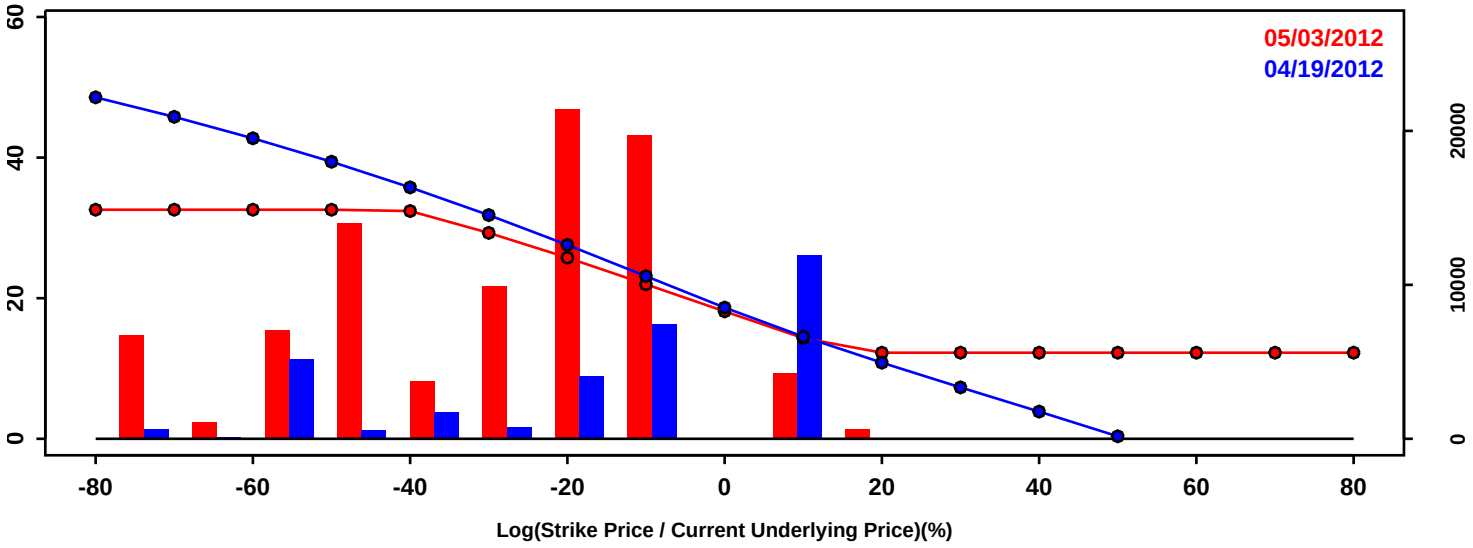
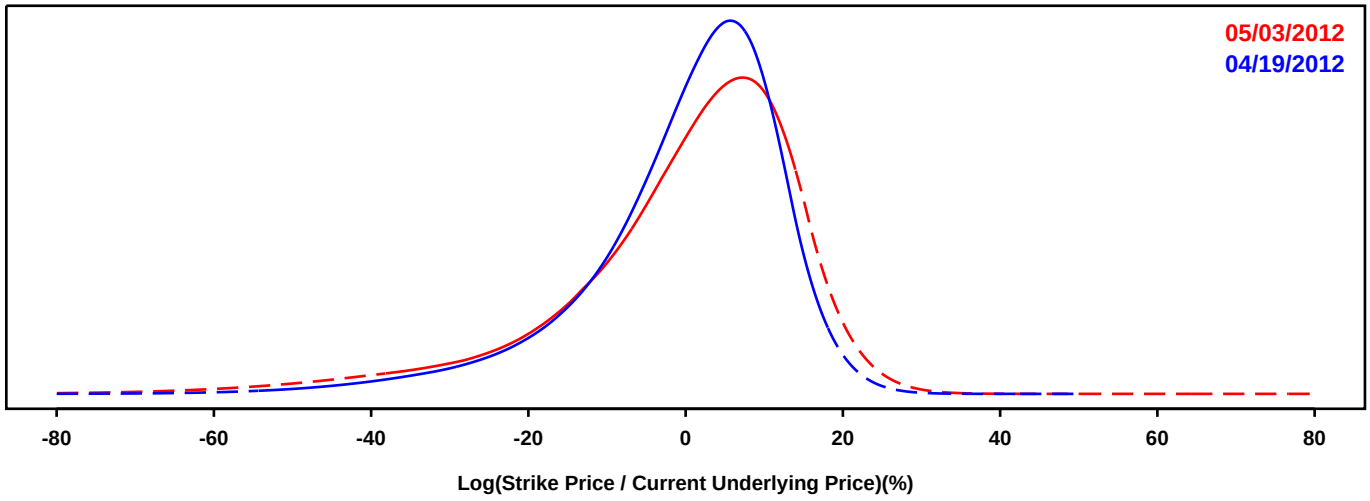
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- S&P 500

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

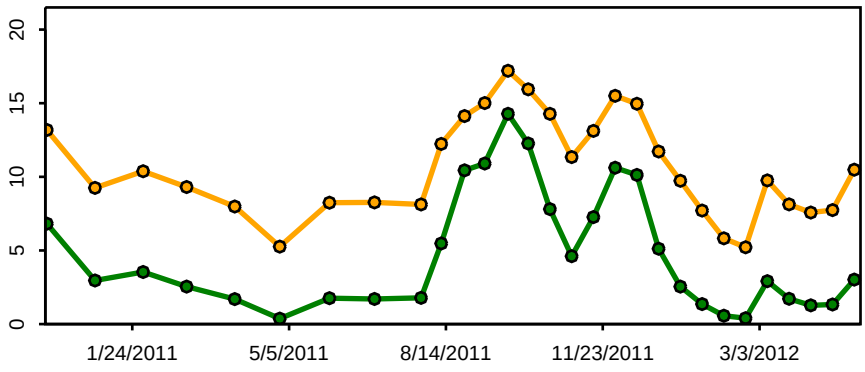
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <=20% Increase >= 20%

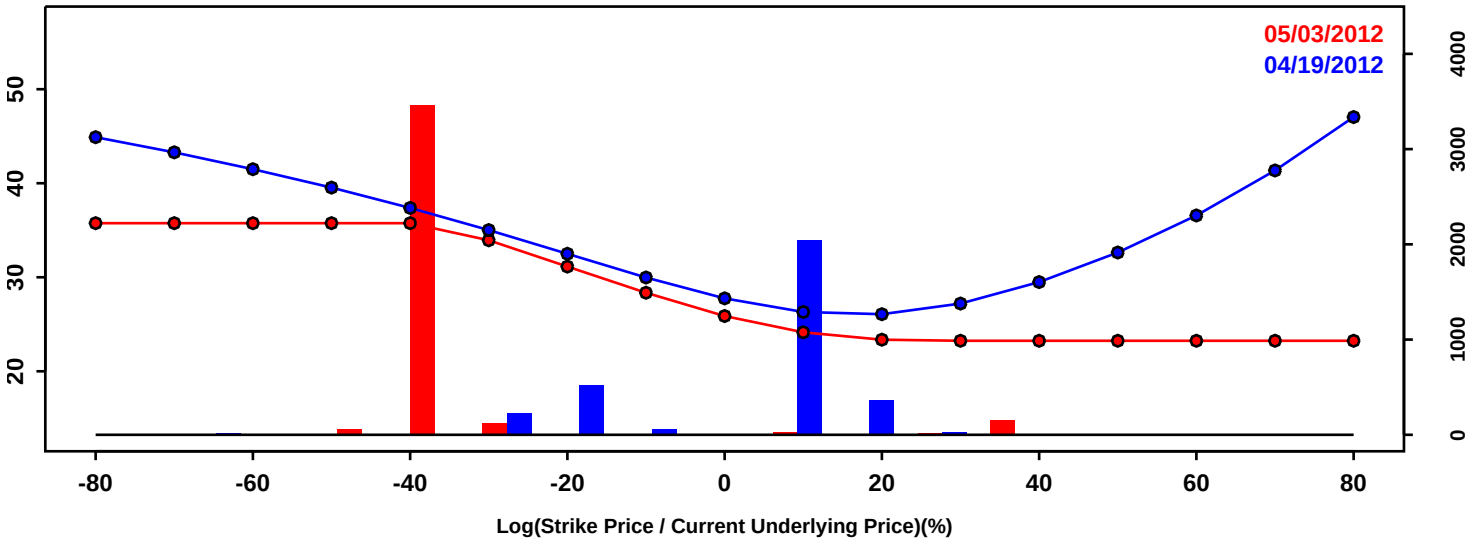
Statistics of the Log Return Distributions

	04/19/2012	05/03/2012	Change
10th Pct	-16.85%	-20.71%	-3.86%
50th Pct	2.17%	2.61%	0.44%
90th Pct	12.91%	15.01%	2.10%
Mean	-0.29%	-0.65%	-0.37%
Std Dev	12.81%	15.63%	2.82%
Skew	-1.30	-1.41	-0.11
Kurtosis	2.63	2.92	0.29

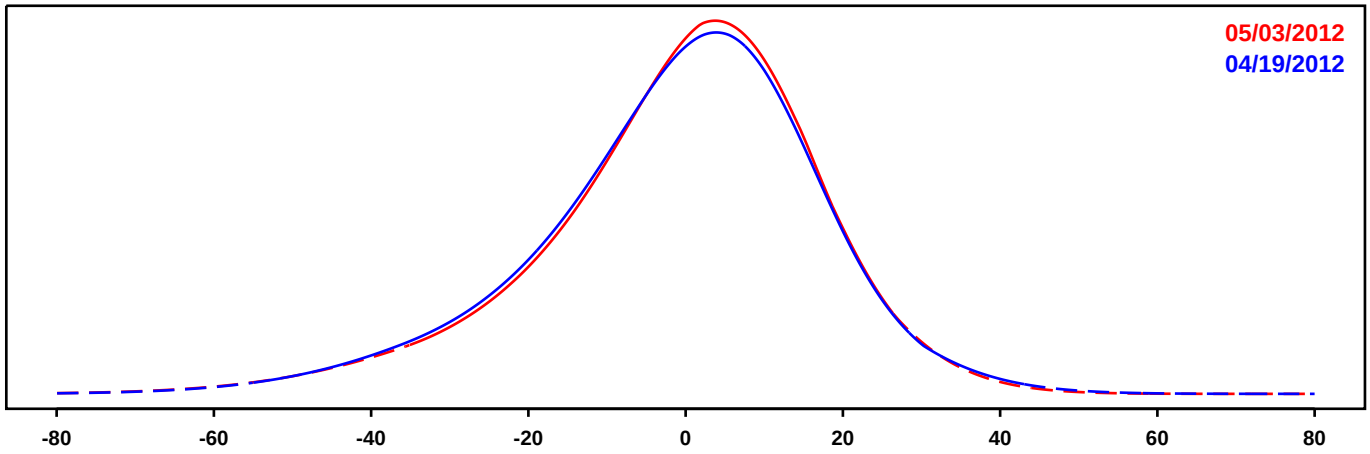
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- CRUDE OIL FUTURES (WTI)

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

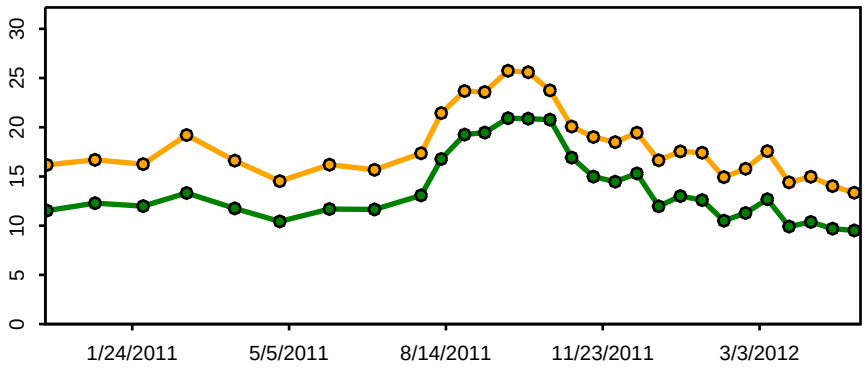
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <=20% Increase >= 20%

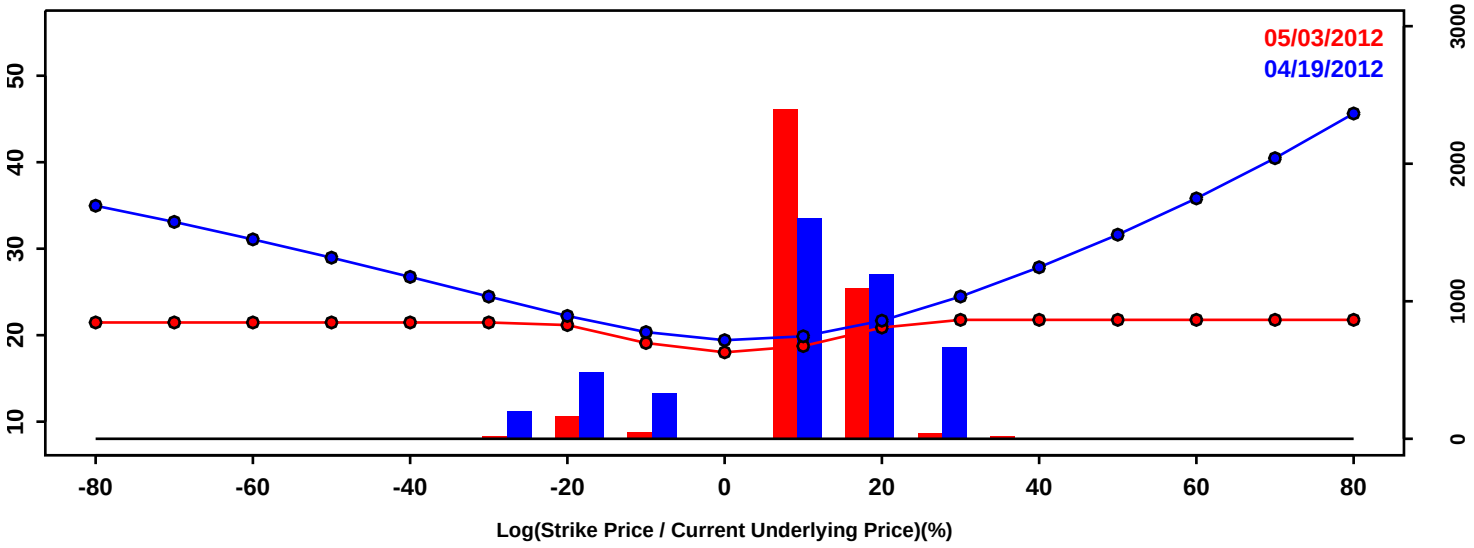
Statistics of the Log Return Distributions

	04/19/2012	05/03/2012	Change
10th Pct	-24.86%	-24.22%	0.64%
50th Pct	0.84%	1.24%	0.40%
90th Pct	19.76%	19.60%	-0.16%
Mean	-1.01%	-0.75%	0.25%
Std Dev	18.11%	17.87%	-0.24%
Skew	-0.55	-0.67	-0.12
Kurtosis	0.82	1.01	0.19

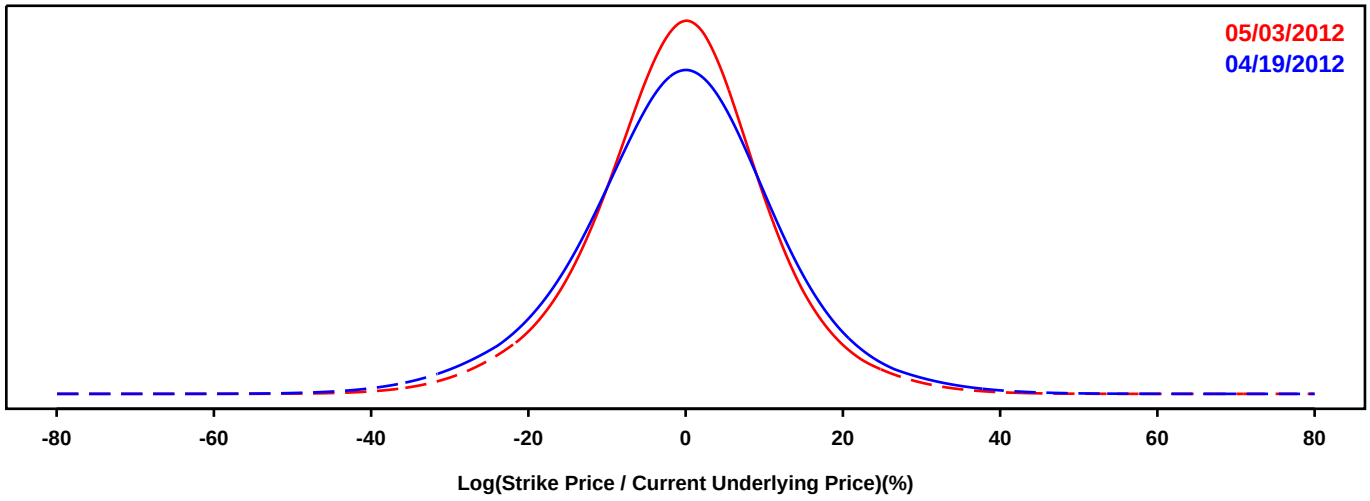
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- GOLD FUTURES

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

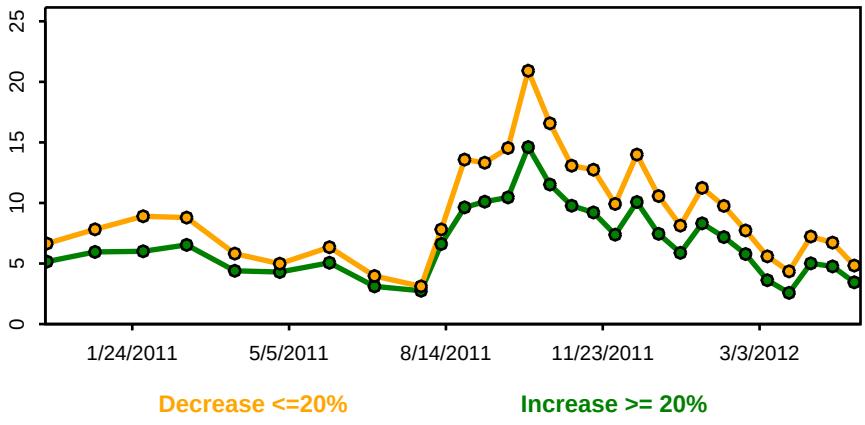
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



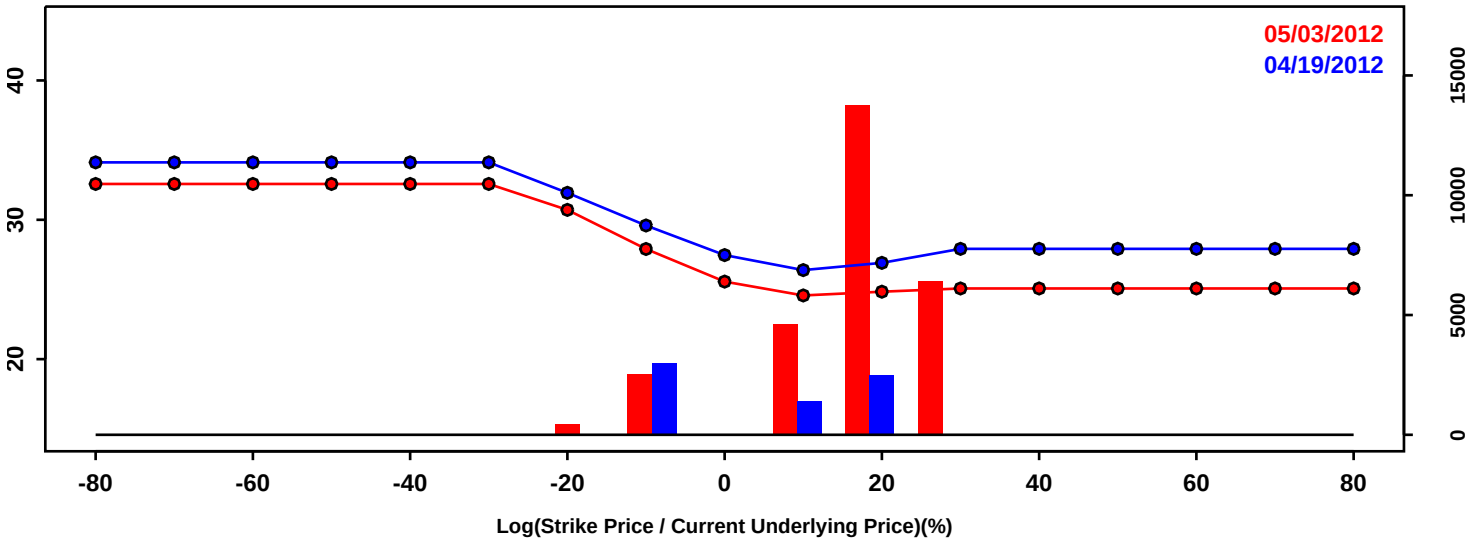
Statistics of the Log Return Distributions

	04/19/2012	05/03/2012	Change
10th Pct	-16.67%	-14.63%	2.05%
50th Pct	-0.46%	-0.36%	0.10%
90th Pct	14.62%	12.97%	-1.66%
Mean	-0.71%	-0.58%	0.14%
Std Dev	12.76%	11.29%	-1.47%
Skew	-0.10	-0.08	0.02
Kurtosis	0.74	0.80	0.05

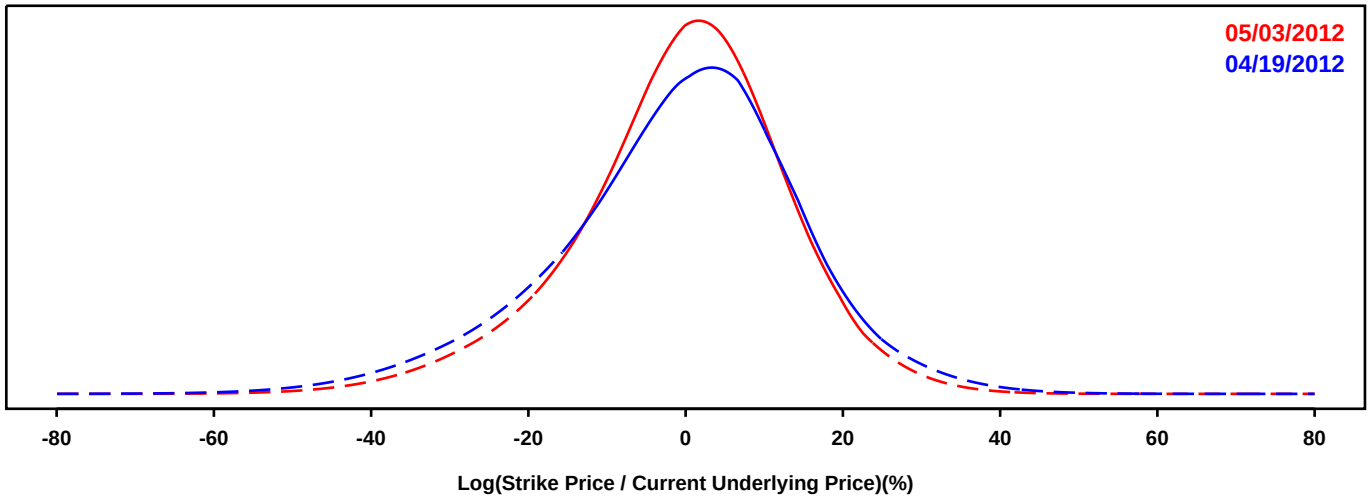
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- CRUDE OIL FUTURES (Brent)

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

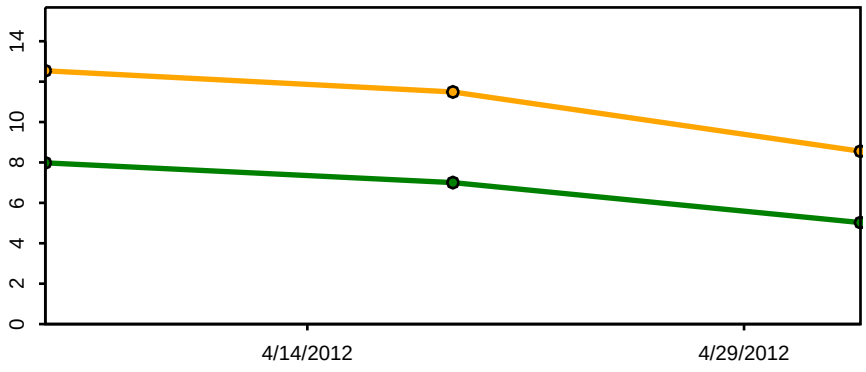
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <=20% Increase >= 20%

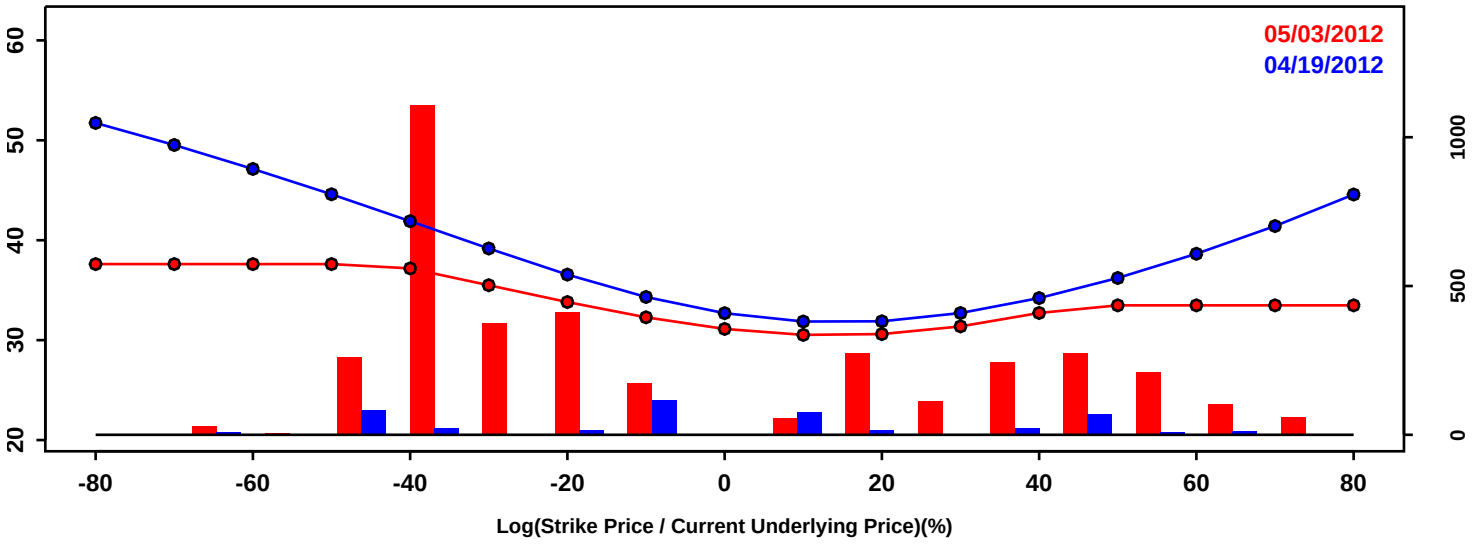
Statistics of the Log Return Distributions

	04/19/2012	05/03/2012	Change
10th Pct	-21.64%	-18.40%	3.24%
50th Pct	0.44%	0.44%	0.00%
90th Pct	17.23%	15.53%	-1.70%
Mean	-0.92%	-0.57%	0.35%
Std Dev	15.65%	13.64%	-2.01%
Skew	-0.42	-0.44	-0.02
Kurtosis	0.64	0.69	0.05

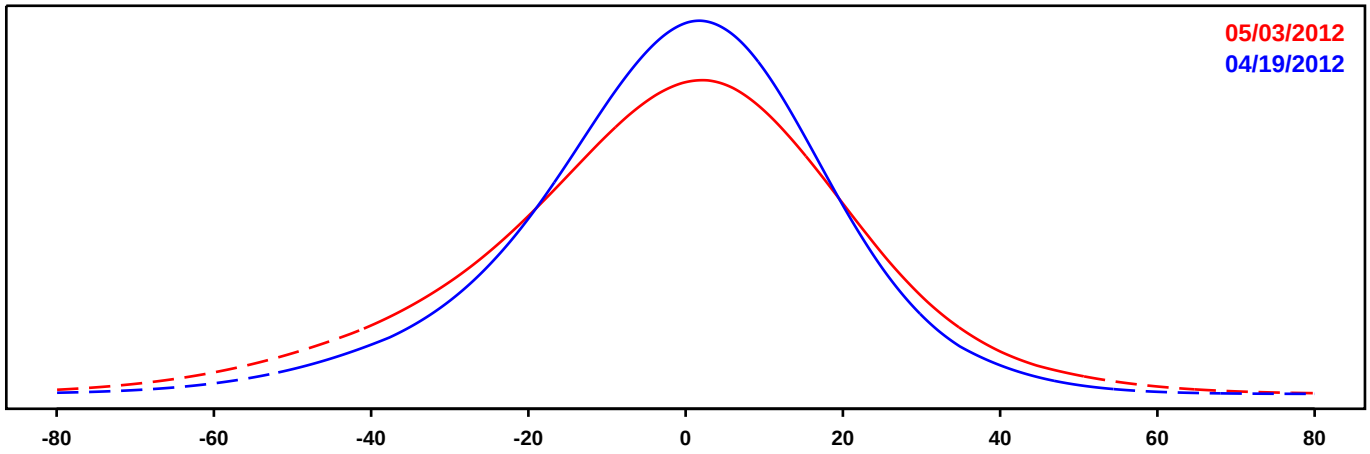
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- SILVER FUTURES

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

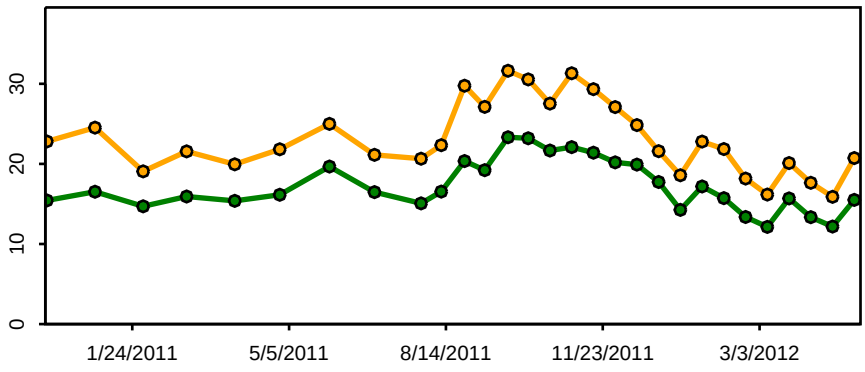
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <=20% Increase >= 20%

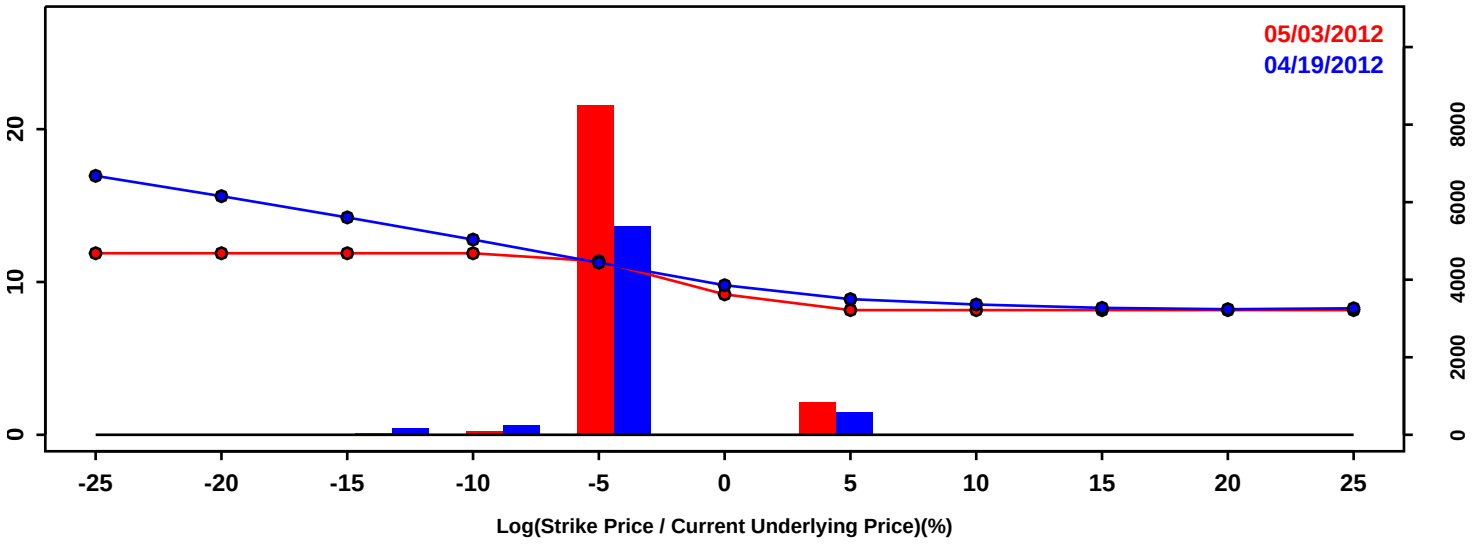
Statistics of the Log Return Distributions

	04/19/2012	05/03/2012	Change
10th Pct	-26.74%	-33.21%	-6.48%
50th Pct	-0.21%	-0.81%	-0.60%
90th Pct	22.07%	25.62%	3.55%
Mean	-1.39%	-2.35%	-0.96%
Std Dev	19.75%	23.66%	3.91%
Skew	-0.37	-0.33	0.04
Kurtosis	0.68	0.58	-0.10

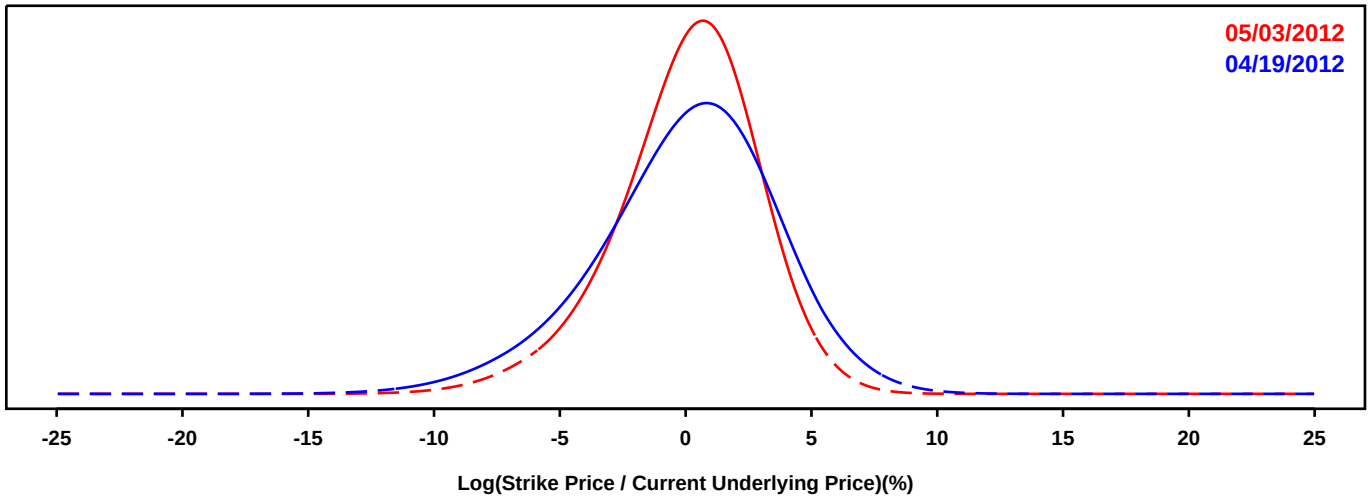
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- DOLLAR-EURO EXCHANGE RATE FUTURES

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

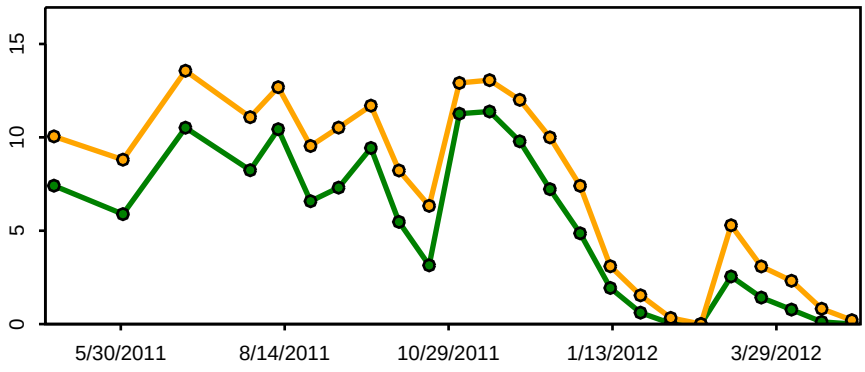
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <=10% Increase >= 10%

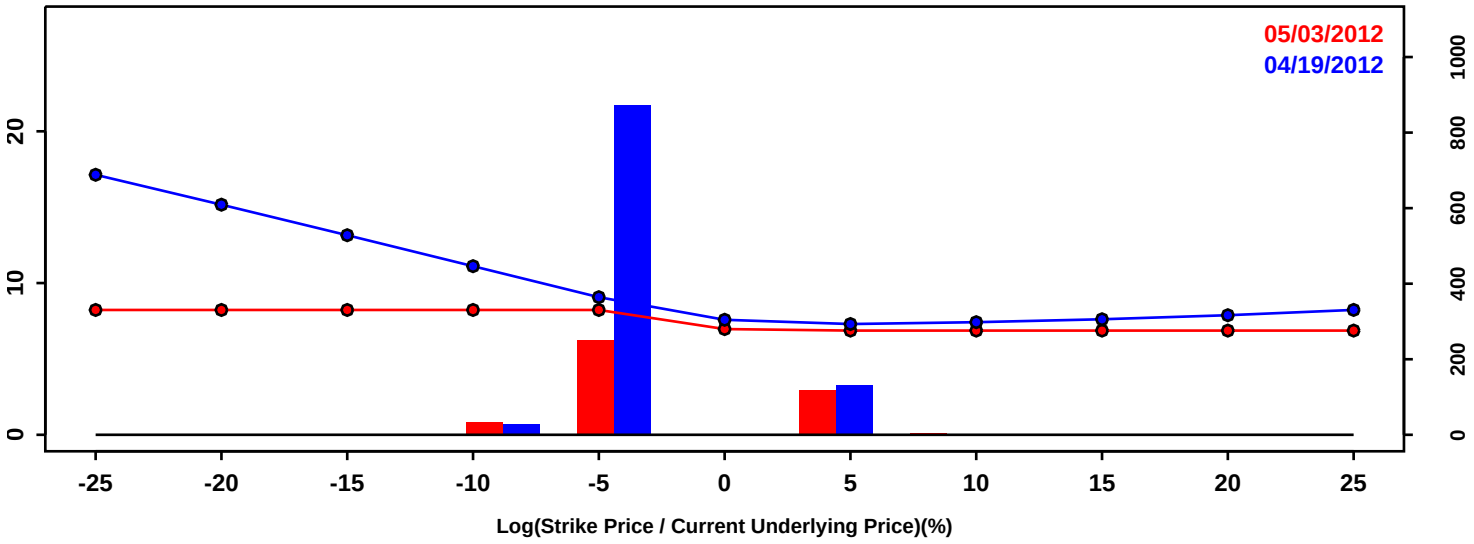
Statistics of the Log Return Distributions

	04/19/2012	05/03/2012	Change
10th Pct	-4.72%	-3.67%	1.04%
50th Pct	0.29%	0.29%	0.00%
90th Pct	4.40%	3.48%	-0.91%
Mean	0.06%	0.08%	0.02%
Std Dev	3.63%	2.88%	-0.75%
Skew	-0.41	-0.48	-0.07
Kurtosis	0.42	0.61	0.19

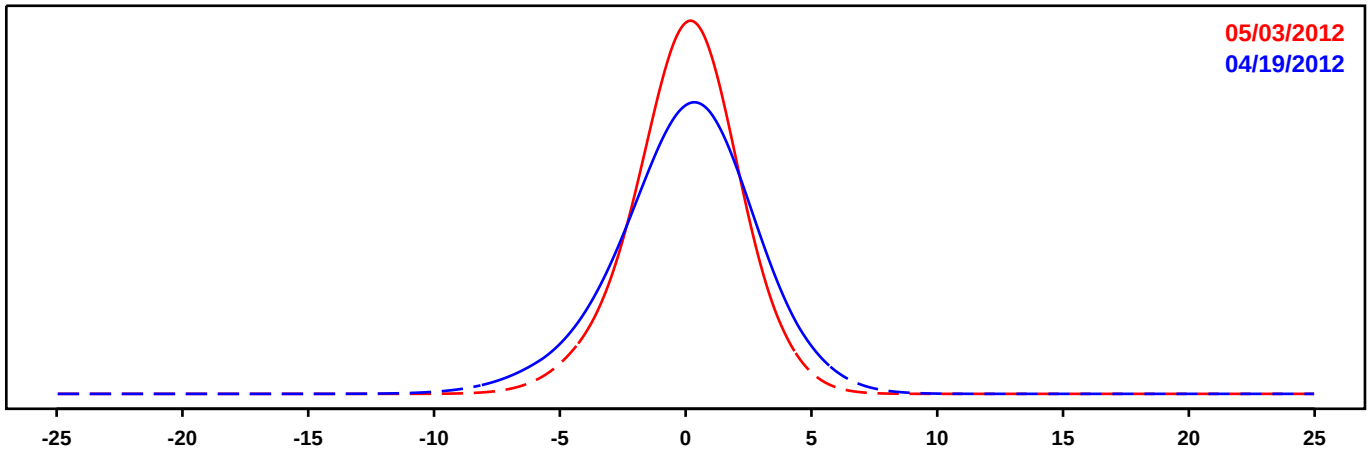
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- DOLLAR-POUND EXCHANGE RATE FUTURES

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

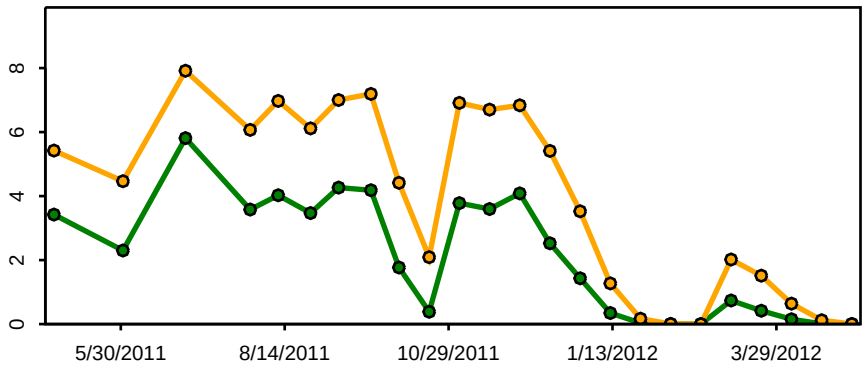
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <=10% Increase >= 10%

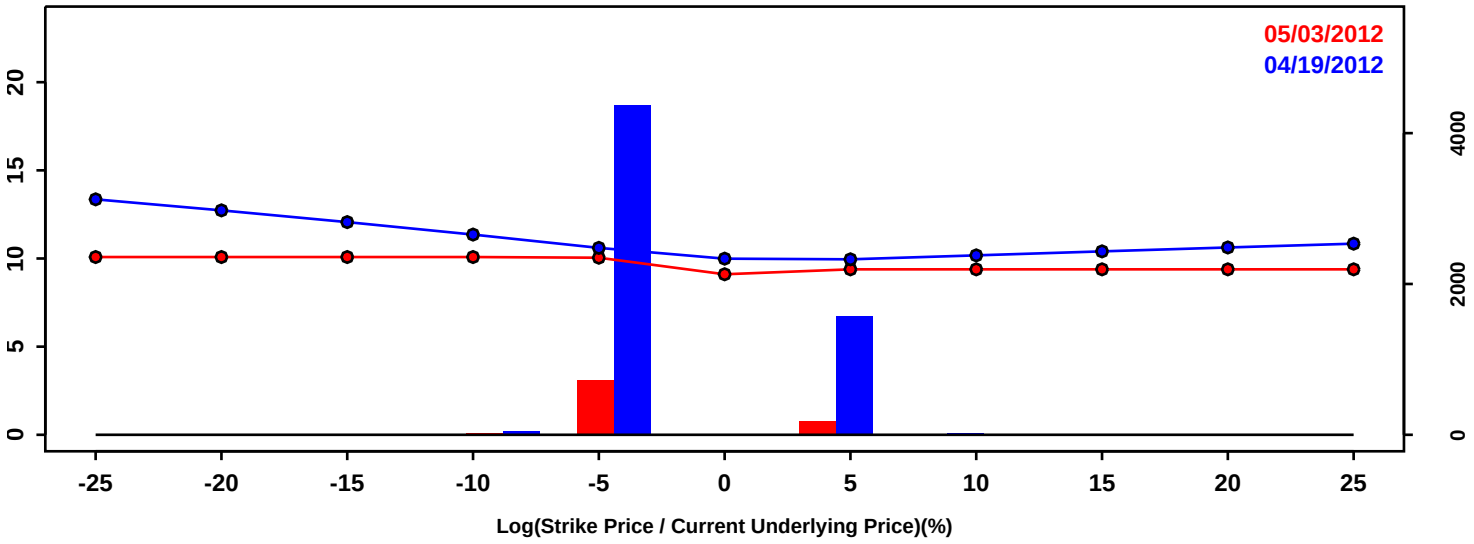
Statistics of the Log Return Distributions

	04/19/2012	05/03/2012	Change
10th Pct	-3.57%	-2.79%	0.77%
50th Pct	0.14%	0.09%	-0.05%
90th Pct	3.39%	2.66%	-0.73%
Mean	0.02%	0.03%	0.01%
Std Dev	2.80%	2.17%	-0.63%
Skew	-0.31	-0.23	0.08
Kurtosis	0.48	0.41	-0.07

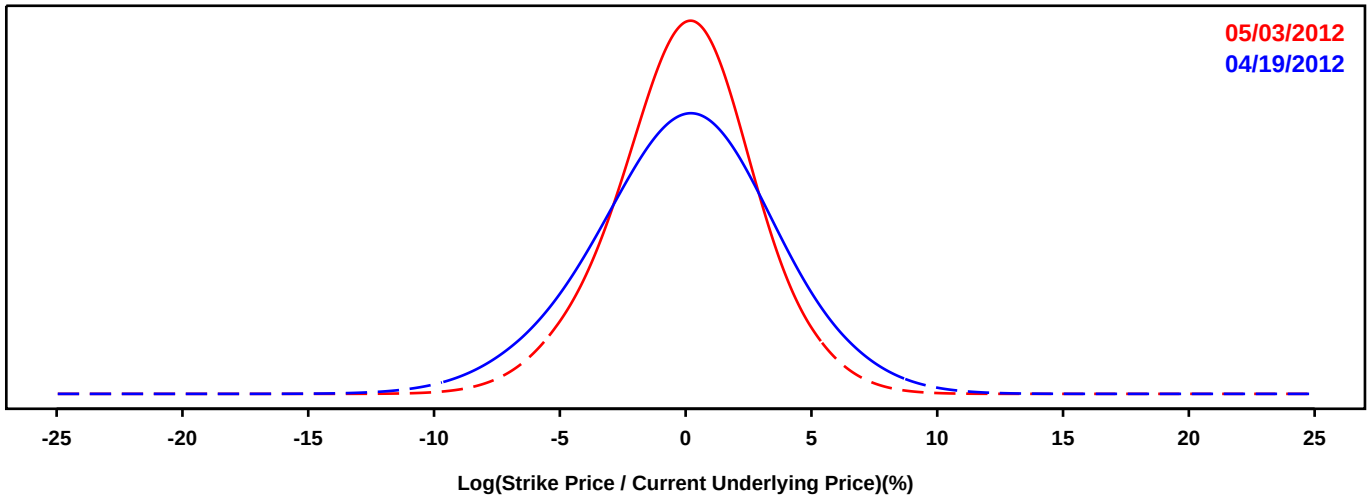
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- YEN-DOLLAR EXCHANGE RATE FUTURES

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

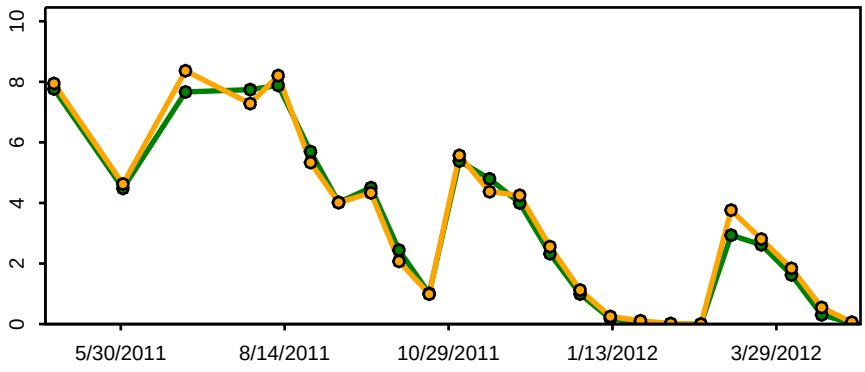
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <=10% Increase >= 10%

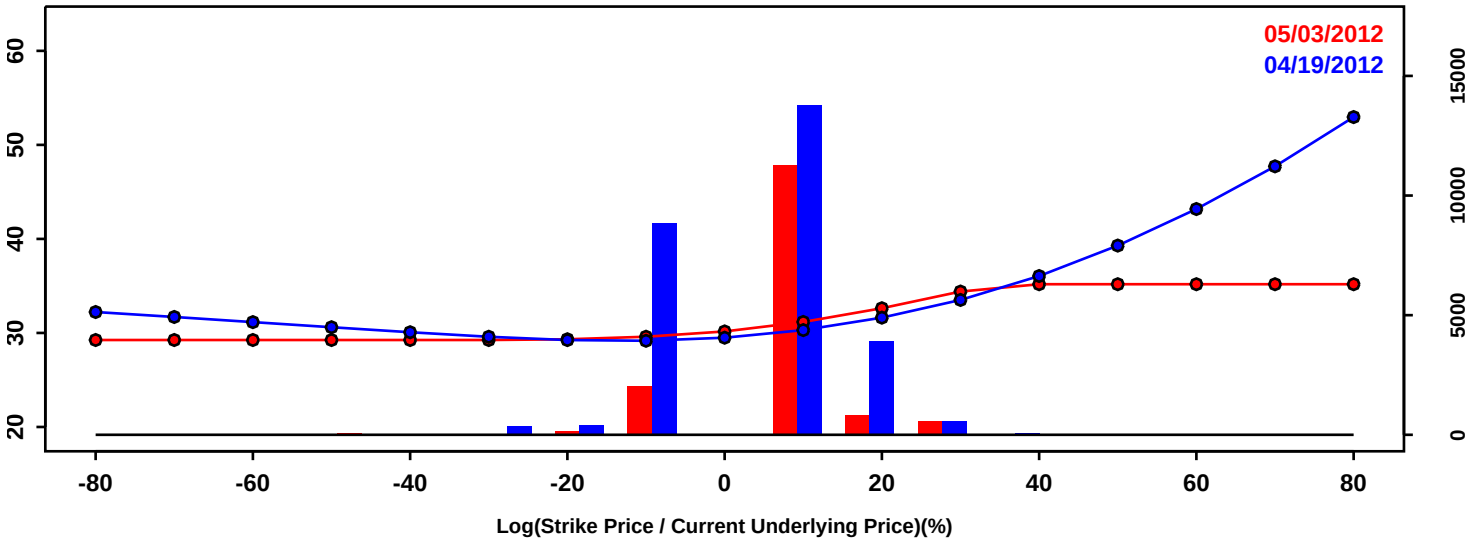
Statistics of the Log Return Distributions

	04/19/2012	05/03/2012	Change
10th Pct	-4.77%	-3.67%	1.10%
50th Pct	0.04%	0.04%	0.00%
90th Pct	4.59%	3.48%	-1.10%
Mean	-0.02%	-0.00%	0.02%
Std Dev	3.69%	2.84%	-0.85%
Skew	-0.11	-0.12	-0.01
Kurtosis	0.19	0.30	0.11

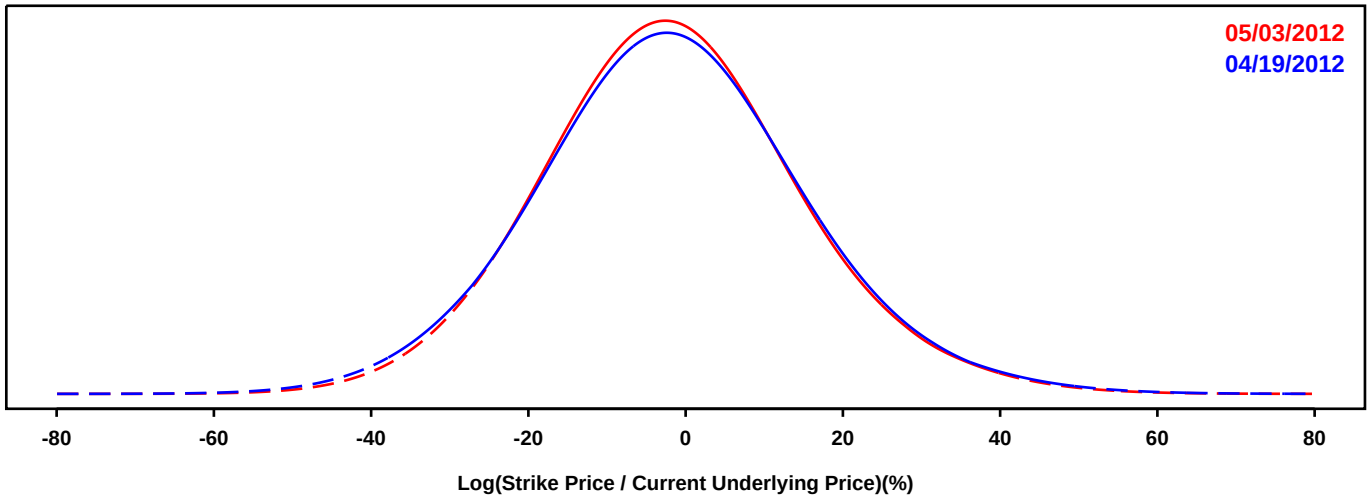
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- CORN FUTURES

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

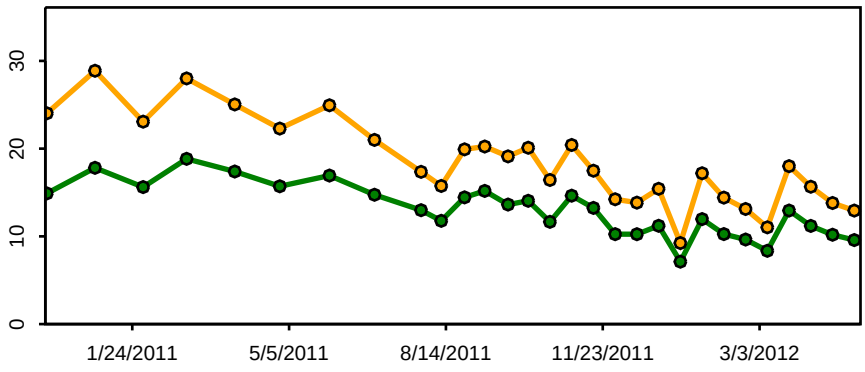
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <=20% Increase >= 20%

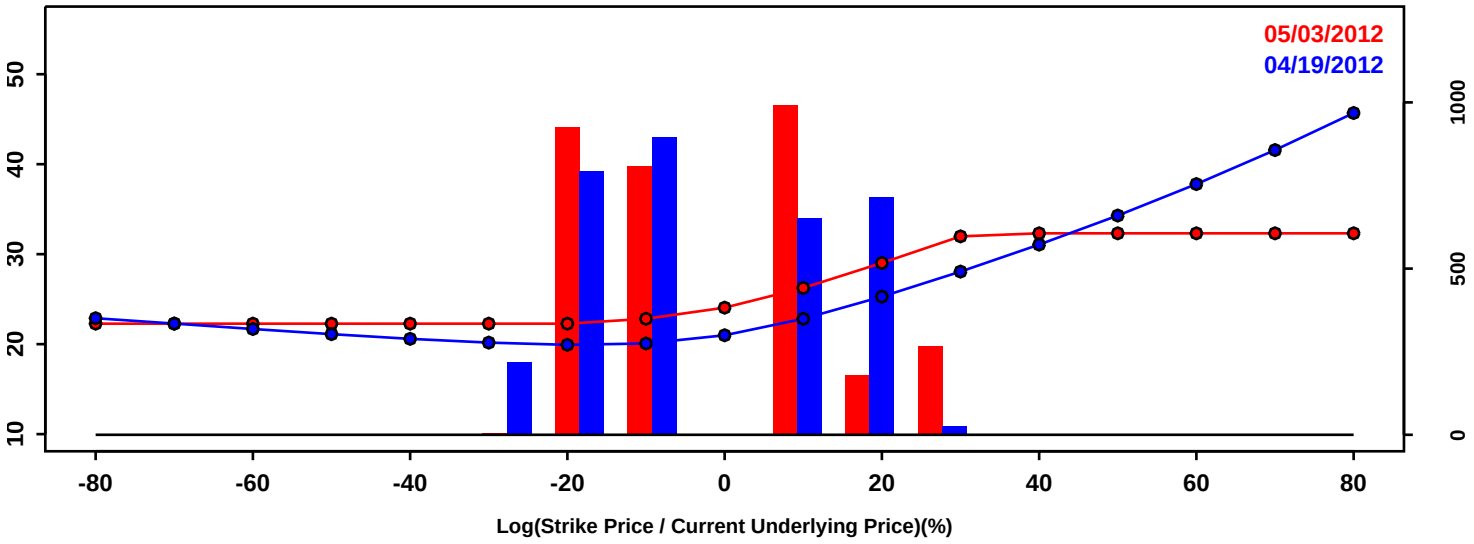
Statistics of the Log Return Distributions

	04/19/2012	05/03/2012	Change
10th Pct	-23.27%	-22.39%	0.88%
50th Pct	-1.97%	-2.08%	-0.10%
90th Pct	20.21%	19.56%	-0.66%
Mean	-1.64%	-1.64%	0.00%
Std Dev	17.29%	16.64%	-0.65%
Skew	0.14	0.19	0.04
Kurtosis	0.34	0.30	-0.04

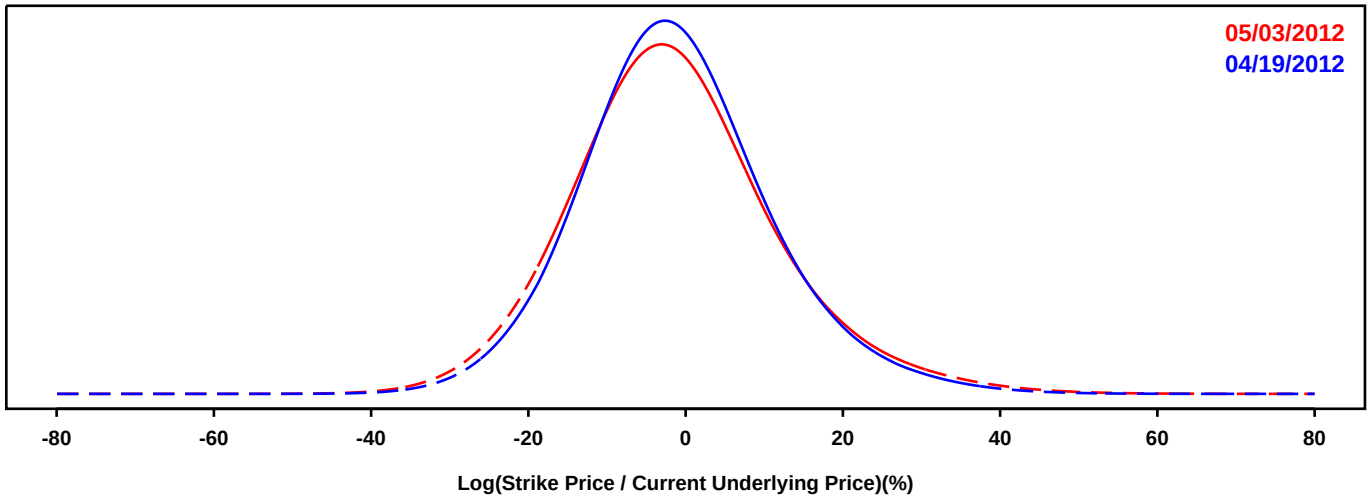
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- SOYBEAN FUTURES

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

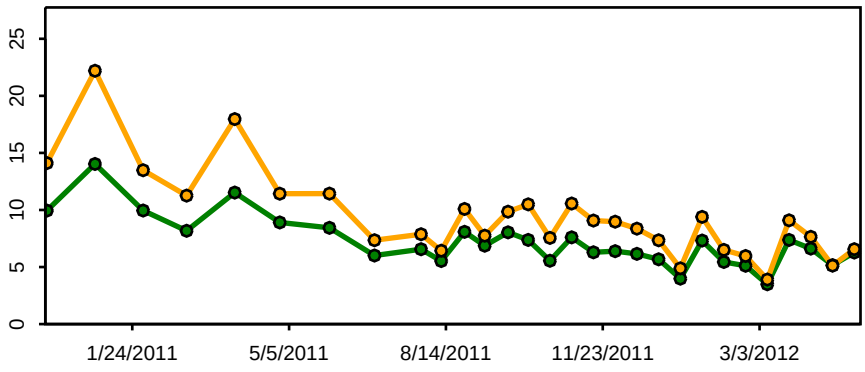
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <=20% Increase >= 20%

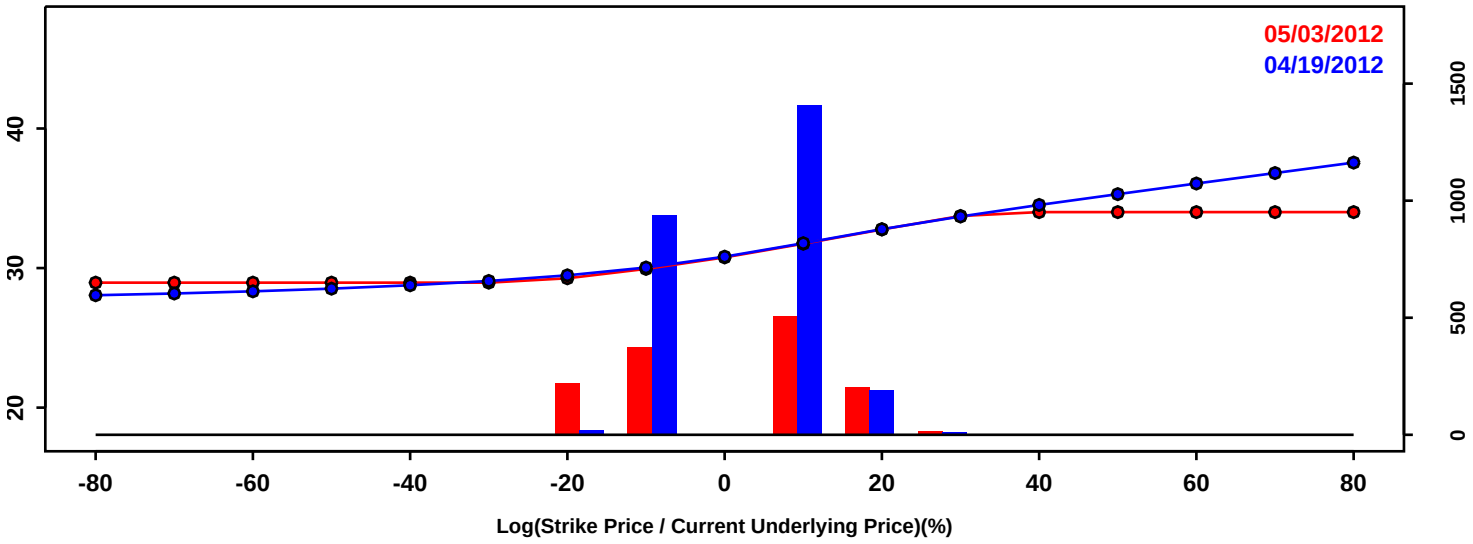
Statistics of the Log Return Distributions

	04/19/2012	05/03/2012	Change
10th Pct	-15.91%	-17.21%	-1.30%
50th Pct	-1.72%	-2.08%	-0.36%
90th Pct	14.54%	15.61%	1.08%
Mean	-1.05%	-1.25%	-0.21%
Std Dev	12.27%	13.27%	1.01%
Skew	0.36	0.44	0.07
Kurtosis	0.65	0.75	0.10

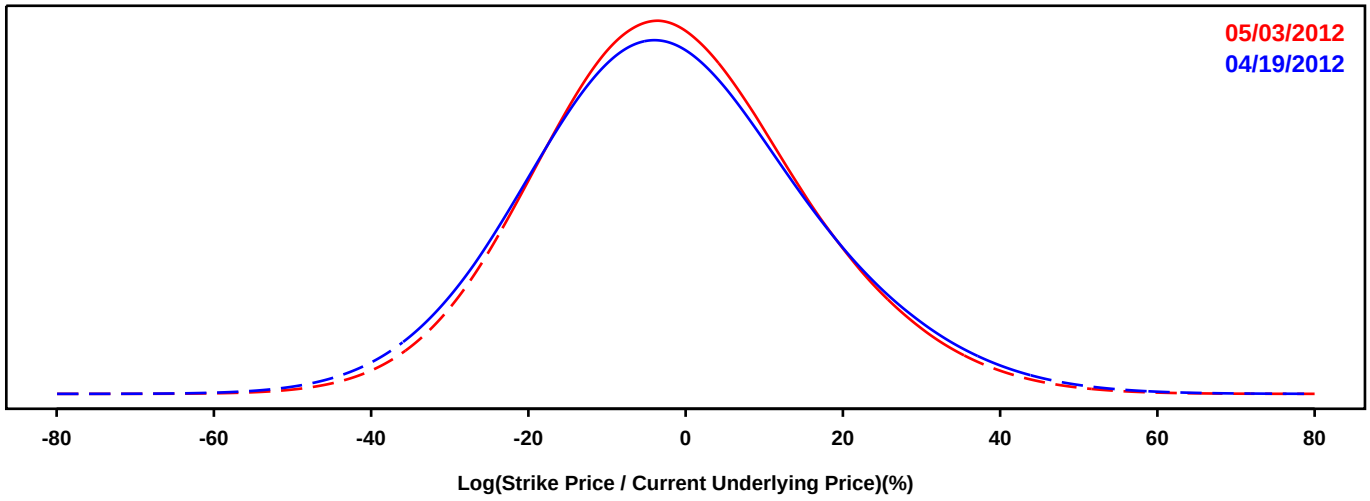
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- WHEAT FUTURES

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

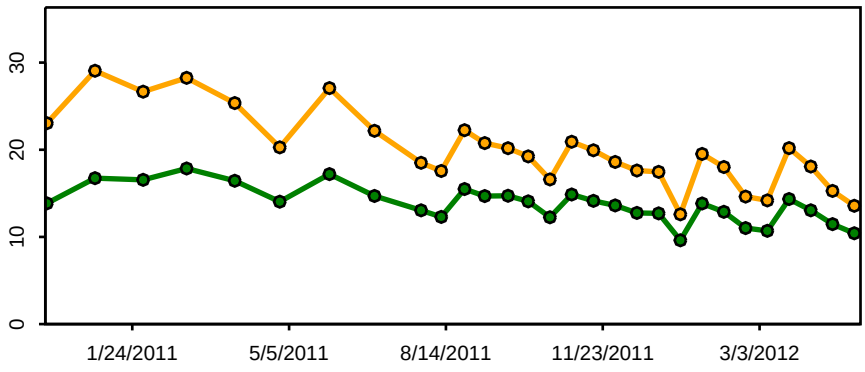
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <=20% Increase >= 20%

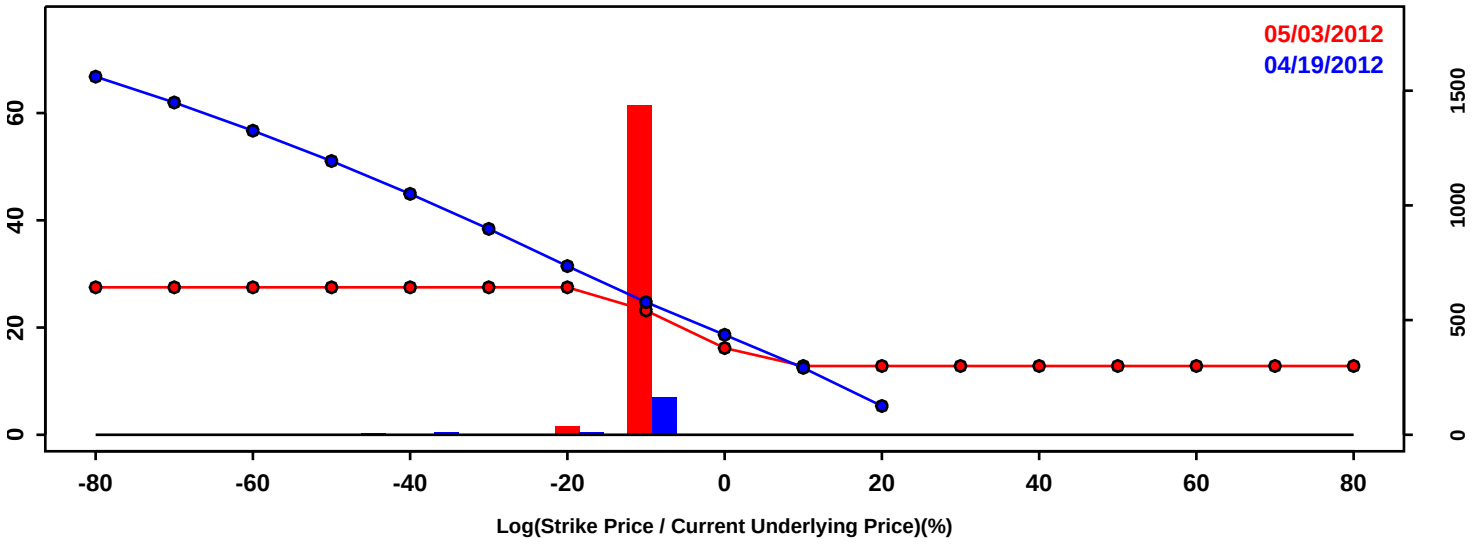
Statistics of the Log Return Distributions

	04/19/2012	05/03/2012	Change
10th Pct	-24.28%	-22.83%	1.46%
50th Pct	-2.64%	-2.38%	0.26%
90th Pct	21.63%	20.46%	-1.18%
Mean	-1.87%	-1.68%	0.19%
Std Dev	18.04%	16.99%	-1.05%
Skew	0.21	0.21	-0.00
Kurtosis	0.17	0.15	-0.02

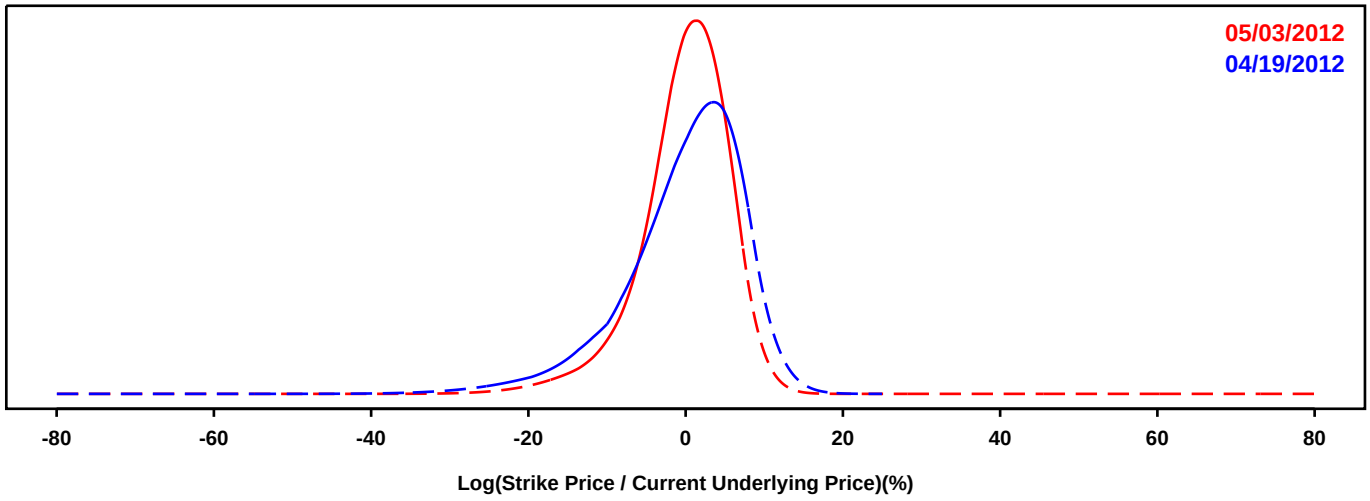
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- iSHARES DOW JONES US REAL ESTATE

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

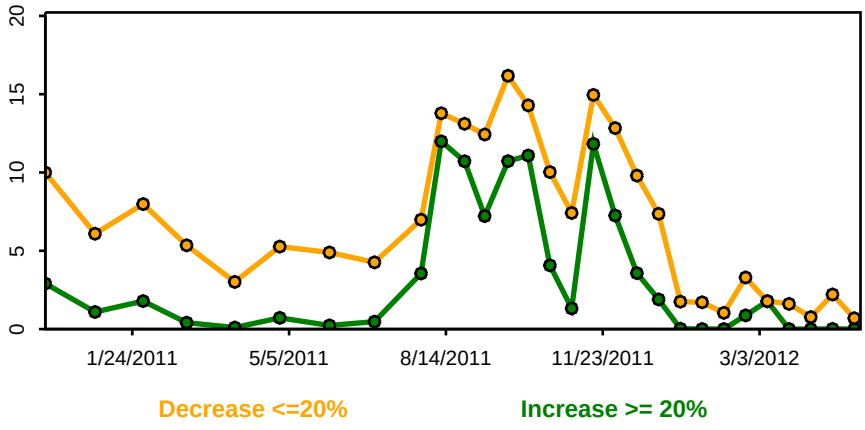
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Statistics of the Log Return Distributions

	04/19/2012	05/03/2012	Change
10th Pct	-10.25%	-7.26%	2.99%
50th Pct	1.09%	0.54%	-0.54%
90th Pct	8.15%	6.34%	-1.81%
Mean	-0.16%	-0.10%	0.06%
Std Dev	7.69%	5.76%	-1.94%
Skew	-1.07	-0.97	0.10
Kurtosis	1.90	2.01	0.11