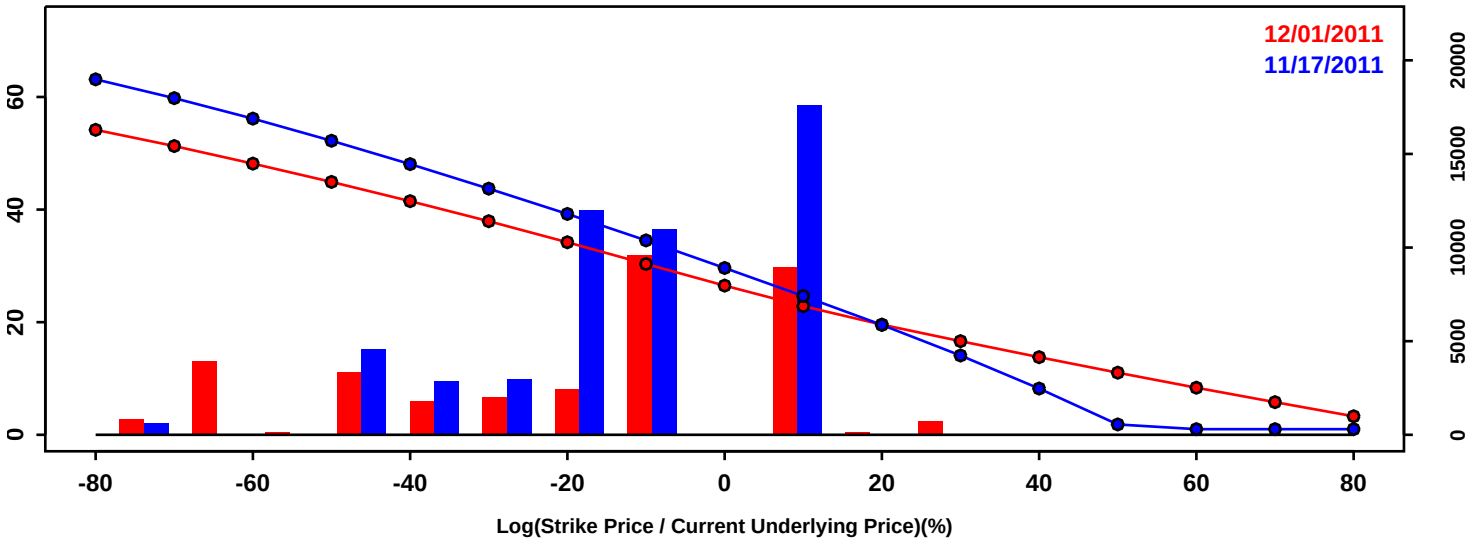
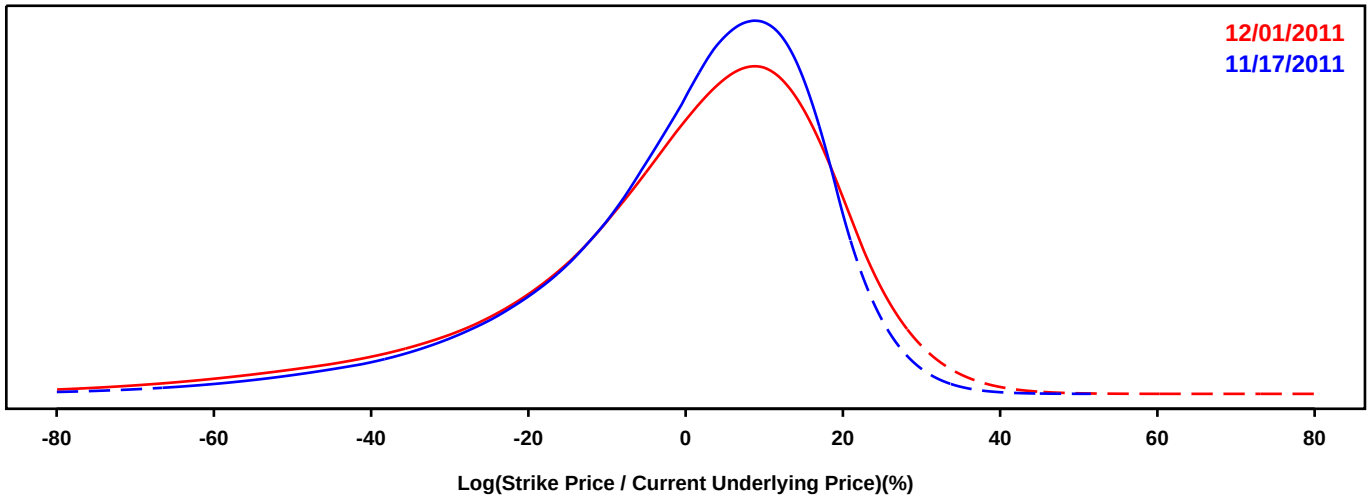
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- S&P 500

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

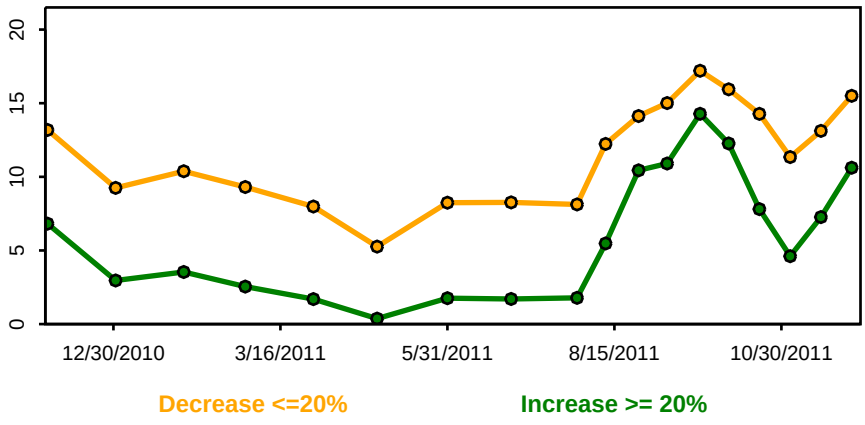
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



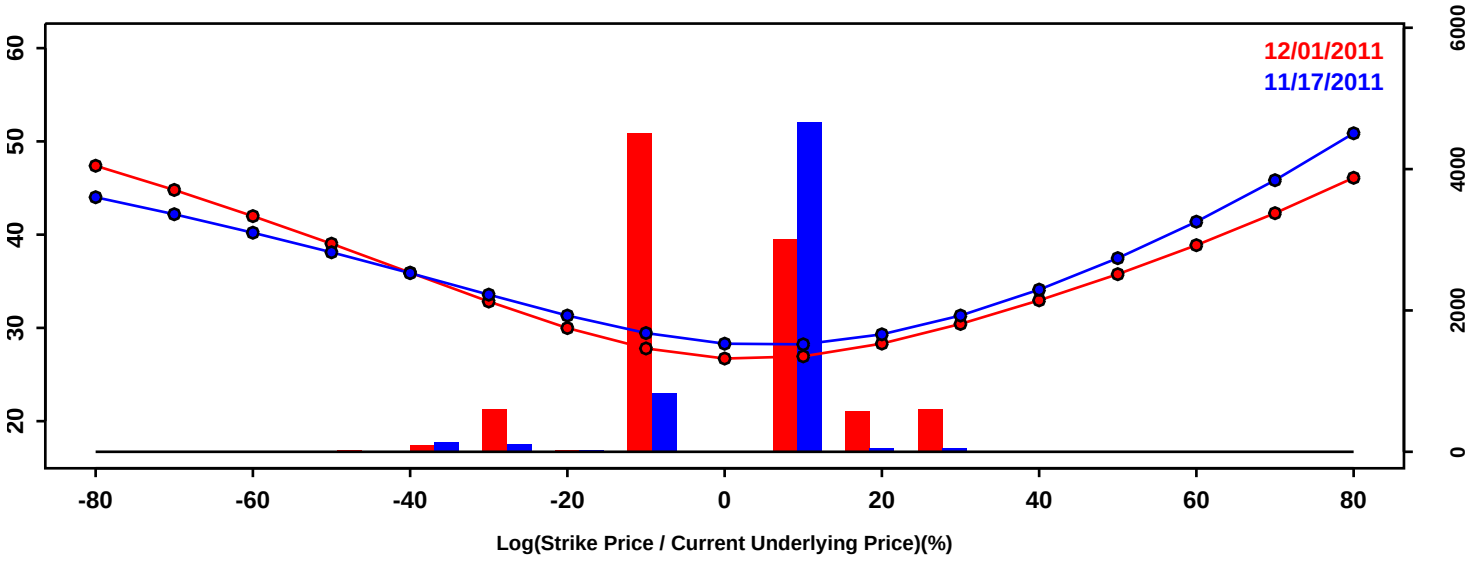
Statistics of the Log Return Distributions

	11/17/2011	12/01/2011	Change
10th Pct	-24.65%	-28.78%	-4.13%
50th Pct	3.31%	2.95%	-0.36%
90th Pct	18.33%	20.42%	2.09%
Mean	-0.38%	-1.12%	-0.73%
Std Dev	18.09%	20.77%	2.68%
Skew	-1.22	-1.21	0.01
Kurtosis	2.10	2.13	0.03

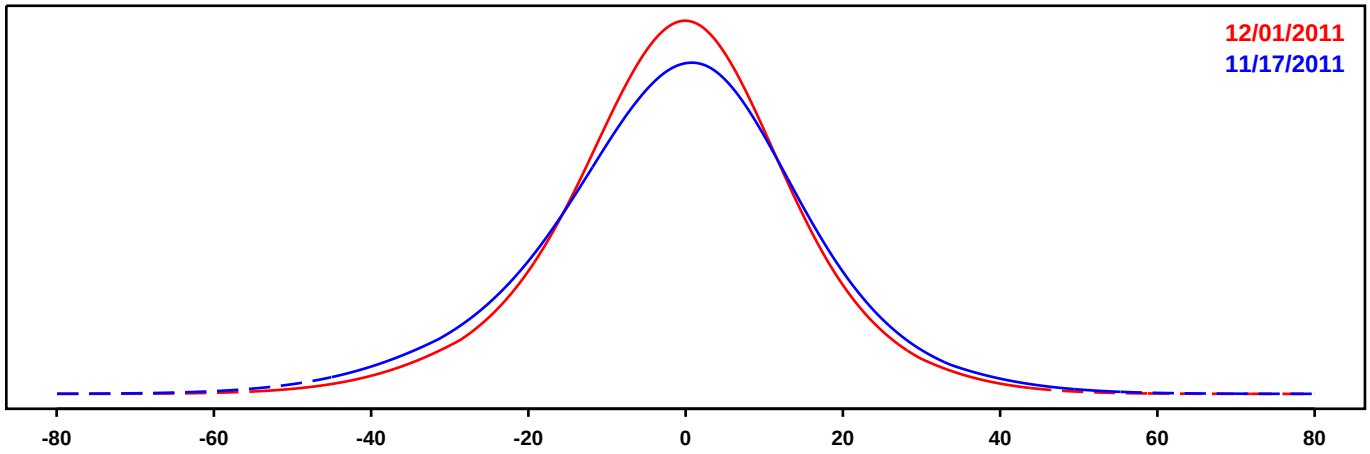
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- GOLD FUTURES

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

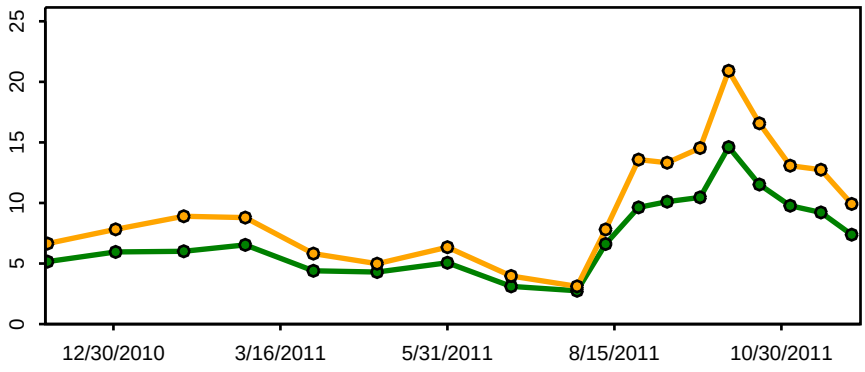
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <=20% Increase >= 20%

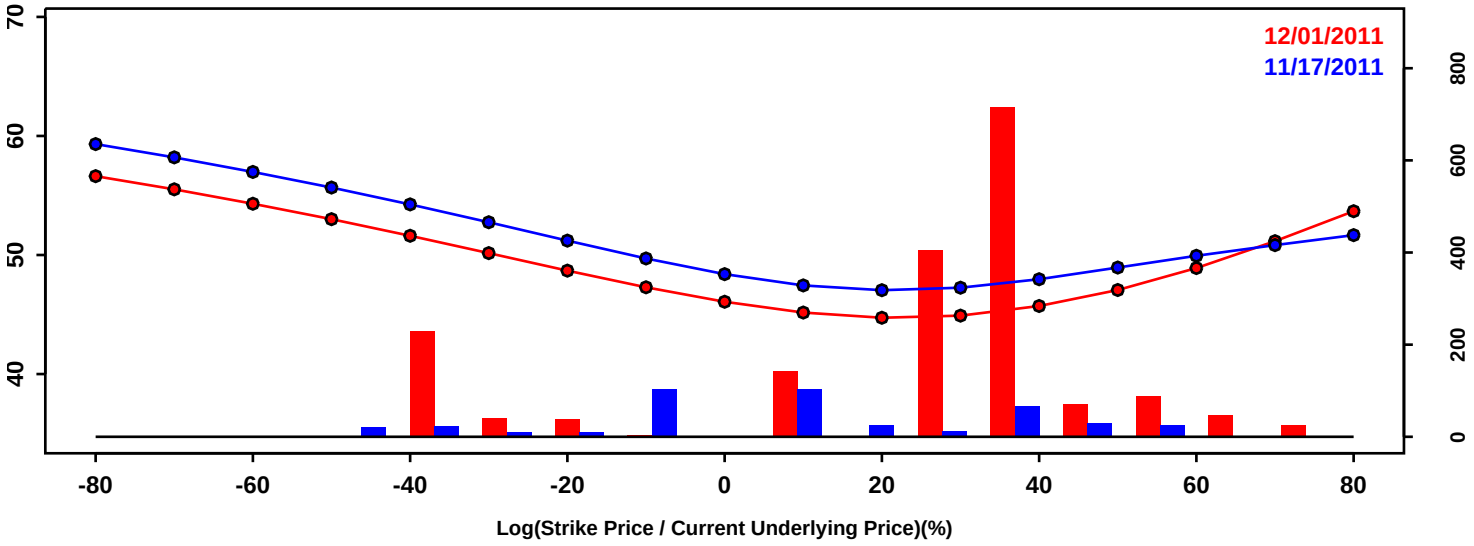
Statistics of the Log Return Distributions

	11/17/2011	12/01/2011	Change
10th Pct	-22.89%	-19.92%	2.97%
50th Pct	-0.56%	-0.61%	-0.05%
90th Pct	19.23%	17.35%	-1.87%
Mean	-1.21%	-0.97%	0.24%
Std Dev	17.06%	15.16%	-1.90%
Skew	-0.19	-0.15	0.04
Kurtosis	0.66	0.71	0.05

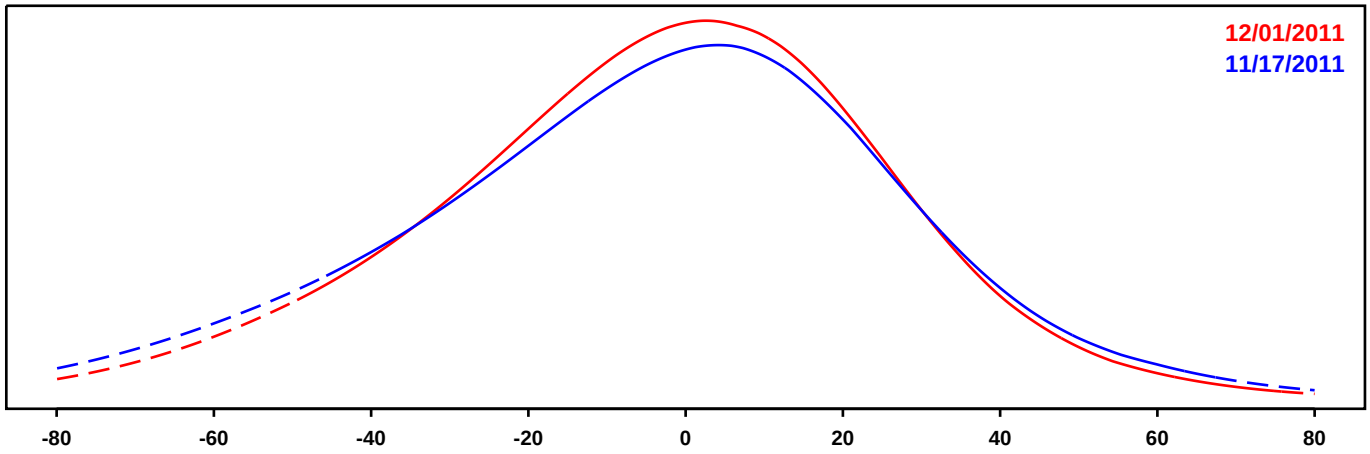
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- SILVER FUTURES

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

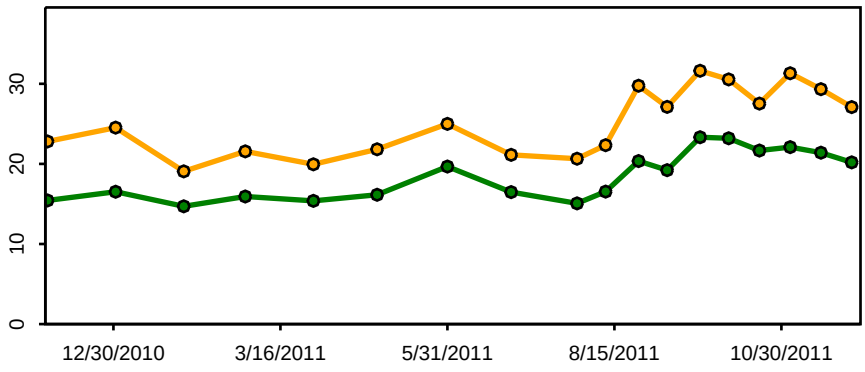
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <=20% Increase >= 20%

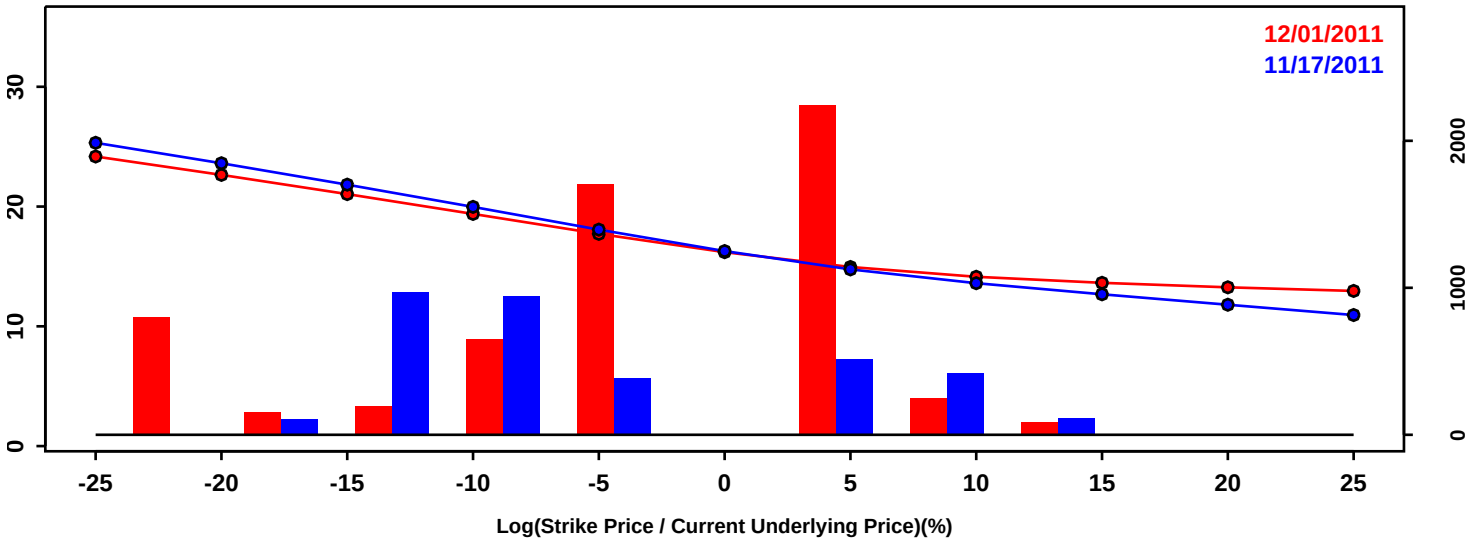
Statistics of the Log Return Distributions

	11/17/2011	12/01/2011	Change
10th Pct	-48.31%	-42.87%	5.44%
50th Pct	-2.23%	-1.82%	0.41%
90th Pct	33.58%	31.37%	-2.20%
Mean	-4.88%	-3.85%	1.03%
Std Dev	32.44%	29.43%	-3.01%
Skew	-0.36	-0.31	0.05
Kurtosis	0.32	0.30	-0.02

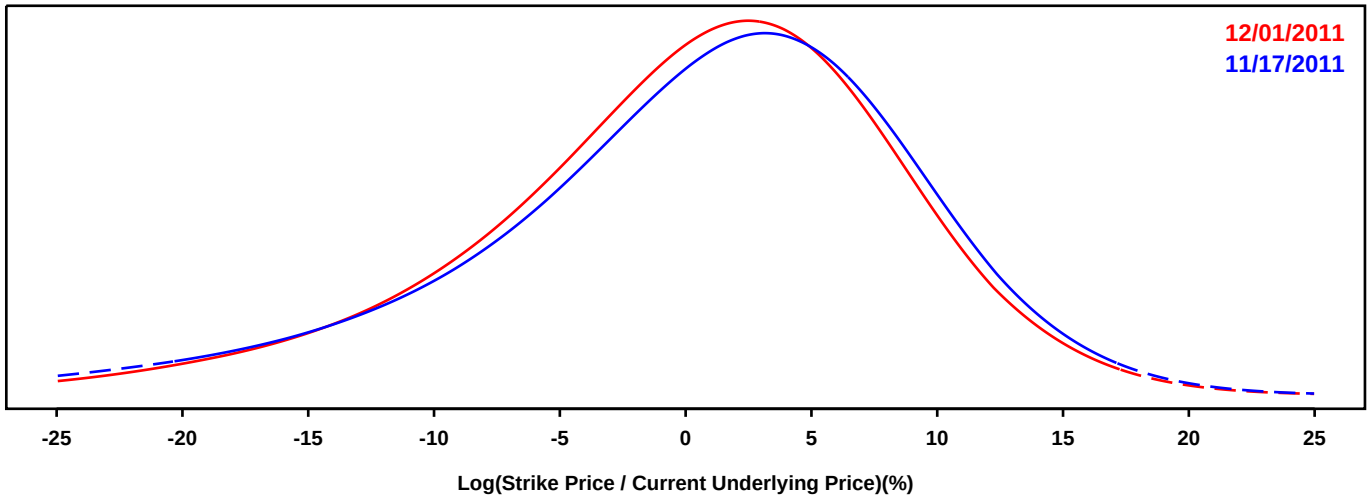
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- DOLLAR-EURO EXCHANGE RATE FUTURES

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

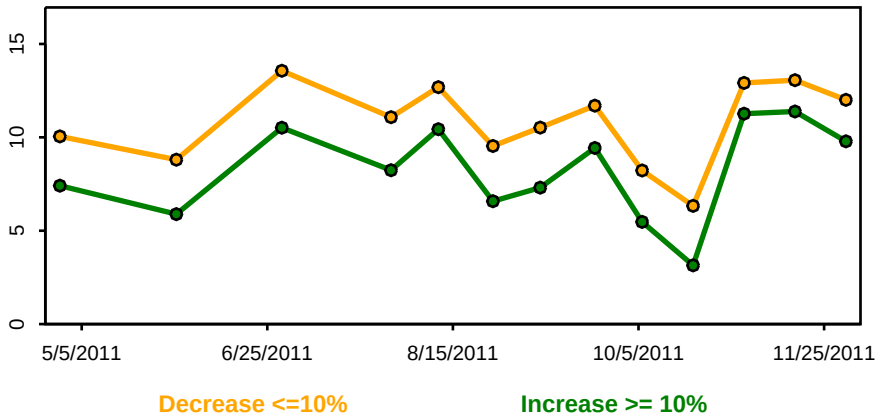
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



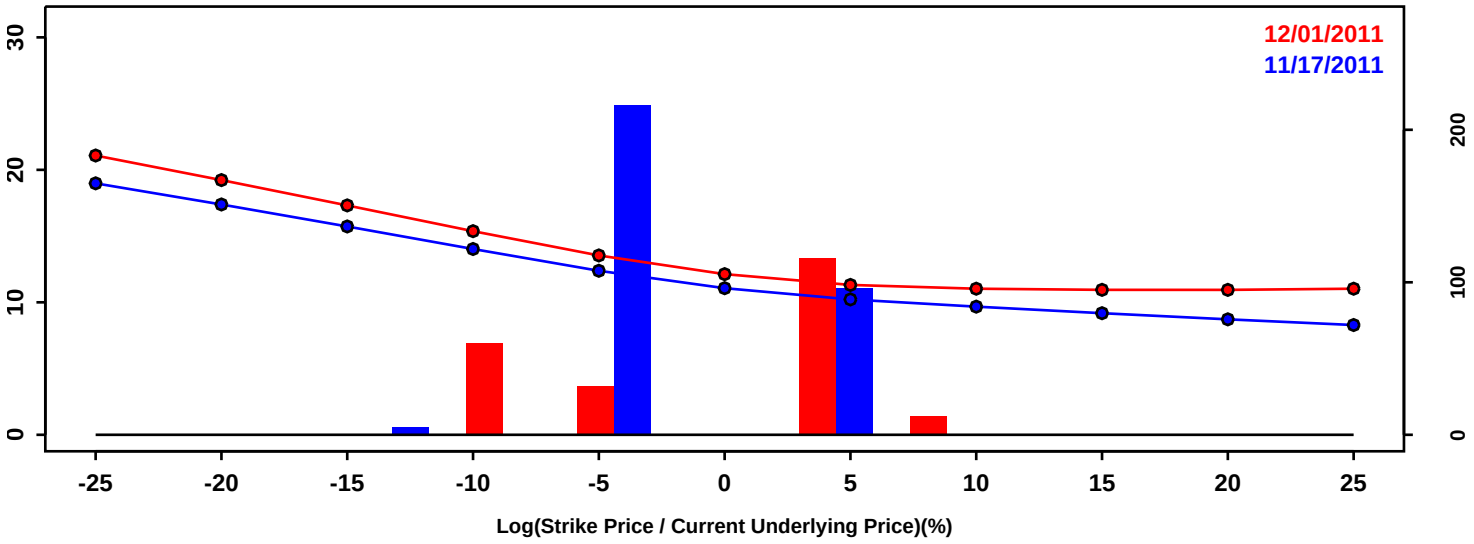
Statistics of the Log Return Distributions

	11/17/2011	12/01/2011	Change
10th Pct	-12.11%	-11.27%	0.84%
50th Pct	1.39%	0.99%	-0.40%
90th Pct	10.48%	9.89%	-0.59%
Mean	0.13%	0.06%	-0.07%
Std Dev	9.29%	8.56%	-0.72%
Skew	-0.85	-0.66	0.19
Kurtosis	1.32	0.89	-0.43

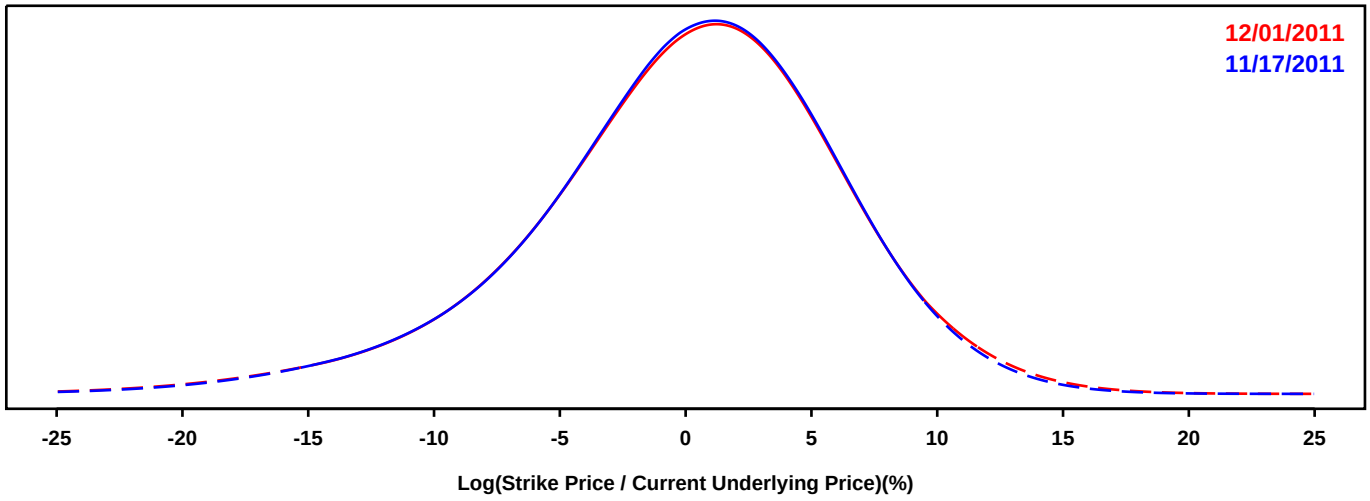
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- DOLLAR-POUND EXCHANGE RATE FUTURES

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

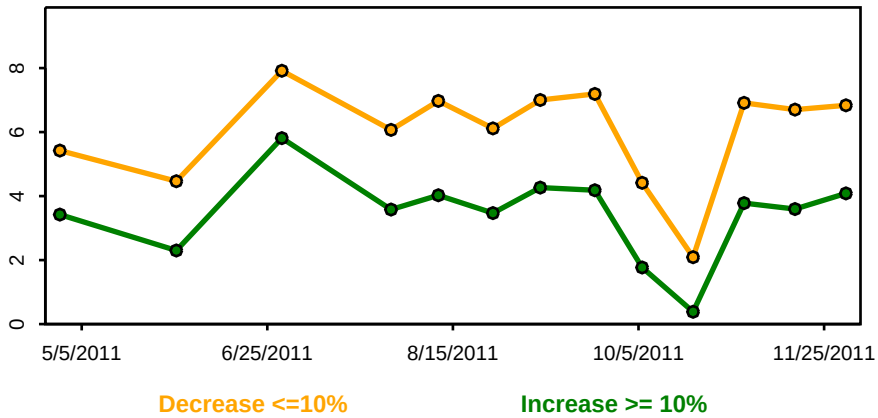
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



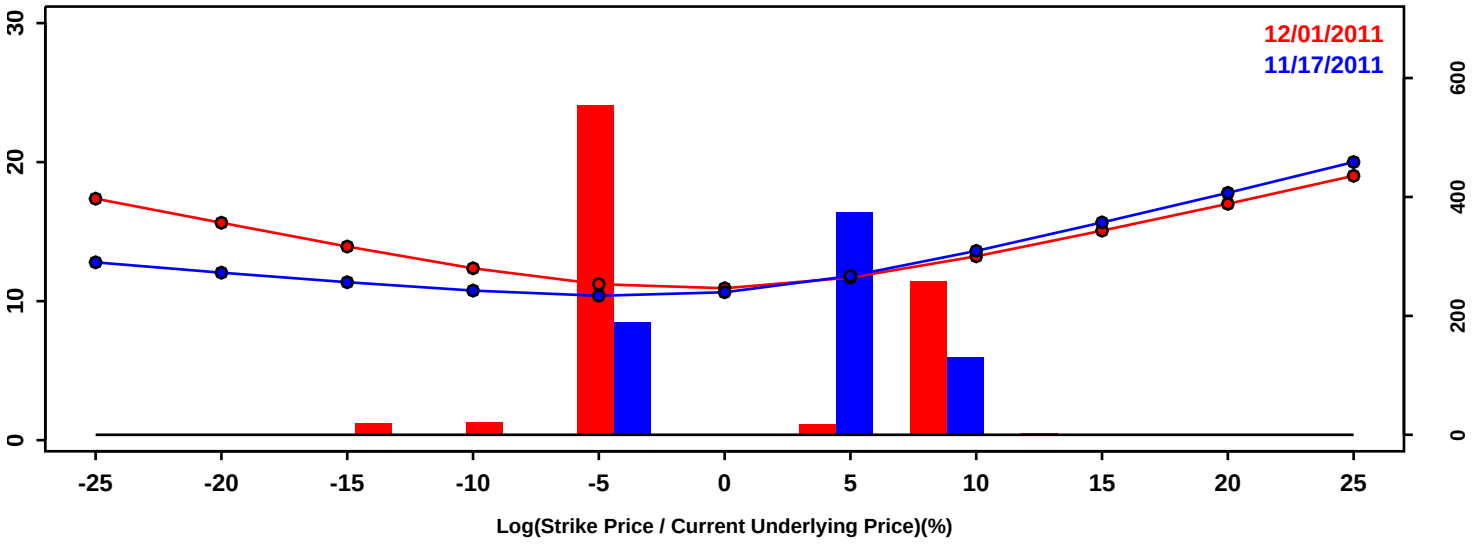
Statistics of the Log Return Distributions

	11/17/2011	12/01/2011	Change
10th Pct	-8.07%	-8.18%	-0.11%
50th Pct	0.44%	0.49%	0.05%
90th Pct	7.28%	7.41%	0.14%
Mean	-0.05%	-0.02%	0.03%
Std Dev	6.24%	6.37%	0.13%
Skew	-0.58	-0.57	0.01
Kurtosis	0.89	0.98	0.09

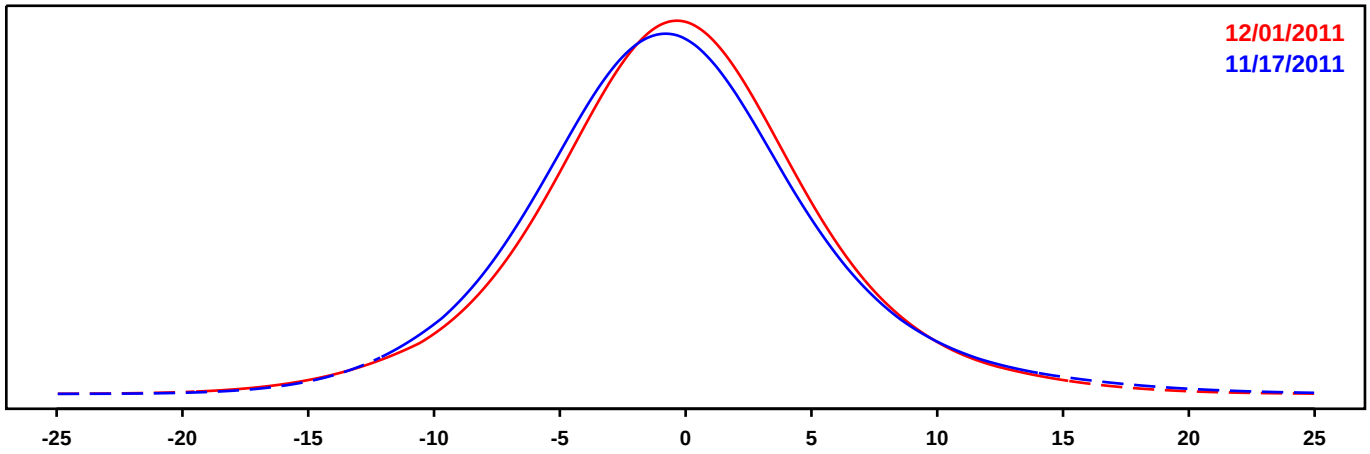
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- YEN-DOLLAR EXCHANGE RATE FUTURES

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

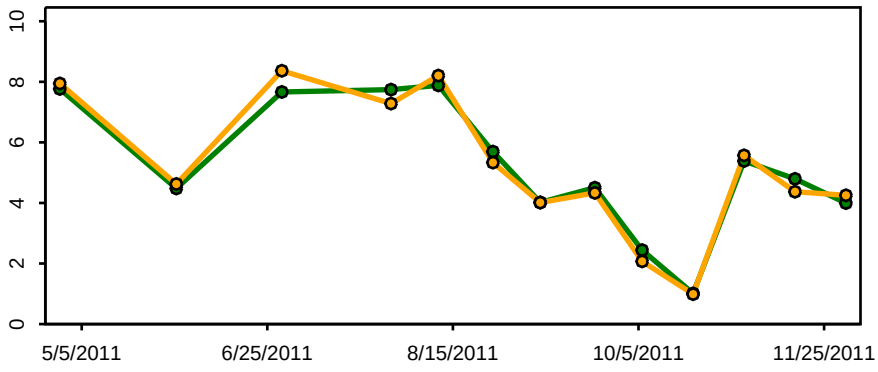
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <=10% Increase >= 10%

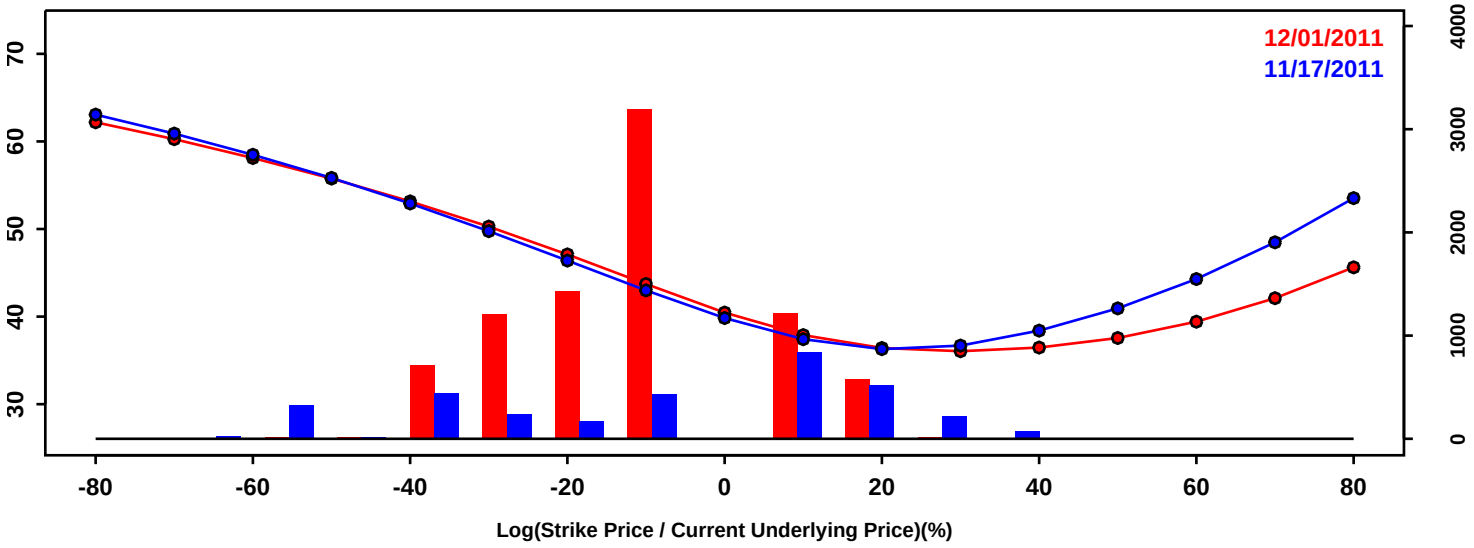
Statistics of the Log Return Distributions

	11/17/2011	12/01/2011	Change
10th Pct	-7.43%	-7.10%	0.32%
50th Pct	-0.61%	-0.31%	0.30%
90th Pct	6.90%	6.67%	-0.23%
Mean	-0.33%	-0.21%	0.12%
Std Dev	5.91%	5.67%	-0.25%
Skew	0.40	0.11	-0.30
Kurtosis	1.11	0.87	-0.25

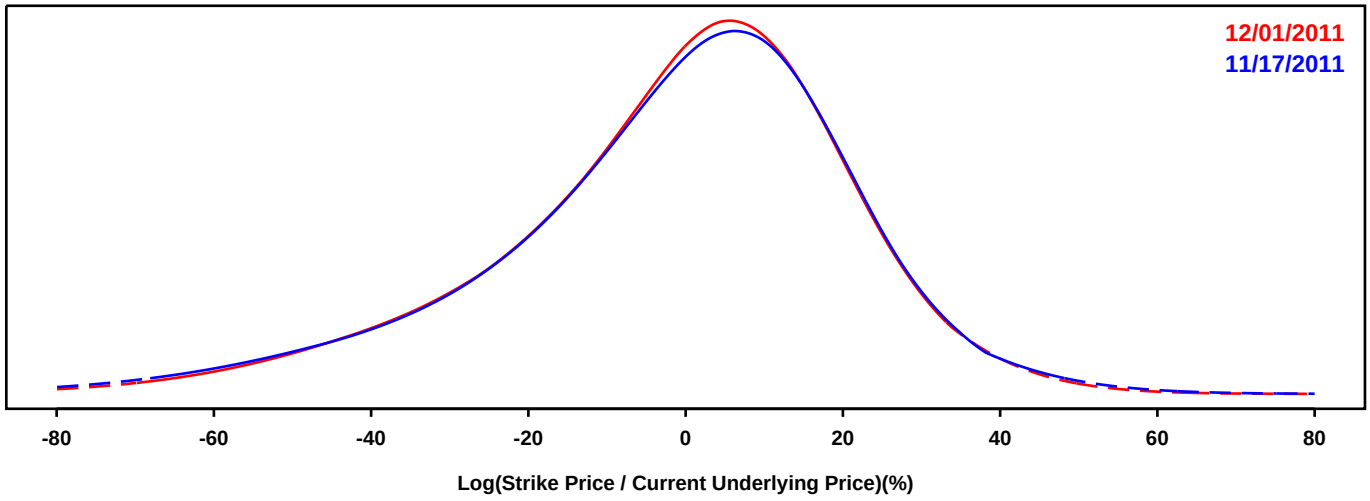
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- CRUDE OIL FUTURES

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

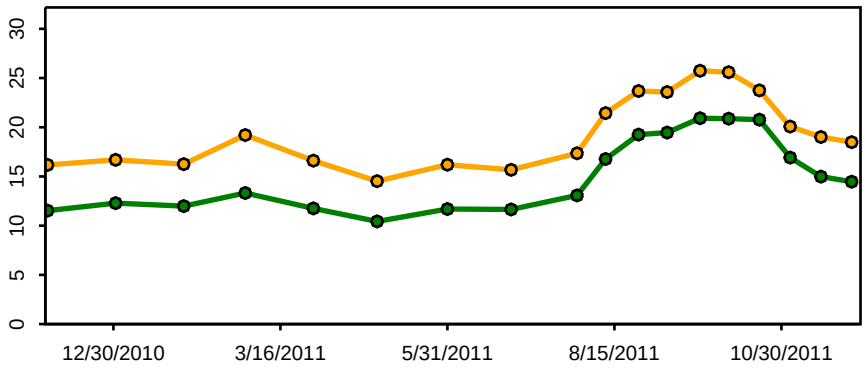
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <=20% Increase >= 20%

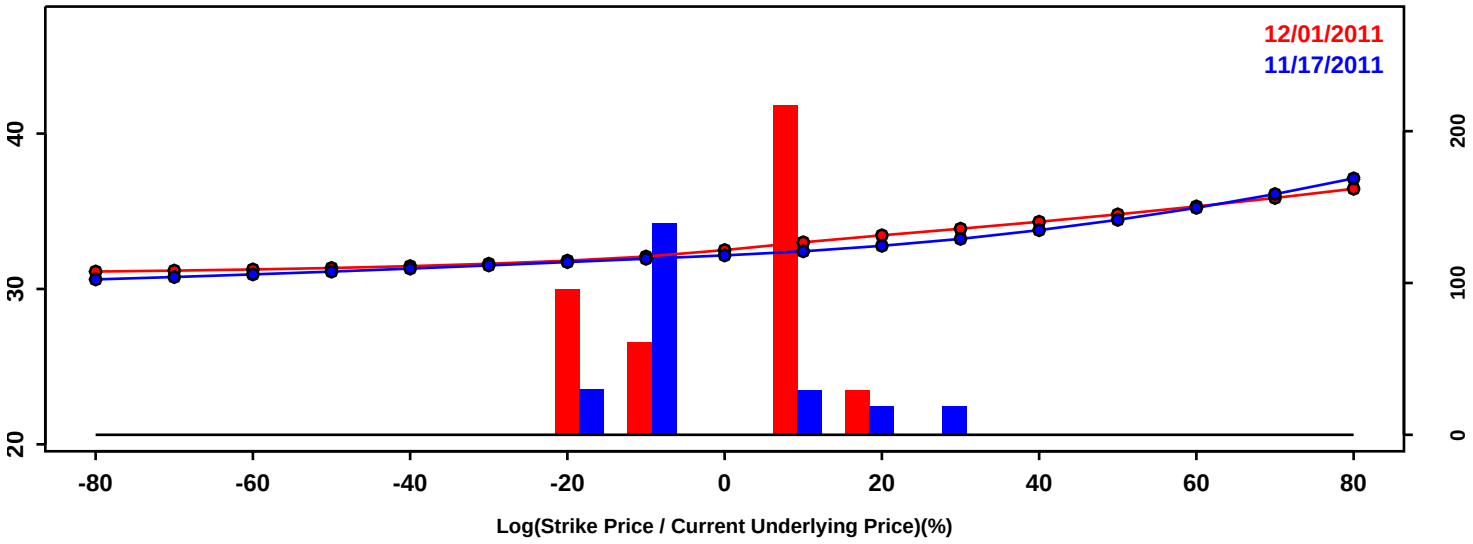
Statistics of the Log Return Distributions

	11/17/2011	12/01/2011	Change
10th Pct	-33.21%	-32.10%	1.11%
50th Pct	1.43%	1.43%	0.00%
90th Pct	24.26%	23.78%	-0.47%
Mean	-1.74%	-1.53%	0.21%
Std Dev	23.48%	22.50%	-0.98%
Skew	-0.73	-0.69	0.05
Kurtosis	1.08	0.85	-0.22

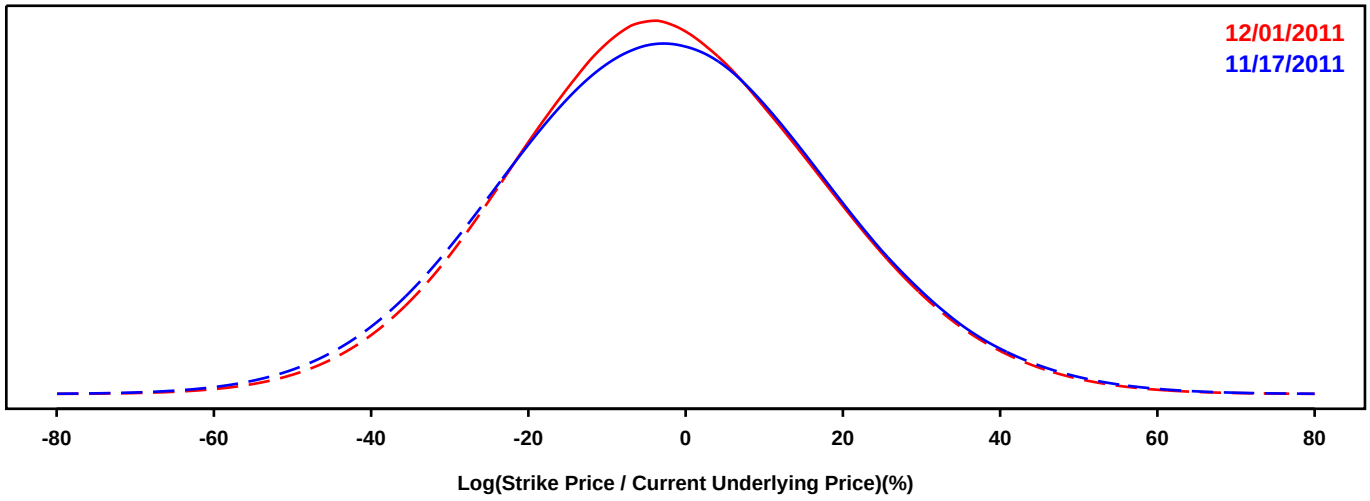
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- WHEAT FUTURES

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

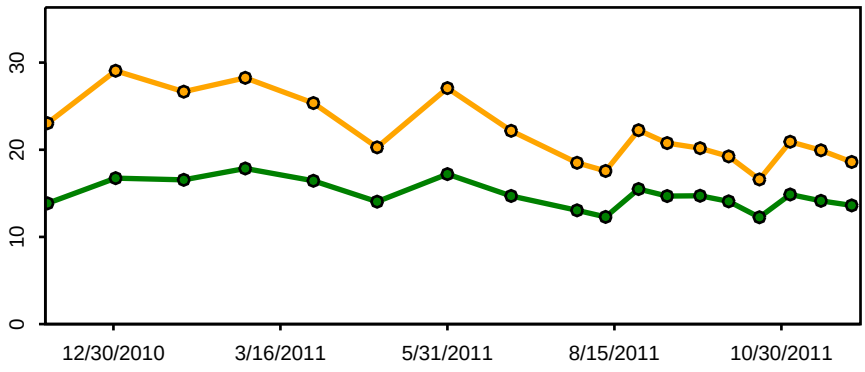
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <=20% Increase >= 20%

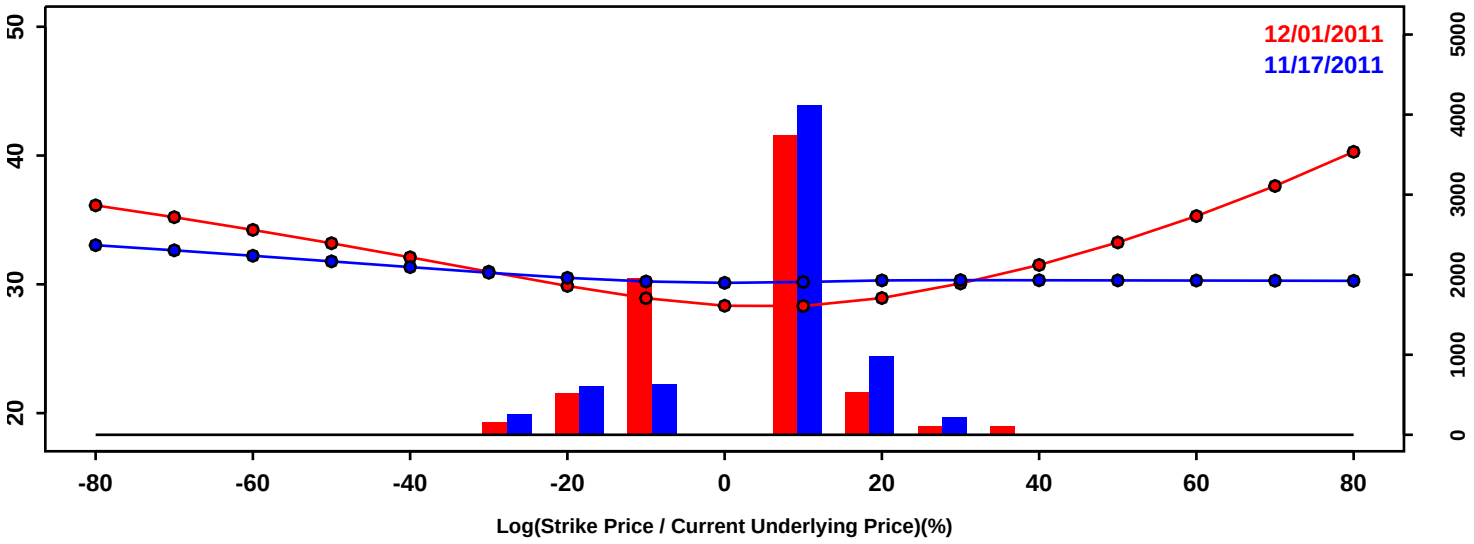
Statistics of the Log Return Distributions

	11/17/2011	12/01/2011	Change
10th Pct	-28.92%	-27.52%	1.39%
50th Pct	-2.54%	-2.64%	-0.10%
90th Pct	24.49%	23.90%	-0.59%
Mean	-2.32%	-2.14%	0.17%
Std Dev	20.89%	20.11%	-0.78%
Skew	0.07	0.10	0.04
Kurtosis	0.05	0.07	0.02

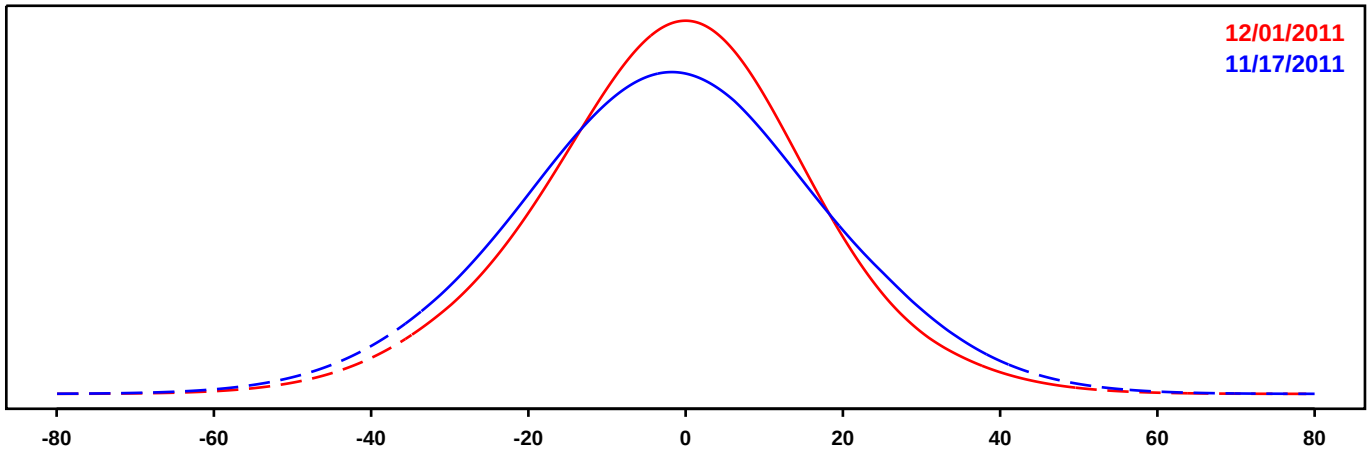
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- CORN FUTURES

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

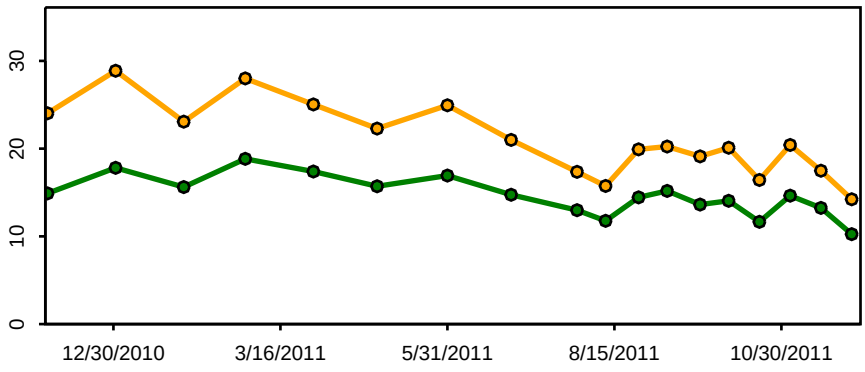
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <=20% Increase >= 20%

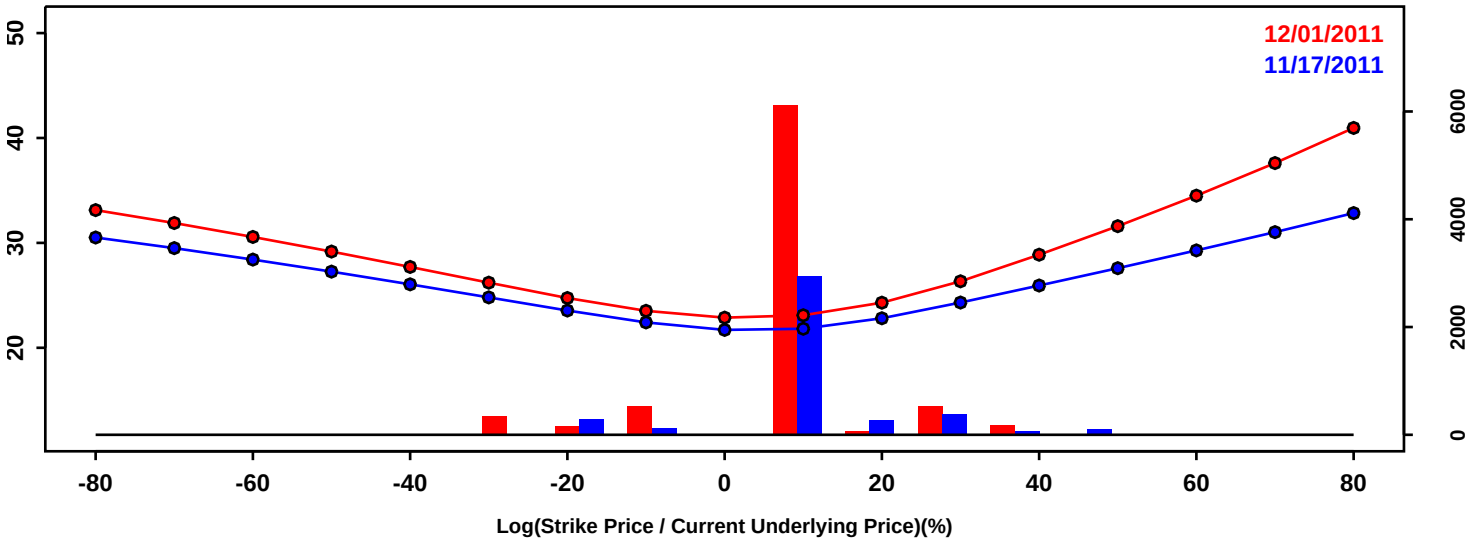
Statistics of the Log Return Distributions

	11/17/2011	12/01/2011	Change
10th Pct	-26.93%	-24.09%	2.84%
50th Pct	-1.82%	-1.06%	0.76%
90th Pct	23.39%	20.25%	-3.14%
Mean	-1.81%	-1.46%	0.35%
Std Dev	19.67%	17.62%	-2.04%
Skew	-0.02	-0.09	-0.08
Kurtosis	0.08	0.32	0.24

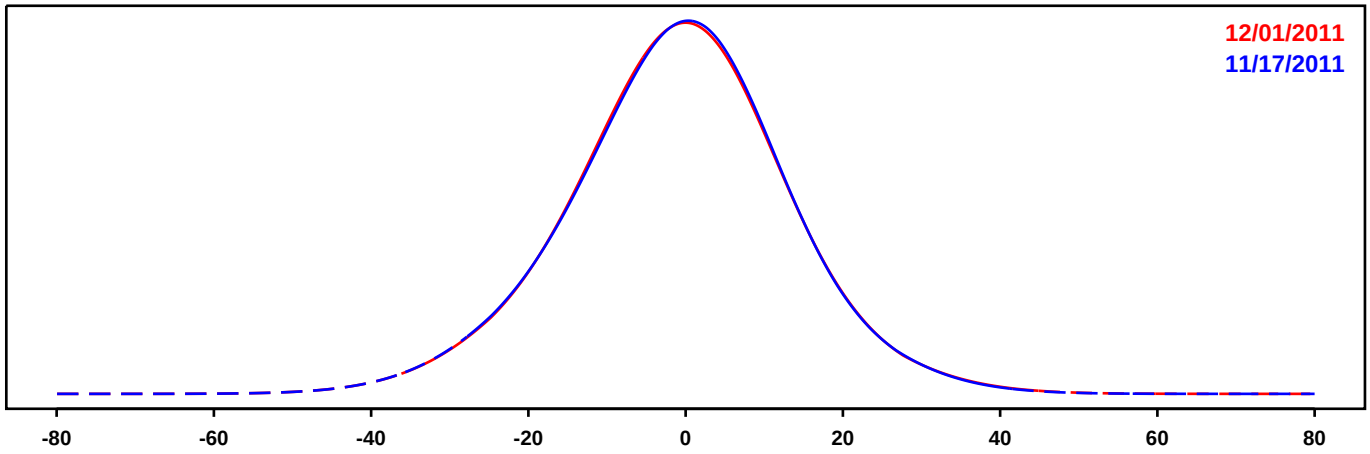
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- SOYBEAN FUTURES

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

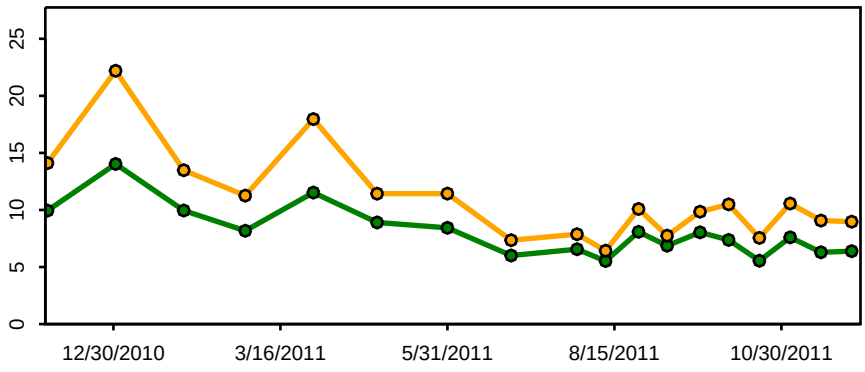
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <=20% Increase >= 20%

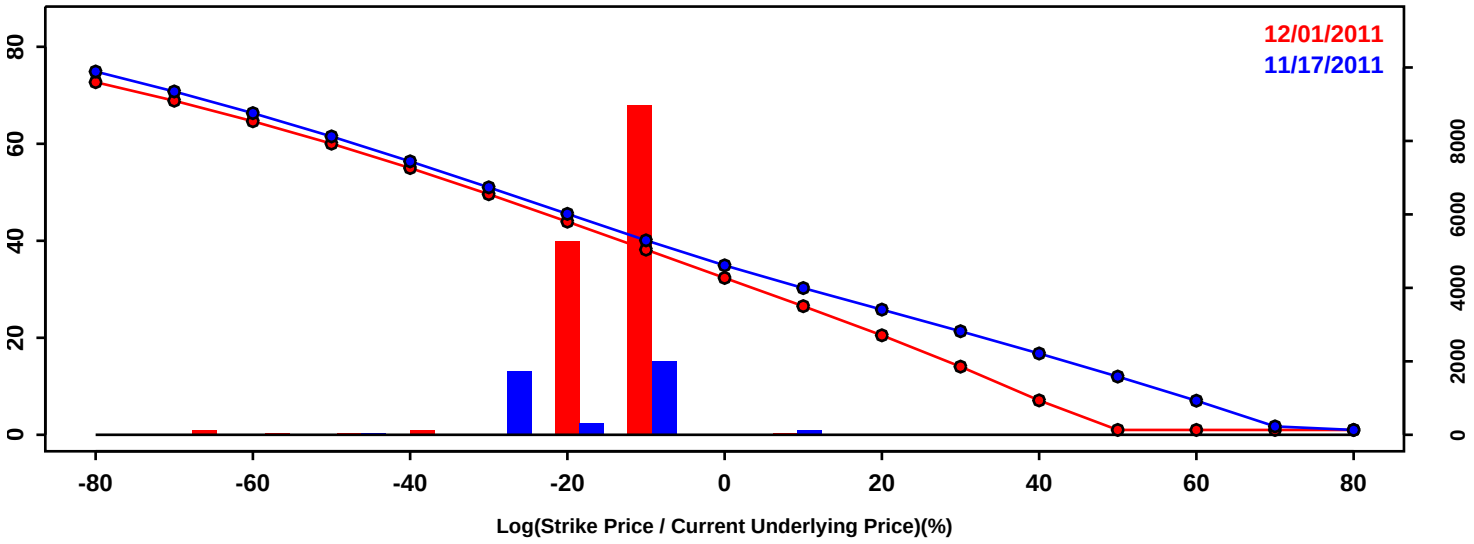
Statistics of the Log Return Distributions

	11/17/2011	12/01/2011	Change
10th Pct	-19.07%	-19.01%	0.06%
50th Pct	-0.61%	-0.66%	-0.05%
90th Pct	16.34%	16.47%	0.13%
Mean	-0.95%	-0.94%	0.00%
Std Dev	14.15%	14.19%	0.04%
Skew	-0.10	-0.08	0.03
Kurtosis	0.41	0.44	0.04

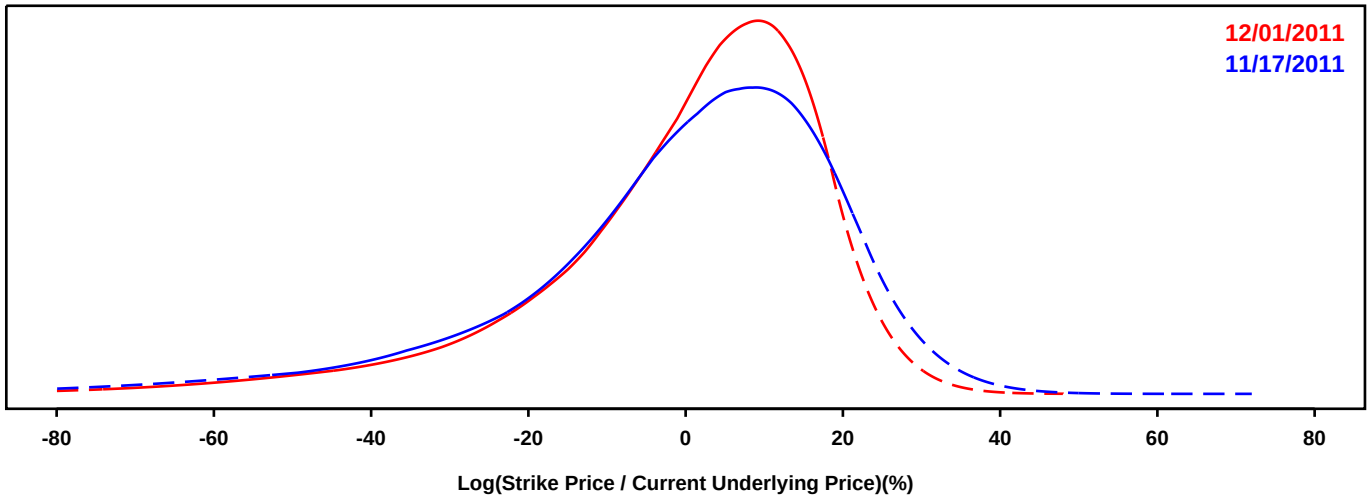
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- iSHARES DOW JONES US REAL ESTATE INDEX

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

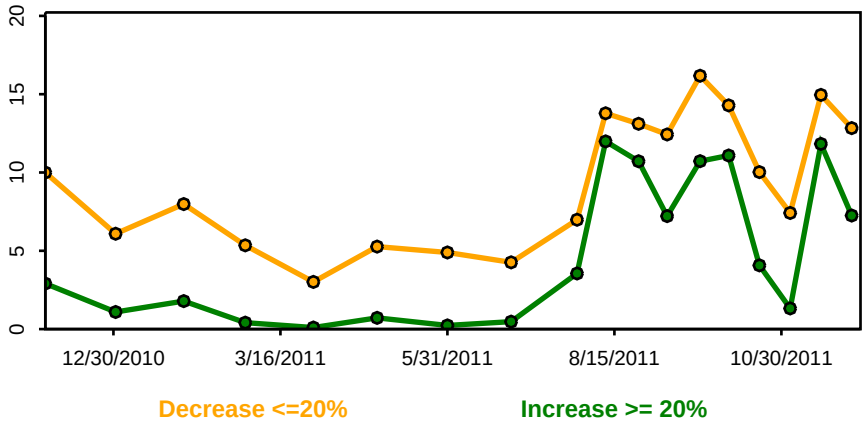
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Statistics of the Log Return Distributions

	11/17/2011	12/01/2011	Change
10th Pct	-28.08%	-24.41%	3.67%
50th Pct	3.01%	3.53%	0.52%
90th Pct	21.19%	18.31%	-2.89%
Mean	-0.81%	-0.38%	0.43%
Std Dev	21.21%	18.57%	-2.65%
Skew	-1.31	-1.40	-0.09
Kurtosis	2.75	2.89	0.15