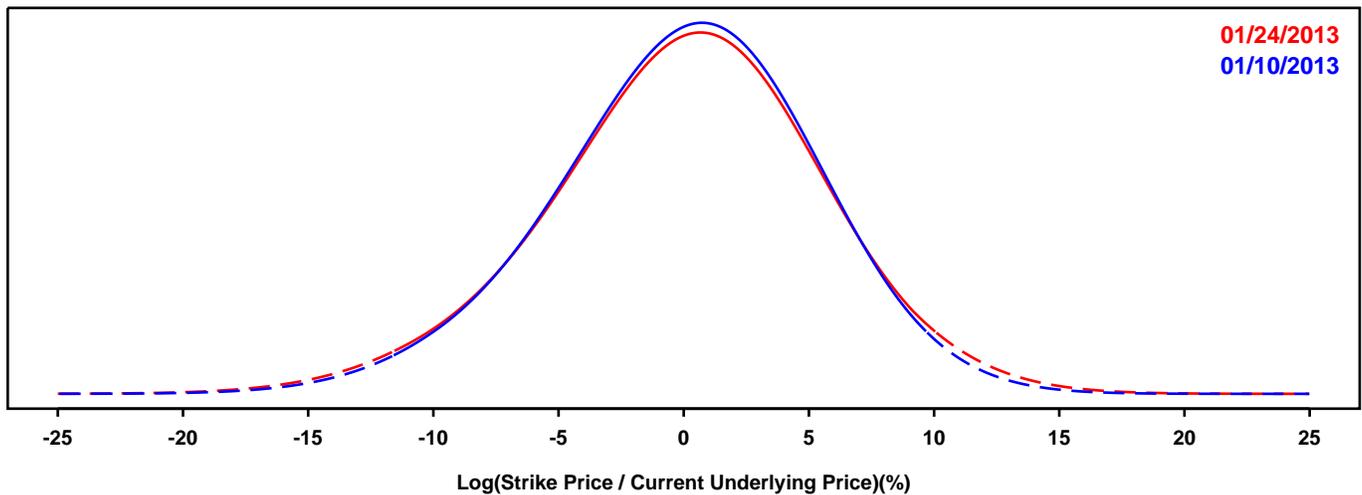
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- YEN-DOLLAR EXCHANGE RATE FUTURES

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

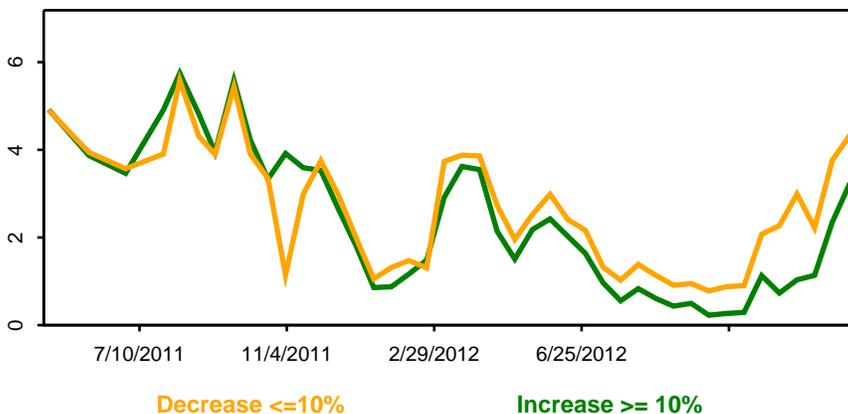
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change

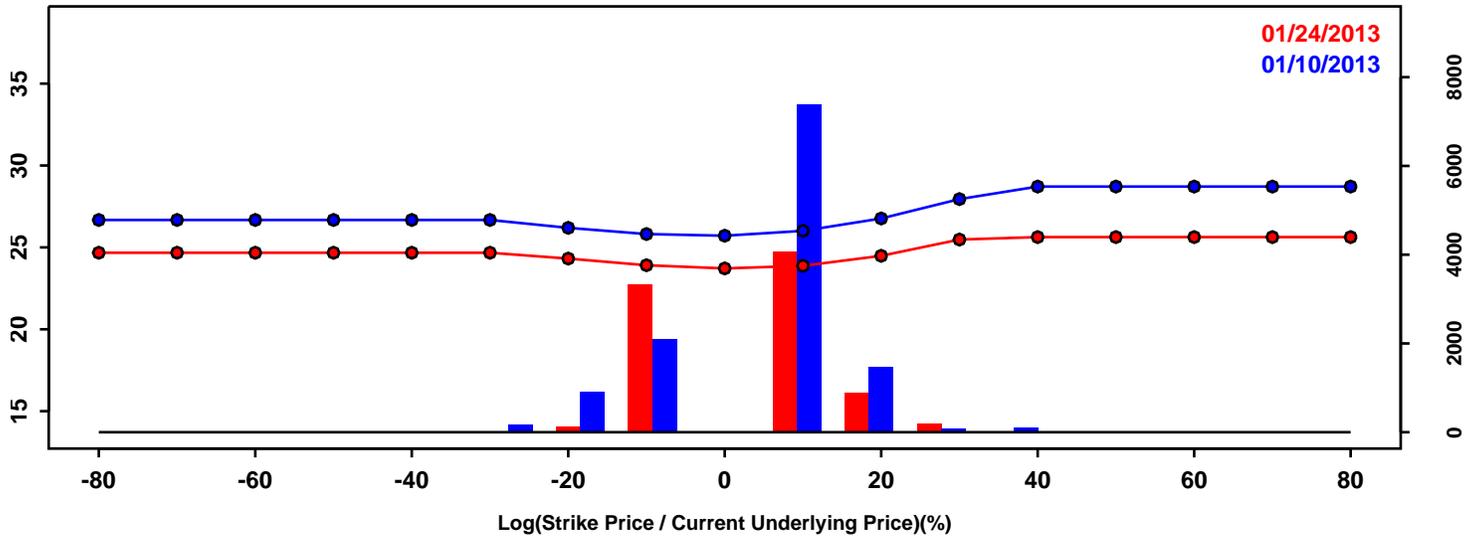


Statistics of the Log Return Distributions			
	01/10/2013	01/24/2013	Change
10th Pct	-6.87%	-7.15%	-0.28%
50th Pct	0.28%	0.26%	-0.02%
90th Pct	6.62%	6.93%	0.31%
Mean	0.06%	0.10%	0.04%
Std Dev	5.30%	5.58%	0.27%
Skew	-0.24	-0.21	0.03
Kurtosis	0.17	0.29	0.12

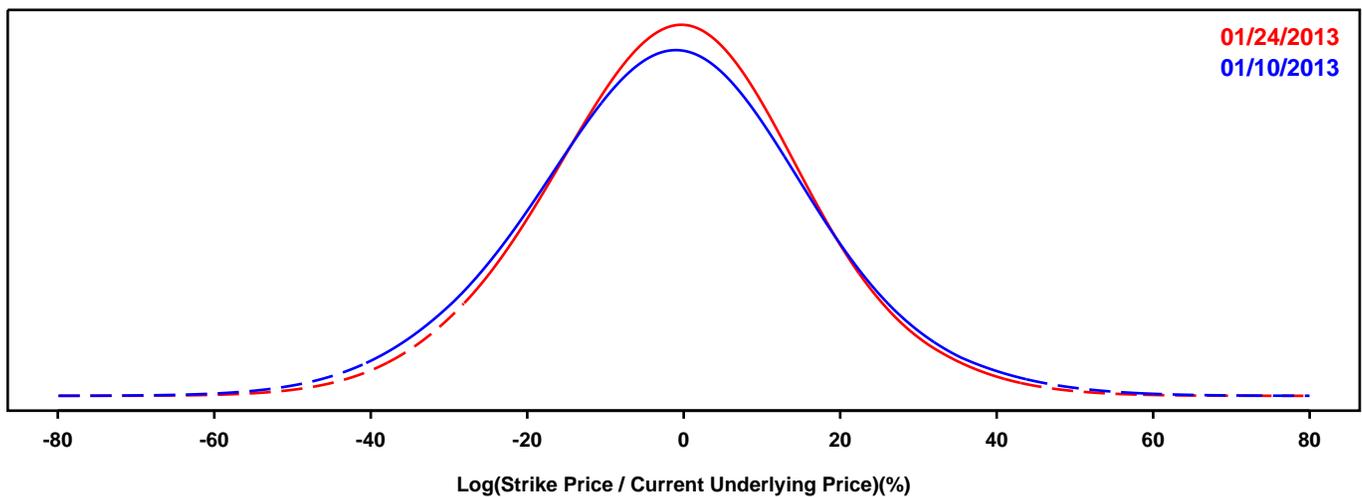
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- CORN FUTURES

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

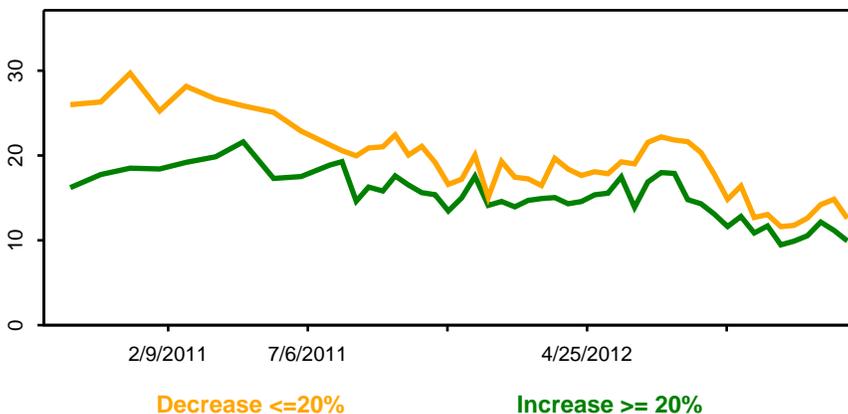
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change

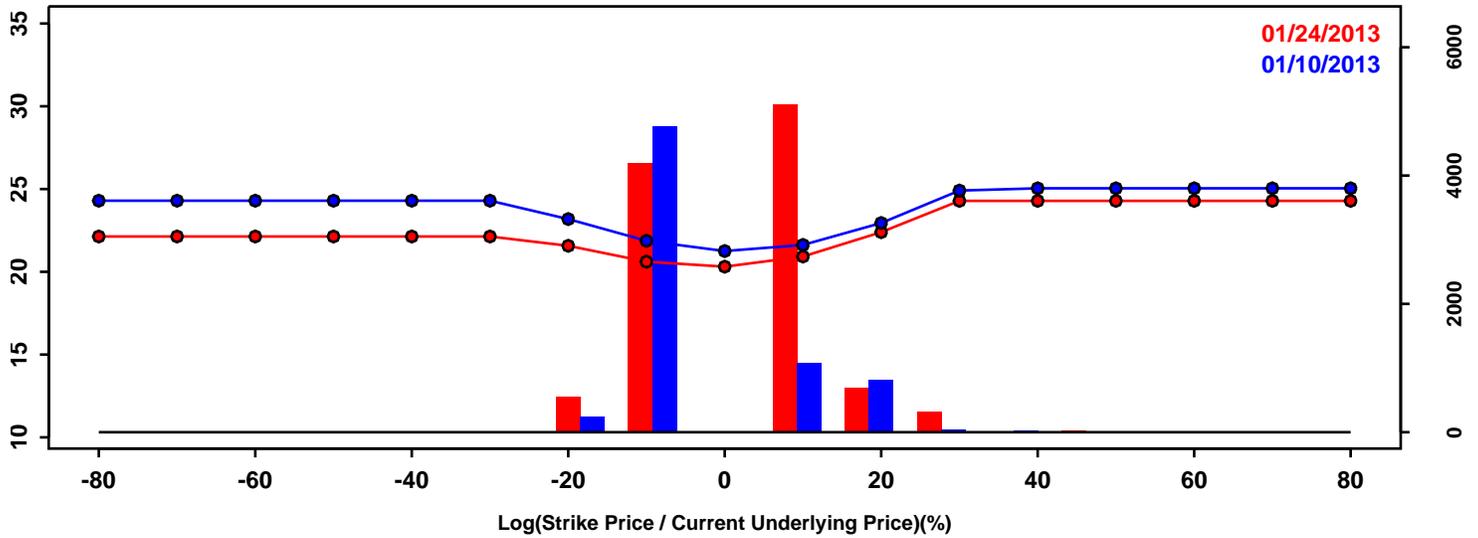


Statistics of the Log Return Distributions			
	01/10/2013	01/24/2013	Change
10th Pct	-24.48%	-22.42%	2.06%
50th Pct	-1.43%	-0.89%	0.53%
90th Pct	21.19%	19.93%	-1.26%
Mean	-1.45%	-1.01%	0.44%
Std Dev	18.11%	16.74%	-1.37%
Skew	0.02	-0.00	-0.03
Kurtosis	0.28	0.22	-0.06

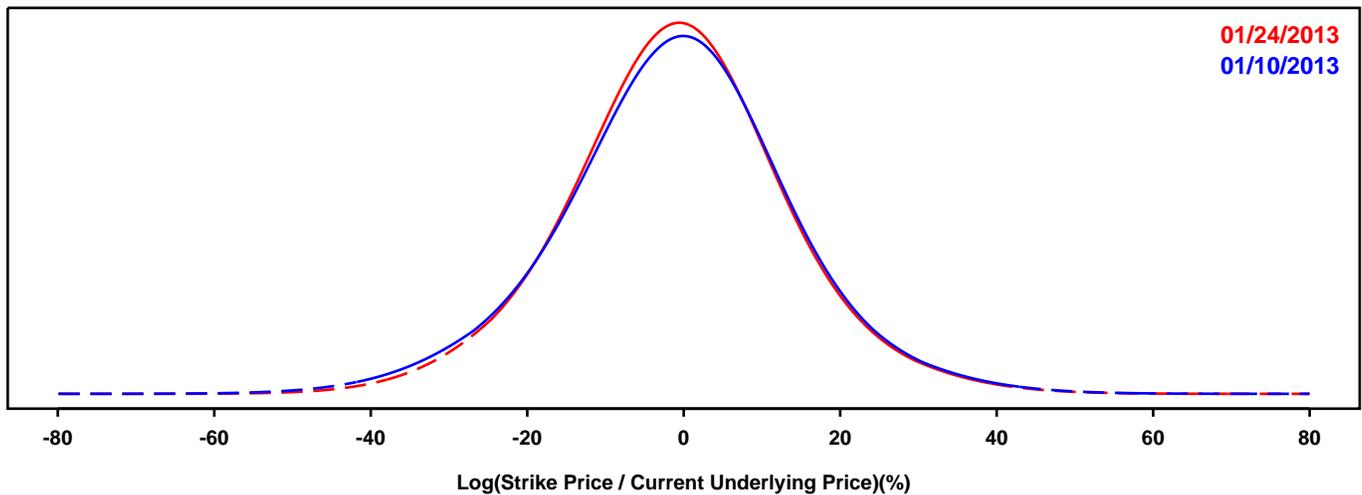
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- SOYBEAN FUTURES

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

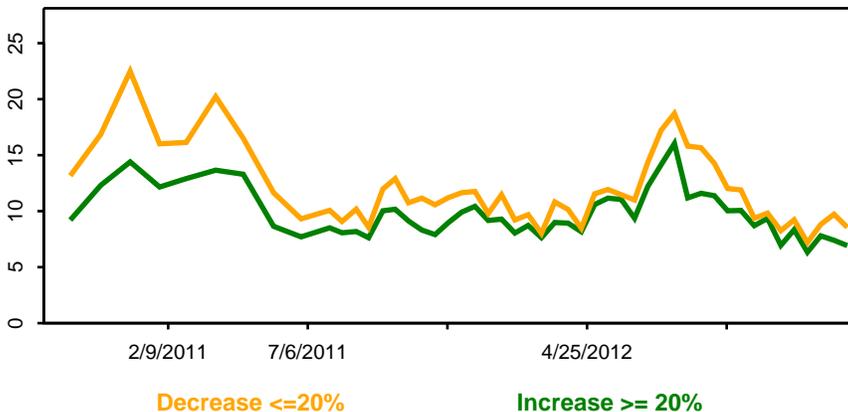
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change

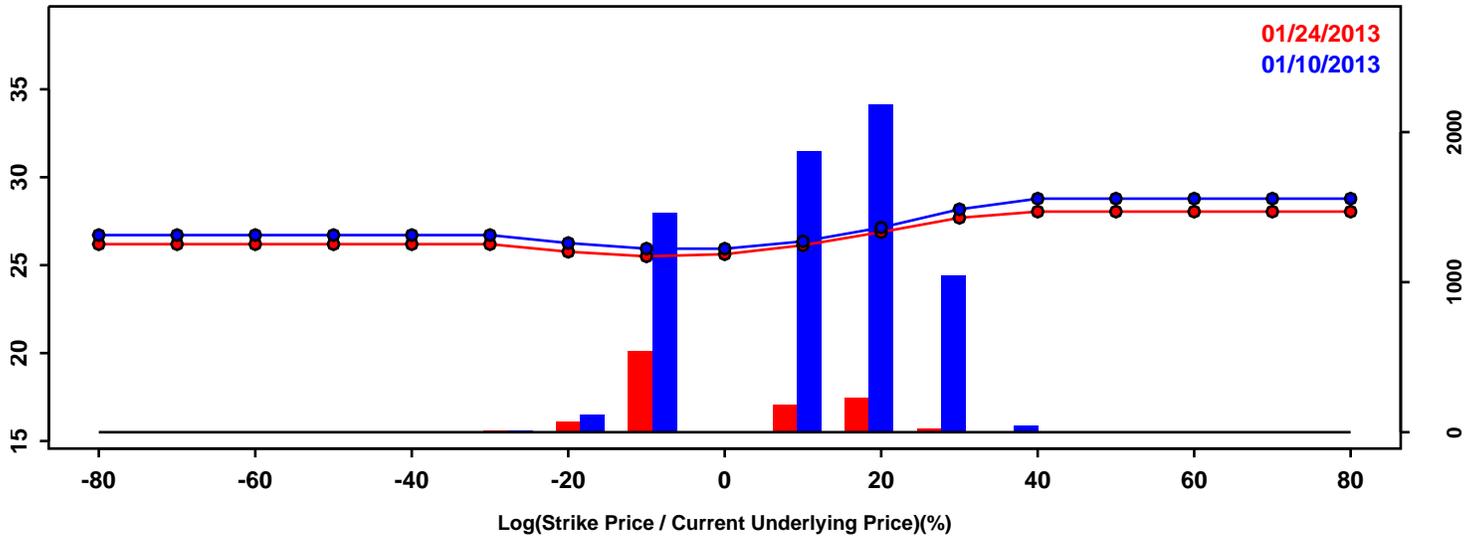


	01/10/2013	01/24/2013	Change
10th Pct	-19.70%	-18.67%	1.03%
50th Pct	-0.66%	-0.79%	-0.13%
90th Pct	17.33%	16.82%	-0.50%
Mean	-0.88%	-0.78%	0.10%
Std Dev	15.00%	14.30%	-0.70%
Skew	-0.06	0.04	0.10
Kurtosis	0.62	0.55	-0.06

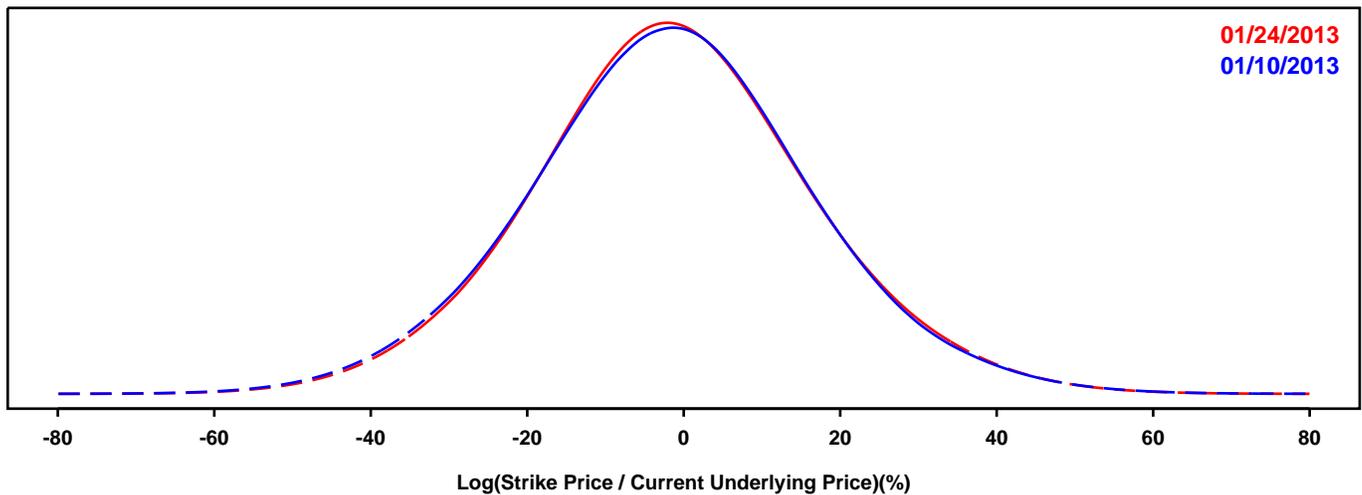
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- WHEAT FUTURES

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

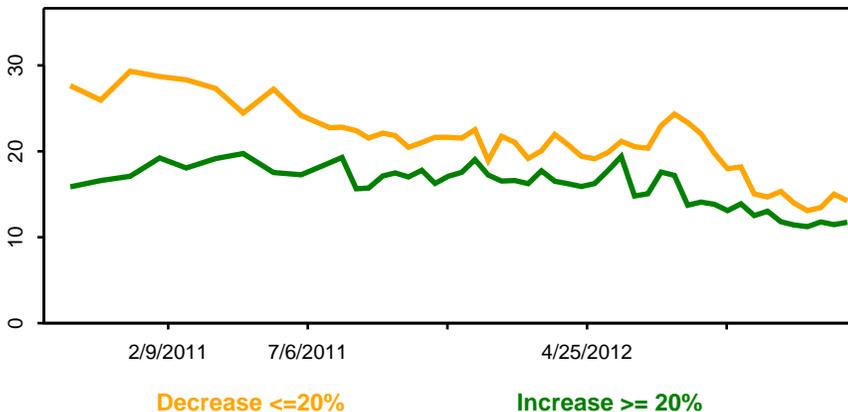
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change

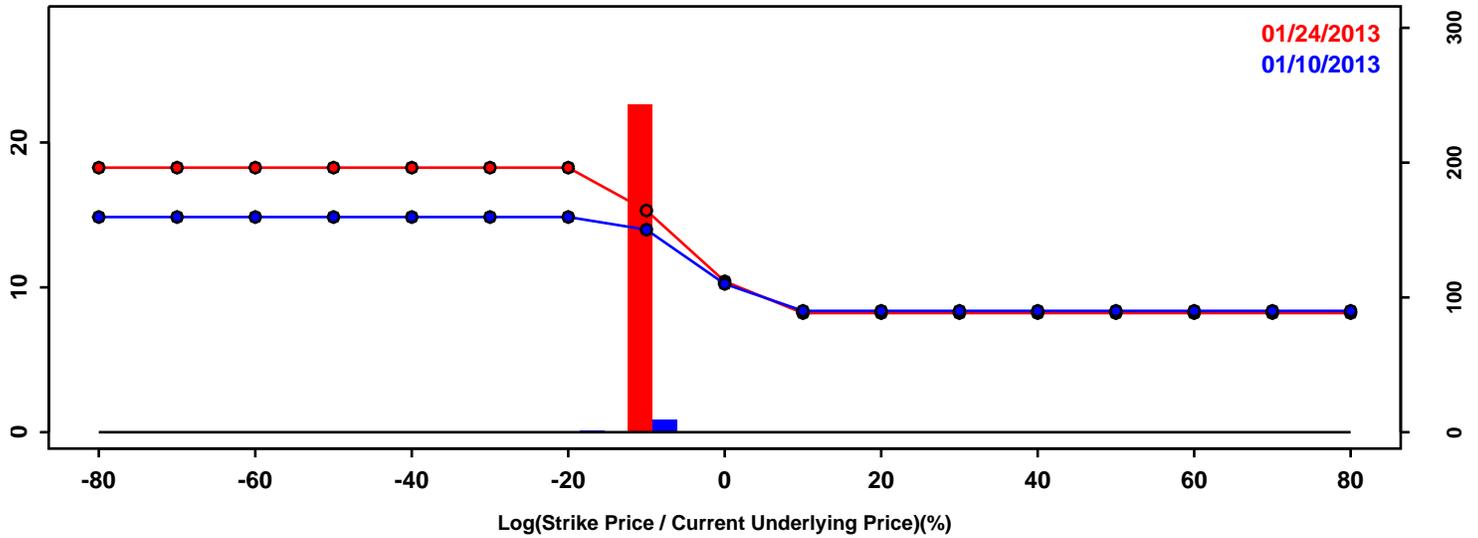


Statistics of the Log Return Distributions			
	01/10/2013	01/24/2013	Change
10th Pct	-24.60%	-23.89%	0.71%
50th Pct	-1.57%	-1.49%	0.08%
90th Pct	21.54%	21.85%	0.31%
Mean	-1.49%	-1.21%	0.28%
Std Dev	18.28%	18.09%	-0.19%
Skew	0.05	0.08	0.03
Kurtosis	0.28	0.25	-0.03

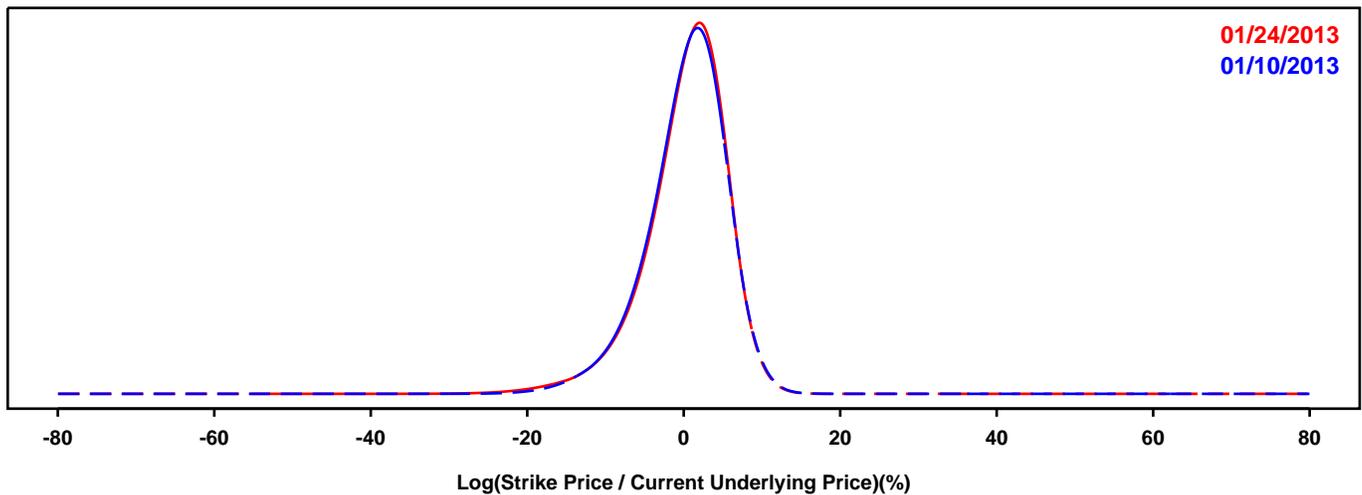
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- iSHARES DOW JONES US REAL ESTATE

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

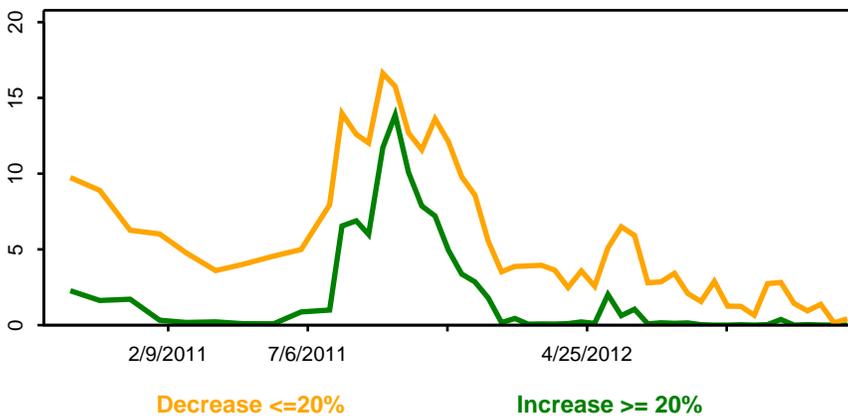
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Statistics of the Log Return Distributions			
	01/10/2013	01/24/2013	Change
10th Pct	-6.35%	-6.45%	-0.10%
50th Pct	0.85%	0.94%	0.09%
90th Pct	6.18%	6.15%	-0.02%
Mean	0.33%	0.29%	-0.04%
Std Dev	5.12%	5.31%	0.19%
Skew	-0.72	-0.98	-0.26
Kurtosis	1.08	2.04	0.96