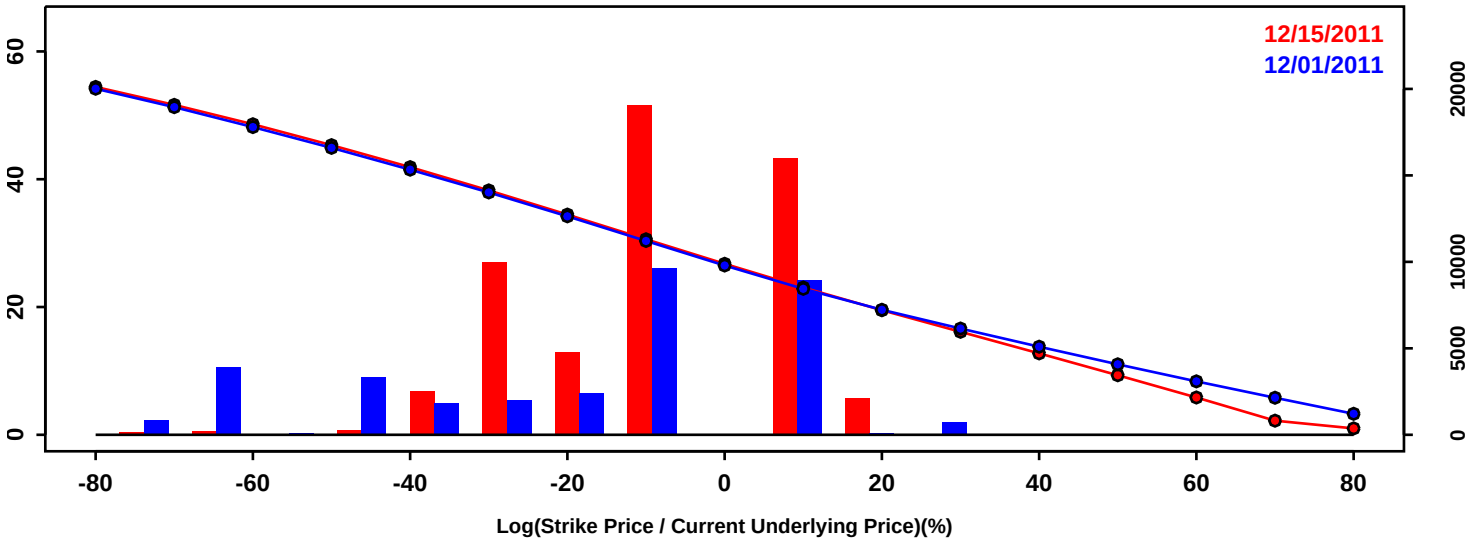
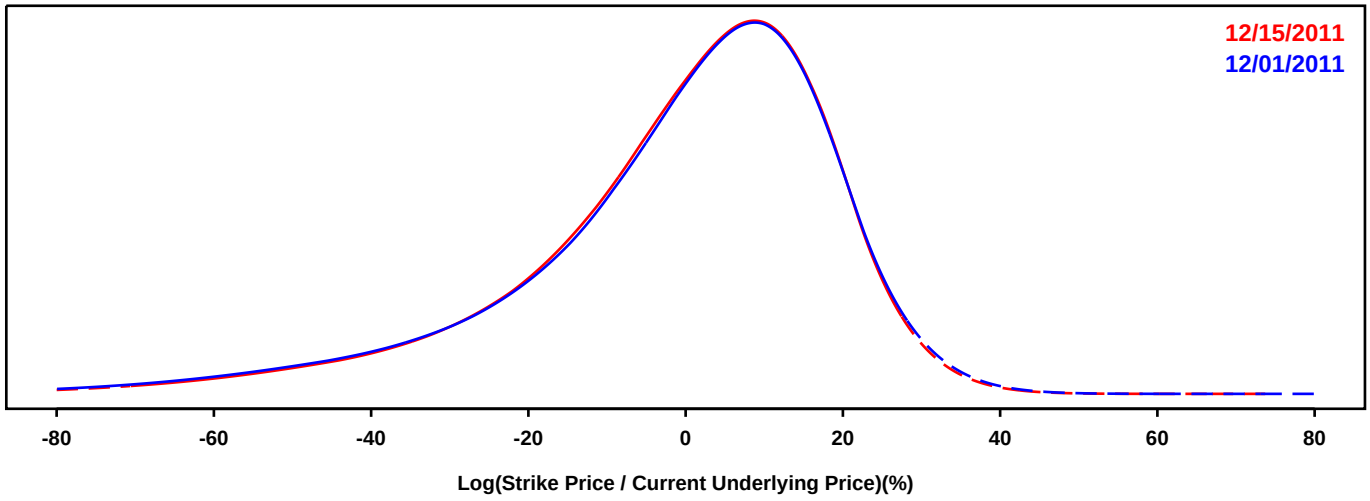
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- S&P 500

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

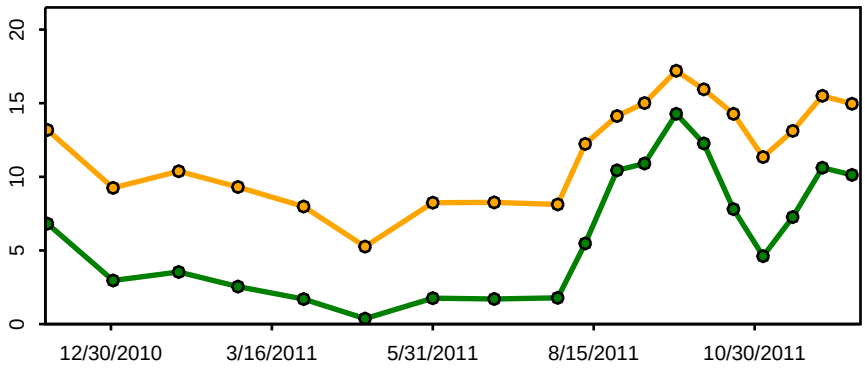
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <=20% Increase >= 20%

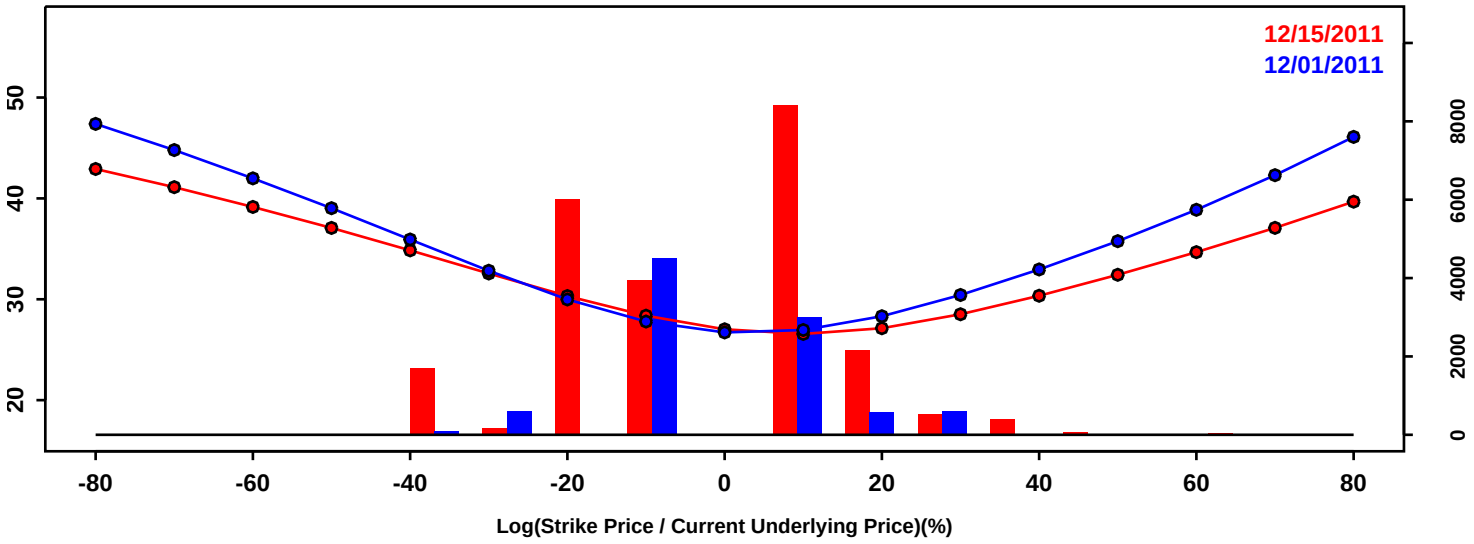
Statistics of the Log Return Distributions

	12/01/2011	12/15/2011	Change
10th Pct	-28.78%	-27.56%	1.22%
50th Pct	2.95%	2.85%	-0.10%
90th Pct	20.42%	20.09%	-0.33%
Mean	-1.12%	-0.95%	0.17%
Std Dev	20.77%	20.07%	-0.70%
Skew	-1.21	-1.17	0.04
Kurtosis	2.13	2.01	-0.12

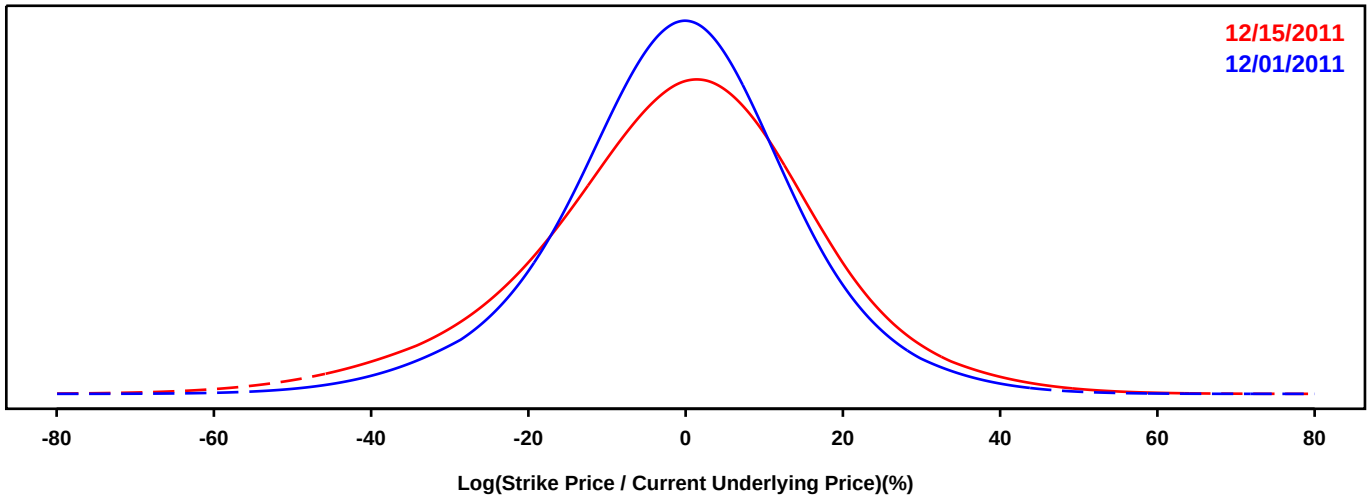
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- GOLD FUTURES

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

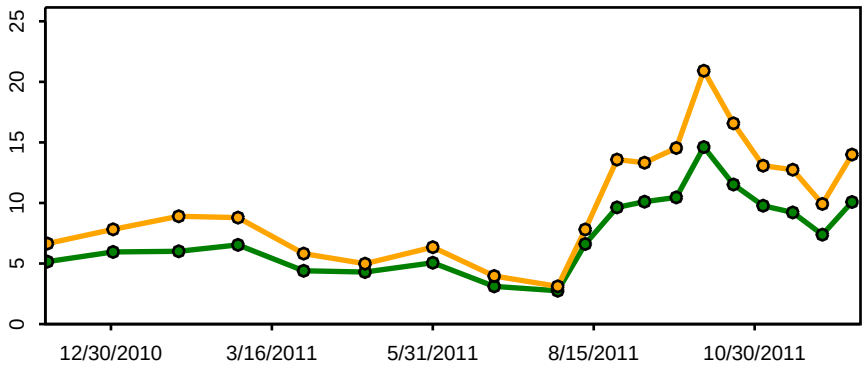
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <=20% Increase >= 20%

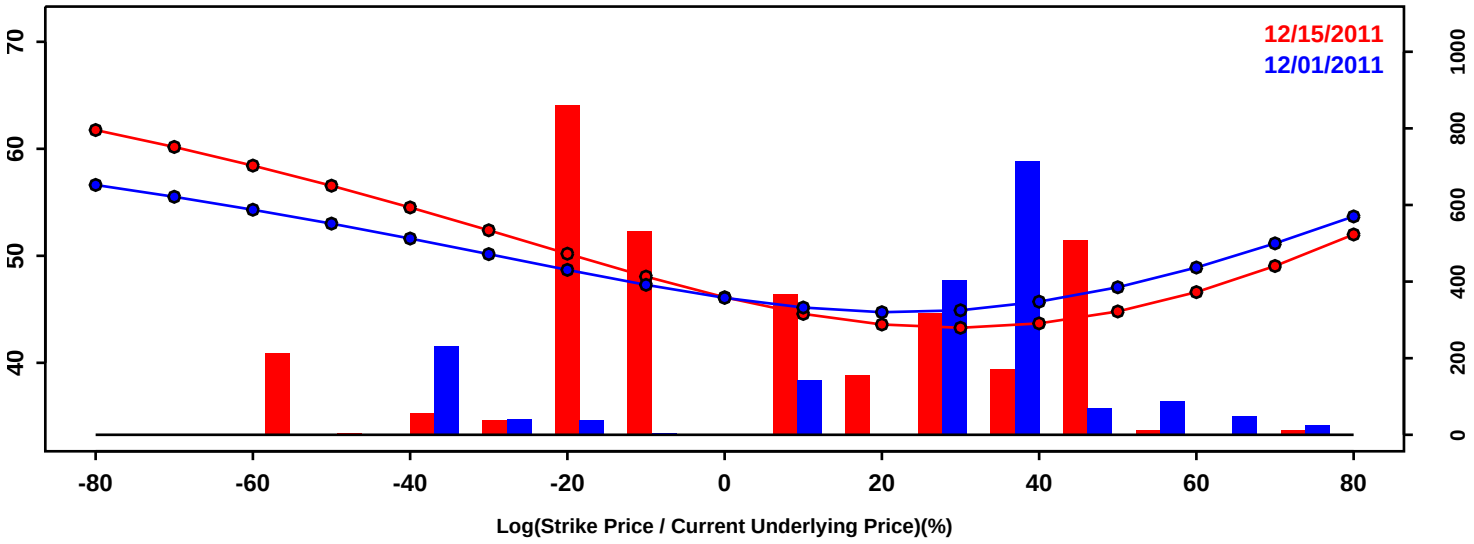
Statistics of the Log Return Distributions

	12/01/2011	12/15/2011	Change
10th Pct	-19.92%	-24.41%	-4.49%
50th Pct	-0.61%	-0.26%	0.35%
90th Pct	17.35%	20.09%	2.74%
Mean	-0.97%	-1.28%	-0.31%
Std Dev	15.16%	18.06%	2.90%
Skew	-0.15	-0.31	-0.16
Kurtosis	0.71	0.70	-0.01

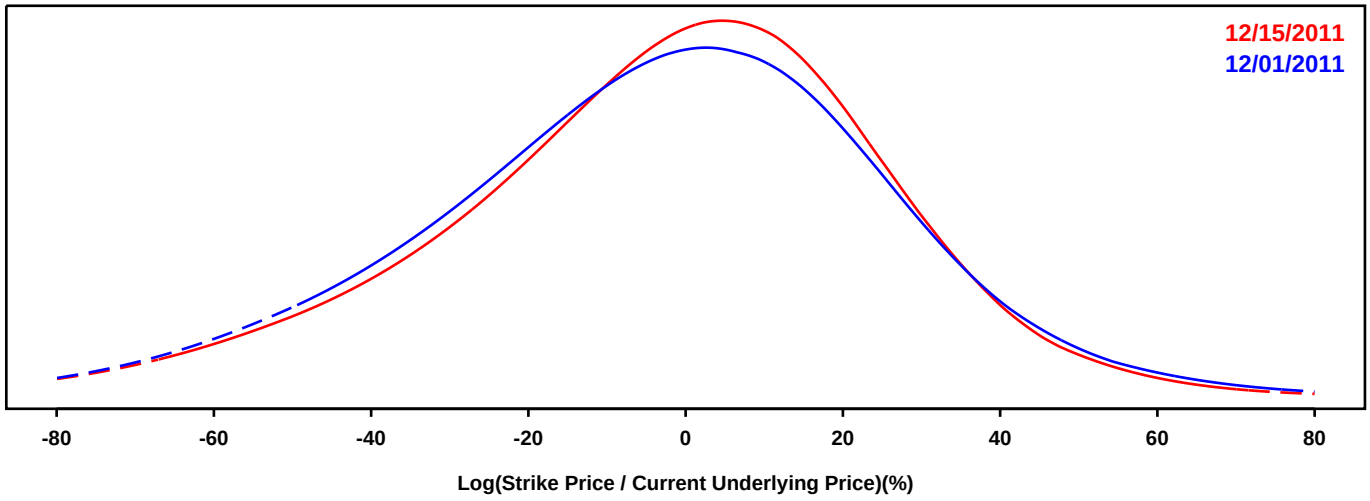
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- SILVER FUTURES

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

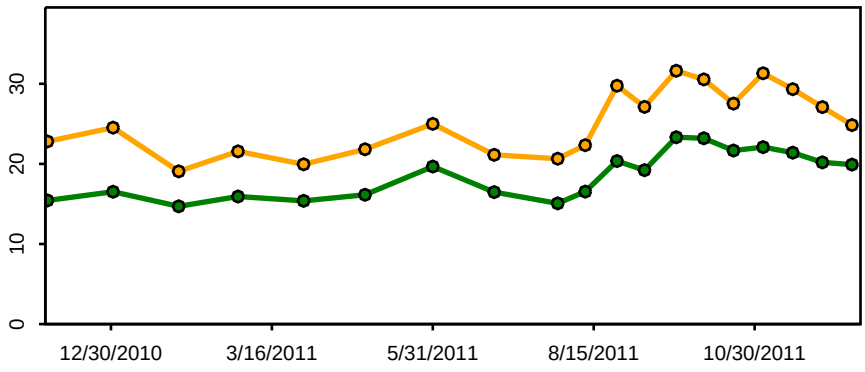
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <=20% Increase >= 20%

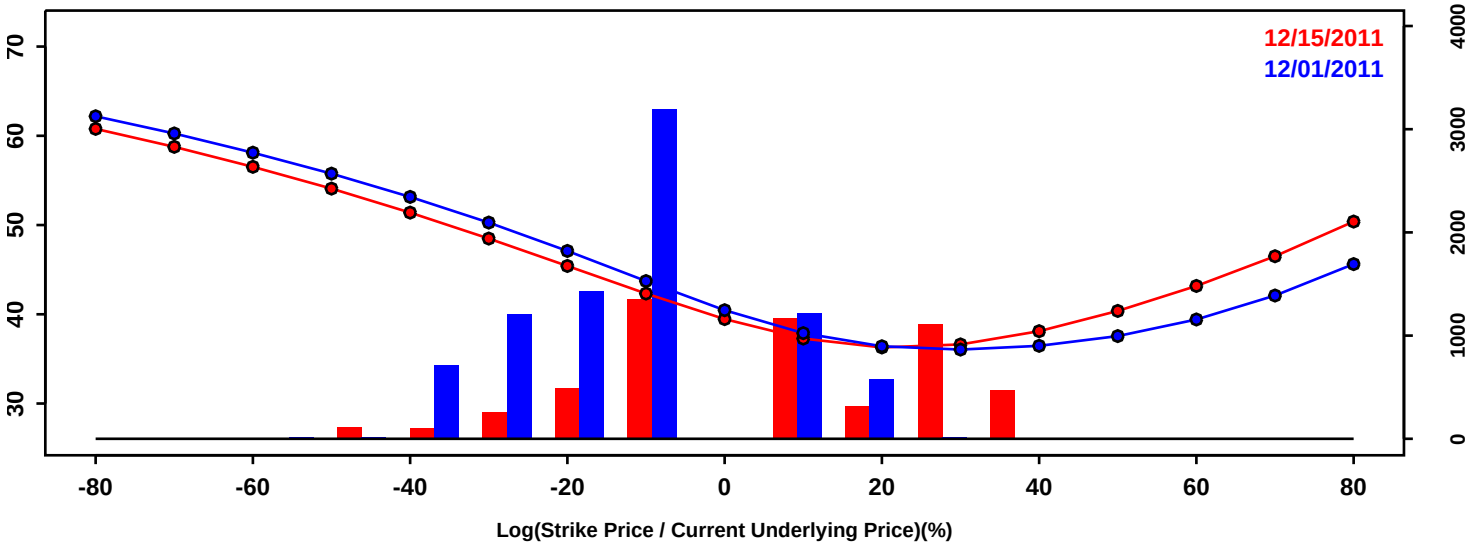
Statistics of the Log Return Distributions

	12/01/2011	12/15/2011	Change
10th Pct	-42.87%	-40.96%	1.90%
50th Pct	-1.82%	-0.41%	1.42%
90th Pct	31.37%	30.16%	-1.21%
Mean	-3.85%	-3.07%	0.79%
Std Dev	29.43%	28.33%	-1.10%
Skew	-0.31	-0.46	-0.15
Kurtosis	0.30	0.48	0.18

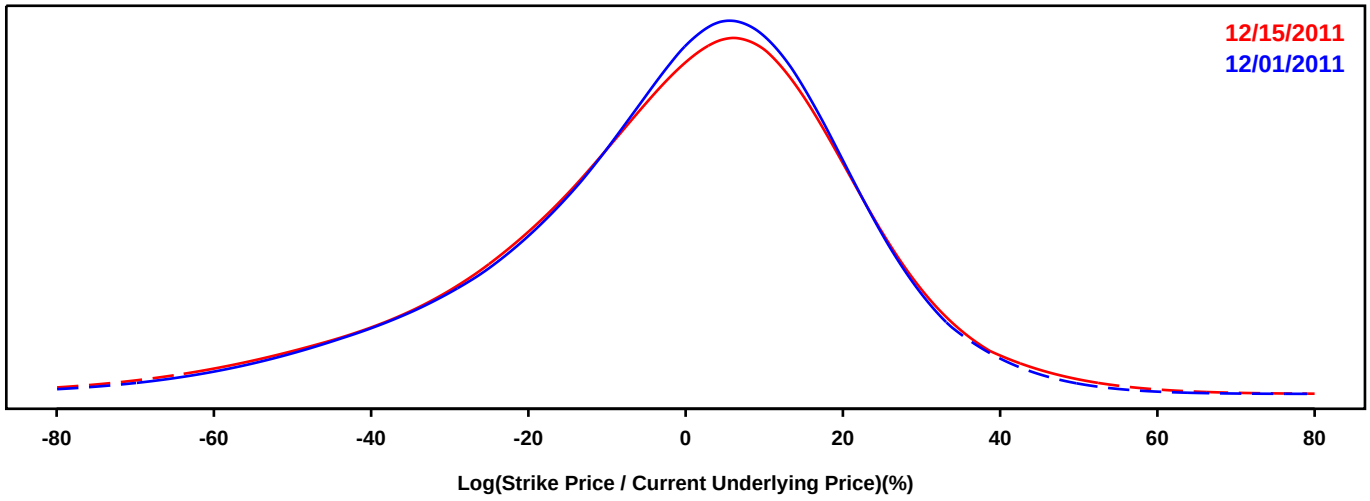
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- CRUDE OIL FUTURES

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

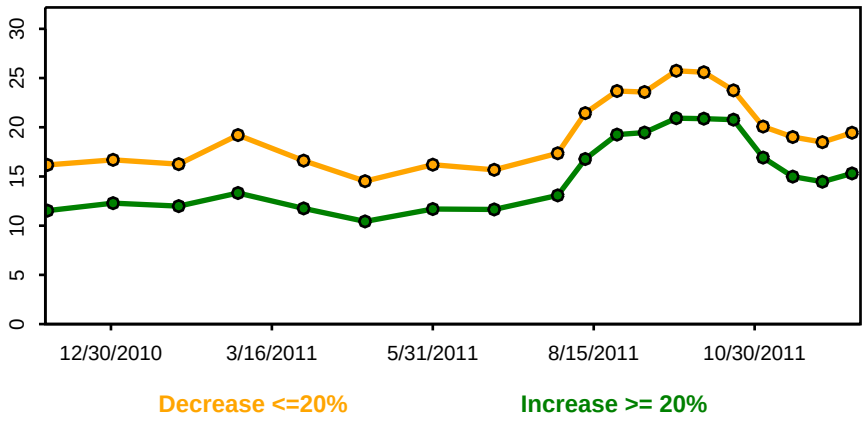
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



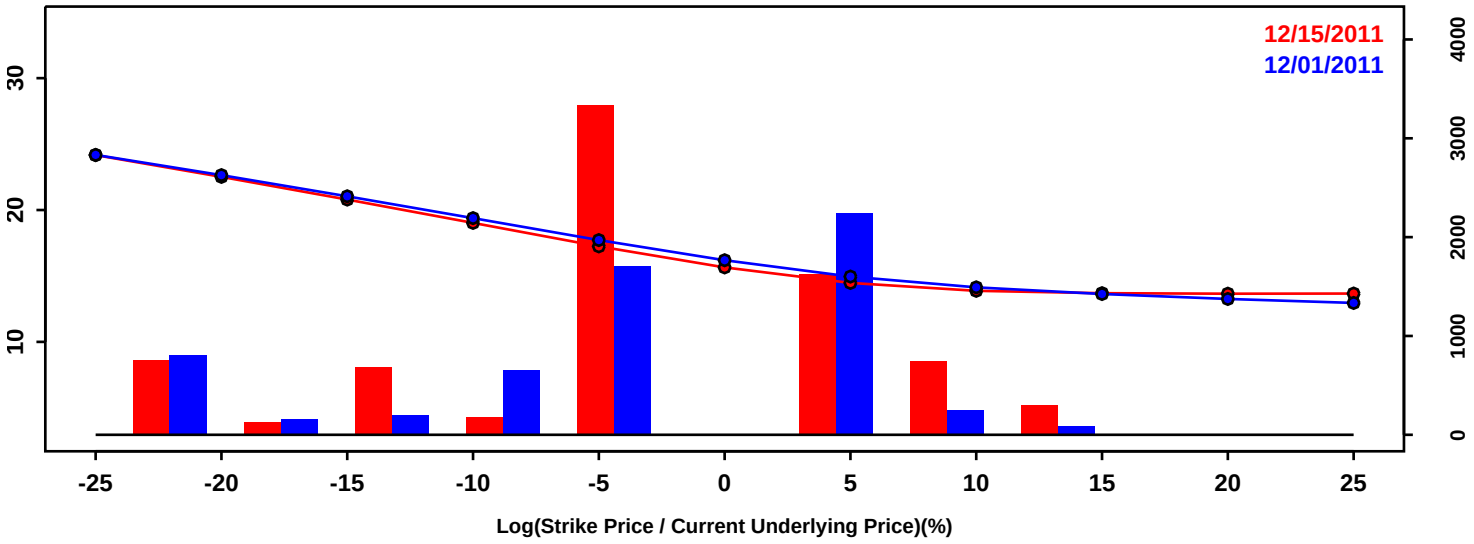
Statistics of the Log Return Distributions

	12/01/2011	12/15/2011	Change
10th Pct	-32.10%	-33.42%	-1.32%
50th Pct	1.43%	1.19%	-0.25%
90th Pct	23.78%	24.69%	0.90%
Mean	-1.53%	-1.81%	-0.28%
Std Dev	22.50%	23.62%	1.12%
Skew	-0.69	-0.66	0.03
Kurtosis	0.85	0.93	0.08

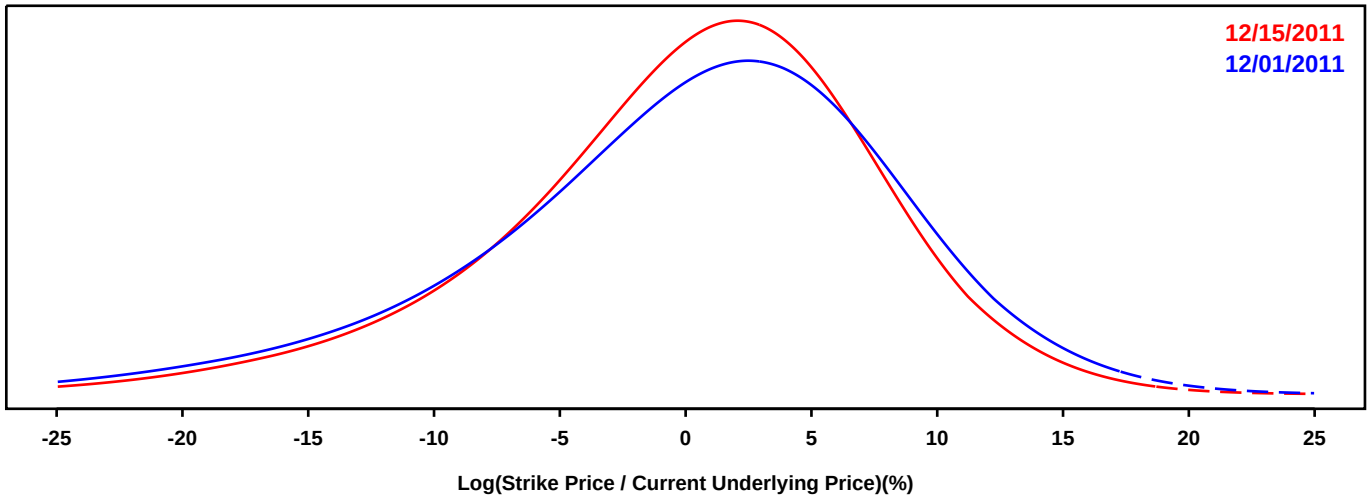
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- DOLLAR-EURO EXCHANGE RATE FUTURES

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

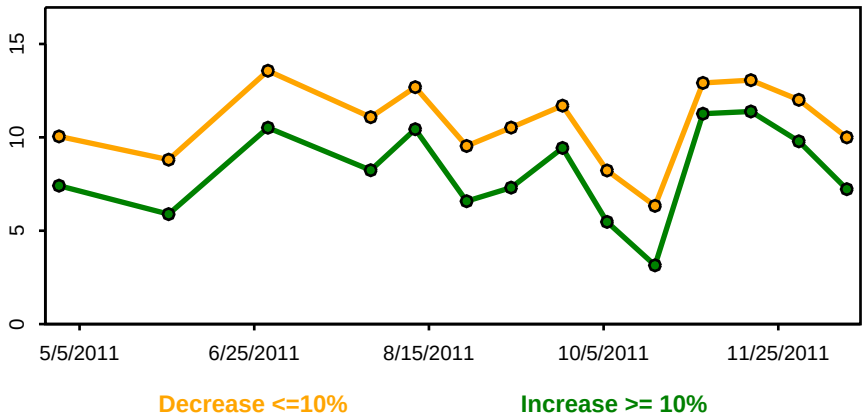
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



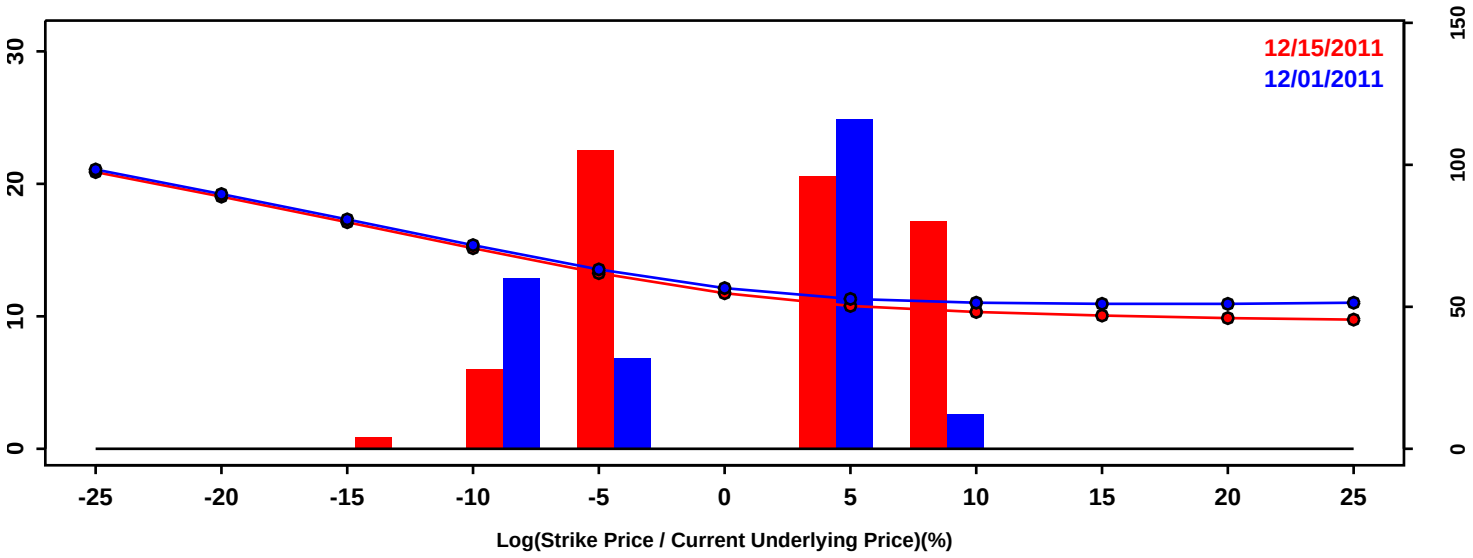
Statistics of the Log Return Distributions

	12/01/2011	12/15/2011	Change
10th Pct	-11.27%	-9.99%	1.28%
50th Pct	0.99%	0.84%	-0.15%
90th Pct	9.89%	8.89%	-1.00%
Mean	0.06%	0.06%	-0.00%
Std Dev	8.56%	7.65%	-0.92%
Skew	-0.66	-0.62	0.04
Kurtosis	0.89	0.88	-0.01

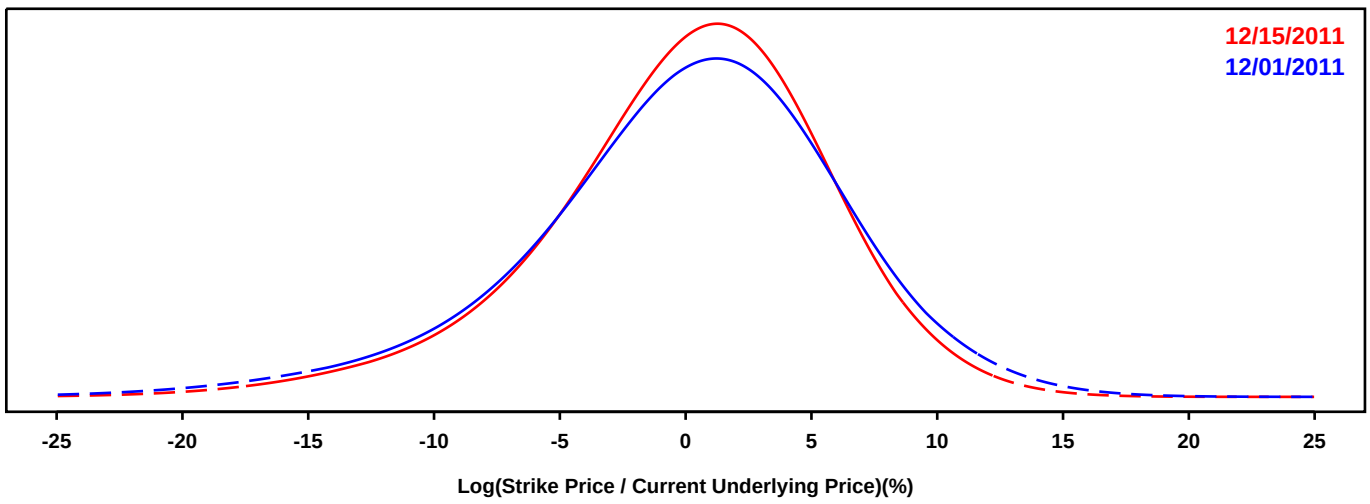
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- DOLLAR-POUND EXCHANGE RATE FUTURES

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

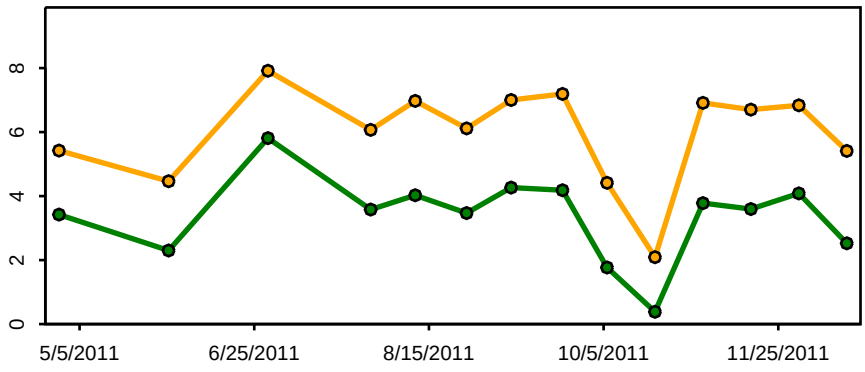
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <=10% Increase >= 10%

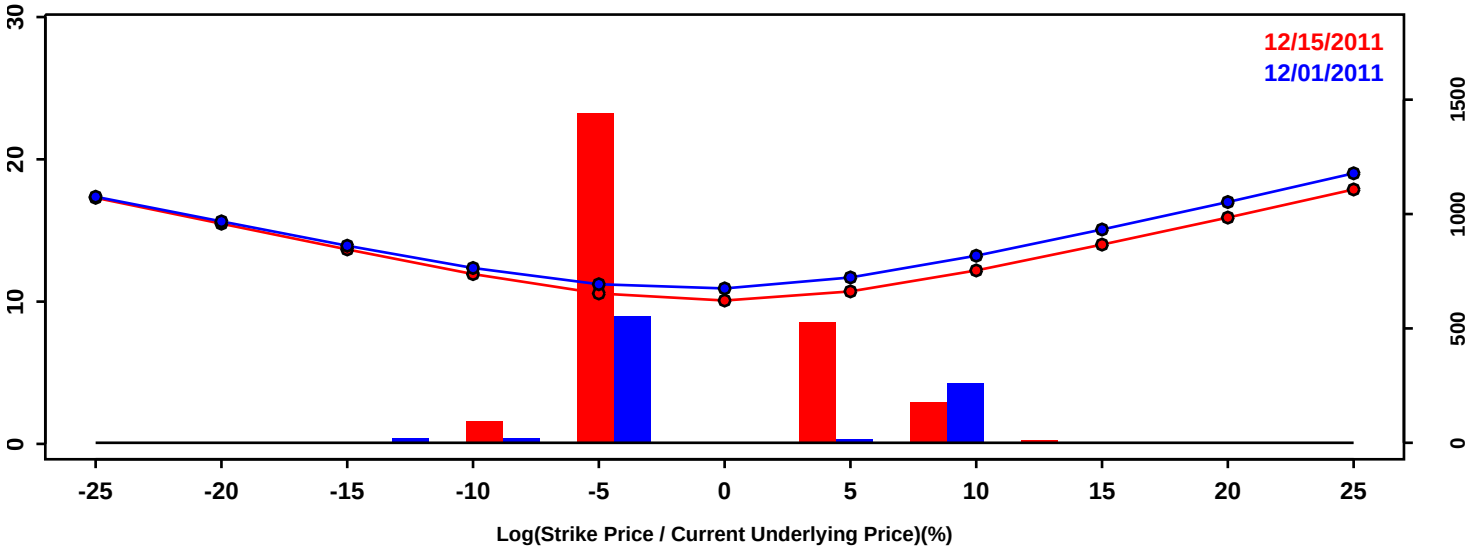
Statistics of the Log Return Distributions

	12/01/2011	12/15/2011	Change
10th Pct	-8.18%	-7.37%	0.81%
50th Pct	0.49%	0.49%	-0.00%
90th Pct	7.41%	6.72%	-0.70%
Mean	-0.02%	0.02%	0.03%
Std Dev	6.37%	5.72%	-0.65%
Skew	-0.57	-0.57	-0.00
Kurtosis	0.98	0.87	-0.11

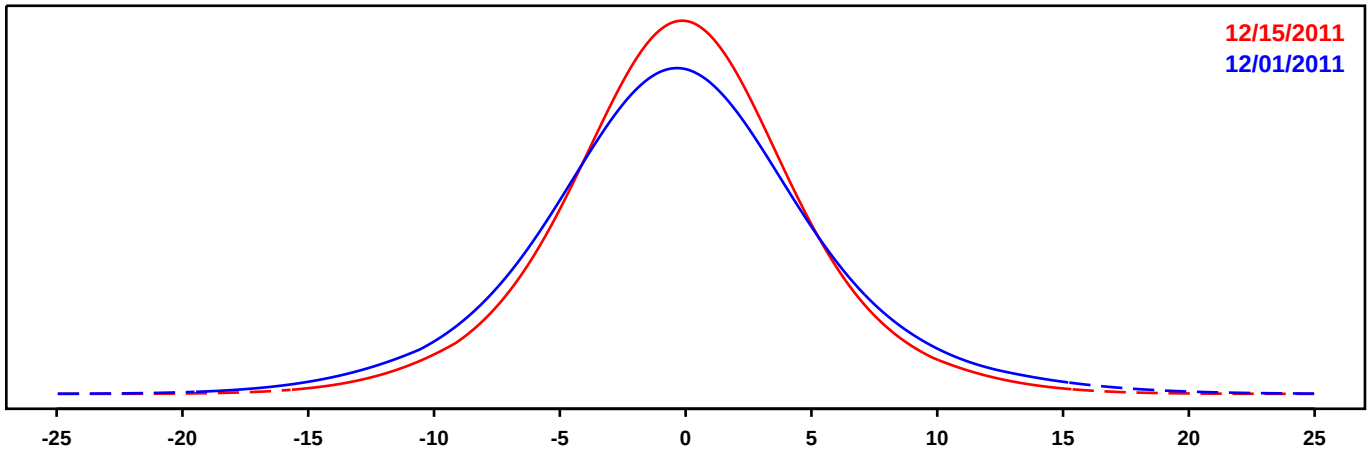
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- YEN-DOLLAR EXCHANGE RATE FUTURES

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

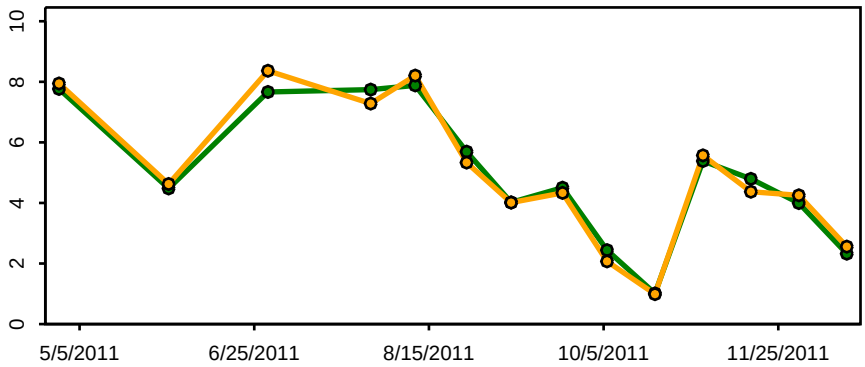
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <=10% Increase >= 10%

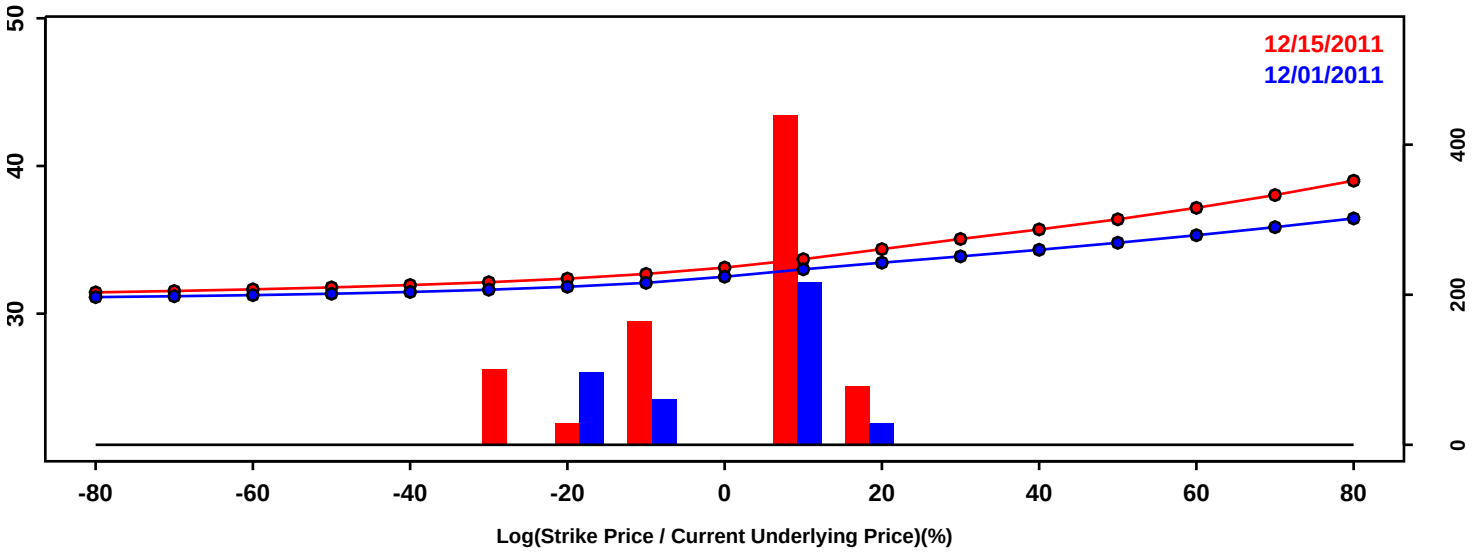
Statistics of the Log Return Distributions

	12/01/2011	12/15/2011	Change
10th Pct	-7.10%	-6.09%	1.01%
50th Pct	-0.31%	-0.16%	0.15%
90th Pct	6.67%	5.78%	-0.89%
Mean	-0.21%	-0.13%	0.08%
Std Dev	5.67%	4.85%	-0.82%
Skew	0.11	0.02	-0.09
Kurtosis	0.87	0.70	-0.17

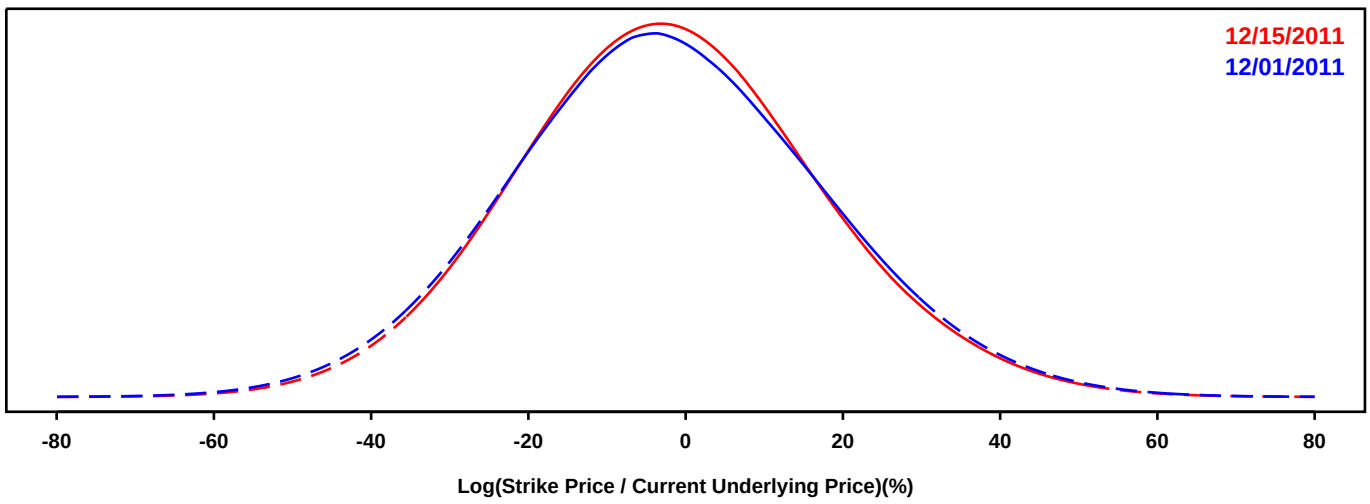
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- WHEAT FUTURES

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

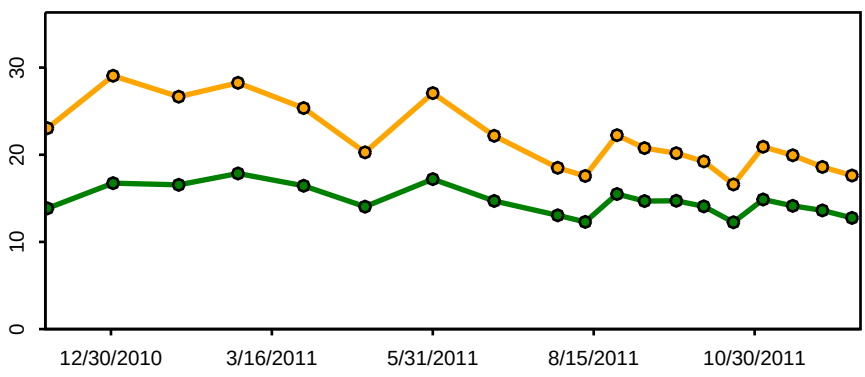
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <=20% Increase >= 20%

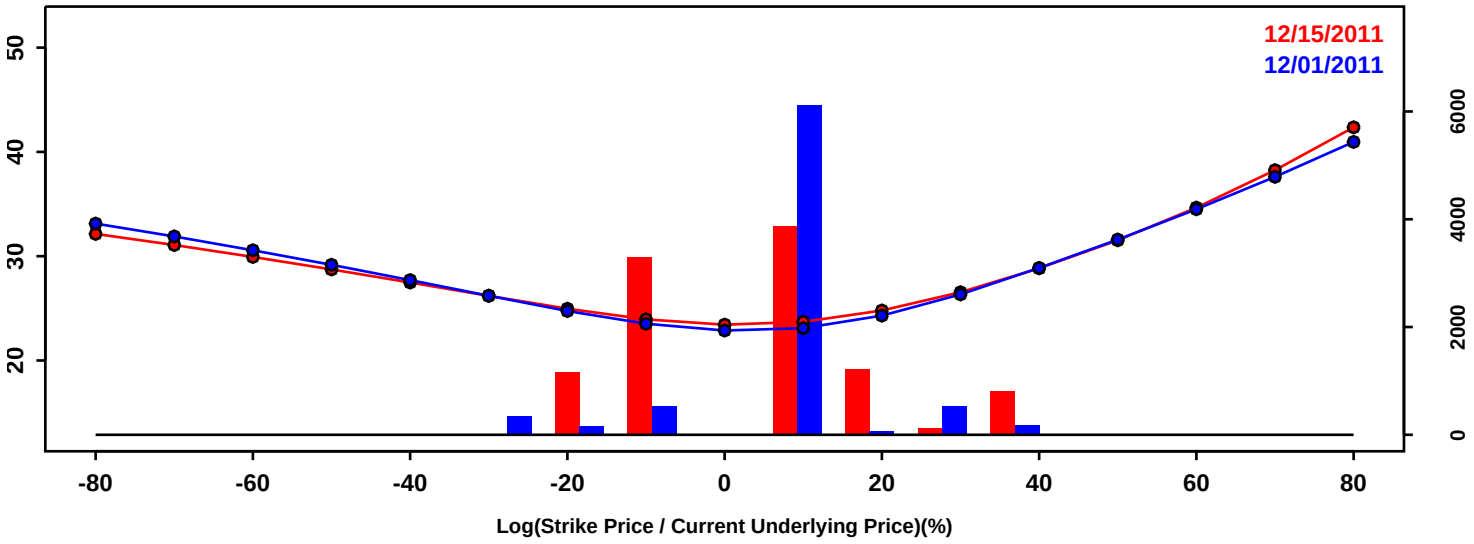
Statistics of the Log Return Distributions

	12/01/2011	12/15/2011	Change
10th Pct	-27.52%	-26.54%	0.98%
50th Pct	-2.64%	-2.49%	0.15%
90th Pct	23.90%	23.03%	-0.87%
Mean	-2.14%	-2.05%	0.09%
Std Dev	20.11%	19.44%	-0.67%
Skew	0.10	0.12	0.02
Kurtosis	0.07	0.11	0.04

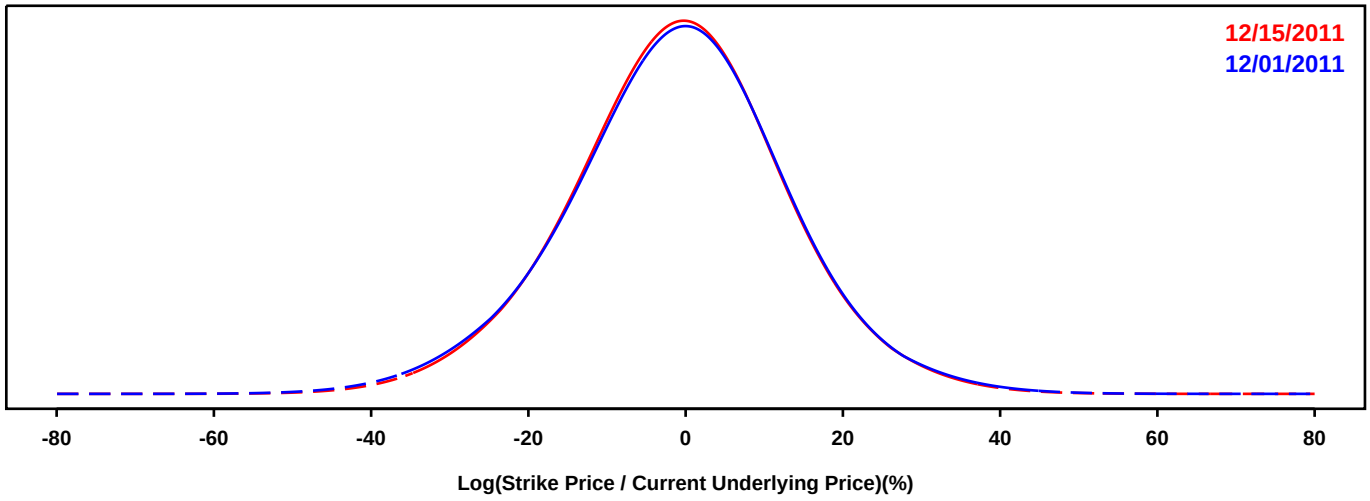
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- SOYBEAN FUTURES

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

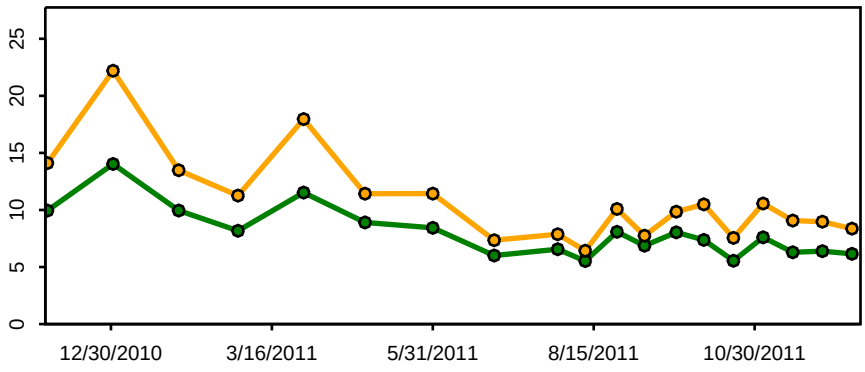
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <=20% Increase >= 20%

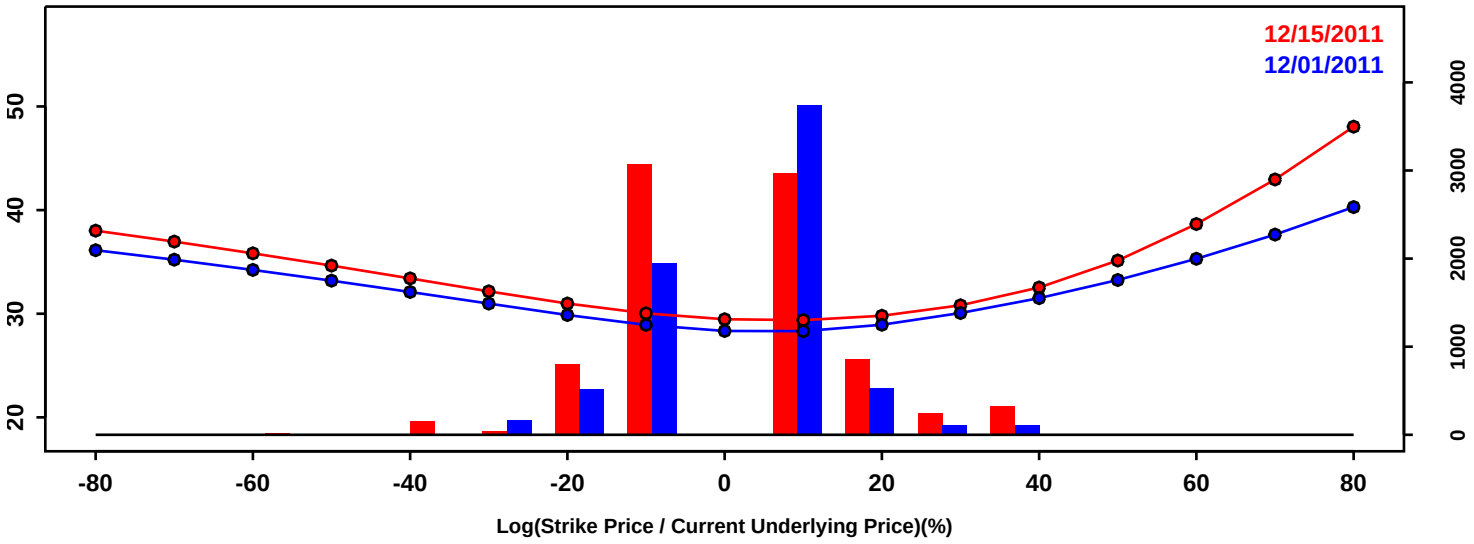
Statistics of the Log Return Distributions

	12/01/2011	12/15/2011	Change
10th Pct	-19.01%	-18.46%	0.54%
50th Pct	-0.66%	-0.76%	-0.10%
90th Pct	16.47%	16.21%	-0.25%
Mean	-0.94%	-0.90%	0.05%
Std Dev	14.19%	13.80%	-0.39%
Skew	-0.08	-0.04	0.03
Kurtosis	0.44	0.35	-0.10

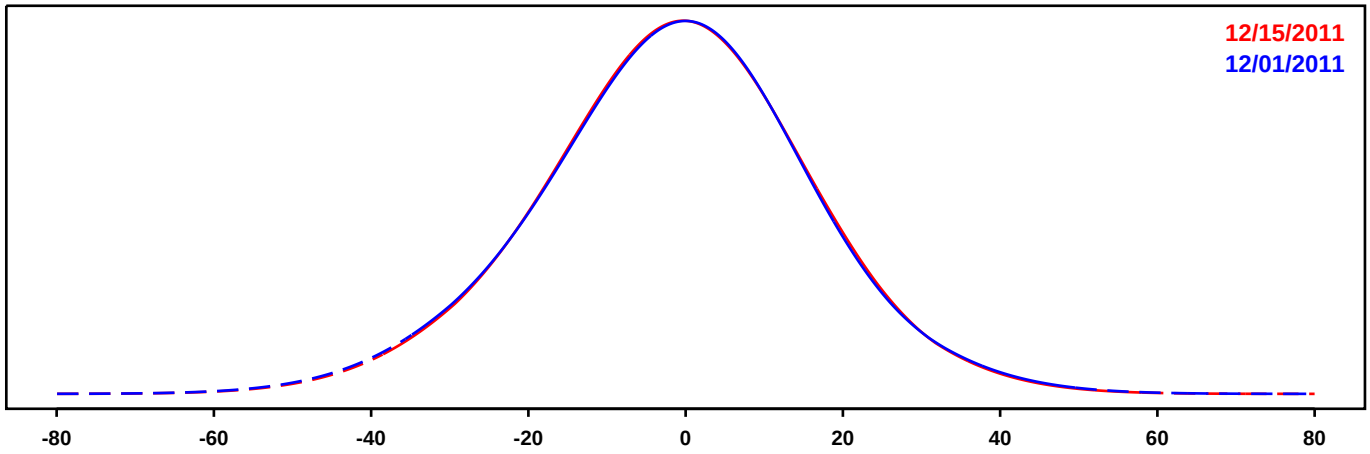
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- CORN FUTURES

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

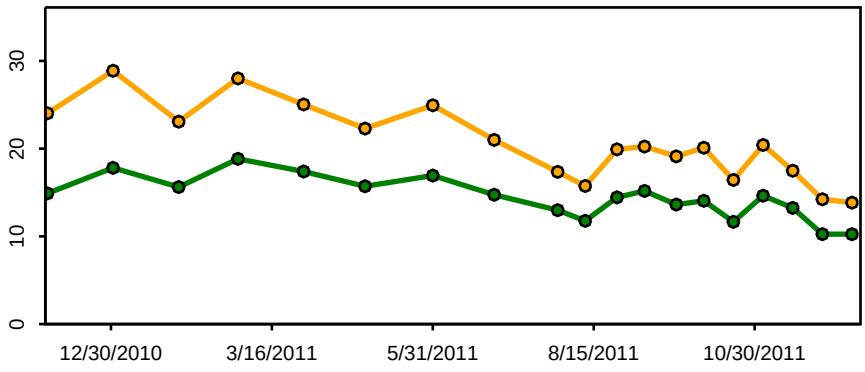
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <=20% Increase >= 20%

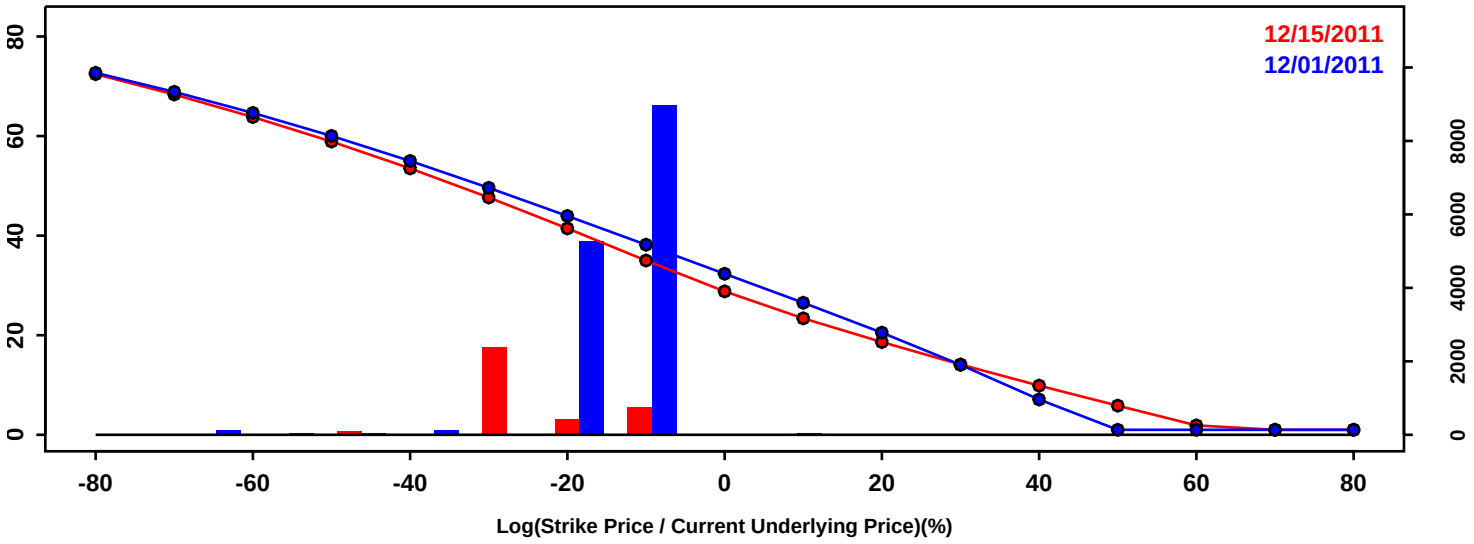
Statistics of the Log Return Distributions

	12/01/2011	12/15/2011	Change
10th Pct	-24.09%	-23.65%	0.44%
50th Pct	-1.06%	-1.01%	0.05%
90th Pct	20.25%	20.25%	0.00%
Mean	-1.46%	-1.35%	0.10%
Std Dev	17.62%	17.39%	-0.24%
Skew	-0.09	-0.10	-0.00
Kurtosis	0.32	0.26	-0.06

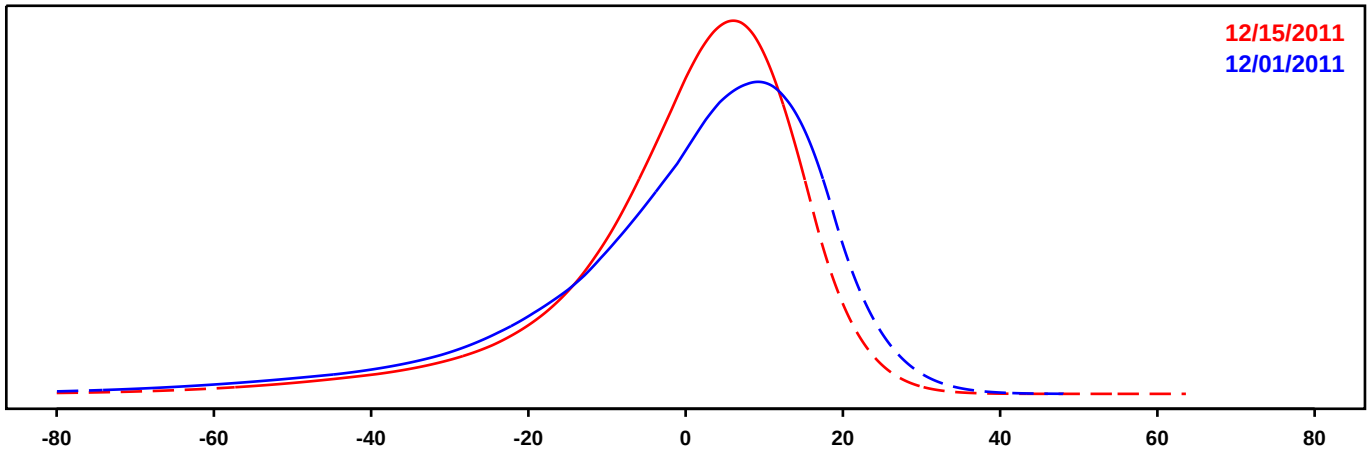
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- iSHARES DOW JONES US REAL ESTATE INDEX

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

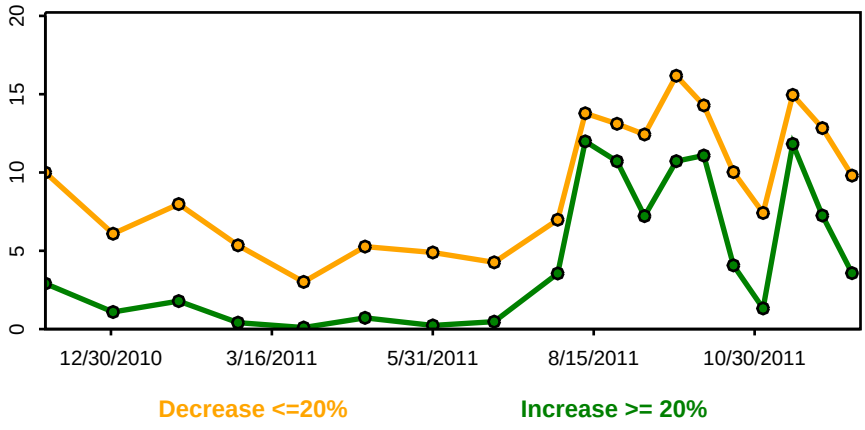
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Statistics of the Log Return Distributions

	12/01/2011	12/15/2011	Change
10th Pct	-24.41%	-19.66%	4.75%
50th Pct	3.53%	2.56%	-0.97%
90th Pct	18.31%	15.31%	-3.00%
Mean	-0.38%	-0.35%	0.03%
Std Dev	18.57%	15.39%	-3.18%
Skew	-1.40	-1.41	-0.01
Kurtosis	2.89	3.23	0.34