Minneapolis Options Report – April 3rd

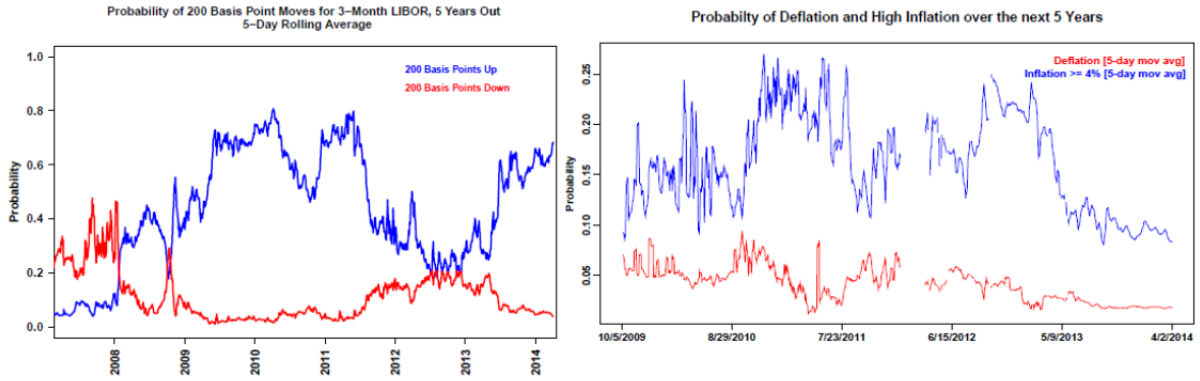
Additions: This week we add a report on 10-year Treasury note futures to the chart deck. We have not back-filled the data yet but expect to do so in the near future. We also report on Euro Area inflation using RNPDs derived from caps and floors. We will formalize the reporting of this information in the near future as well.

Options trading was light over the past week across every market we follow. Equity prices were generally higher. The S&P 500 spot price was up 90 basis points over the past two weeks. The average price change of 17 of the CCAR banks we follow was -40 basis points while the average price change of the 11 insurance companies was 140 basis points. Precious metals and corn prices moved the most of the physical commodities in our report.

Inflation and Interest Rates

US

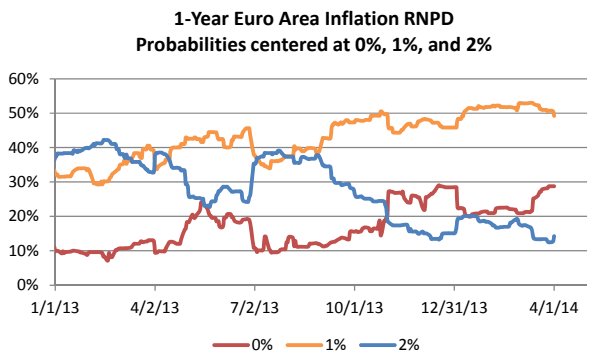
Long-term (risk neutral) expectations for LIBOR rates and US inflation moved in opposite directions. The probability of a 200 basis point increase derived from 5-year options on 3-month LIBOR rose to its highest level since mid-2011 (left panel below). On the other hand, the probability of inflation (CPI) >= 4% over the next five years is at 4.5 year lows (right panel).

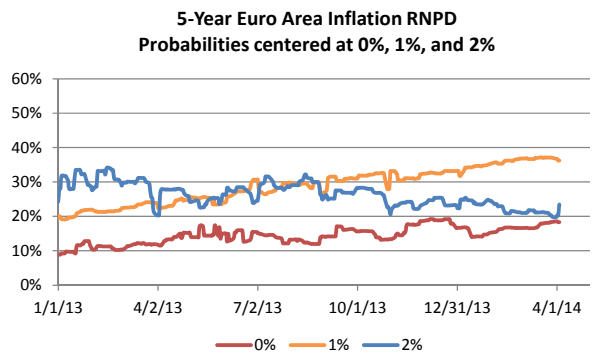


(detailed reports are included in the chart deck)

Europe

The ECB met last week and did not change their policy stance. Observers noted that most forecasts did not expect increasingly accommodative policy changes to be announced. Similar to our report from two weeks ago, we examined changes in risk neutral probabilities at 0%, 1%, and 2% outcomes from the discrete RNPDs derived from caps and floors on euro area inflation. We made these measurements on caps and floors with 1 year and 5 year expiries and we report the values starting at the beginning of last year.





Risk neutral probabilities have been steadily rising at 0% and 1% and falling at 2% since the beginning of last year for both periods.

Banks & Insurance Companies
Since our last report the Fed released stress test results for the 30 firms that took part in the exercise. We distributed a report that specifically examined RNPD reactions to the DFAST and CCAR releases. The final version of that report is included with this email.

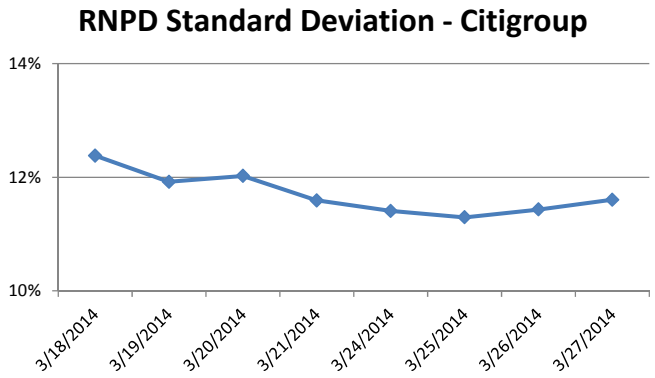
As noted above, trading for insurance companies and banks was light last week. No bank or insurance company options had increasing and above average volume last week. In spite of banks' desultory performance, tail risks as measured by RNPD standard deviation, fell pervasively. More consistent with favorable stock performance, the RNPD standard deviations derived from options on insurance companies also experienced declines.

Additional Notes:

- RNPD skews tended to rise within the 11 insurance company group last week.

- BAC and GS had to change their capital plan requests due as the buybacks and payouts they initially requested would have caused them to fail the stress test. In response, the BAC share price fell -4.3% and the GS share price fell -1.9%. Their RNPD standard deviations were largely unchanged, however. *(See BAC and GS reports)*

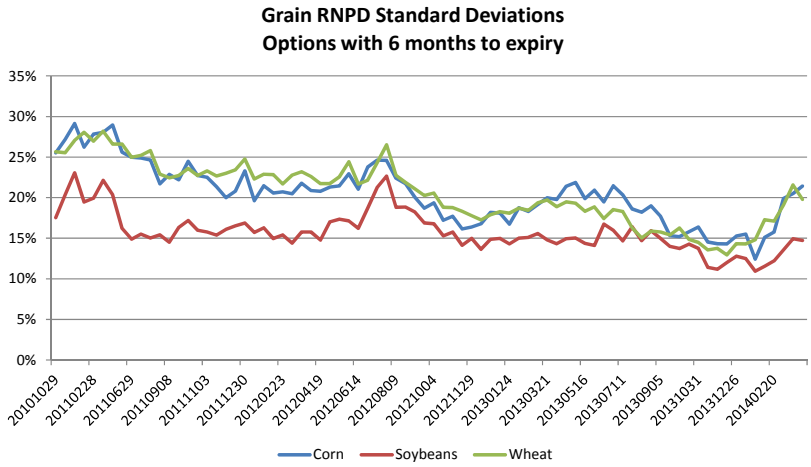
- The RNPD standard deviation for C *fell* over the past two weeks. A surprising outcome given the news that their capital plan was rejected by the Fed. (*See C report*)



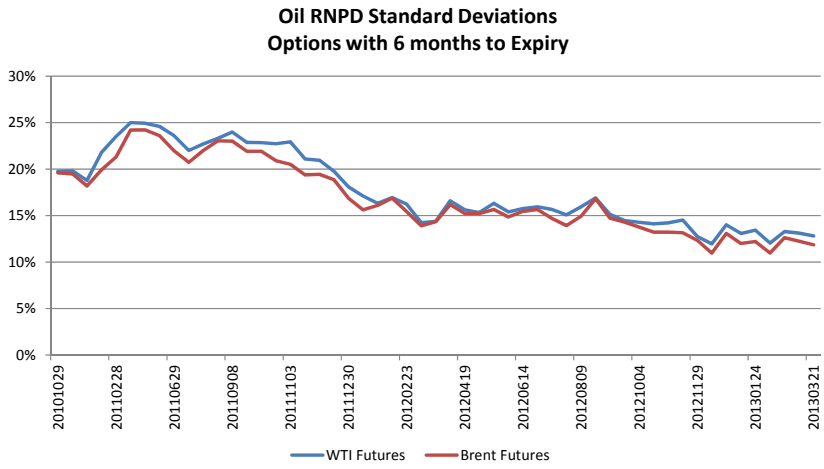
Other Commodity Markets
Tail risks (RNPD standard deviations) for the other commodities we follow generally fell last week. RNPD skew changes were mixed and trading was light. The spot price for corn futures rose 4.4% while the spot price for wheat futures fell -3.1% over the last two weeks. Gold and silver futures prices declined in excess of -300 basis points.

Additional notes:

- RNPD standard deviations derived from options on grain futures prices remain elevated relative to the end of 2013. (*See Corn, Wheat, and Soybean reports*)



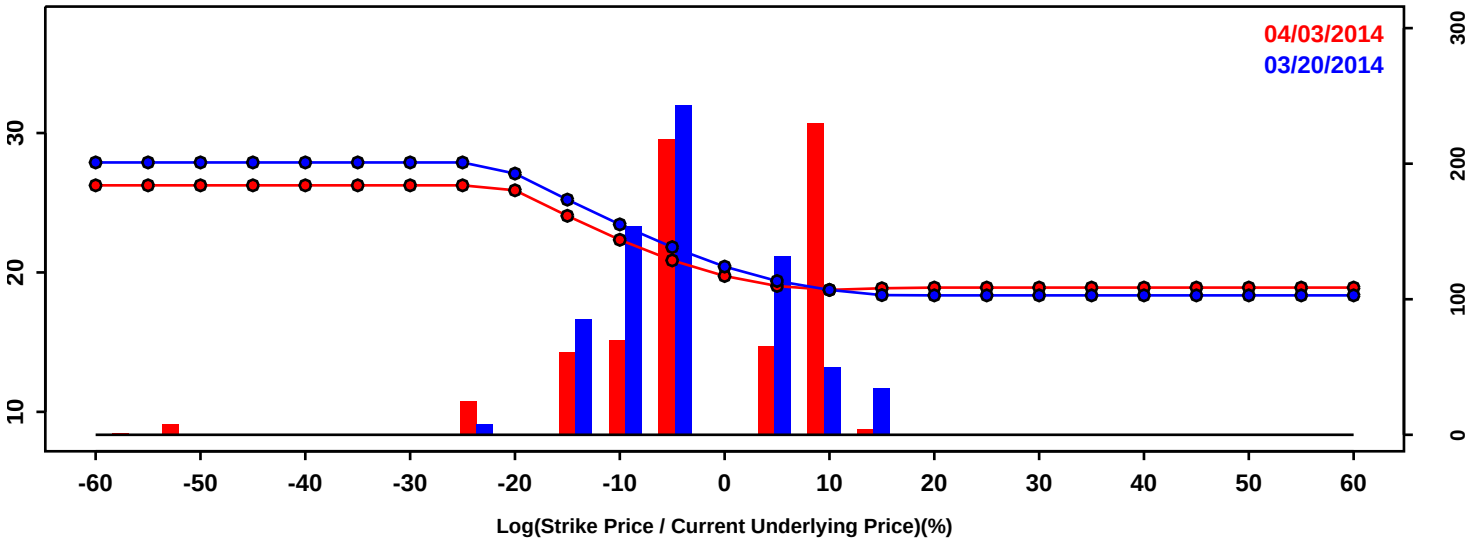
- RNPD standard deviations derived from options on oil futures prices continue to decline. (*See oil reports*)



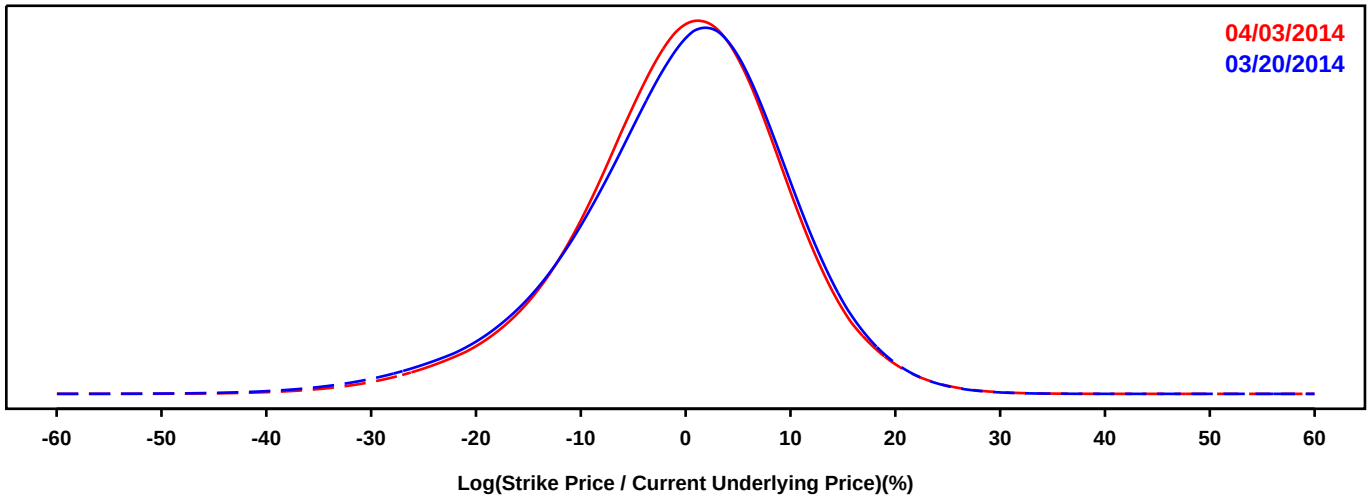
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- AMERICAN EXPRESS

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

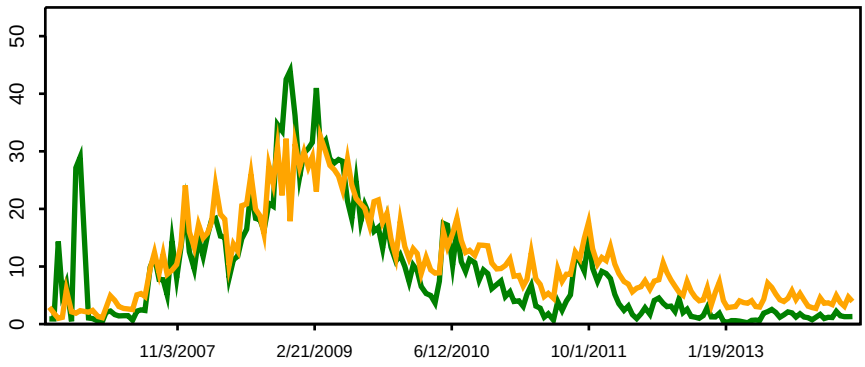
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <= -20% Increase >= 20%

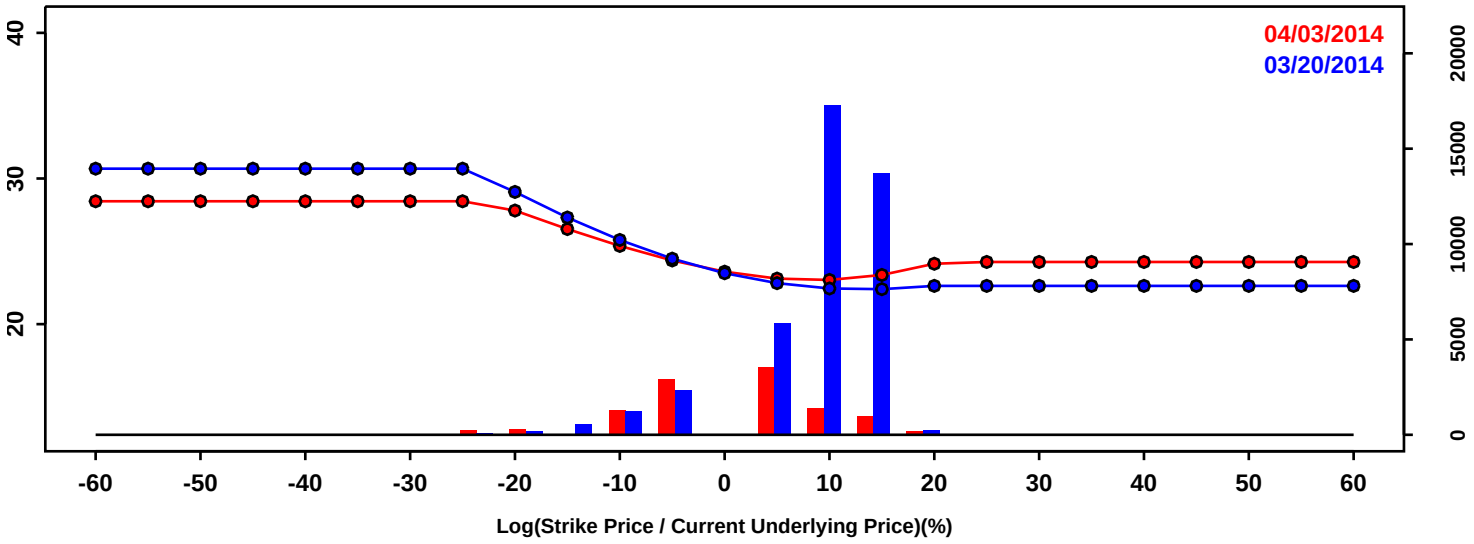
Statistics of the Log Return Distributions

	03/20/2014	04/03/2014	Change
10th Pct	-14.17%	-13.33%	0.84%
50th Pct	0.39%	0.12%	-0.26%
90th Pct	11.57%	11.24%	-0.33%
Mean	-0.59%	-0.54%	0.05%
Std Dev	10.41%	9.97%	-0.44%
Skew	-0.58	-0.46	0.12
Kurtosis	0.85	0.78	-0.07

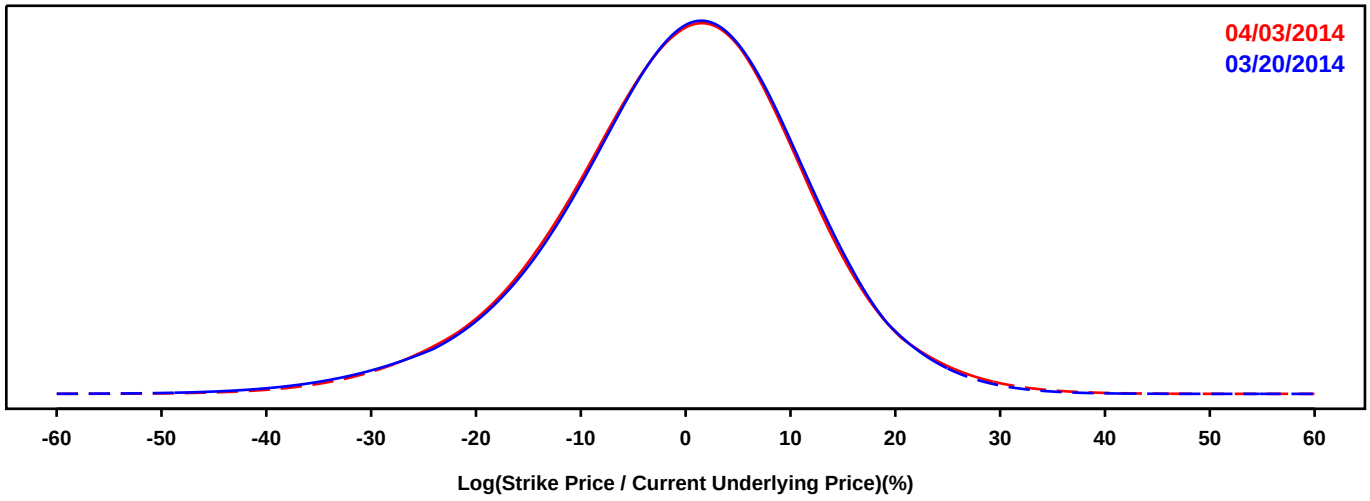
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- BANK OF AMERICA

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

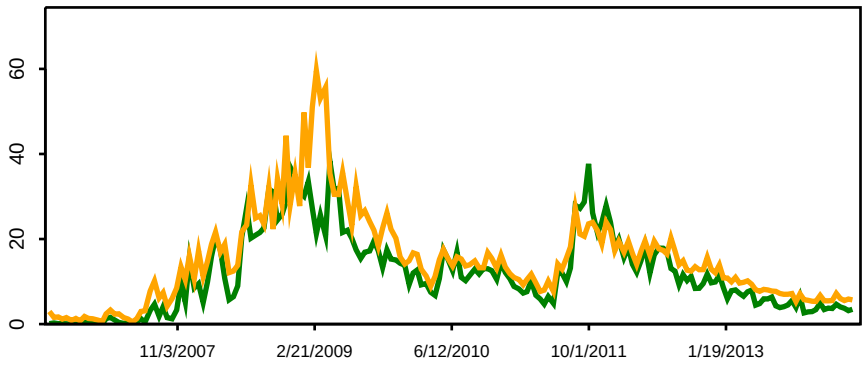
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <= -20% Increase >= 20%

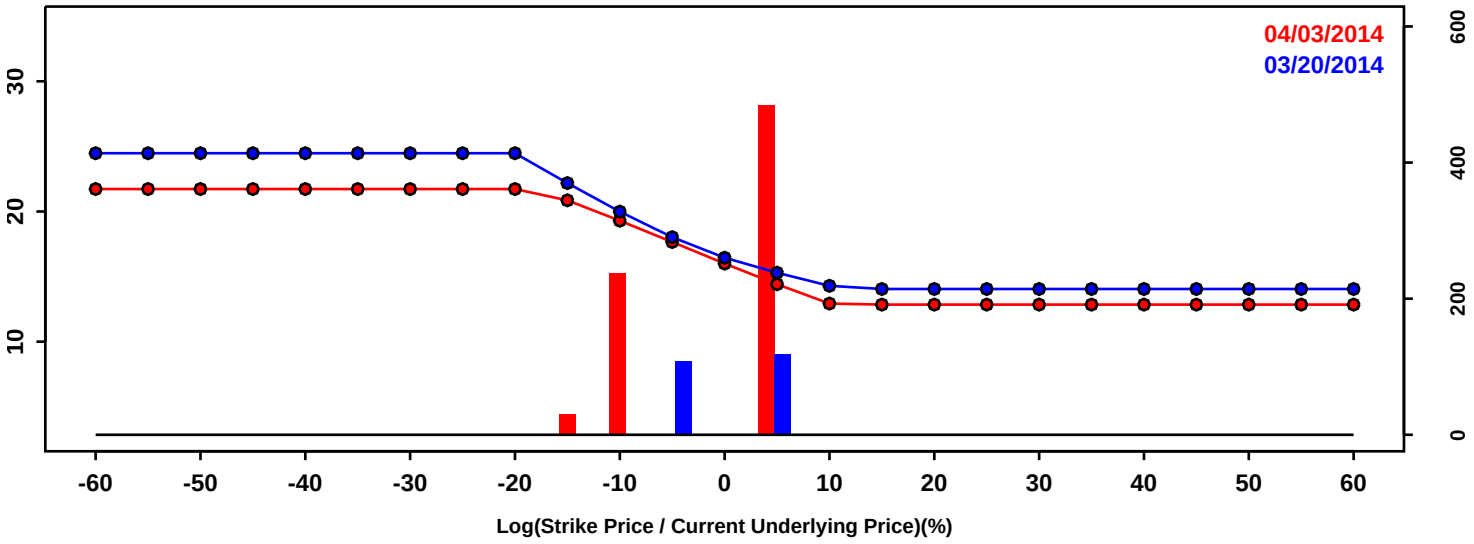
Statistics of the Log Return Distributions

	03/20/2014	04/03/2014	Change
10th Pct	-15.62%	-15.59%	0.03%
50th Pct	0.31%	0.24%	-0.07%
90th Pct	13.73%	13.78%	0.05%
Mean	-0.41%	-0.36%	0.05%
Std Dev	11.85%	11.80%	-0.04%
Skew	-0.41	-0.28	0.13
Kurtosis	0.68	0.52	-0.16

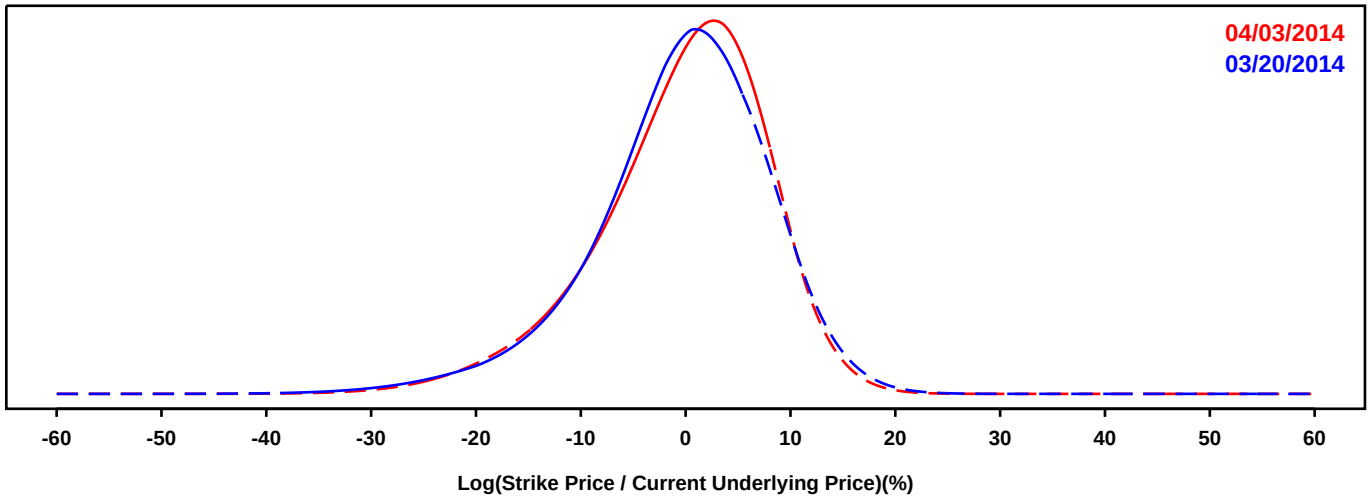
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- BB&T

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

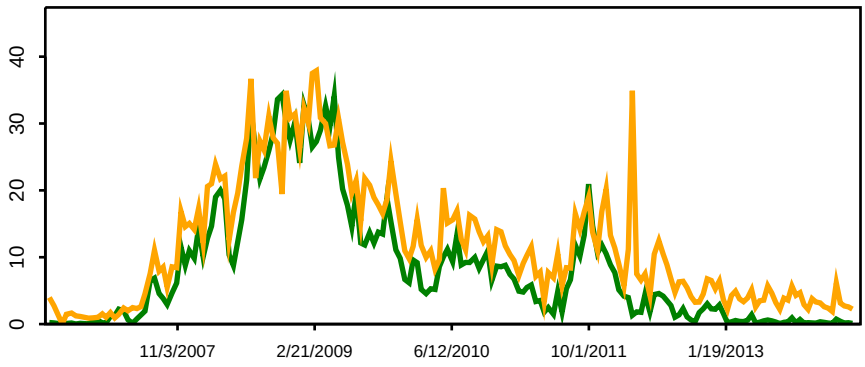
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <= -20% Increase >= 20%

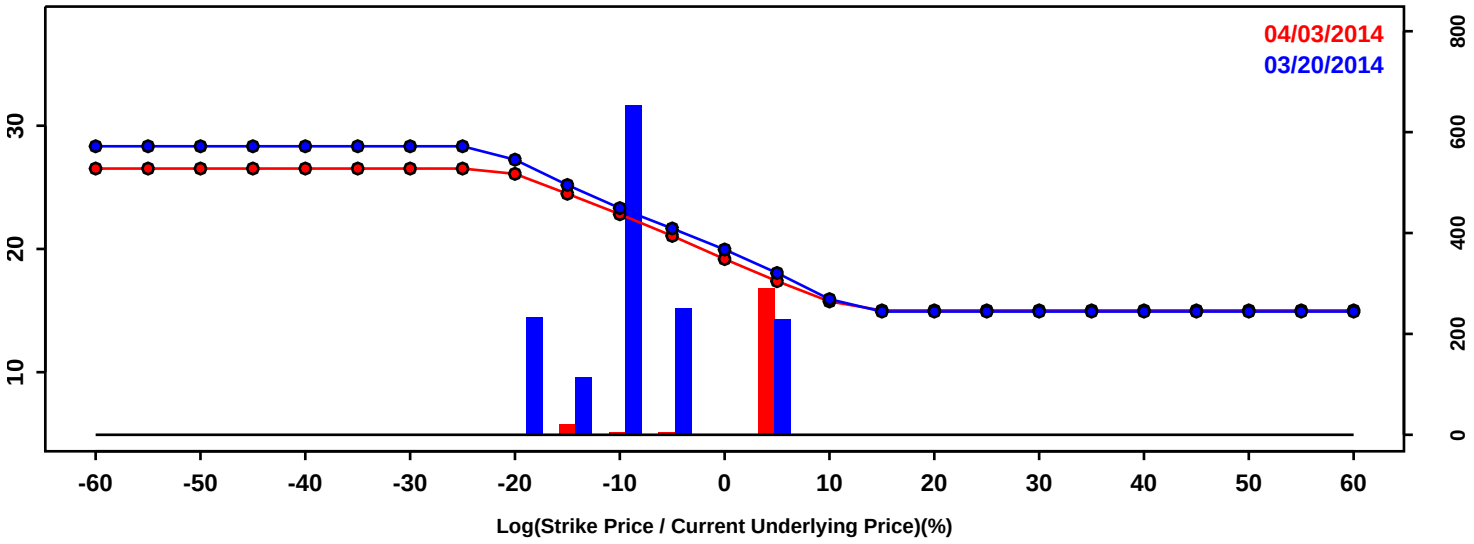
Statistics of the Log Return Distributions

	03/20/2014	04/03/2014	Change
10th Pct	-11.24%	-11.34%	-0.10%
50th Pct	0.31%	0.72%	0.41%
90th Pct	9.38%	9.03%	-0.35%
Mean	-0.44%	-0.32%	0.12%
Std Dev	8.43%	8.19%	-0.24%
Skew	-0.69	-0.70	-0.01
Kurtosis	1.15	0.77	-0.37

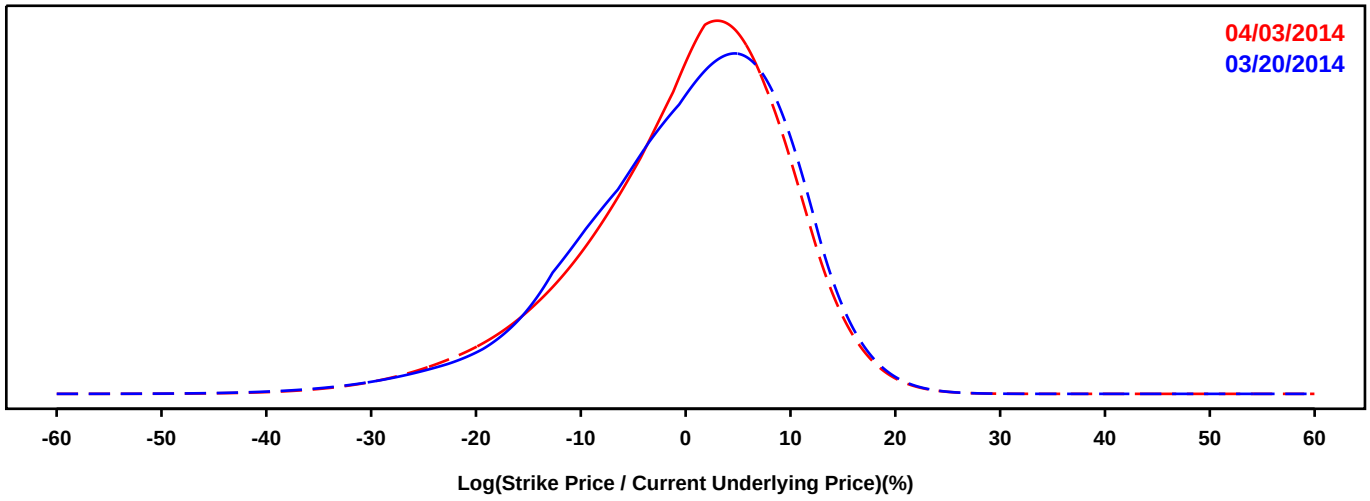
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- BANK OF NEW YORK MELLON

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

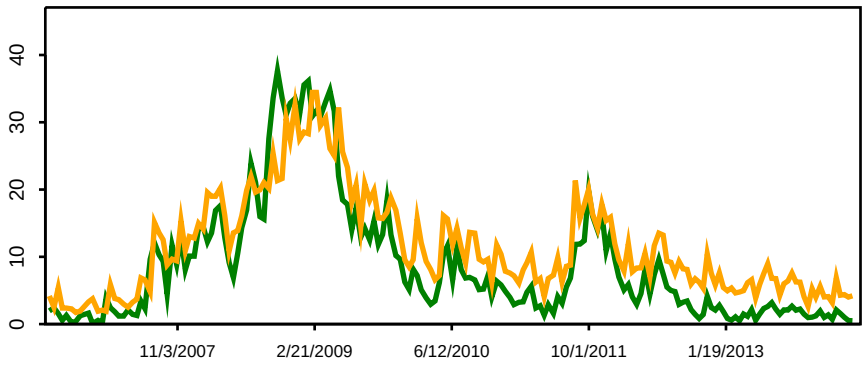
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <= -20% Increase >= 20%

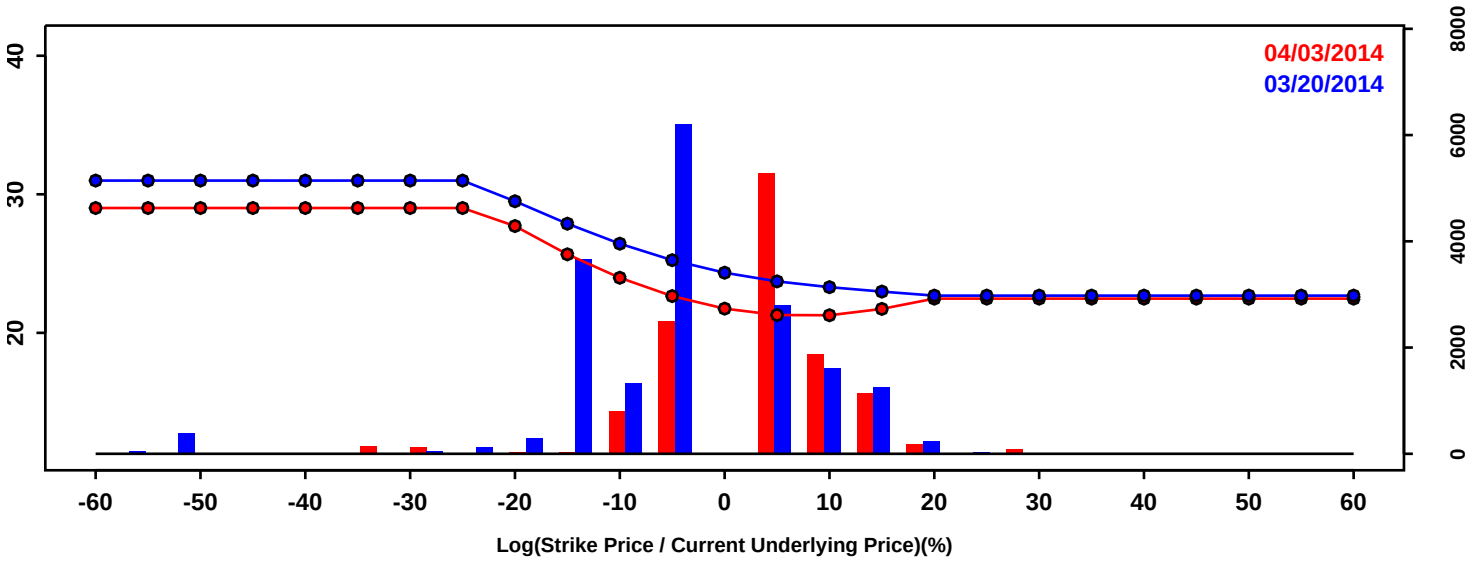
Statistics of the Log Return Distributions

	03/20/2014	04/03/2014	Change
10th Pct	-13.31%	-13.50%	-0.19%
50th Pct	1.28%	1.24%	-0.04%
90th Pct	11.38%	10.91%	-0.47%
Mean	-0.07%	-0.17%	-0.10%
Std Dev	10.05%	9.84%	-0.21%
Skew	-0.75	-0.77	-0.02
Kurtosis	0.89	0.89	0.00

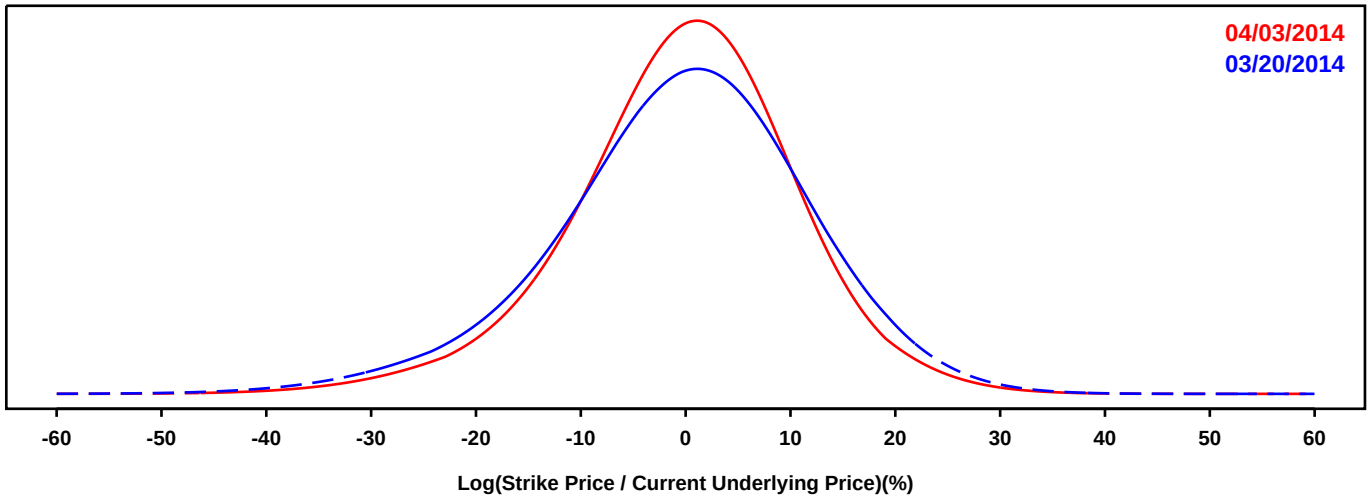
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- CITIGROUP

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

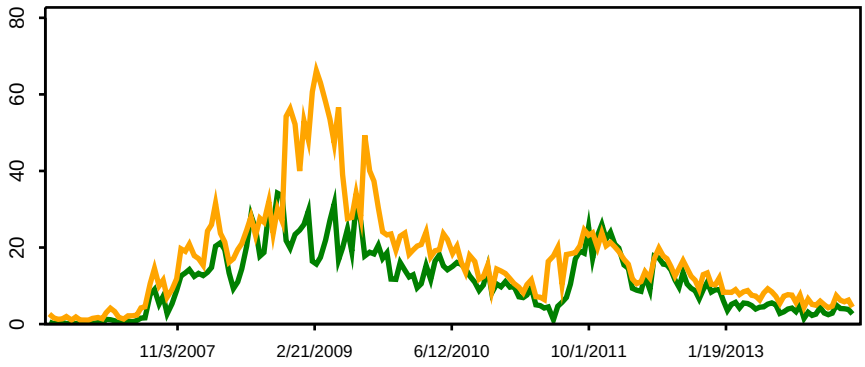
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



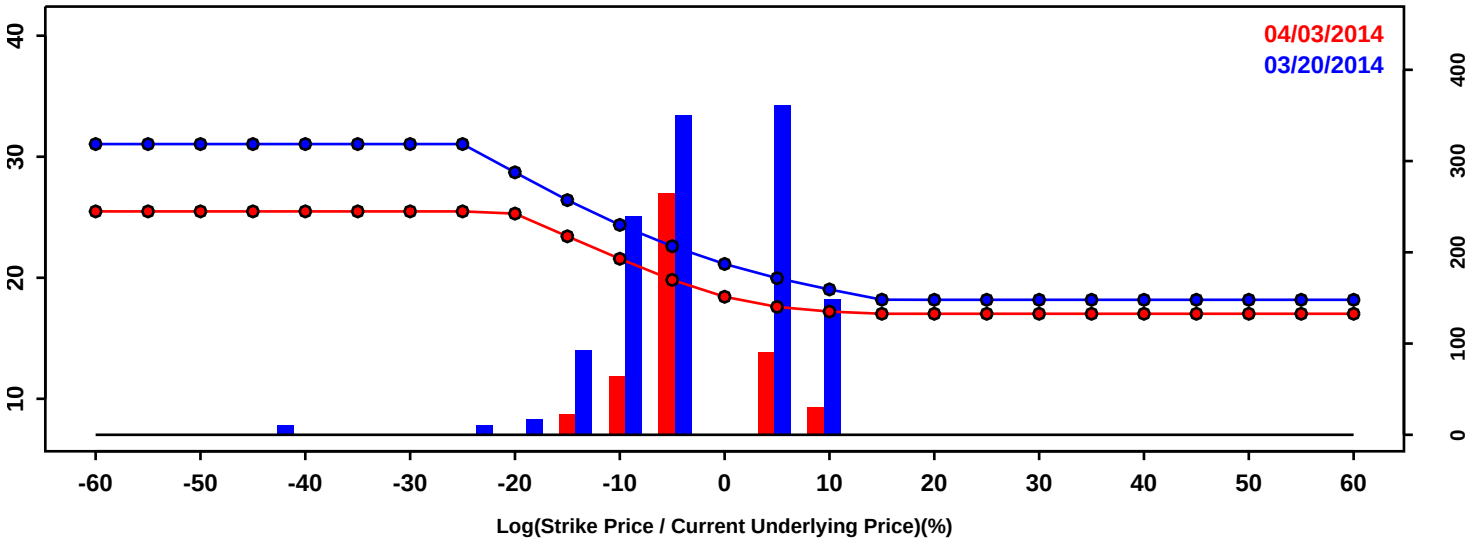
Statistics of the Log Return Distributions

	03/20/2014	04/03/2014	Change
10th Pct	-16.04%	-13.94%	2.11%
50th Pct	0.27%	0.29%	0.02%
90th Pct	14.54%	12.81%	-1.74%
Mean	-0.34%	-0.21%	0.13%
Std Dev	12.26%	10.92%	-1.34%
Skew	-0.37	-0.35	0.02
Kurtosis	0.57	0.81	0.24

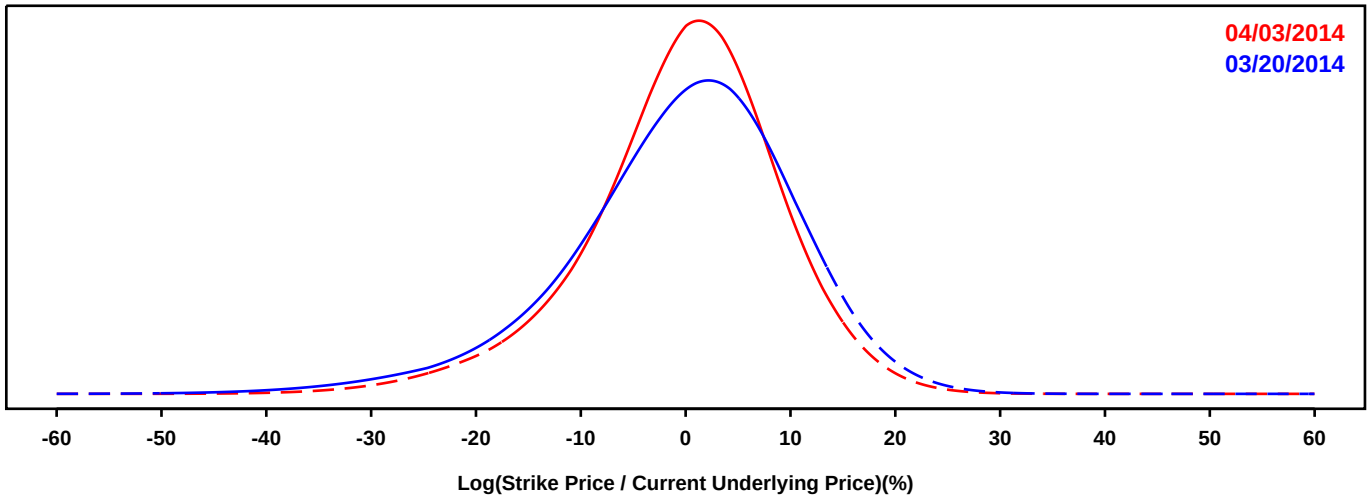
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- CAPITAL ONE

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

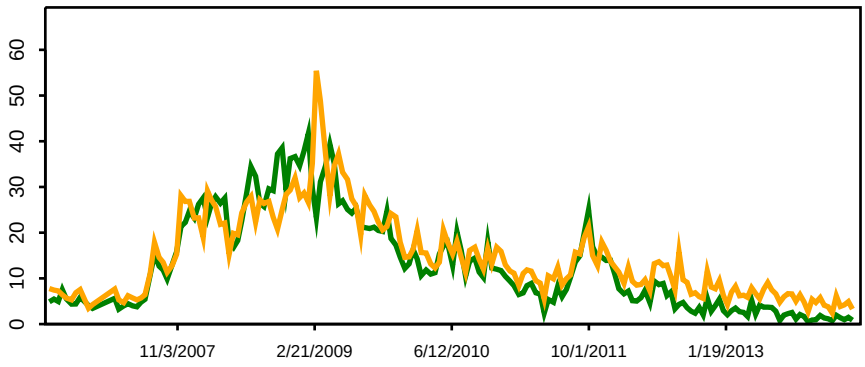
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



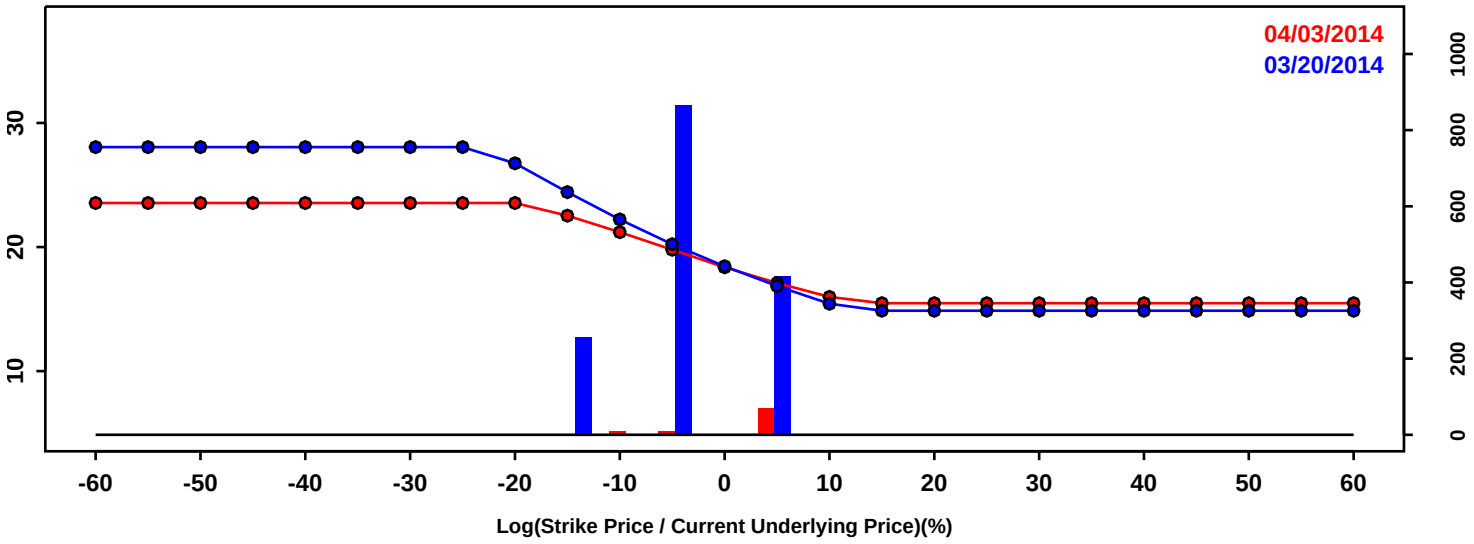
Statistics of the Log Return Distributions

	03/20/2014	04/03/2014	Change
10th Pct	-14.23%	-12.25%	1.97%
50th Pct	0.62%	0.48%	-0.14%
90th Pct	12.25%	10.70%	-1.55%
Mean	-0.38%	-0.25%	0.13%
Std Dev	10.81%	9.35%	-1.46%
Skew	-0.65	-0.55	0.10
Kurtosis	1.06	0.95	-0.11

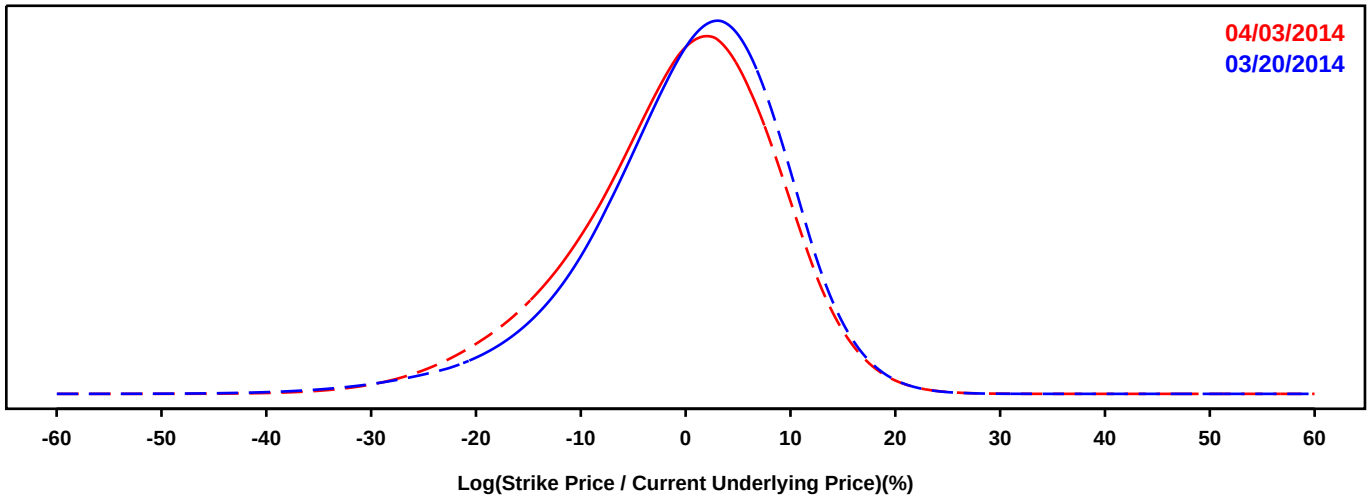
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- FIFTH THIRD

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

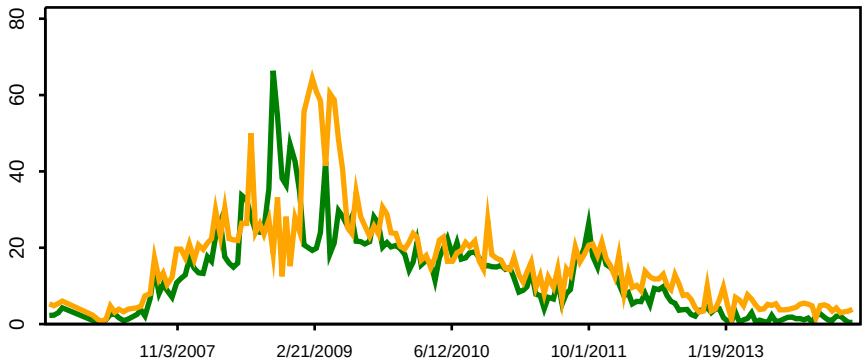
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



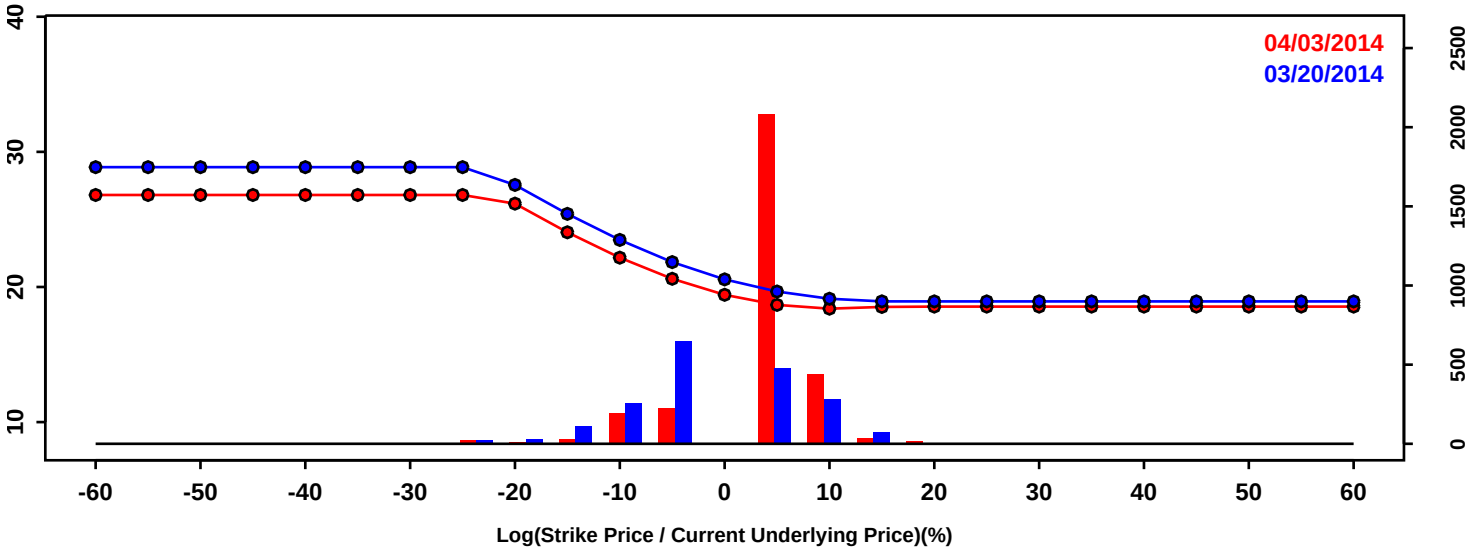
Statistics of the Log Return Distributions

	03/20/2014	04/03/2014	Change
10th Pct	-12.15%	-13.75%	-1.60%
50th Pct	1.12%	0.11%	-1.01%
90th Pct	10.67%	10.20%	-0.47%
Mean	0.02%	-0.91%	-0.93%
Std Dev	9.37%	9.49%	0.12%
Skew	-0.79	-0.58	0.21
Kurtosis	1.27	0.51	-0.76

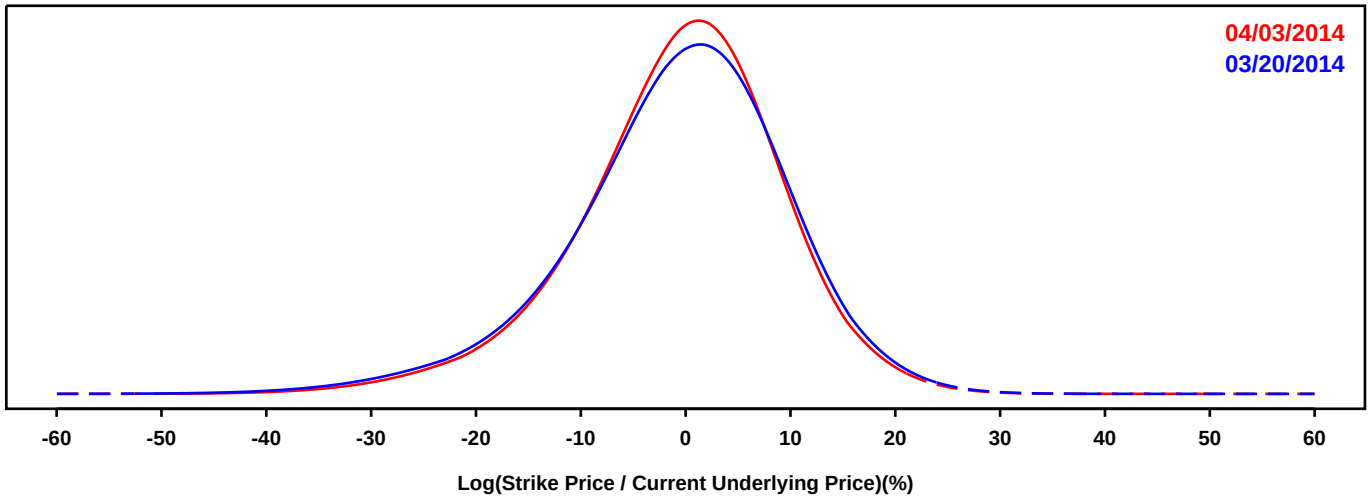
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- GOLDMAN SACHS

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

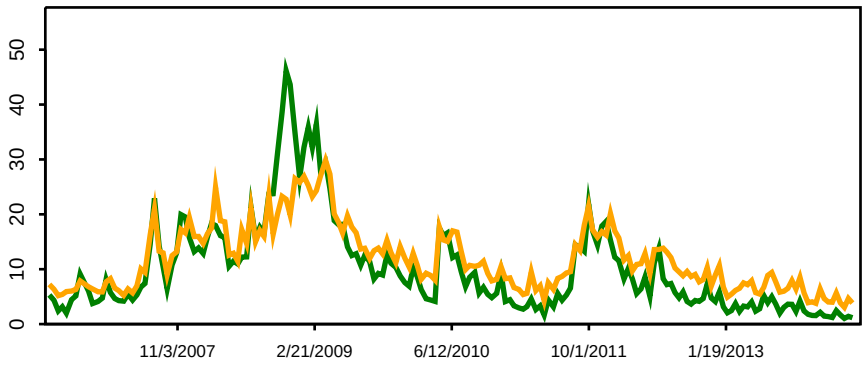
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <= -20% Increase >= 20%

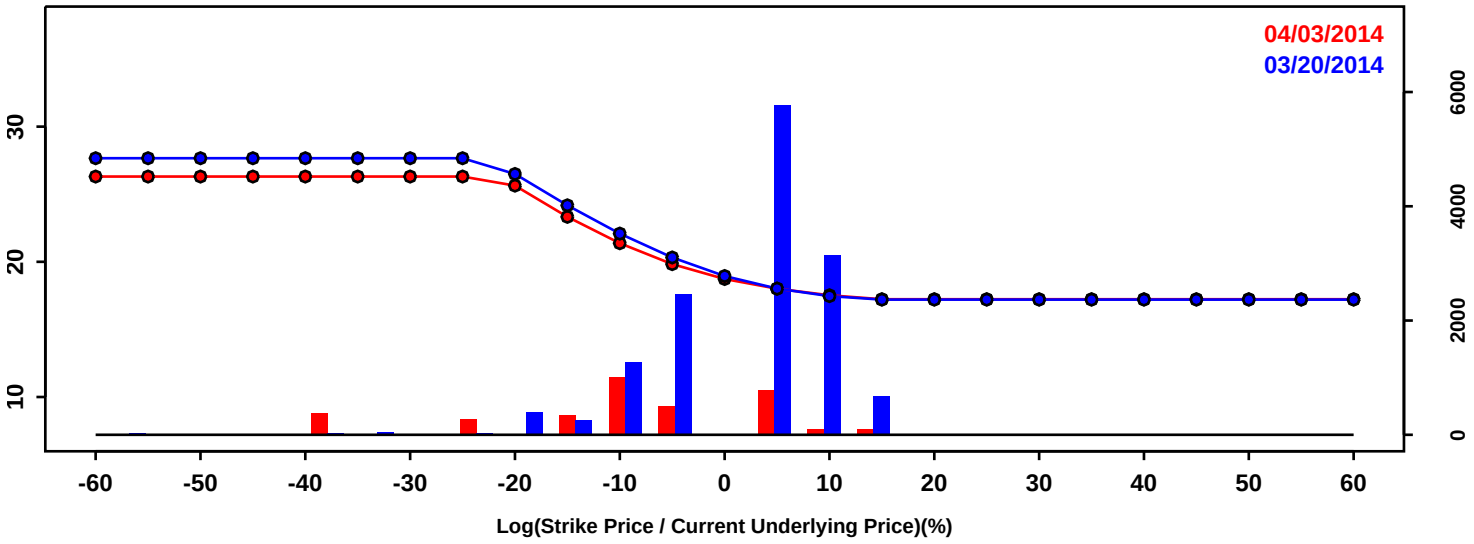
Statistics of the Log Return Distributions

	03/20/2014	04/03/2014	Change
10th Pct	-14.07%	-13.18%	0.89%
50th Pct	0.16%	0.12%	-0.03%
90th Pct	11.60%	10.99%	-0.62%
Mean	-0.69%	-0.61%	0.07%
Std Dev	10.48%	9.85%	-0.62%
Skew	-0.56	-0.50	0.06
Kurtosis	0.94	0.88	-0.06

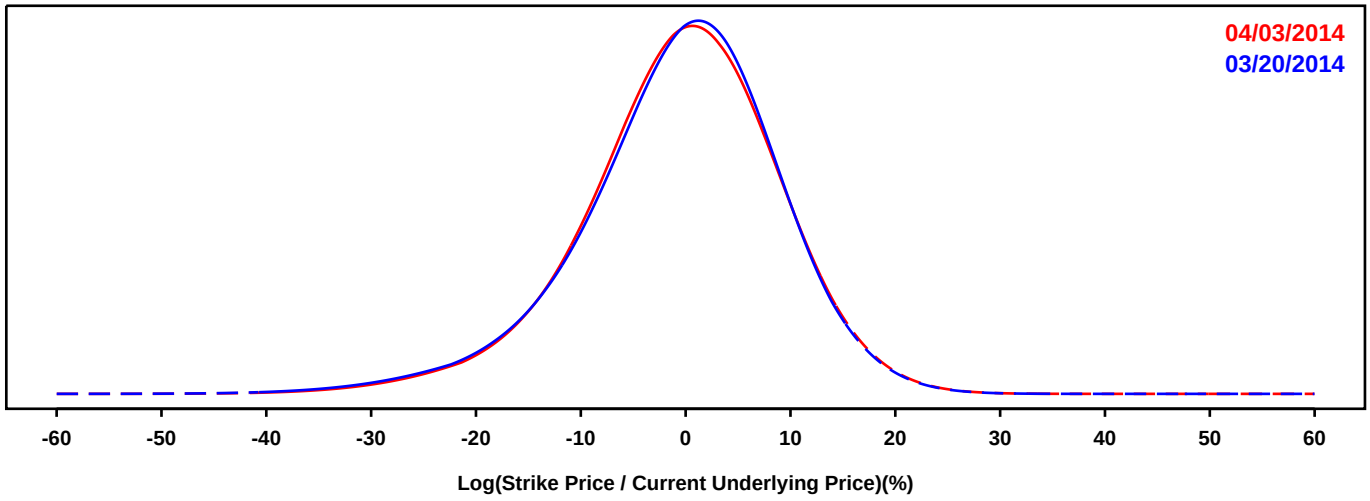
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- JP MORGAN

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

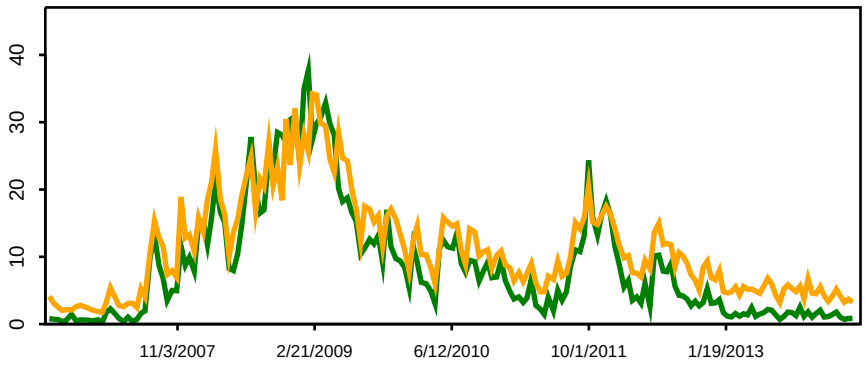
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <= -20% Increase >= 20%

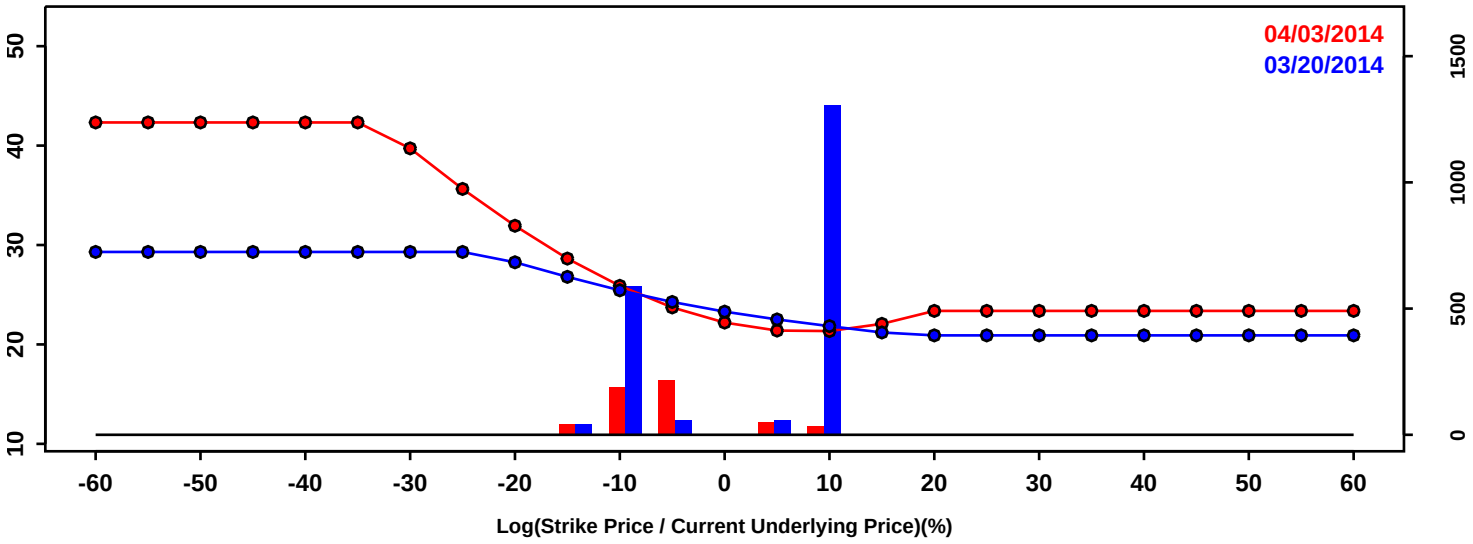
Statistics of the Log Return Distributions

	03/20/2014	04/03/2014	Change
10th Pct	-12.85%	-12.52%	0.33%
50th Pct	0.18%	0.05%	-0.13%
90th Pct	10.66%	10.78%	0.12%
Mean	-0.62%	-0.53%	0.09%
Std Dev	9.64%	9.47%	-0.16%
Skew	-0.59	-0.48	0.11
Kurtosis	1.07	0.85	-0.22

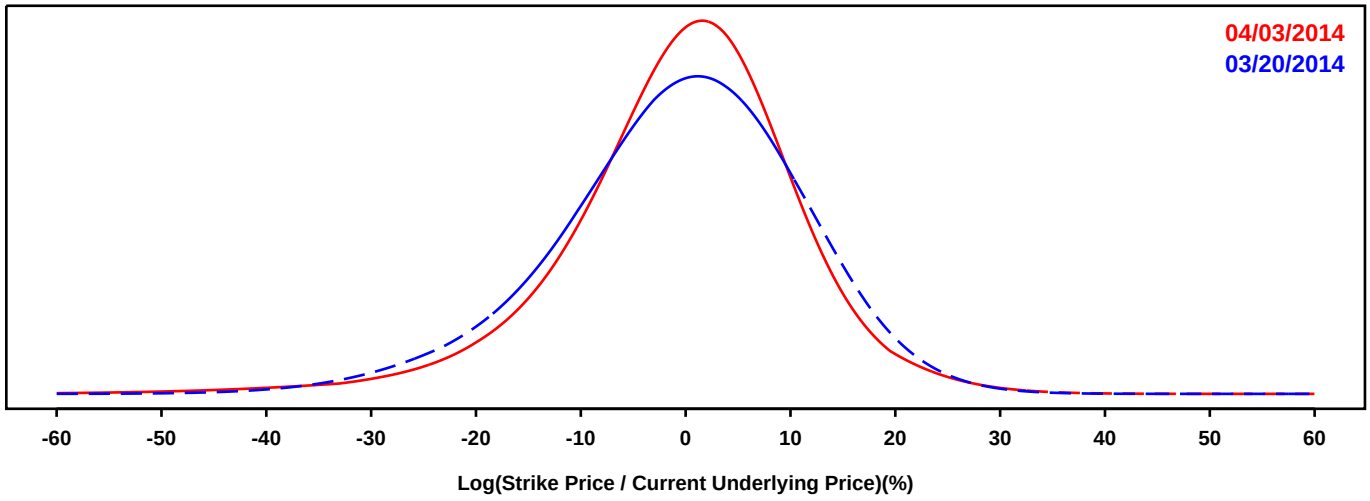
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- KEYCORP

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

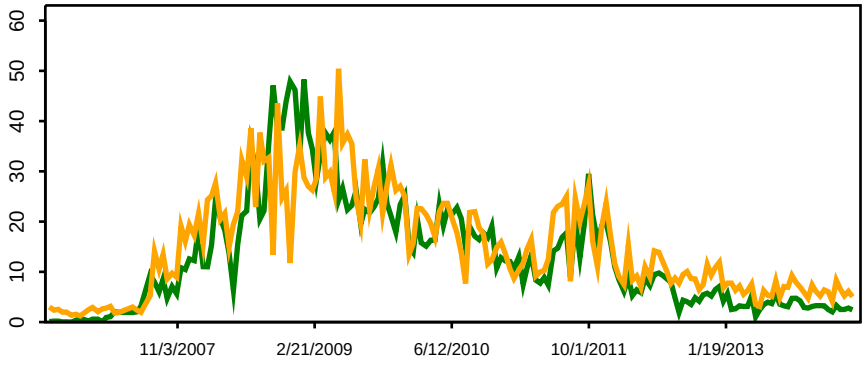
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



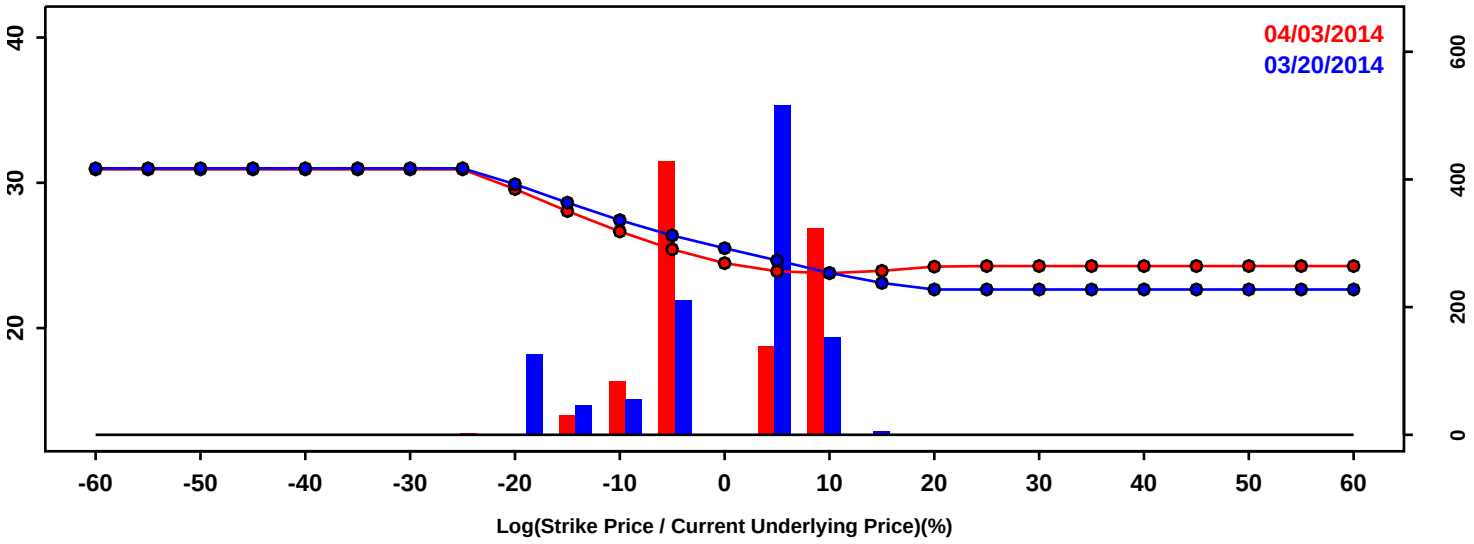
Statistics of the Log Return Distributions

	03/20/2014	04/03/2014	Change
10th Pct	-15.94%	-14.21%	1.73%
50th Pct	0.13%	0.43%	0.30%
90th Pct	13.66%	12.34%	-1.32%
Mean	-0.62%	-0.48%	0.14%
Std Dev	11.80%	11.39%	-0.41%
Skew	-0.42	-0.76	-0.35
Kurtosis	0.48	2.38	1.90

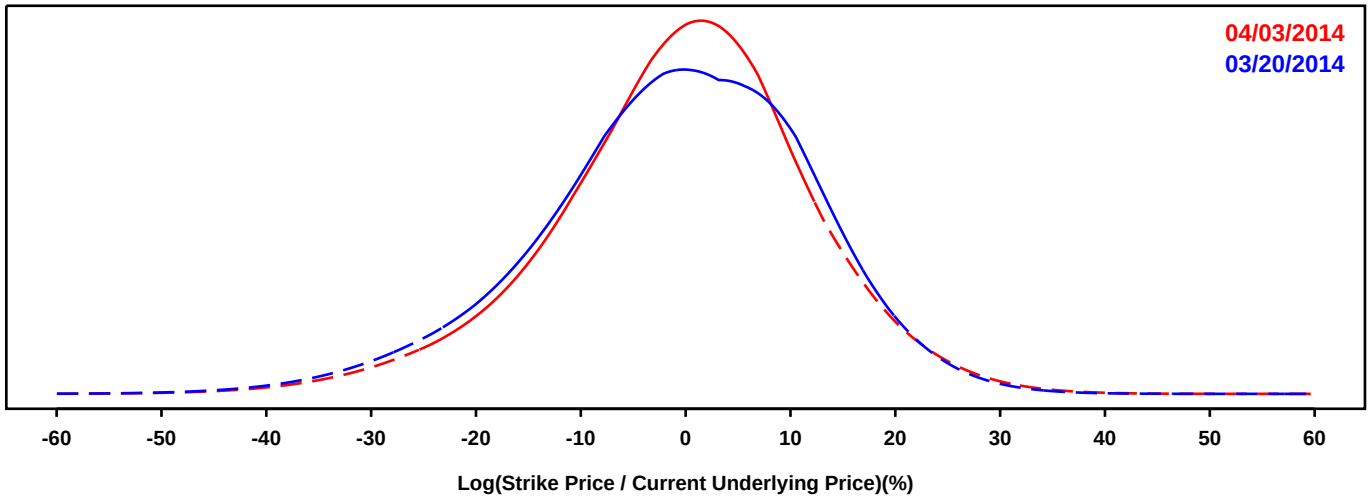
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- MORGAN STANLEY

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

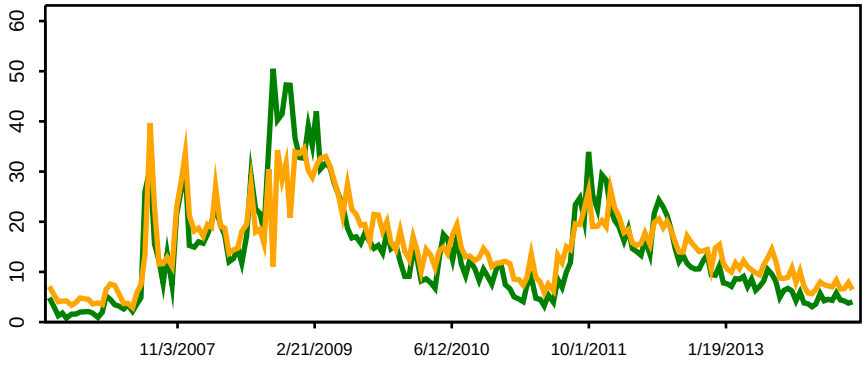
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <= -20% Increase >= 20%

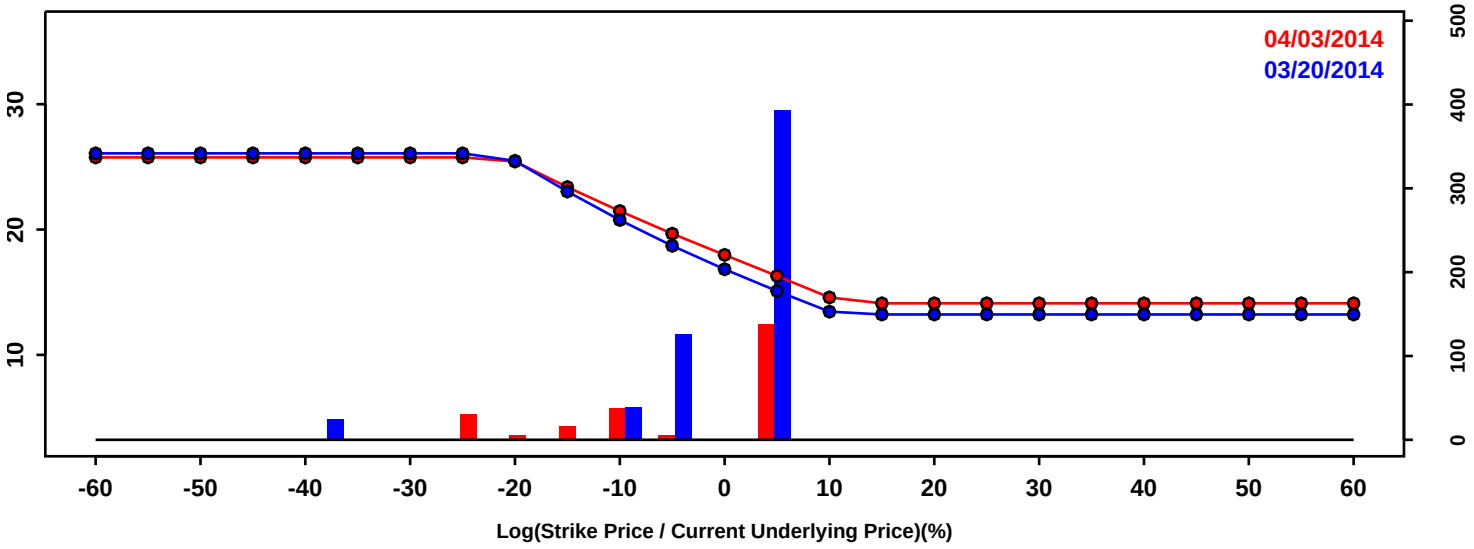
Statistics of the Log Return Distributions

	03/20/2014	04/03/2014	Change
10th Pct	-17.81%	-16.20%	1.61%
50th Pct	-0.08%	0.29%	0.37%
90th Pct	14.61%	14.37%	-0.24%
Mean	-0.89%	-0.40%	0.49%
Std Dev	12.91%	12.33%	-0.58%
Skew	-0.41	-0.35	0.06
Kurtosis	0.36	0.65	0.29

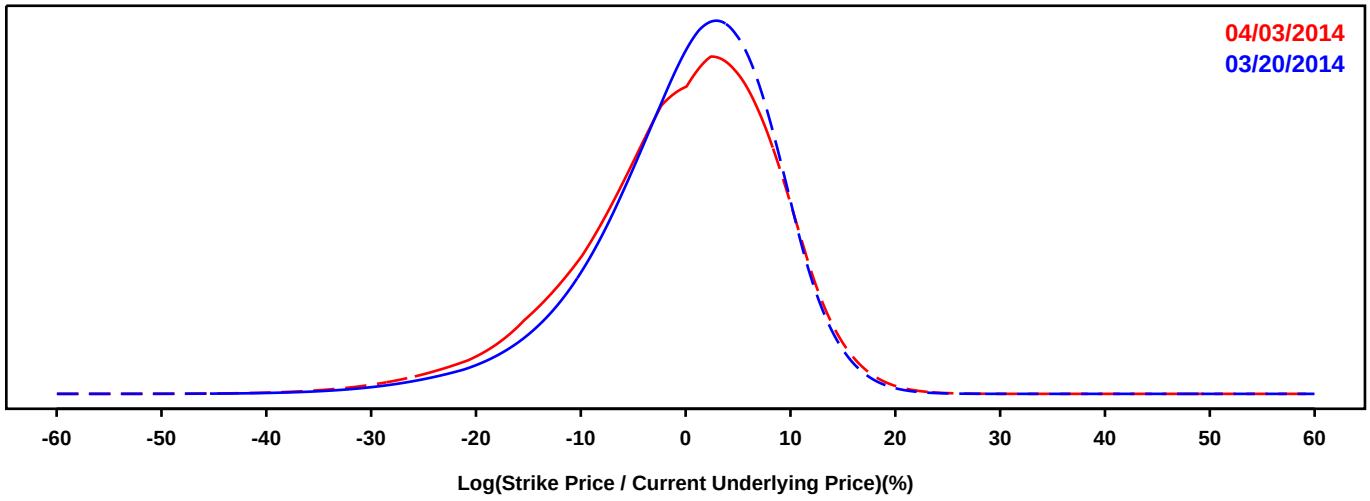
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- PNC FINANCIAL

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

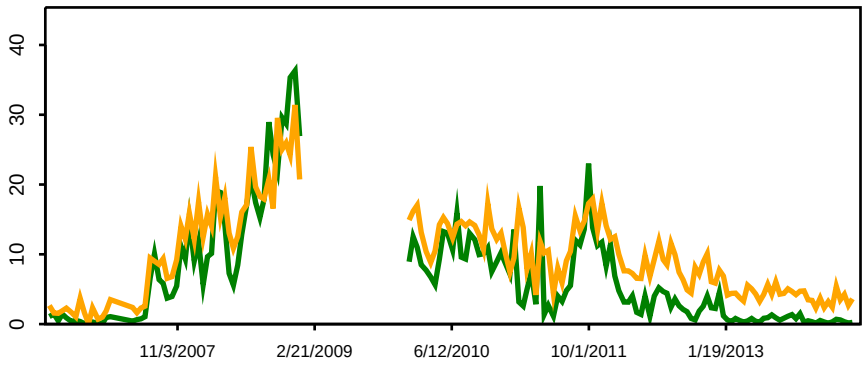
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



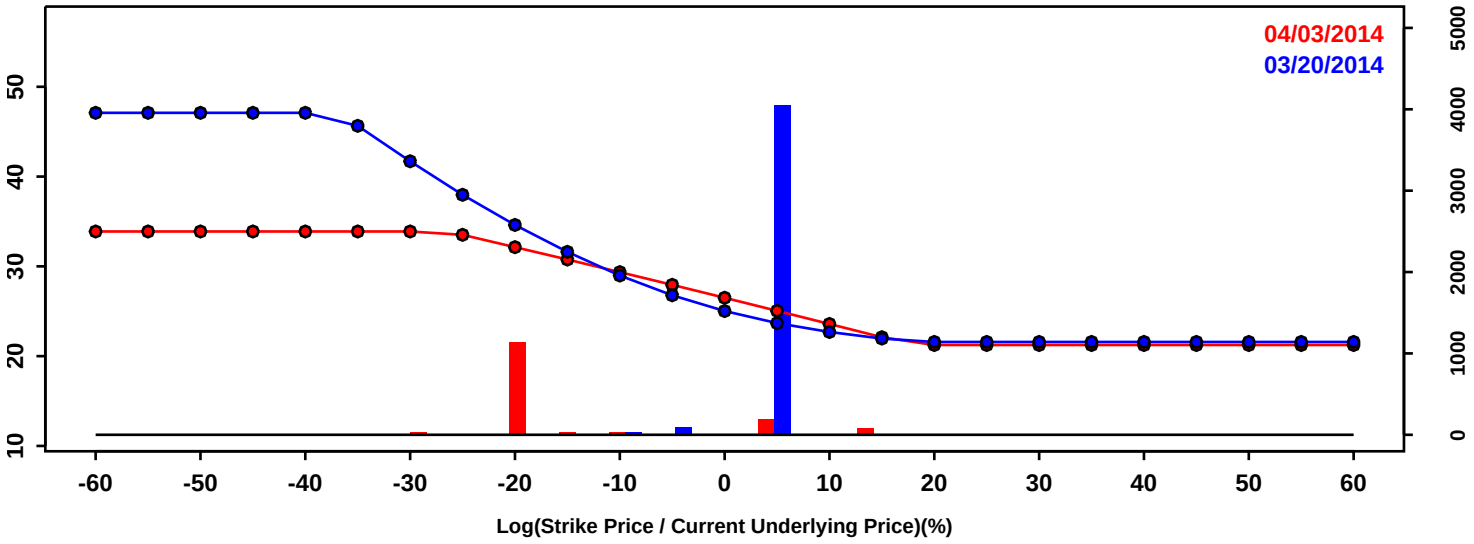
Statistics of the Log Return Distributions

	03/20/2014	04/03/2014	Change
10th Pct	-11.22%	-13.01%	-1.79%
50th Pct	1.12%	0.48%	-0.64%
90th Pct	9.68%	9.97%	0.29%
Mean	0.01%	-0.66%	-0.68%
Std Dev	8.60%	9.29%	0.69%
Skew	-0.84	-0.74	0.10
Kurtosis	1.35	0.92	-0.43

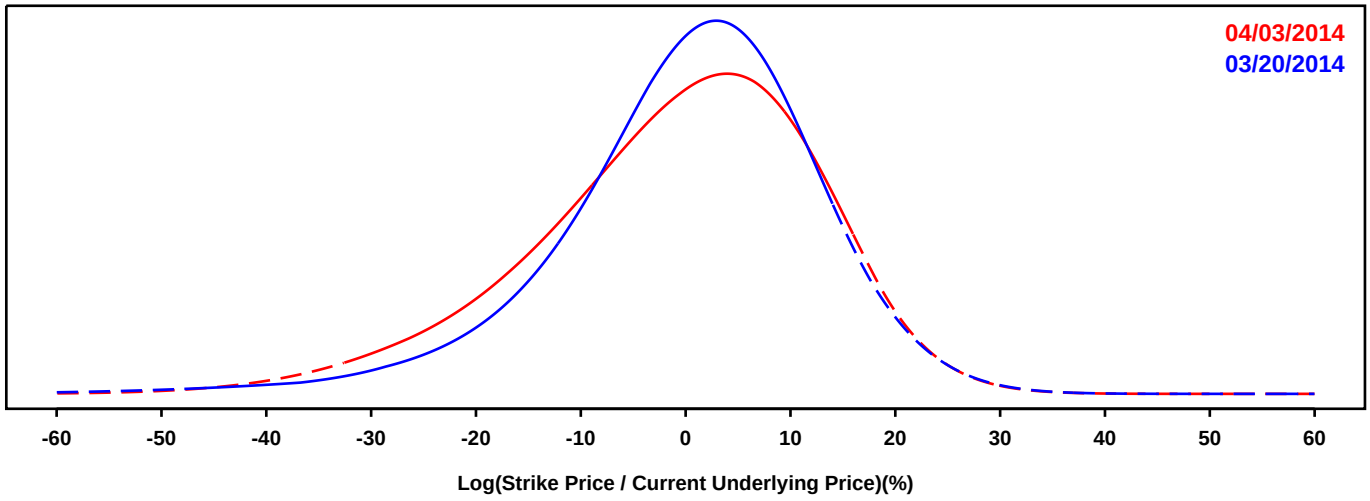
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- REGIONS FINANCIAL

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

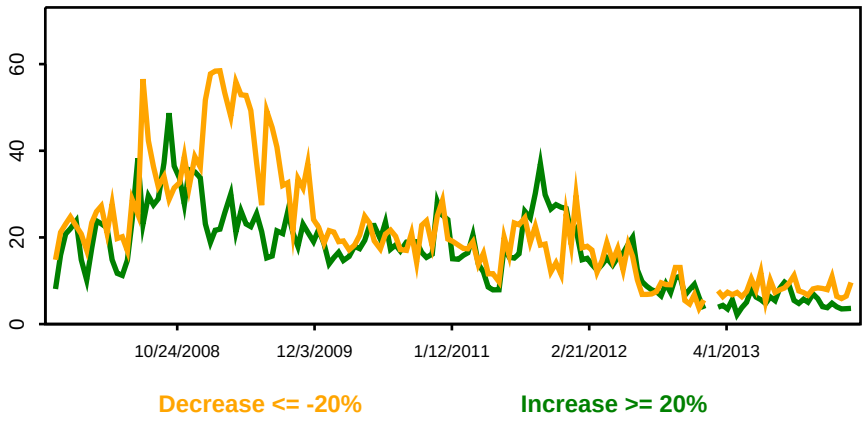
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



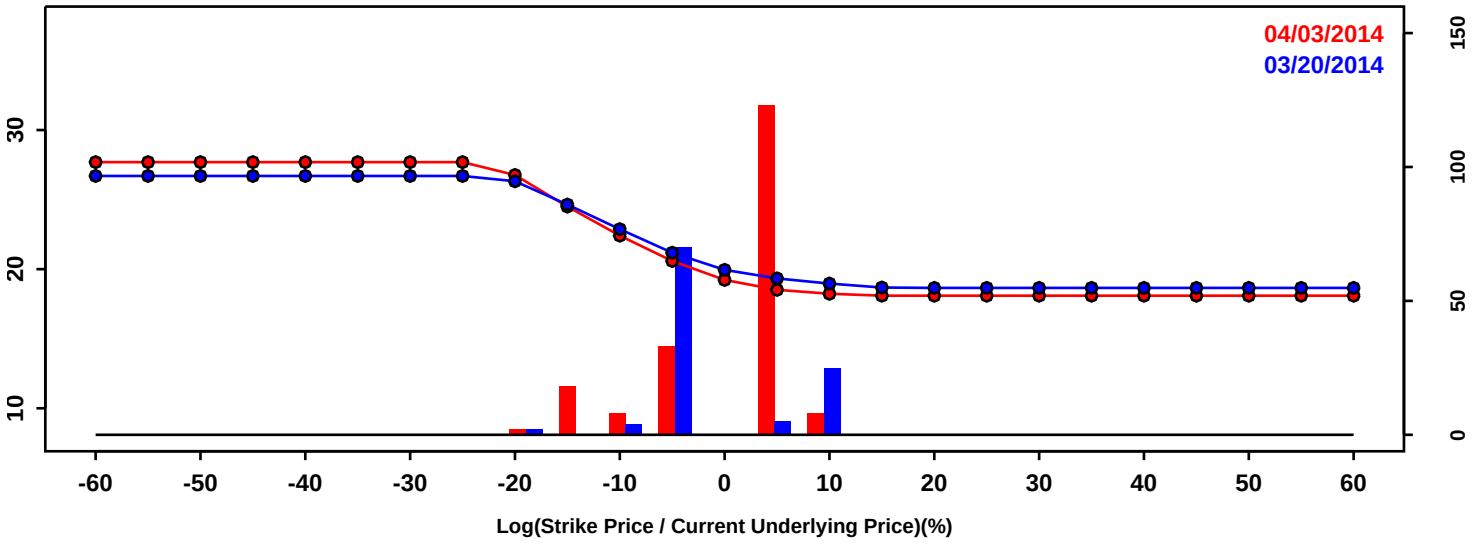
Statistics of the Log Return Distributions

	03/20/2014	04/03/2014	Change
10th Pct	-15.73%	-19.56%	-3.83%
50th Pct	1.34%	0.51%	-0.83%
90th Pct	14.63%	14.97%	0.34%
Mean	0.10%	-1.06%	-1.15%
Std Dev	12.82%	13.71%	0.89%
Skew	-0.89	-0.60	0.29
Kurtosis	2.23	0.47	-1.76

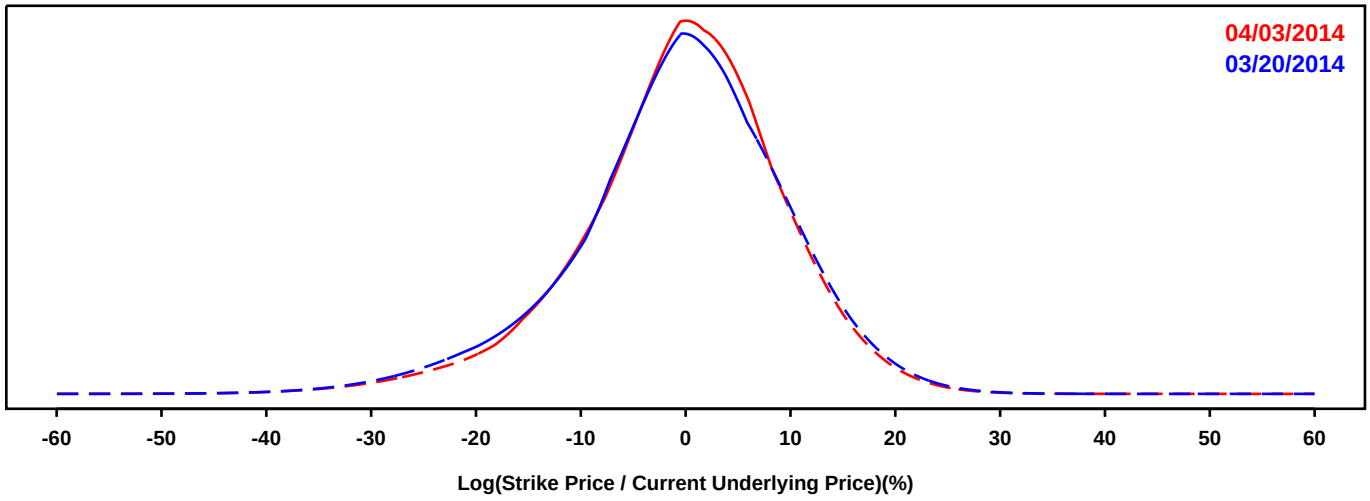
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- SUNTRUST

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

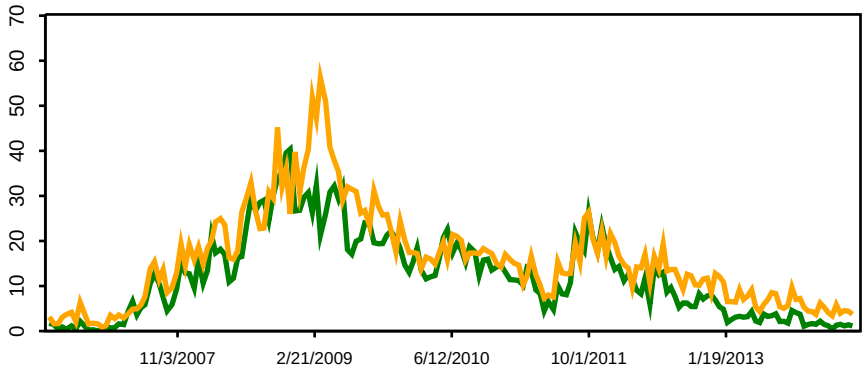
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



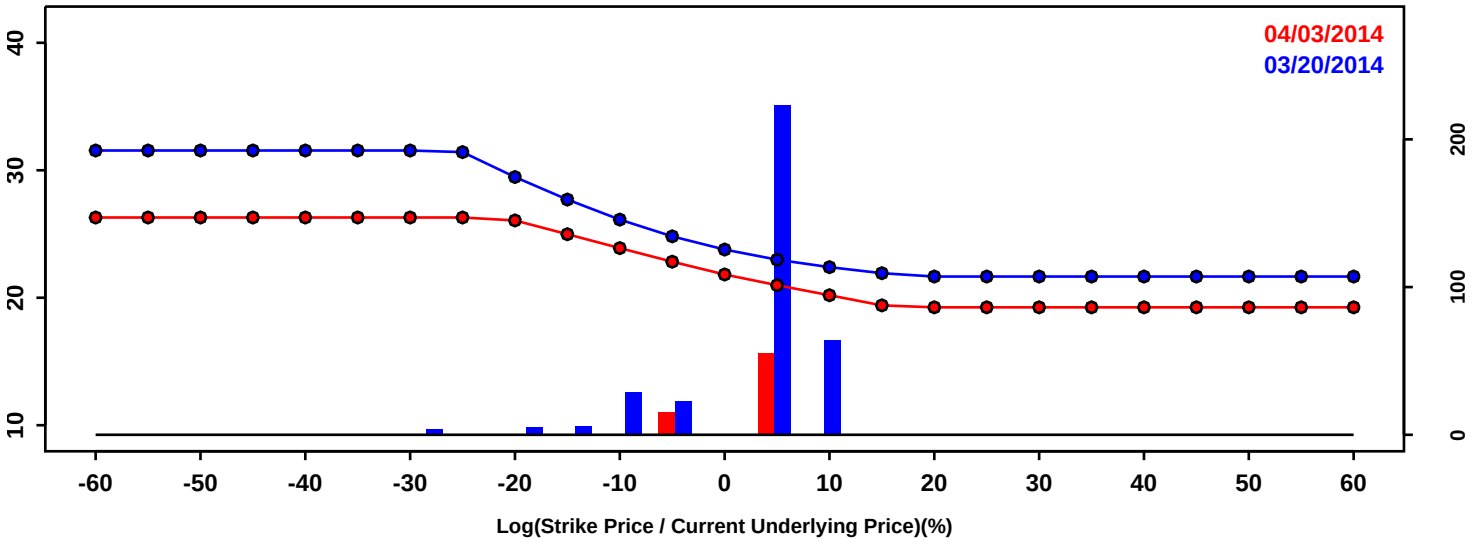
Statistics of the Log Return Distributions

	03/20/2014	04/03/2014	Change
10th Pct	-13.66%	-12.80%	0.86%
50th Pct	0.12%	0.25%	0.13%
90th Pct	11.64%	11.17%	-0.47%
Mean	-0.53%	-0.40%	0.14%
Std Dev	10.20%	9.79%	-0.41%
Skew	-0.50	-0.55	-0.05
Kurtosis	0.84	1.09	0.25

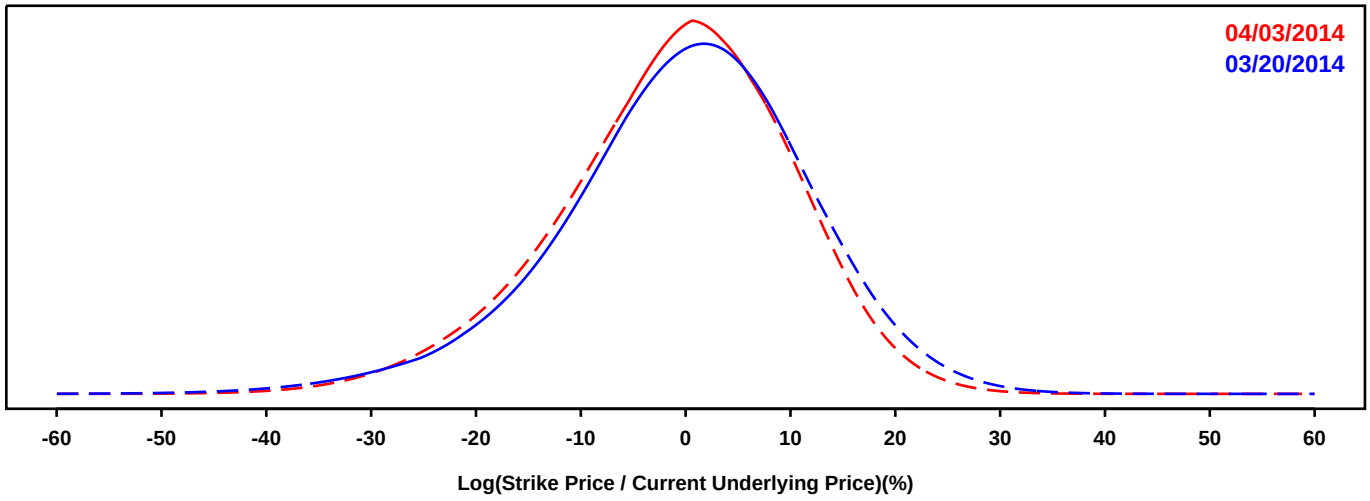
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- STATE STREET

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

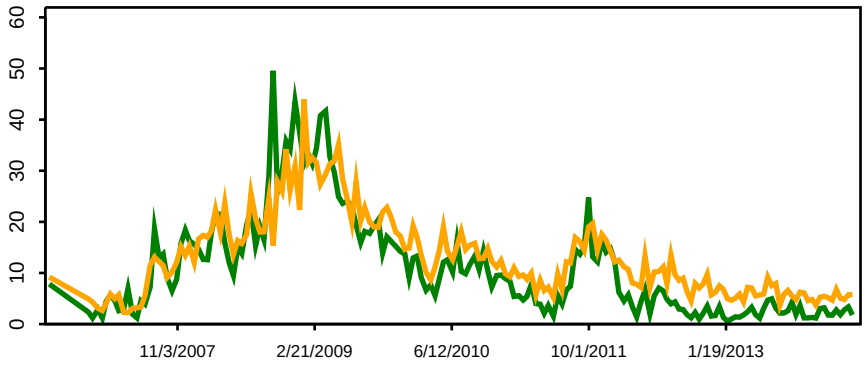
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <= -20% Increase >= 20%

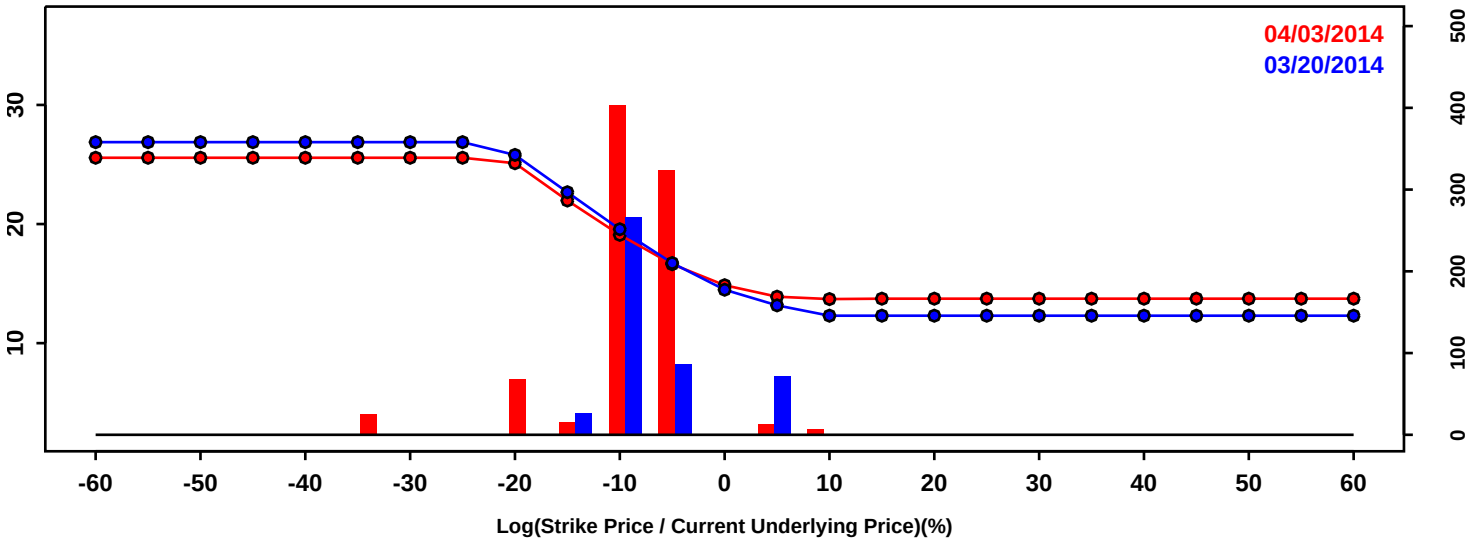
Statistics of the Log Return Distributions

	03/20/2014	04/03/2014	Change
10th Pct	-15.41%	-15.91%	-0.50%
50th Pct	0.62%	-0.26%	-0.88%
90th Pct	14.28%	12.44%	-1.84%
Mean	-0.11%	-1.07%	-0.95%
Std Dev	11.94%	11.17%	-0.78%
Skew	-0.44	-0.40	0.03
Kurtosis	0.66	0.30	-0.36

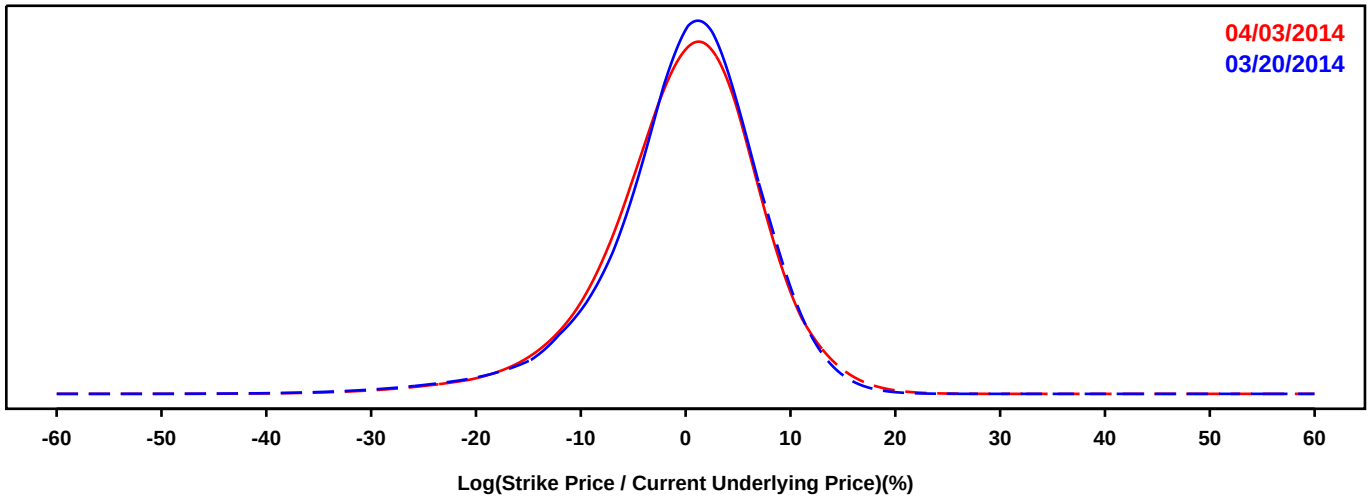
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- US BANCORP

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

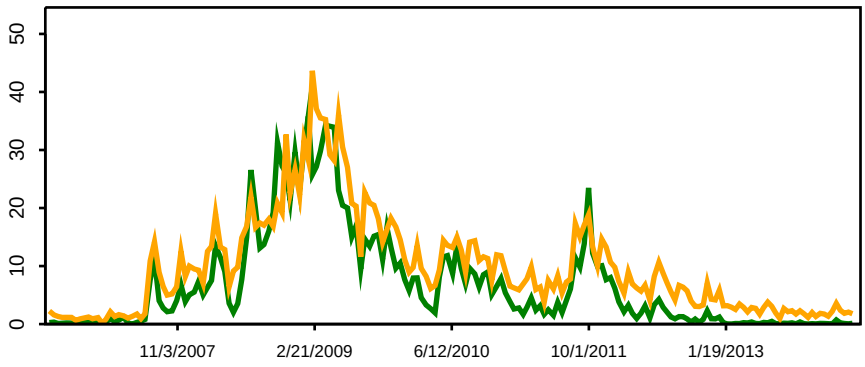
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



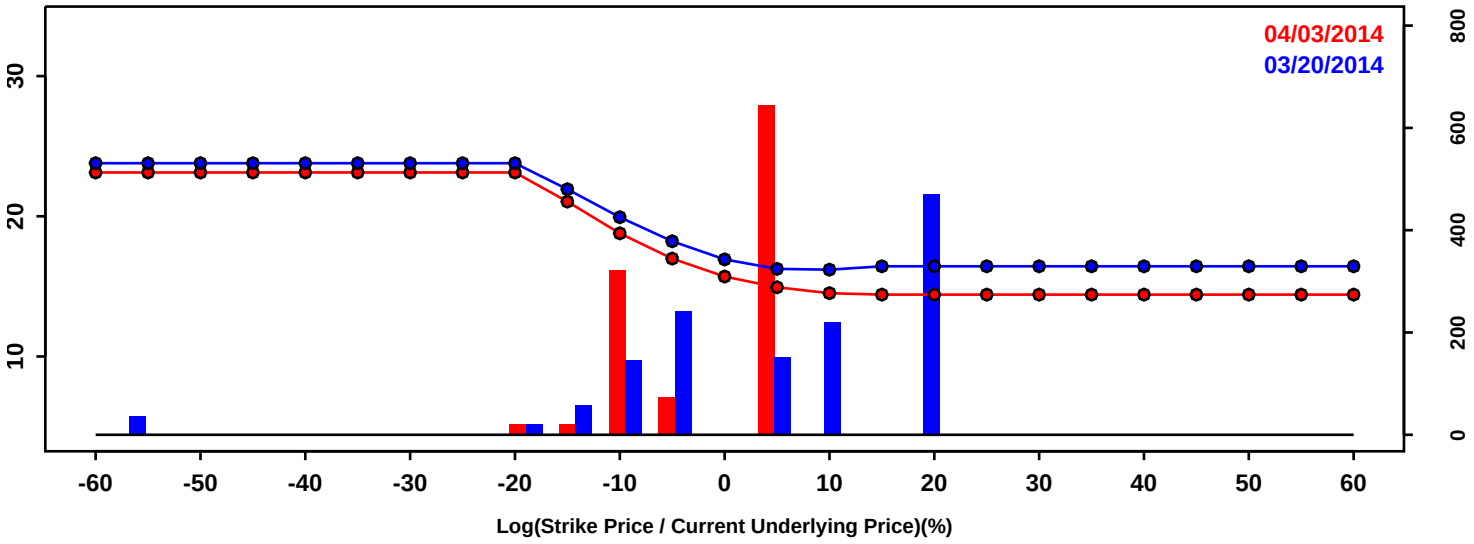
Statistics of the Log Return Distributions

	03/20/2014	04/03/2014	Change
10th Pct	-9.37%	-9.54%	-0.17%
50th Pct	0.53%	0.34%	-0.20%
90th Pct	8.11%	8.23%	0.12%
Mean	-0.24%	-0.30%	-0.06%
Std Dev	7.50%	7.53%	0.03%
Skew	-1.02	-0.78	0.25
Kurtosis	2.60	1.91	-0.69

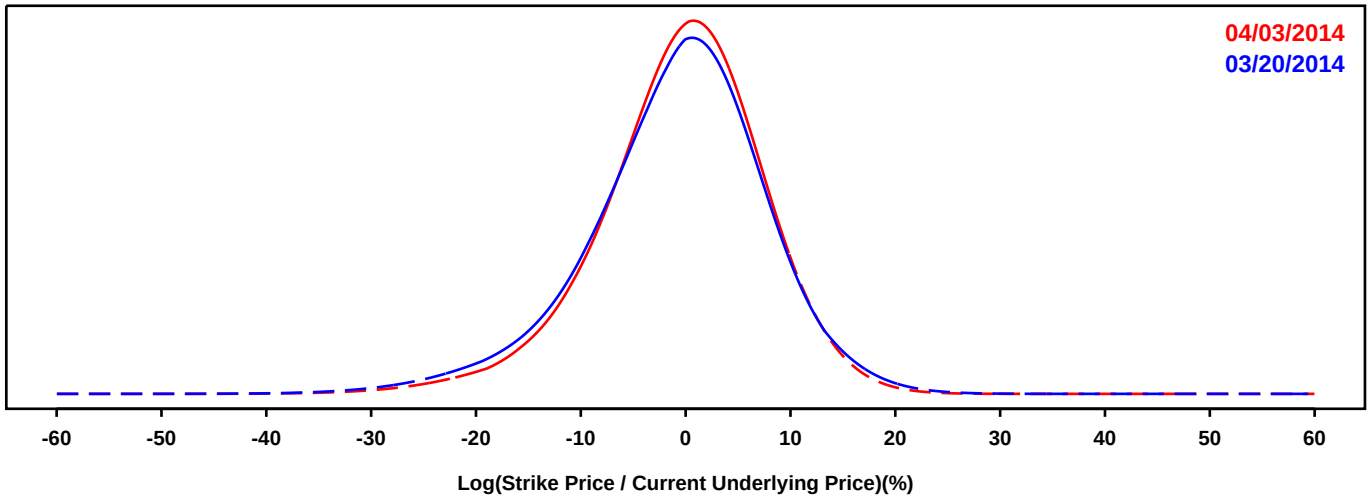
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- WELLS FARGO

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

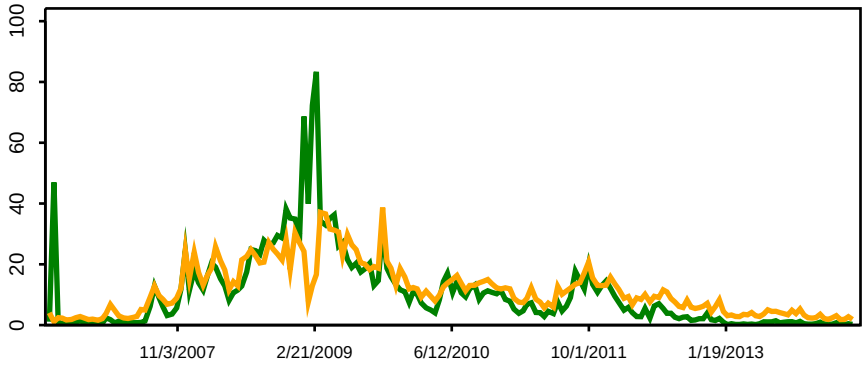
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <= -20% Increase >= 20%

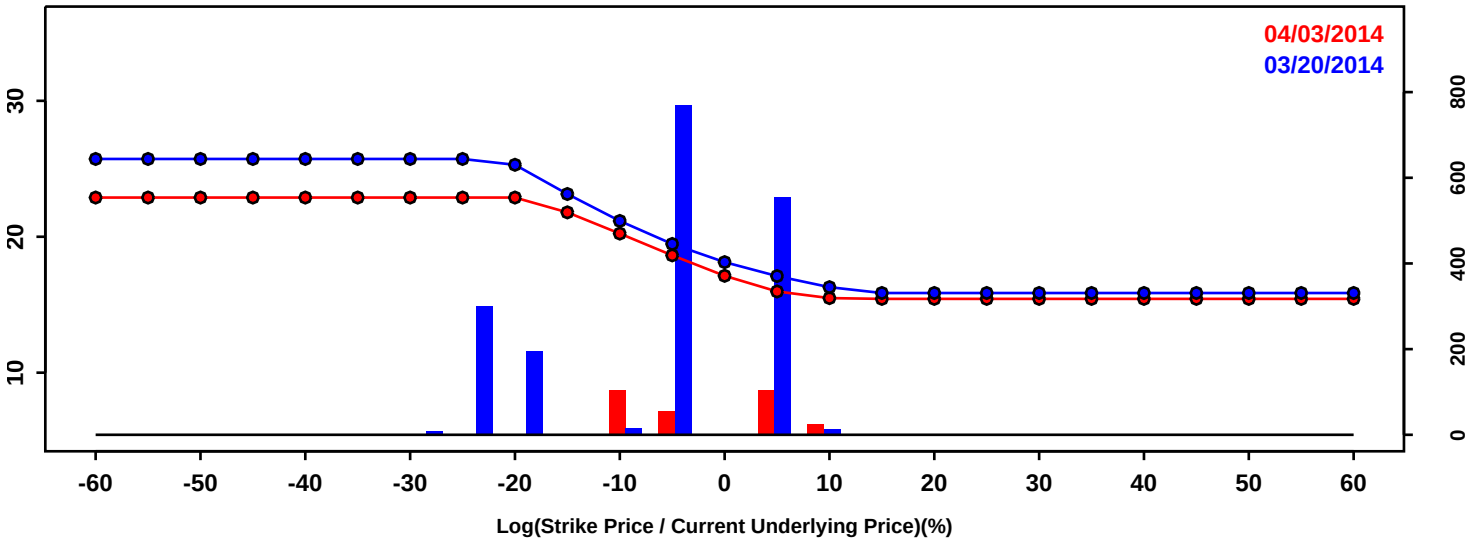
Statistics of the Log Return Distributions

	03/20/2014	04/03/2014	Change
10th Pct	-11.82%	-10.49%	1.33%
50th Pct	-0.19%	0.10%	0.29%
90th Pct	9.19%	8.99%	-0.20%
Mean	-0.86%	-0.44%	0.41%
Std Dev	8.61%	7.94%	-0.67%
Skew	-0.53	-0.53	-0.00
Kurtosis	1.00	1.02	0.01

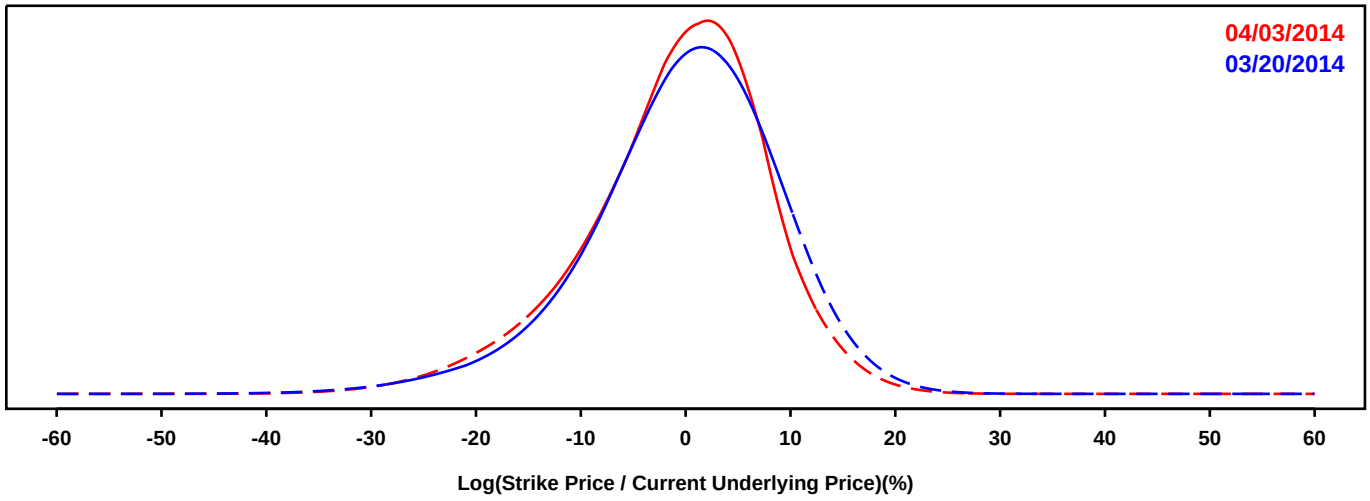
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- AFLAC

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

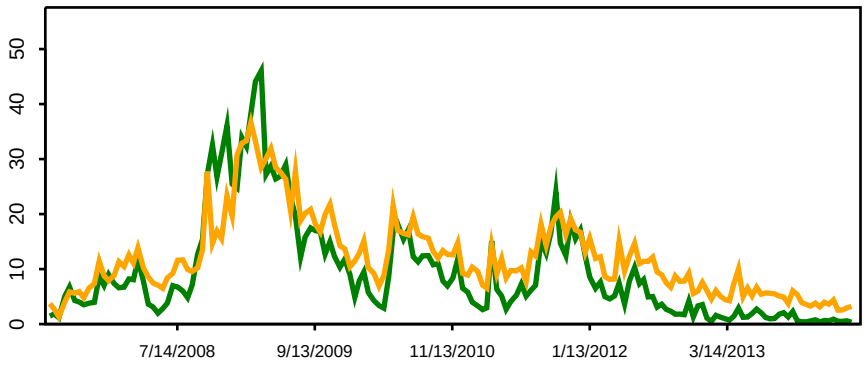
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <= -20% Increase >= 20%

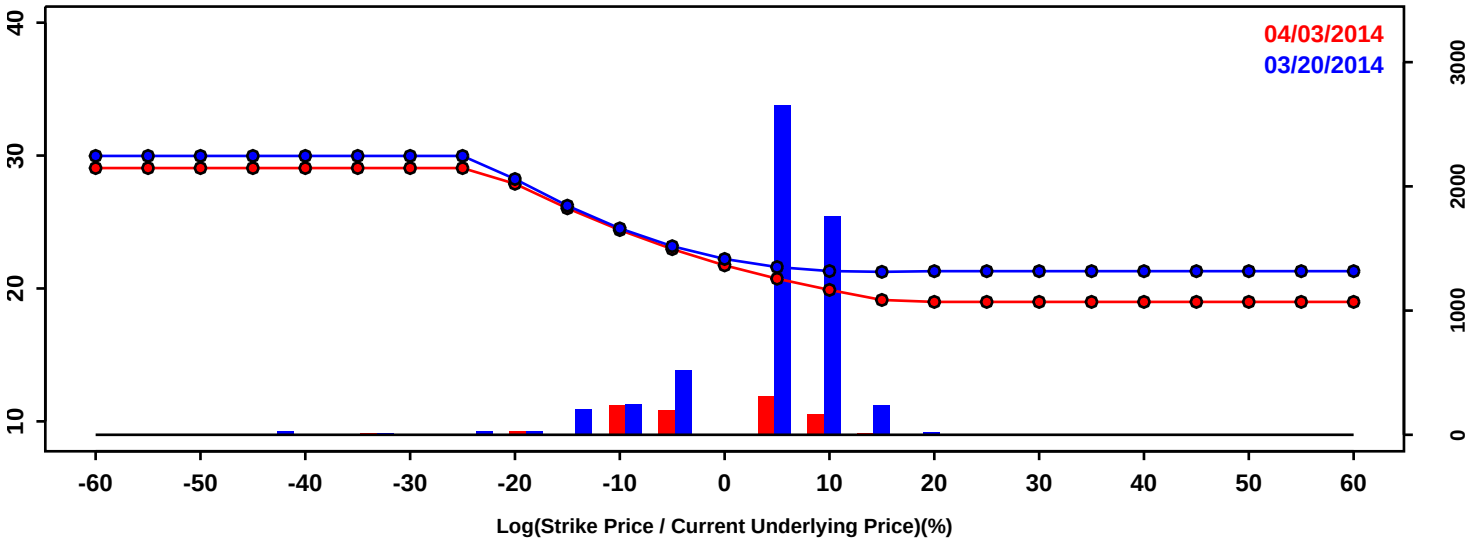
Statistics of the Log Return Distributions

	03/20/2014	04/03/2014	Change
10th Pct	-11.90%	-12.75%	-0.85%
50th Pct	0.56%	0.04%	-0.52%
90th Pct	10.61%	9.09%	-1.53%
Mean	-0.17%	-0.97%	-0.80%
Std Dev	9.16%	8.83%	-0.32%
Skew	-0.58	-0.61	-0.04
Kurtosis	0.91	0.77	-0.14

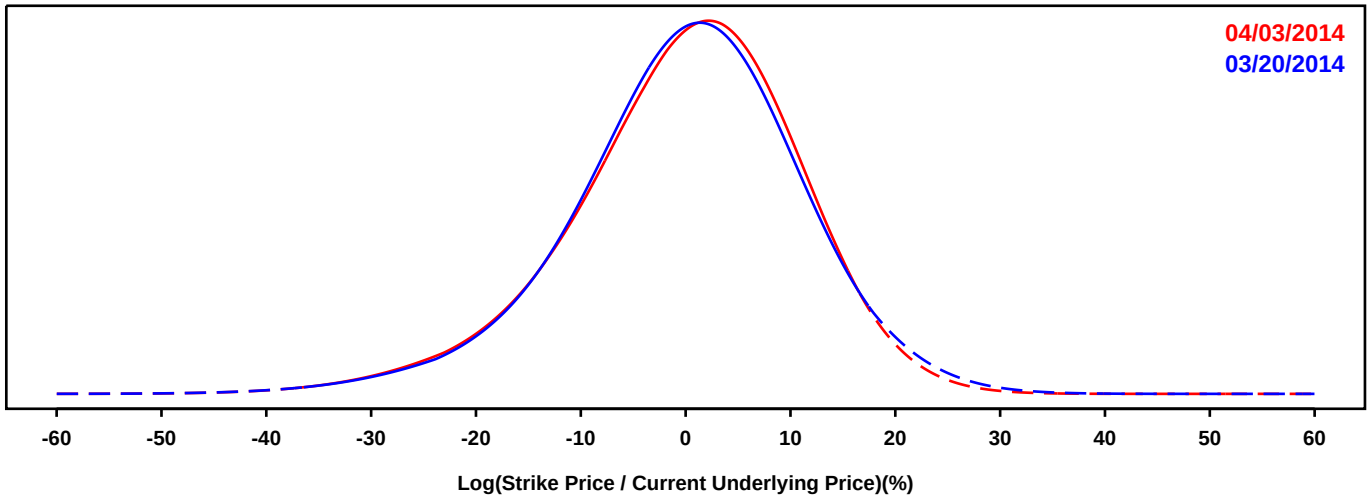
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- AIG

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

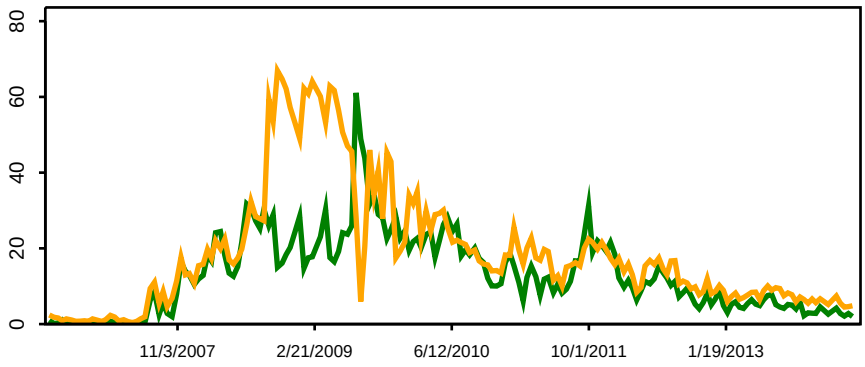
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <= -20% Increase >= 20%

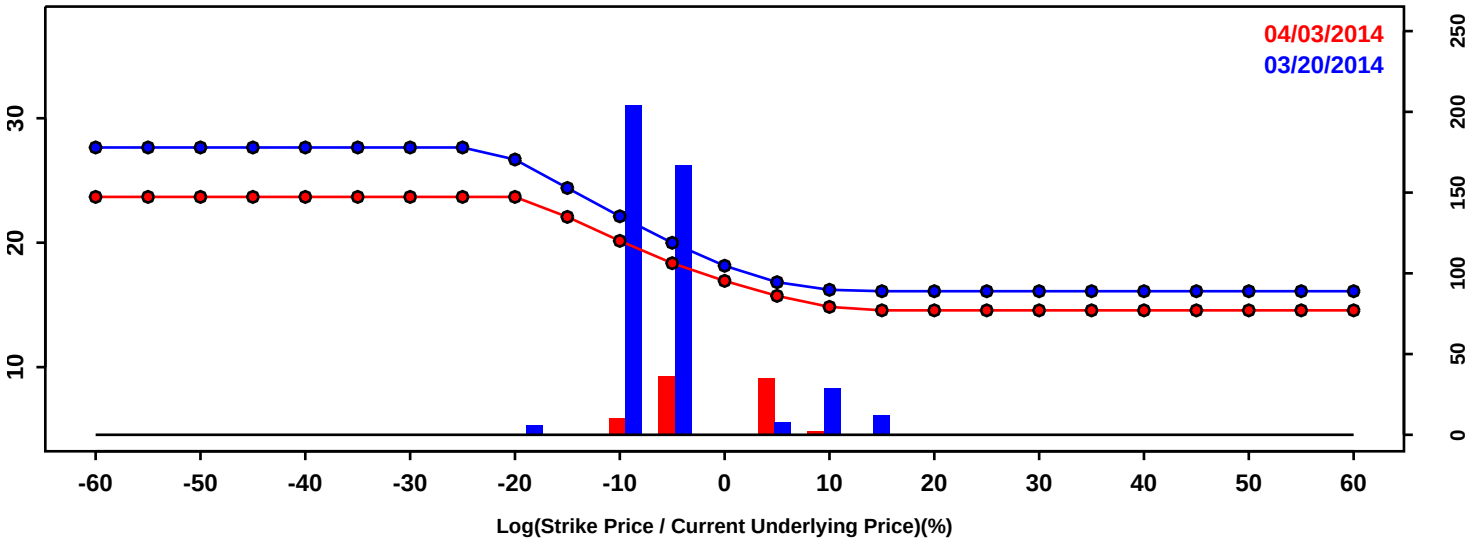
Statistics of the Log Return Distributions

	03/20/2014	04/03/2014	Change
10th Pct	-14.08%	-14.37%	-0.29%
50th Pct	0.56%	0.77%	0.21%
90th Pct	13.37%	12.98%	-0.40%
Mean	0.00%	-0.11%	-0.11%
Std Dev	11.15%	10.99%	-0.16%
Skew	-0.40	-0.52	-0.12
Kurtosis	0.76	0.68	-0.07

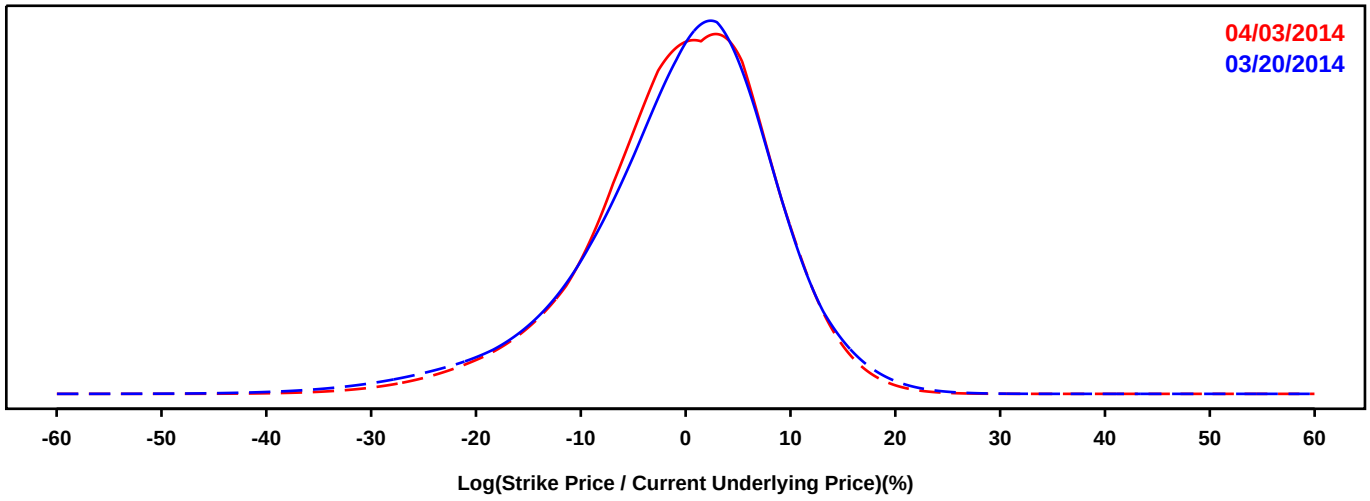
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- ALLSTATE

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

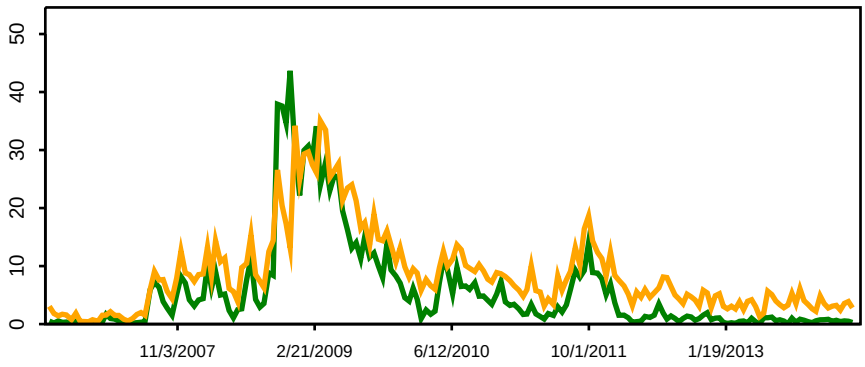
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



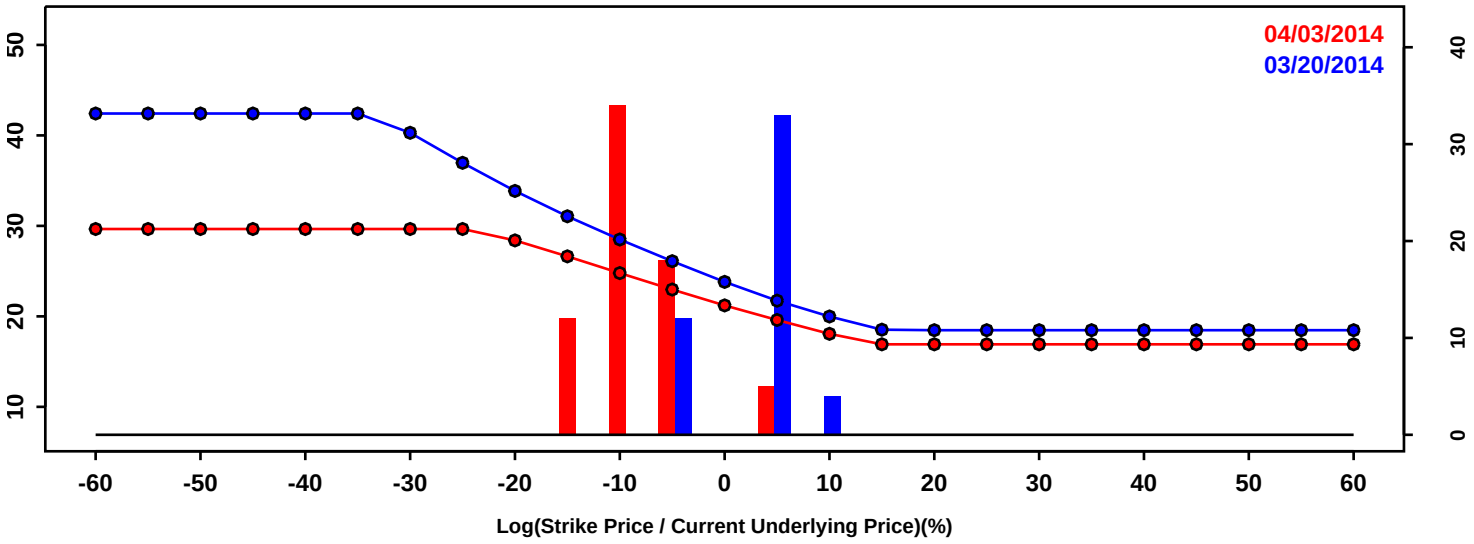
Statistics of the Log Return Distributions

	03/20/2014	04/03/2014	Change
10th Pct	-12.67%	-11.72%	0.95%
50th Pct	0.51%	0.29%	-0.22%
90th Pct	9.81%	9.55%	-0.27%
Mean	-0.65%	-0.50%	0.14%
Std Dev	9.35%	8.65%	-0.70%
Skew	-0.80	-0.64	0.16
Kurtosis	1.45	0.92	-0.53

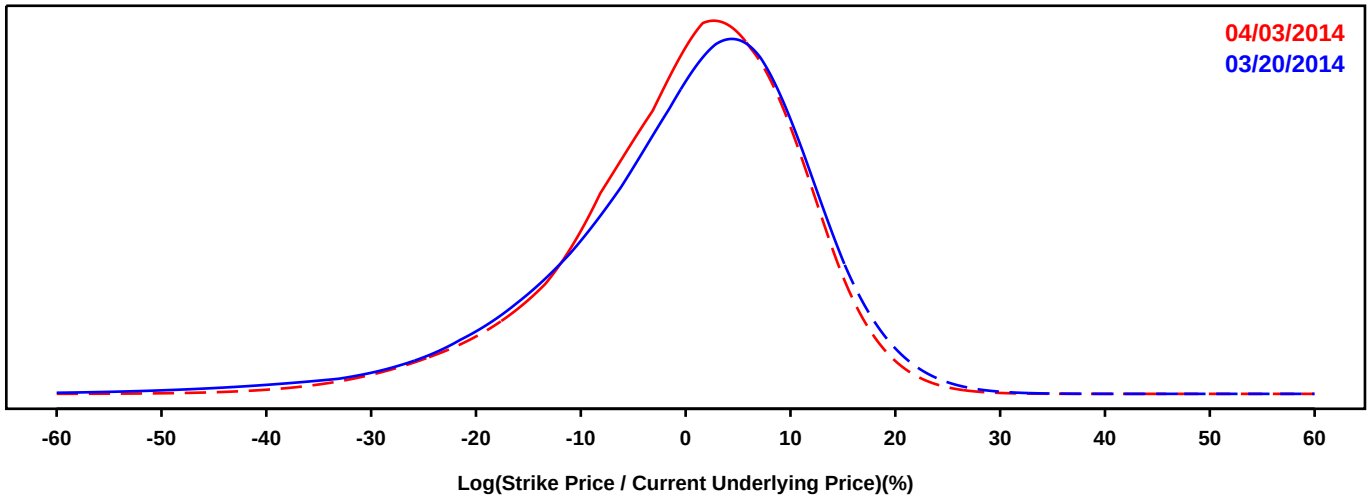
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- AMERIPRISE

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

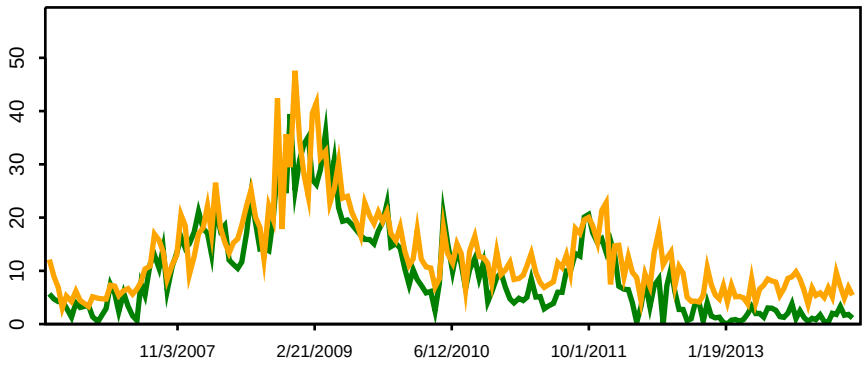
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <= -20% Increase >= 20%

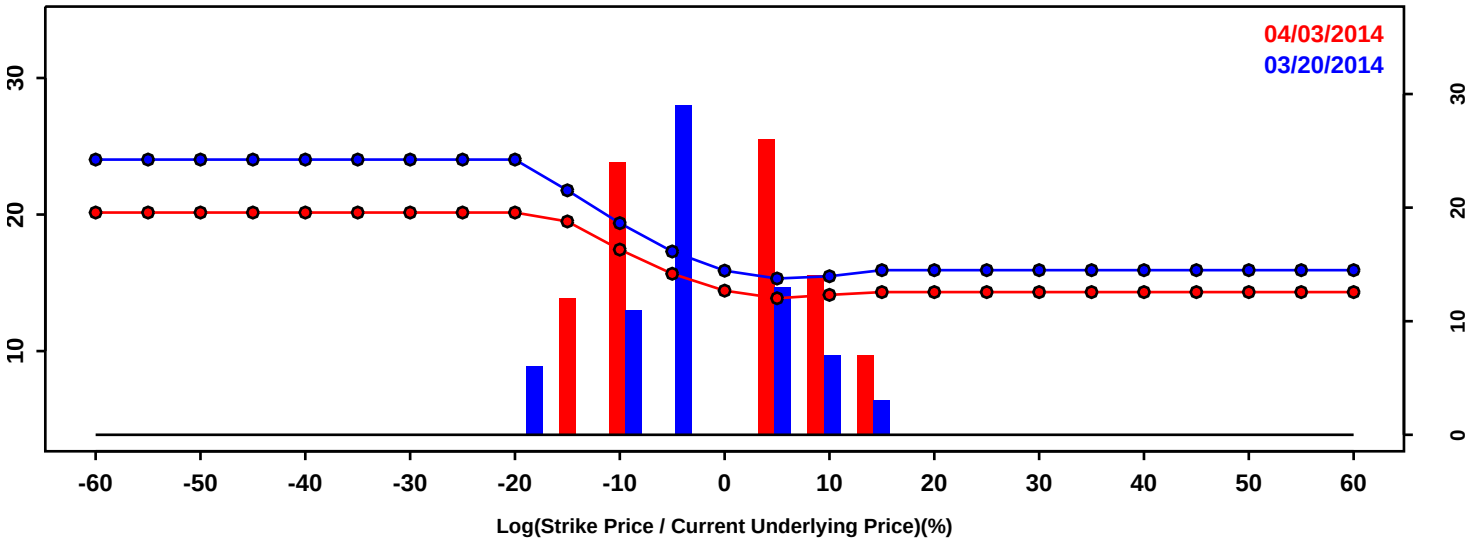
Statistics of the Log Return Distributions

	03/20/2014	04/03/2014	Change
10th Pct	-16.30%	-14.65%	1.65%
50th Pct	1.55%	1.15%	-0.40%
90th Pct	13.07%	12.21%	-0.87%
Mean	-0.35%	-0.20%	0.15%
Std Dev	12.36%	10.87%	-1.49%
Skew	-1.05	-0.75	0.30
Kurtosis	2.15	0.96	-1.20

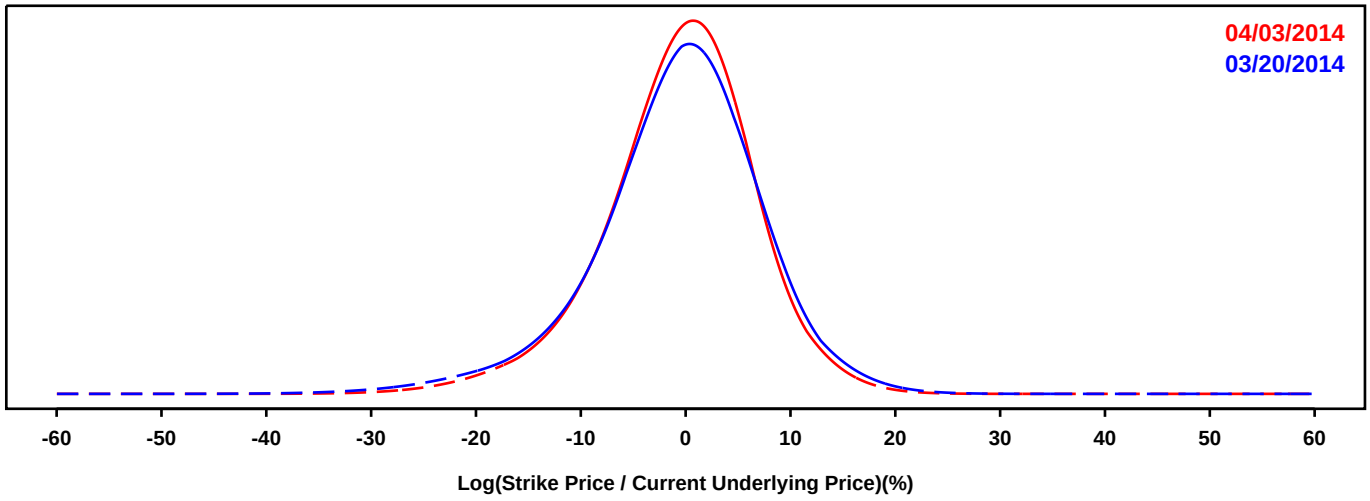
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- CHUBB

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

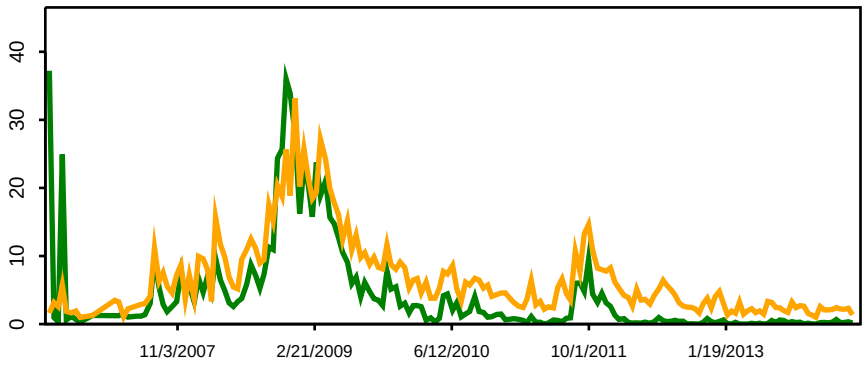
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <= -20% Increase >= 20%

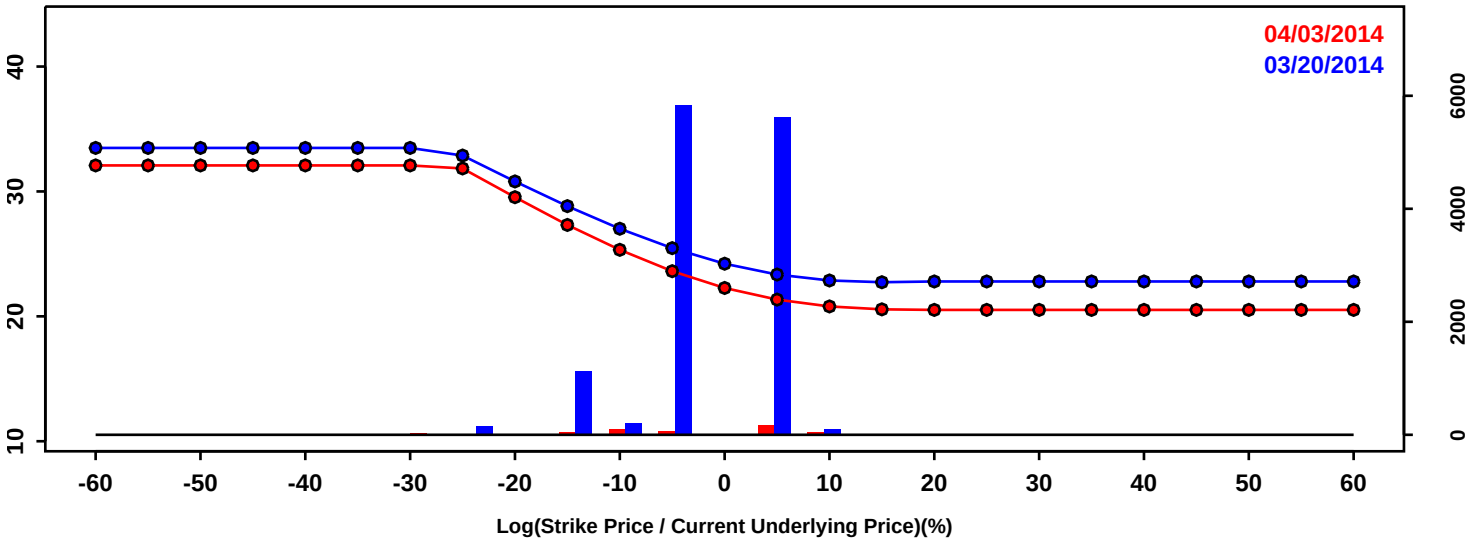
Statistics of the Log Return Distributions

	03/20/2014	04/03/2014	Change
10th Pct	-10.71%	-9.82%	0.89%
50th Pct	-0.12%	-0.12%	-0.01%
90th Pct	8.66%	7.86%	-0.80%
Mean	-0.69%	-0.61%	0.08%
Std Dev	8.09%	7.28%	-0.81%
Skew	-0.60	-0.49	0.11
Kurtosis	1.39	0.99	-0.40

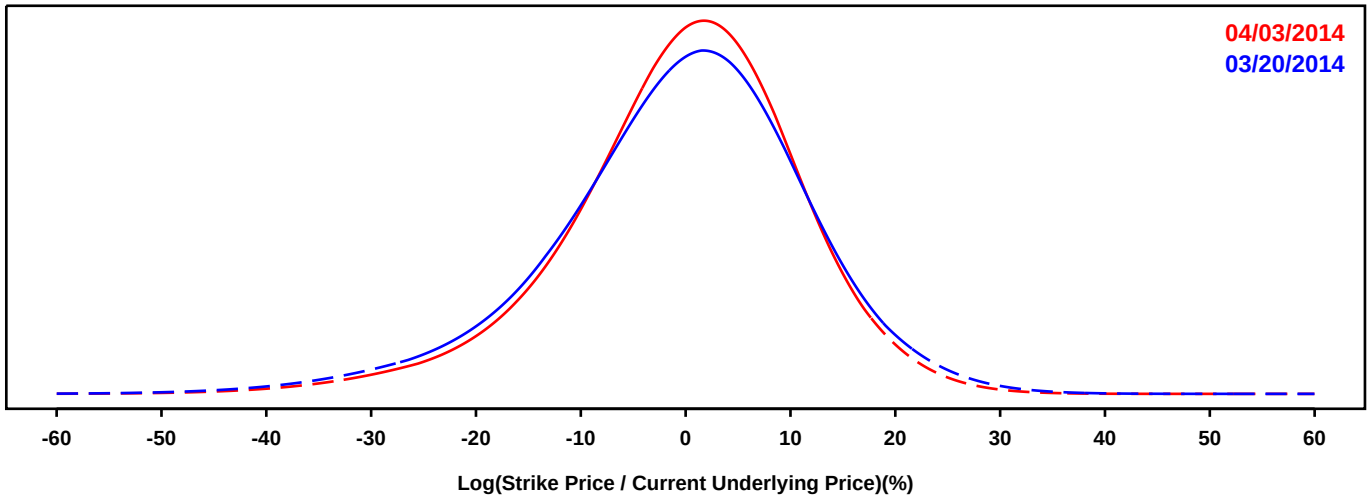
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- HARTFORD FINANCIAL

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

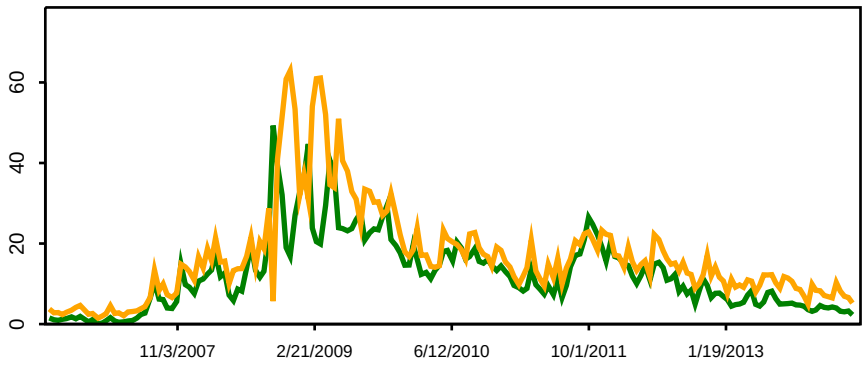
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <= -20% Increase >= 20%

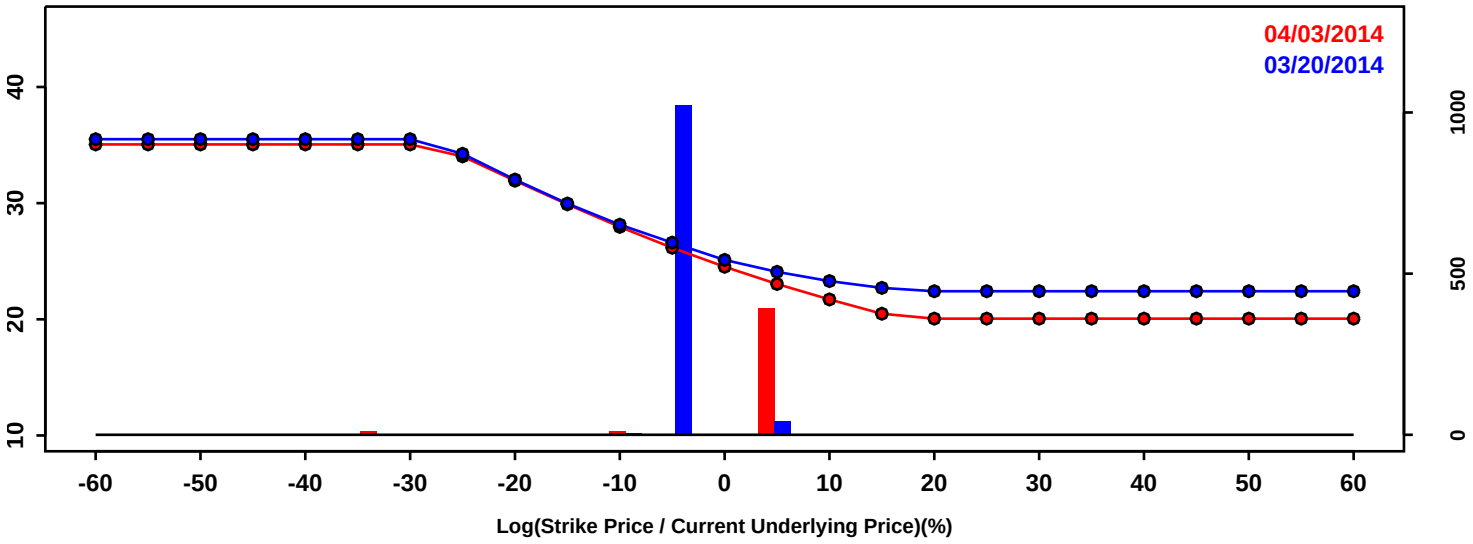
Statistics of the Log Return Distributions

	03/20/2014	04/03/2014	Change
10th Pct	-16.20%	-14.59%	1.60%
50th Pct	0.36%	0.53%	0.17%
90th Pct	13.73%	12.81%	-0.93%
Mean	-0.61%	-0.33%	0.28%
Std Dev	12.24%	11.24%	-1.00%
Skew	-0.53	-0.58	-0.05
Kurtosis	0.94	1.07	0.14

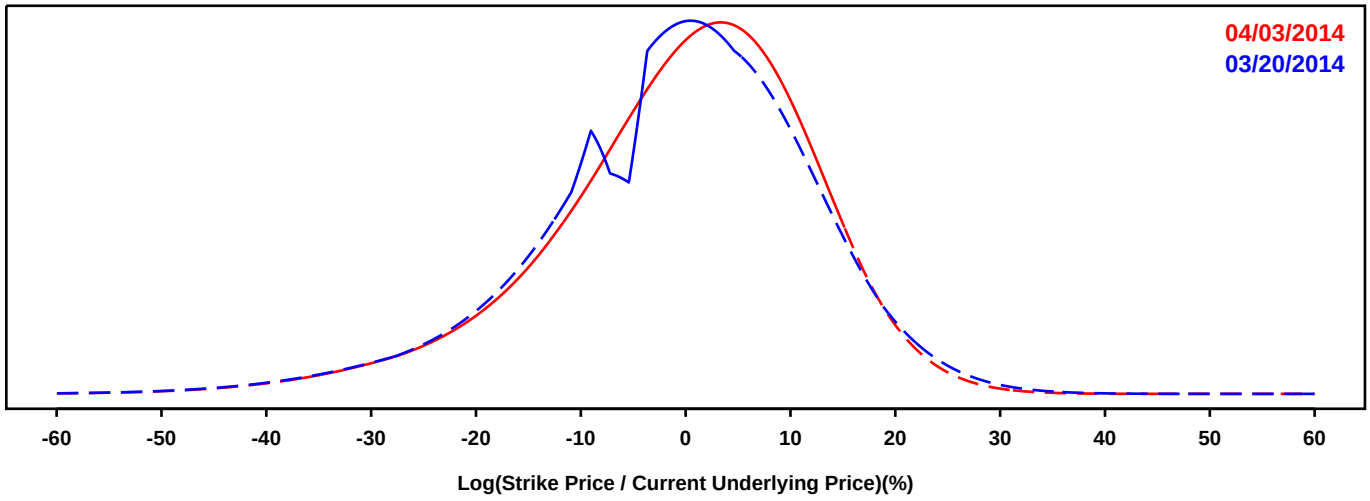
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- LINCOLN NATIONAL

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

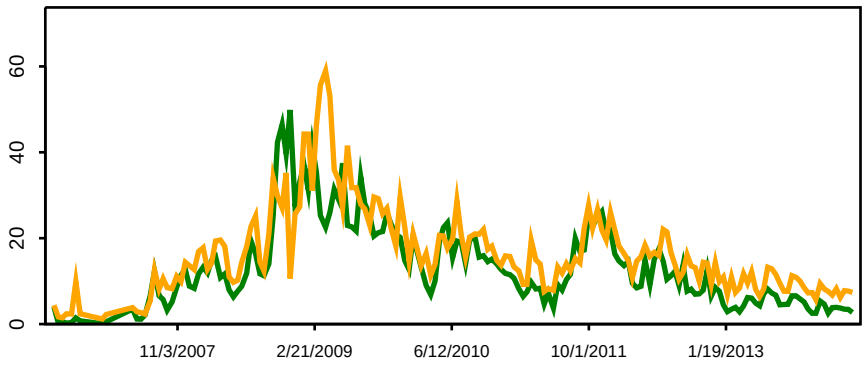
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <= -20% Increase >= 20%

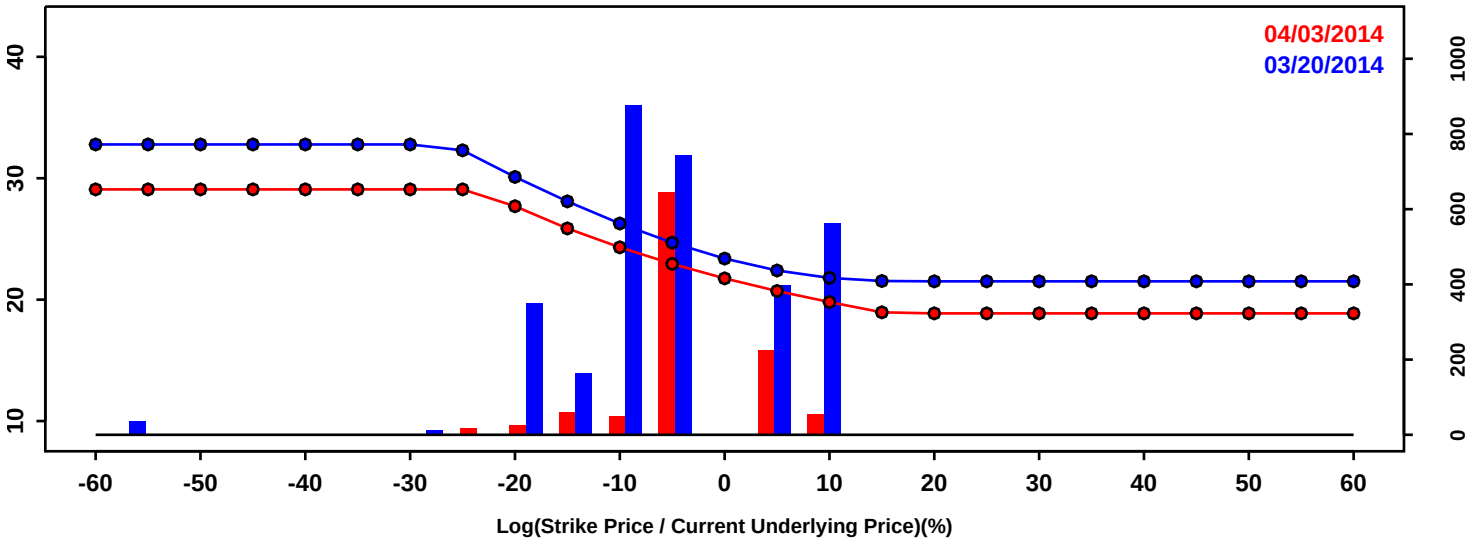
Statistics of the Log Return Distributions

	03/20/2014	04/03/2014	Change
10th Pct	-17.43%	-16.97%	0.46%
50th Pct	0.27%	0.94%	0.67%
90th Pct	14.22%	13.97%	-0.24%
Mean	-0.86%	-0.50%	0.35%
Std Dev	12.90%	12.60%	-0.29%
Skew	-0.60	-0.72	-0.12
Kurtosis	0.94	1.01	0.07

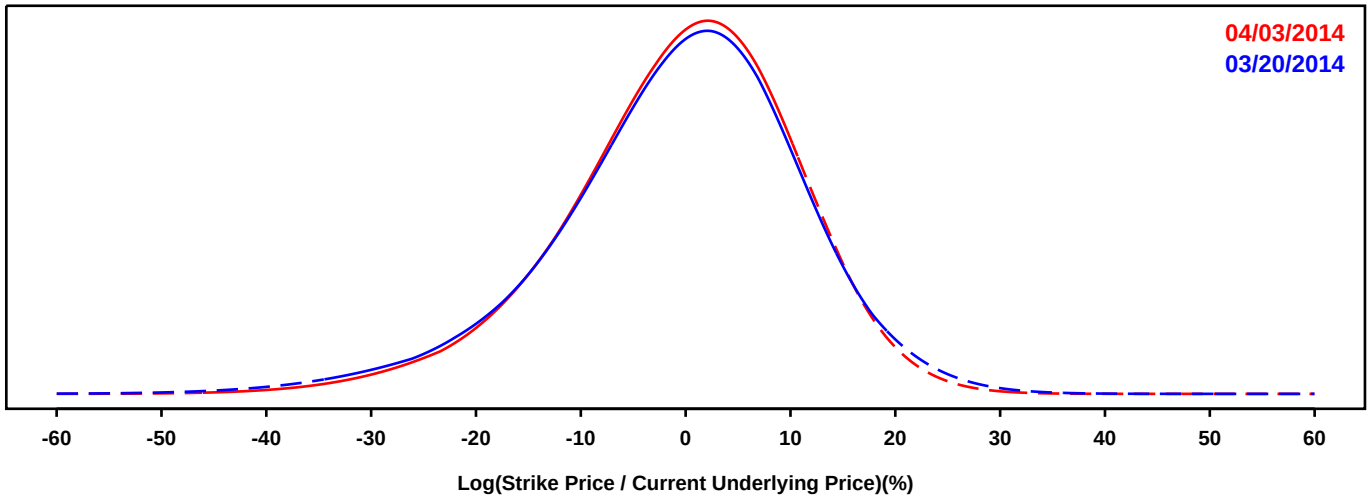
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- METLIFE

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

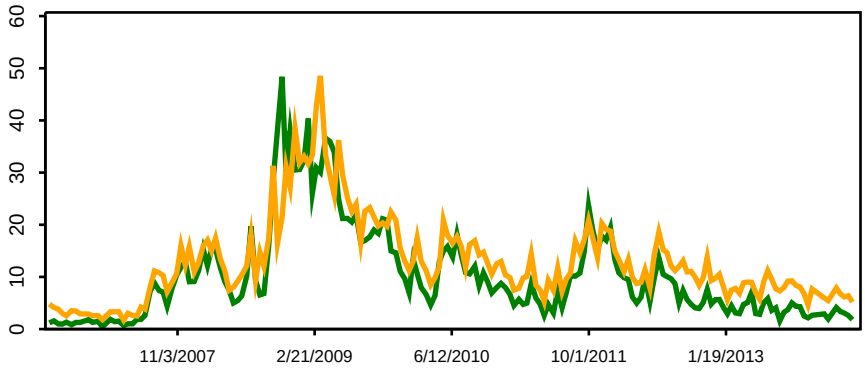
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <= -20% Increase >= 20%

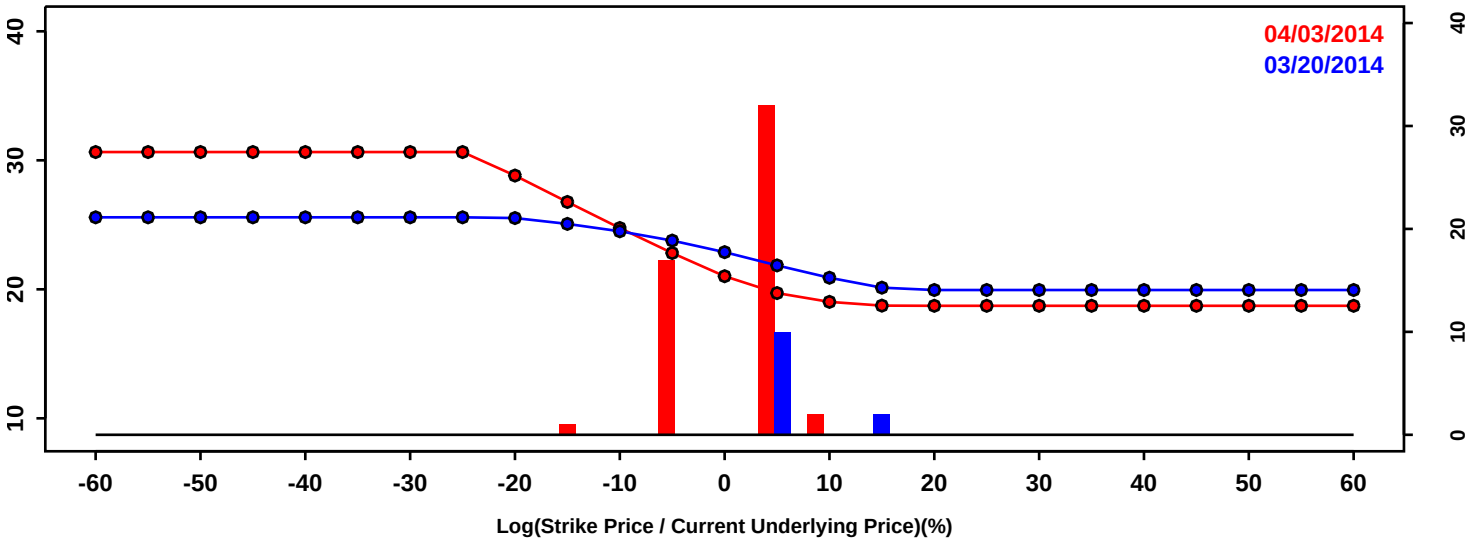
Statistics of the Log Return Distributions

	03/20/2014	04/03/2014	Change
10th Pct	-15.99%	-14.93%	1.06%
50th Pct	0.31%	0.43%	0.12%
90th Pct	13.15%	12.68%	-0.47%
Mean	-0.72%	-0.49%	0.23%
Std Dev	11.89%	11.07%	-0.82%
Skew	-0.57	-0.52	0.05
Kurtosis	0.93	0.63	-0.30

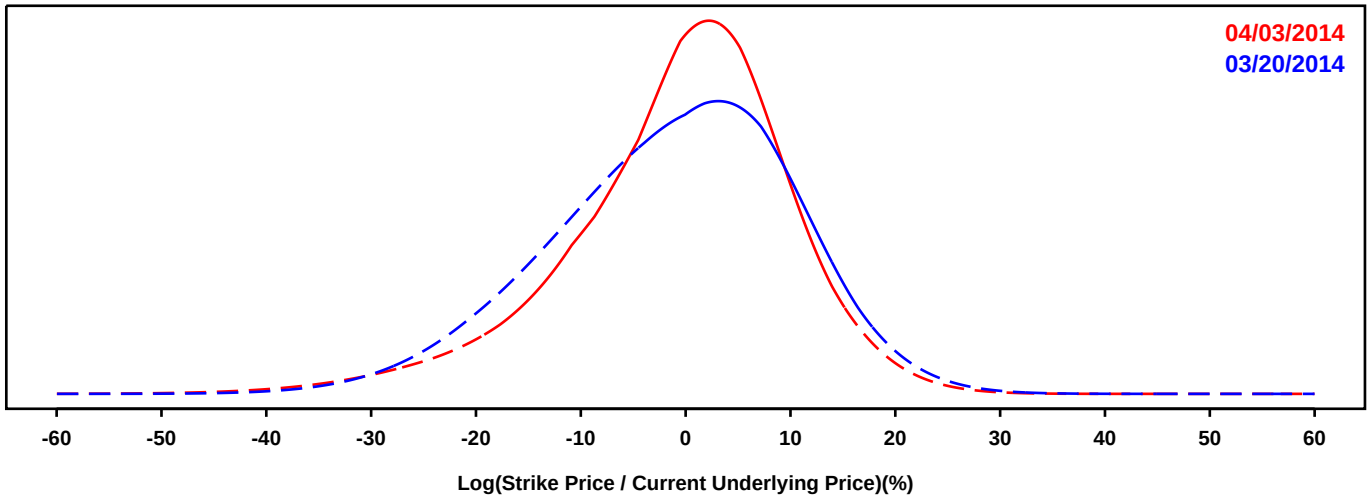
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- PRINCIPAL FINANCIAL

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

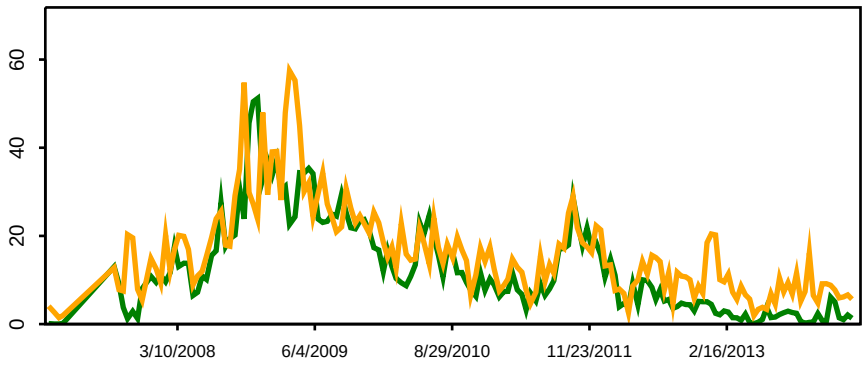
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <= -20% Increase >= 20%

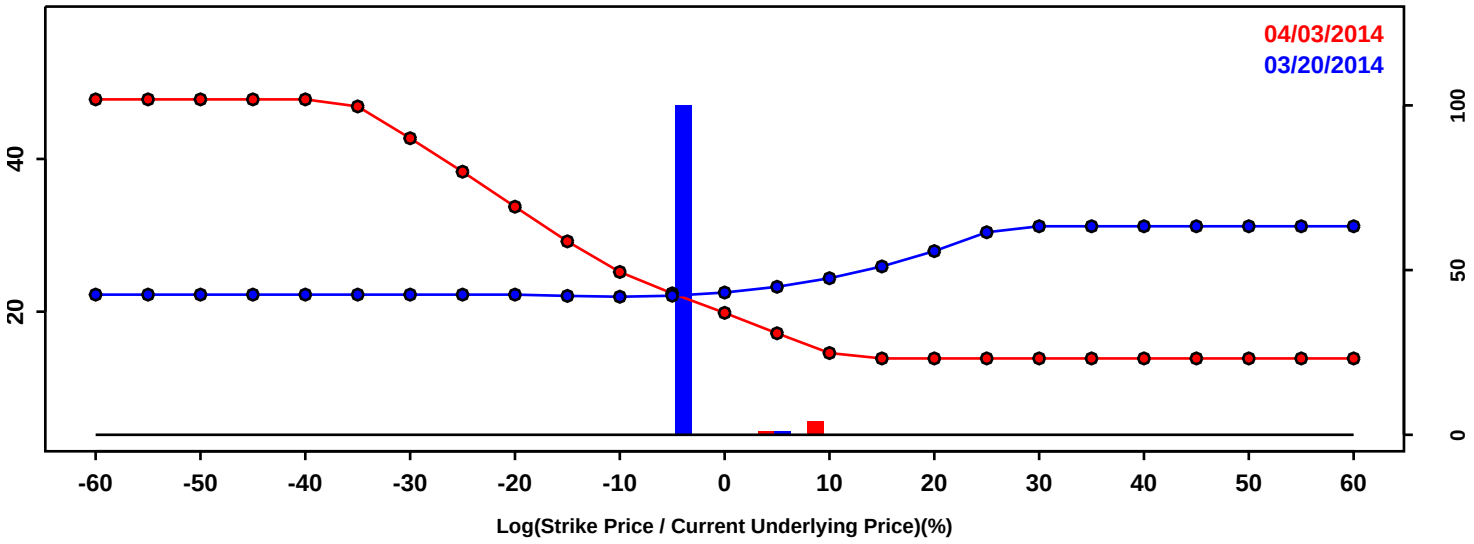
Statistics of the Log Return Distributions

	03/20/2014	04/03/2014	Change
10th Pct	-17.00%	-14.96%	2.04%
50th Pct	-0.31%	0.54%	0.85%
90th Pct	12.75%	11.46%	-1.29%
Mean	-1.27%	-0.79%	0.48%
Std Dev	11.64%	10.86%	-0.78%
Skew	-0.35	-0.73	-0.38
Kurtosis	0.04	1.20	1.15

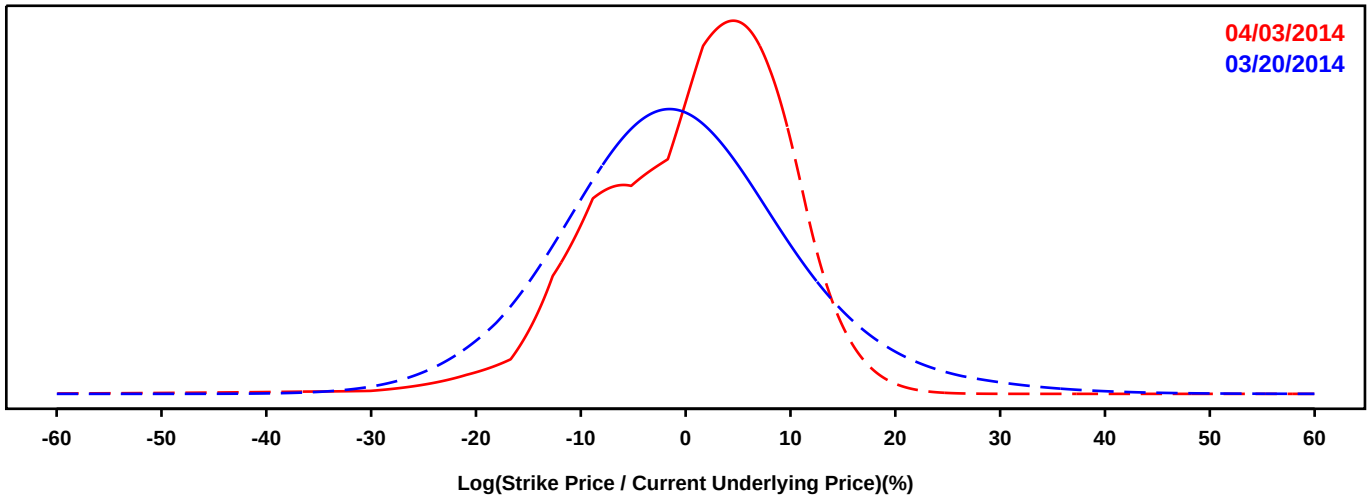
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- PROGRESSIVE

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

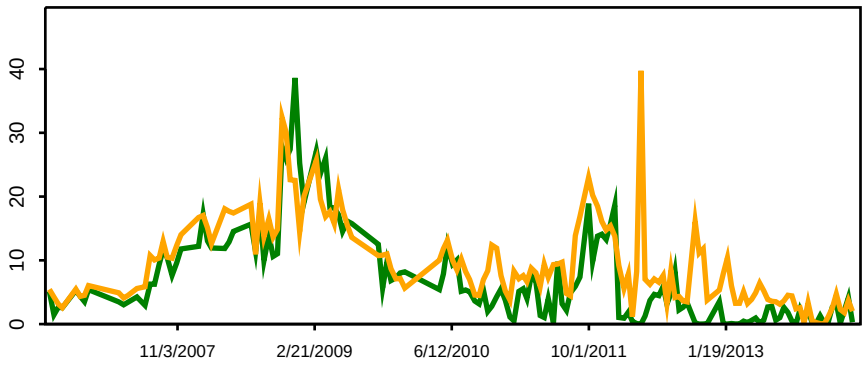
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <= -20% Increase >= 20%

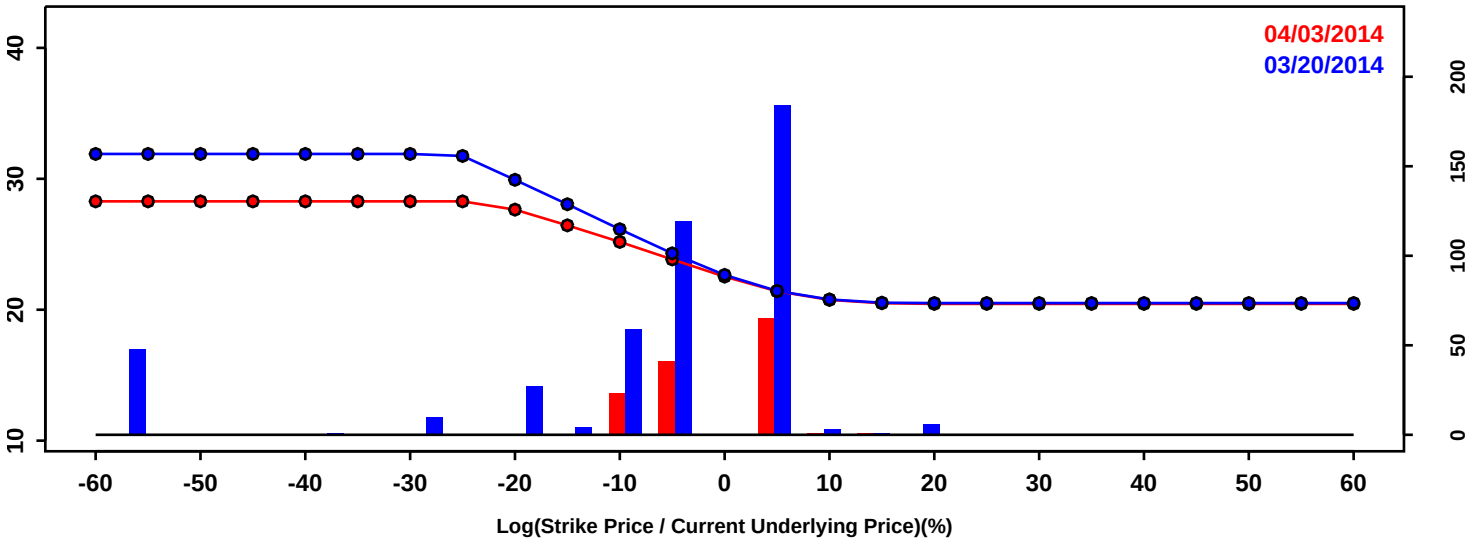
Statistics of the Log Return Distributions

	03/20/2014	04/03/2014	Change
10th Pct	-14.40%	-11.05%	3.35%
50th Pct	-1.01%	1.93%	2.94%
90th Pct	13.58%	10.78%	-2.79%
Mean	-0.56%	0.57%	1.13%
Std Dev	11.32%	9.14%	-2.19%
Skew	0.32	-1.07	-1.39
Kurtosis	0.74	3.62	2.88

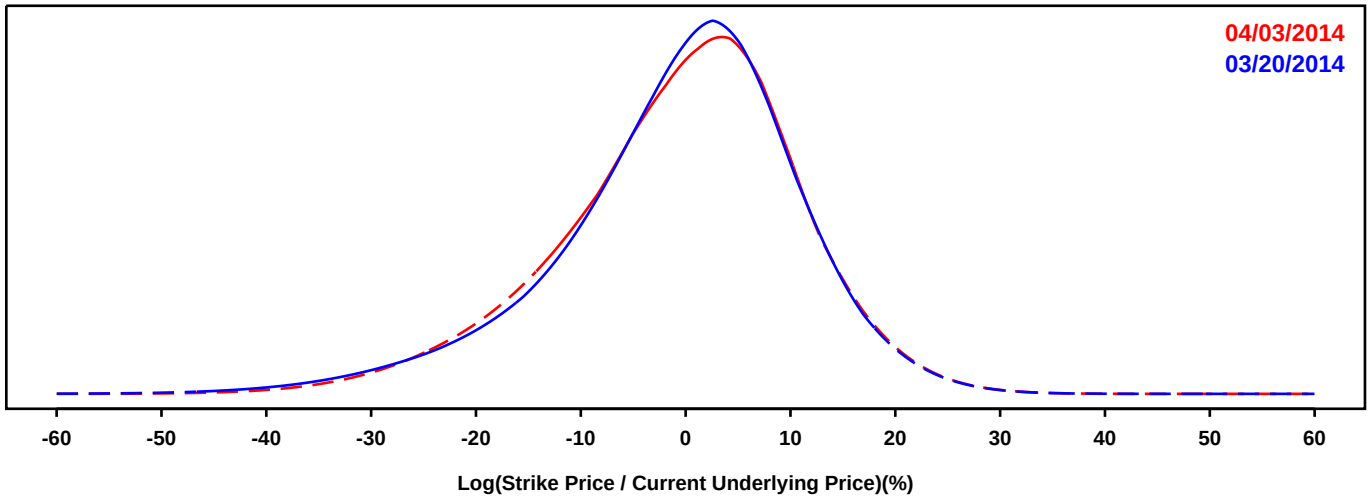
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- PRUDENTIAL

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

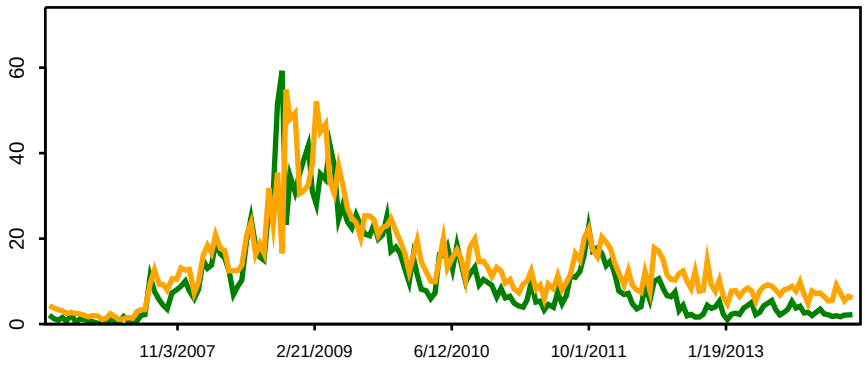
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <= -20% Increase >= 20%

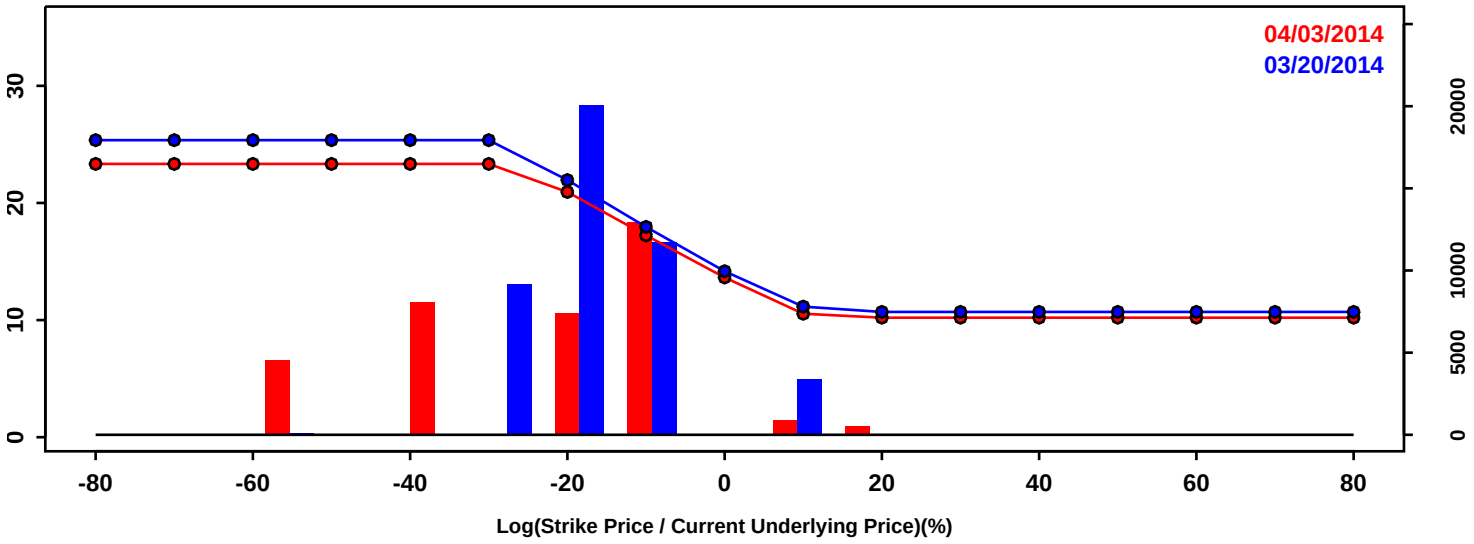
Statistics of the Log Return Distributions

	03/20/2014	04/03/2014	Change
10th Pct	-15.94%	-15.98%	-0.04%
50th Pct	0.62%	0.58%	-0.05%
90th Pct	12.57%	12.68%	0.11%
Mean	-0.67%	-0.63%	0.04%
Std Dev	11.63%	11.45%	-0.18%
Skew	-0.68	-0.51	0.17
Kurtosis	1.06	0.54	-0.52

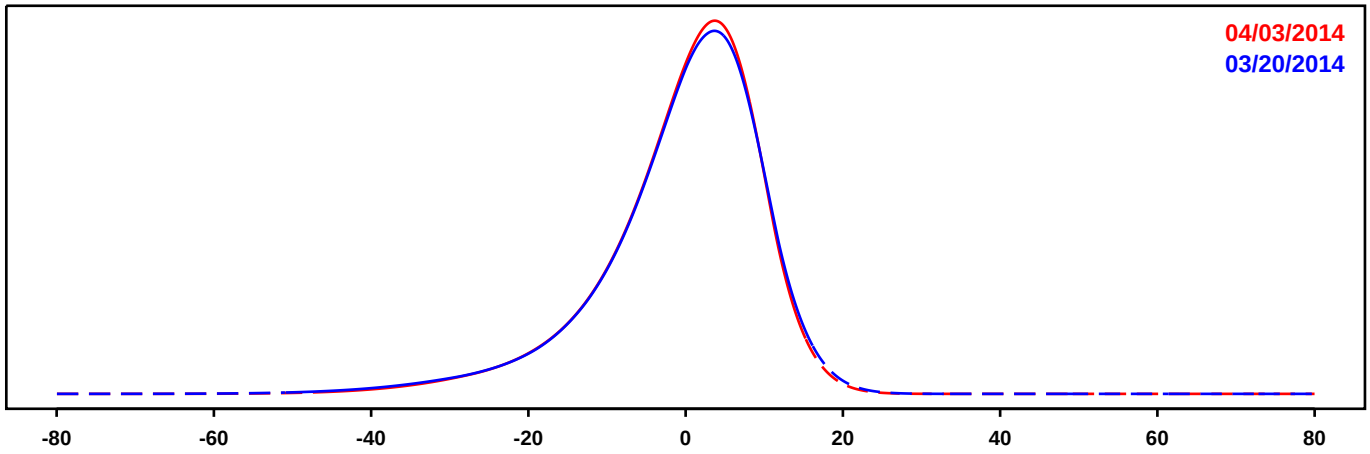
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- S&P 500

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

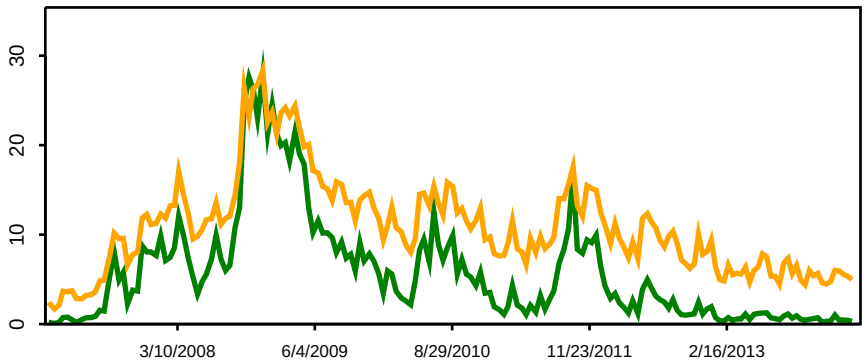
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <= -20% Increase >= 20%

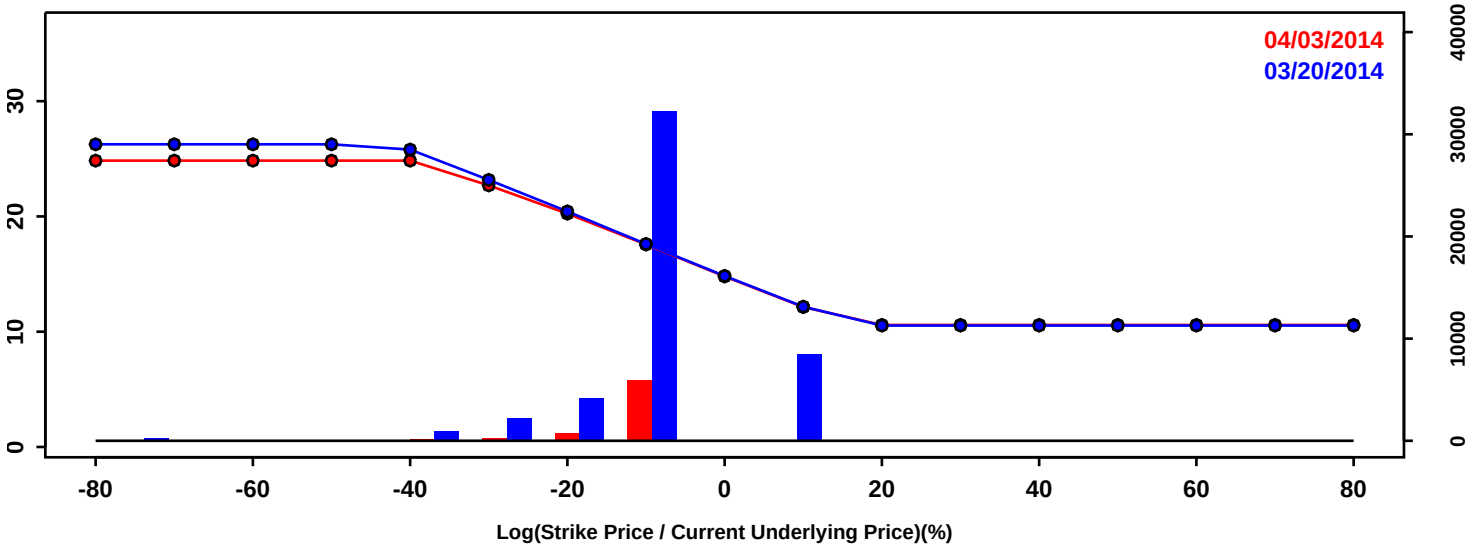
Statistics of the Log Return Distributions

	03/20/2014	04/03/2014	Change
10th Pct	-13.90%	-13.63%	0.27%
50th Pct	1.25%	1.20%	-0.04%
90th Pct	10.64%	10.30%	-0.35%
Mean	-0.52%	-0.50%	0.02%
Std Dev	10.55%	10.13%	-0.41%
Skew	-1.20	-1.14	0.07
Kurtosis	2.57	2.19	-0.38

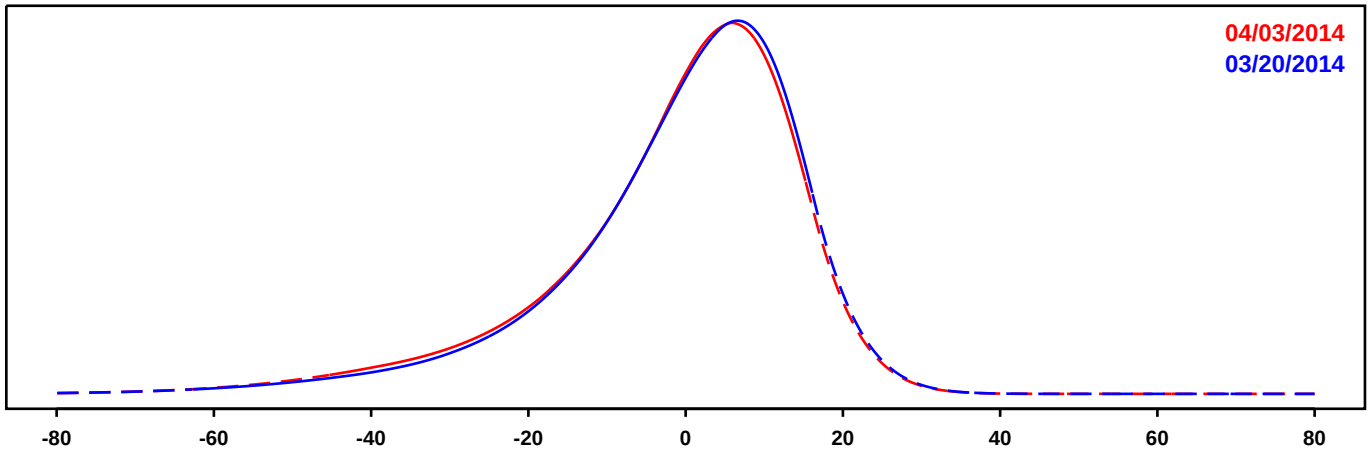
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- S&P 500

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

Decrease <= -20% Increase >= 20%

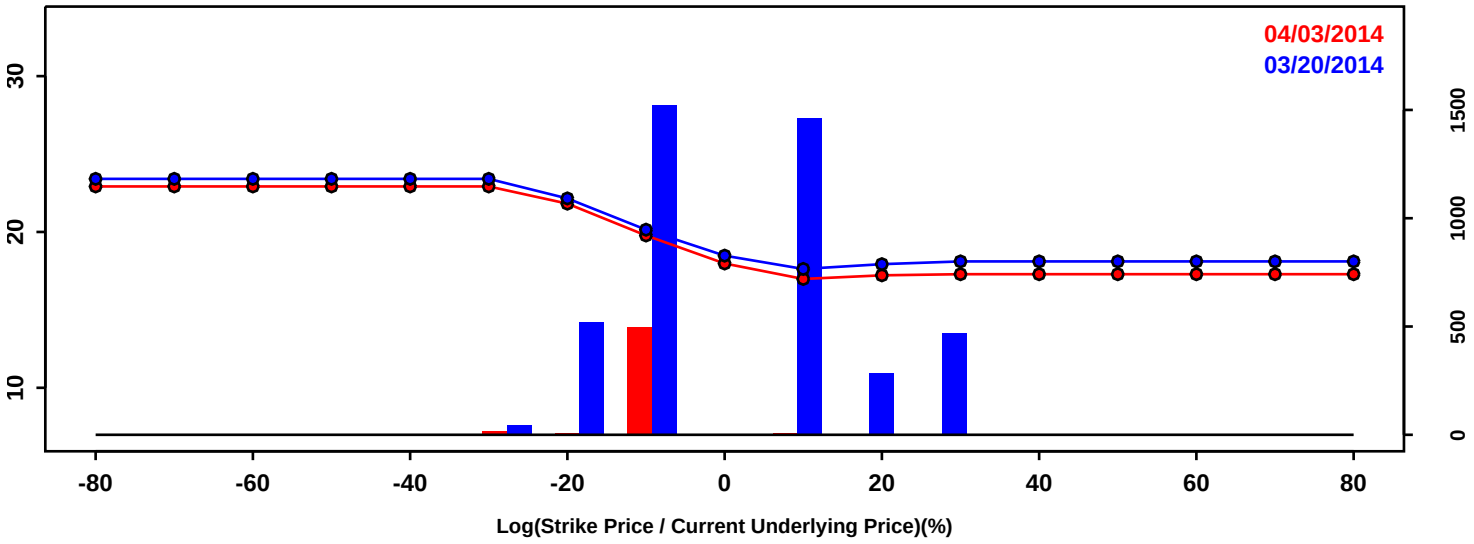
Statistics of the Log Return Distributions

	03/20/2014	04/03/2014	Change
10th Pct	-20.96%	-22.72%	-1.77%
50th Pct	2.25%	1.67%	-0.58%
90th Pct	15.59%	15.17%	-0.41%
Mean	-0.69%	-1.45%	-0.76%
Std Dev	15.66%	16.00%	0.33%
Skew	-1.26	-1.21	0.05
Kurtosis	2.55	2.14	-0.41

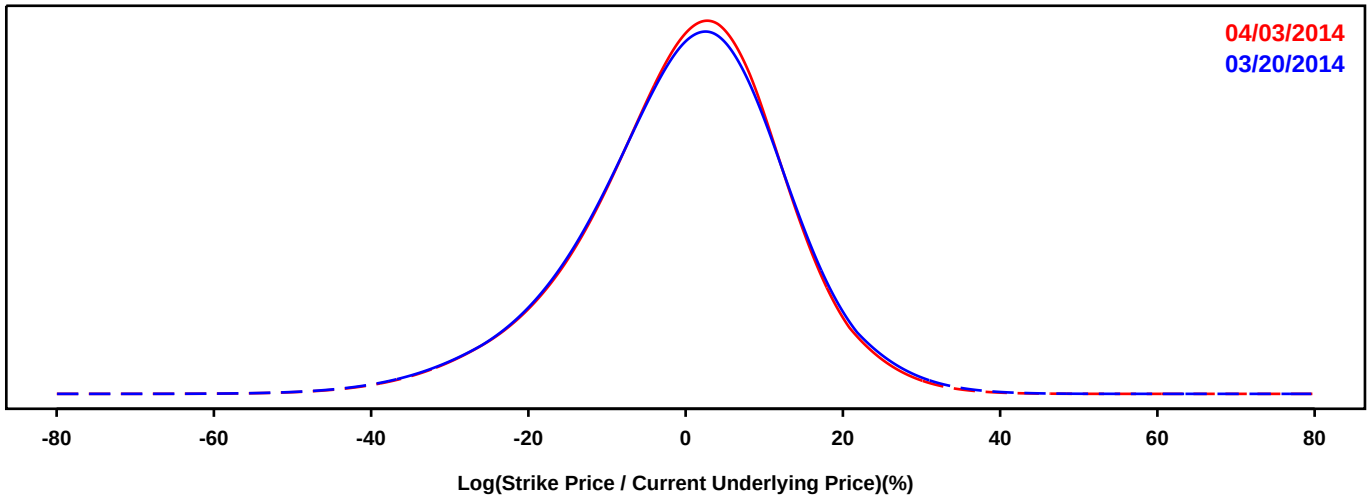
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- CRUDE OIL FUTURES (WTI)

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

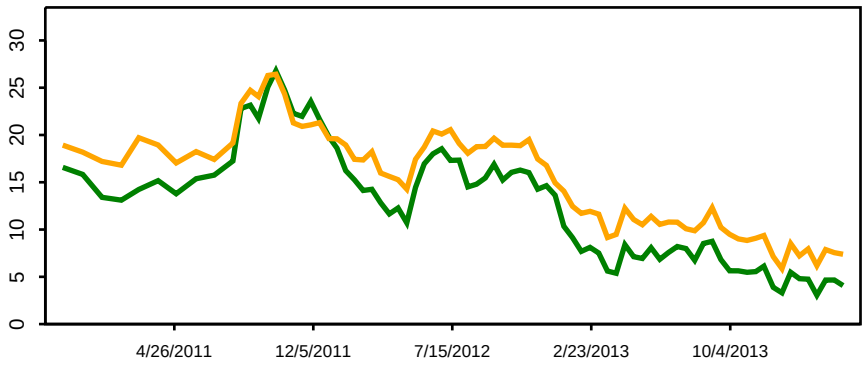
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <= -20% Increase >= 20%

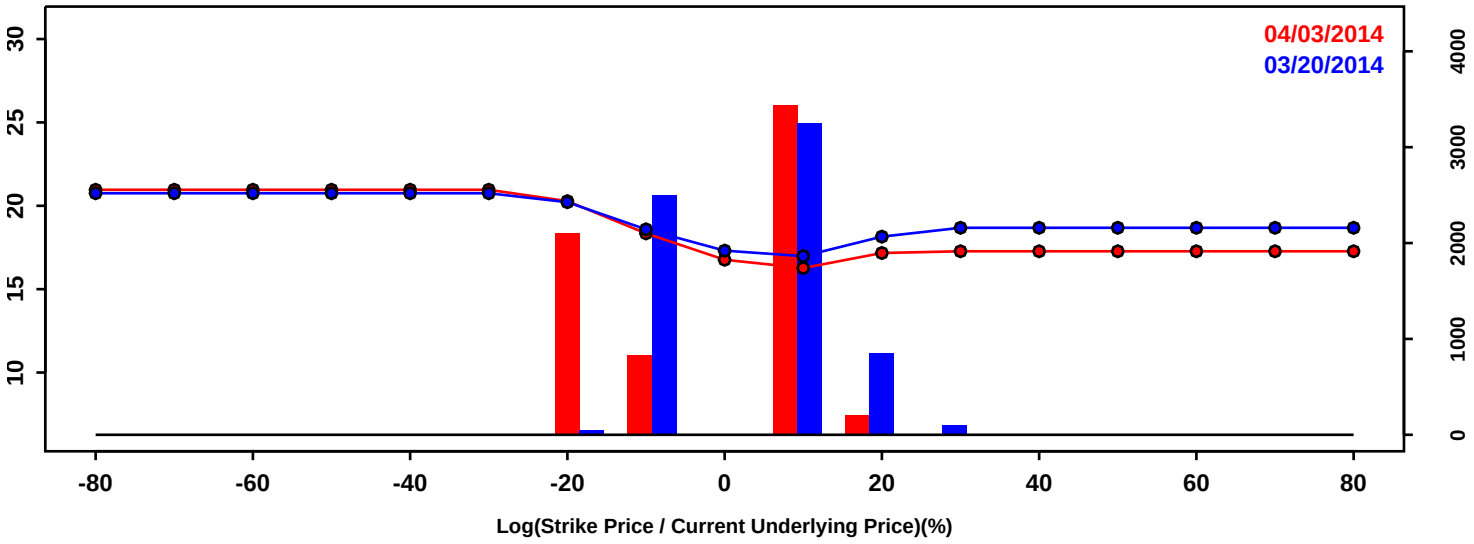
Statistics of the Log Return Distributions

	03/20/2014	04/03/2014	Change
10th Pct	-17.33%	-17.12%	0.21%
50th Pct	0.75%	0.75%	0.00%
90th Pct	15.21%	14.67%	-0.54%
Mean	-0.24%	-0.32%	-0.08%
Std Dev	13.13%	12.82%	-0.31%
Skew	-0.42	-0.46	-0.04
Kurtosis	0.65	0.67	0.02

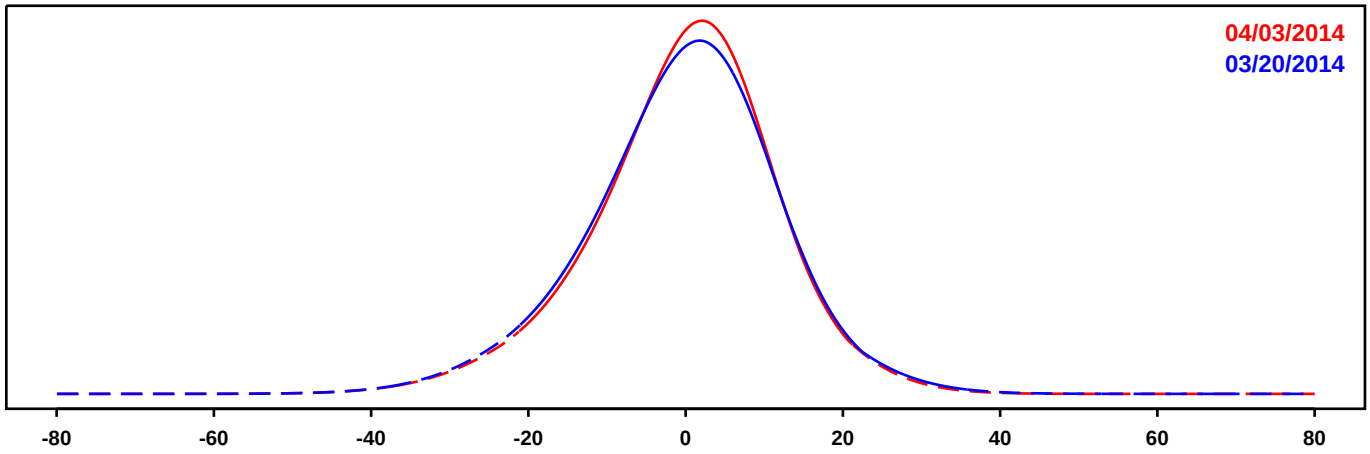
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- CRUDE OIL FUTURES (Brent)

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

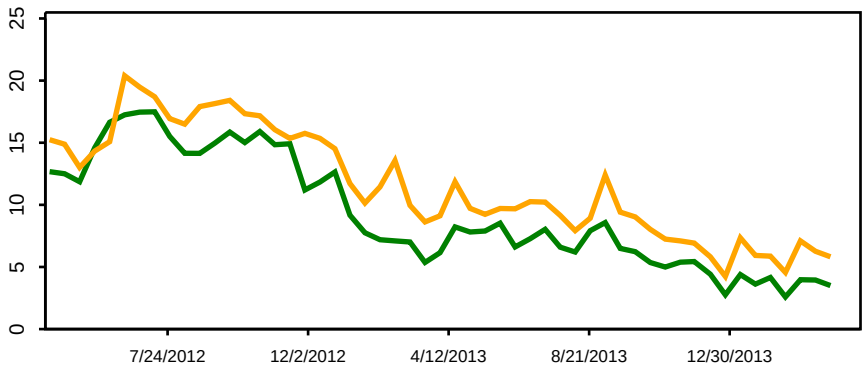
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <= -20% Increase >= 20%

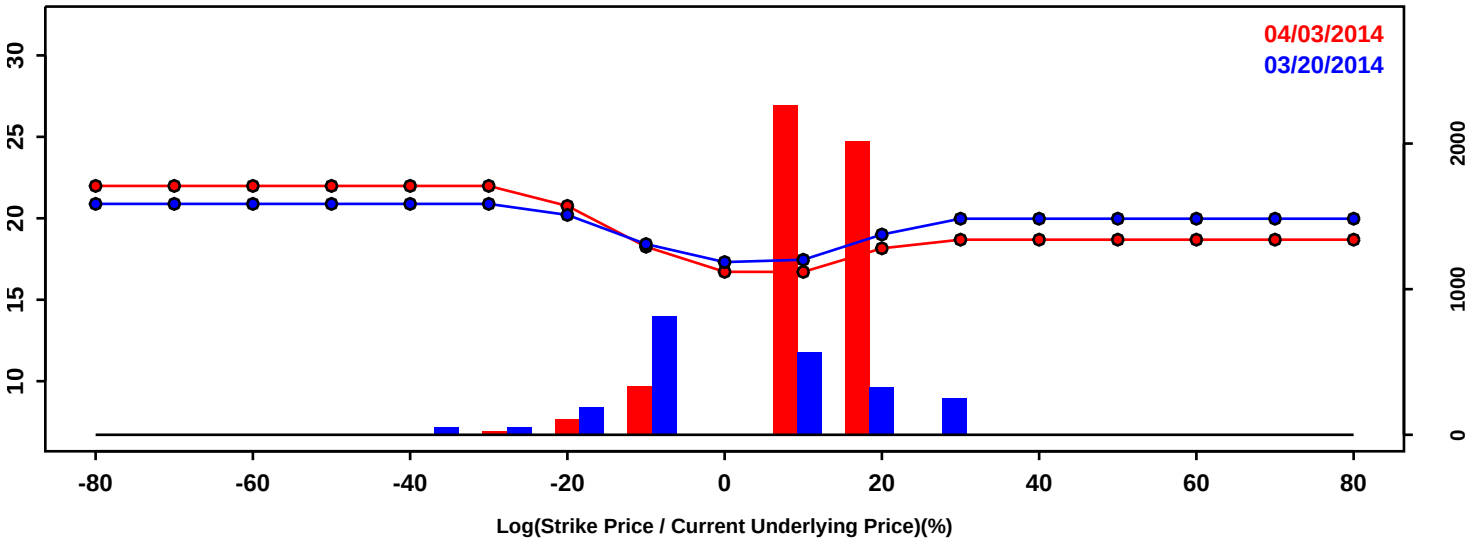
Statistics of the Log Return Distributions

	03/20/2014	04/03/2014	Change
10th Pct	-16.17%	-15.51%	0.66%
50th Pct	0.35%	0.64%	0.28%
90th Pct	14.28%	13.81%	-0.47%
Mean	-0.30%	-0.15%	0.15%
Std Dev	12.25%	11.86%	-0.39%
Skew	-0.27	-0.36	-0.09
Kurtosis	0.57	0.68	0.11

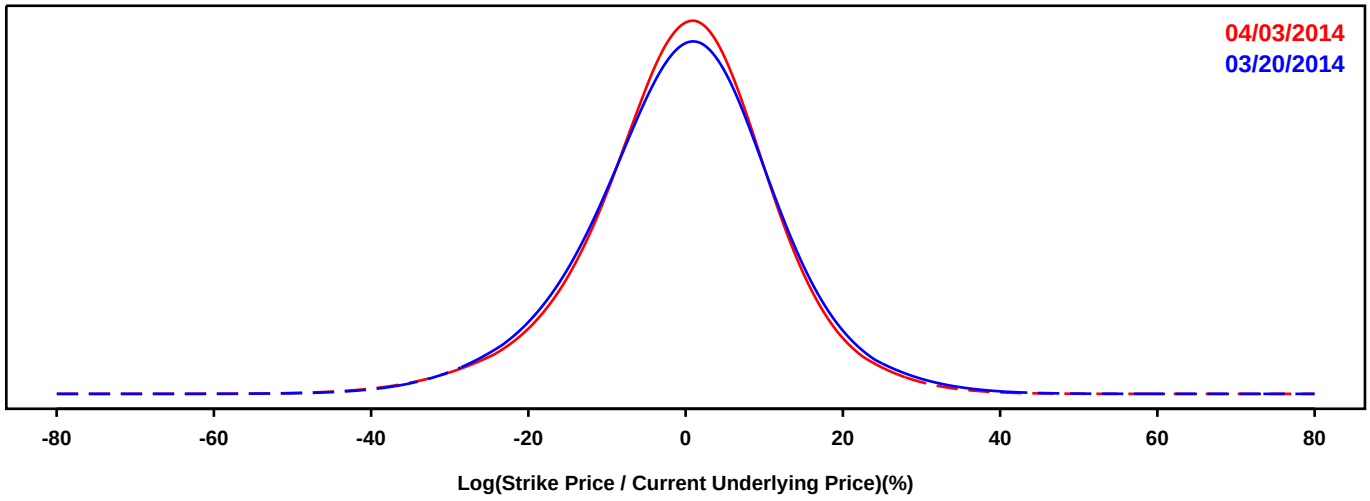
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- GOLD FUTURES

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

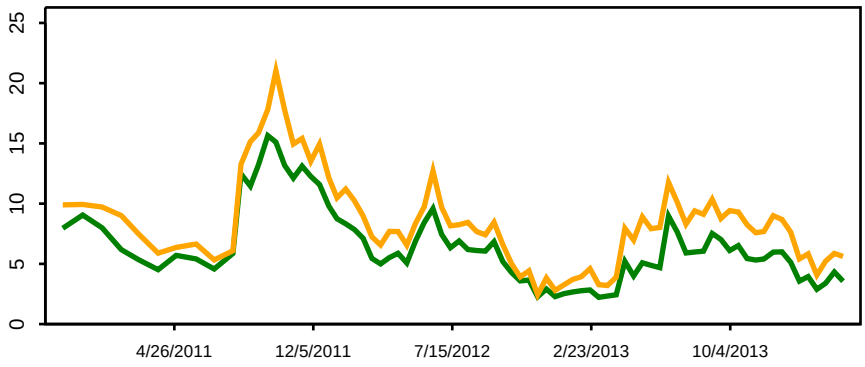
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <= -20% Increase >= 20%

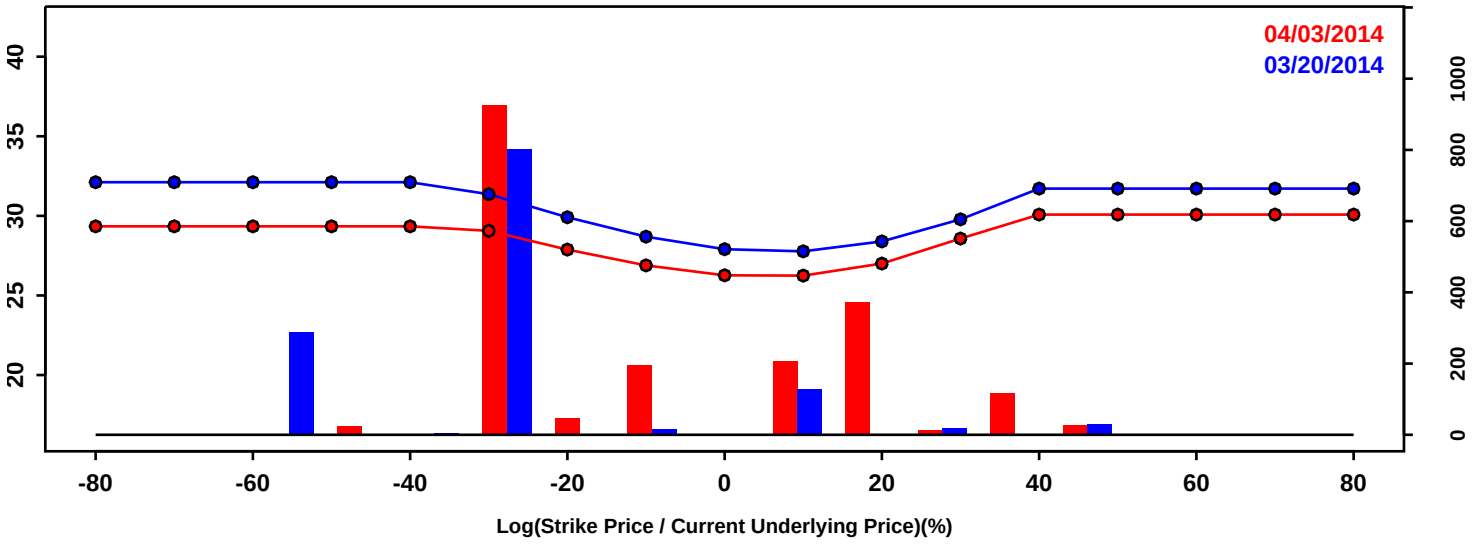
Statistics of the Log Return Distributions

	03/20/2014	04/03/2014	Change
10th Pct	-15.69%	-15.22%	0.47%
50th Pct	0.16%	0.09%	-0.07%
90th Pct	14.37%	13.53%	-0.85%
Mean	-0.25%	-0.42%	-0.16%
Std Dev	12.23%	11.83%	-0.41%
Skew	-0.17	-0.31	-0.14
Kurtosis	0.70	0.95	0.24

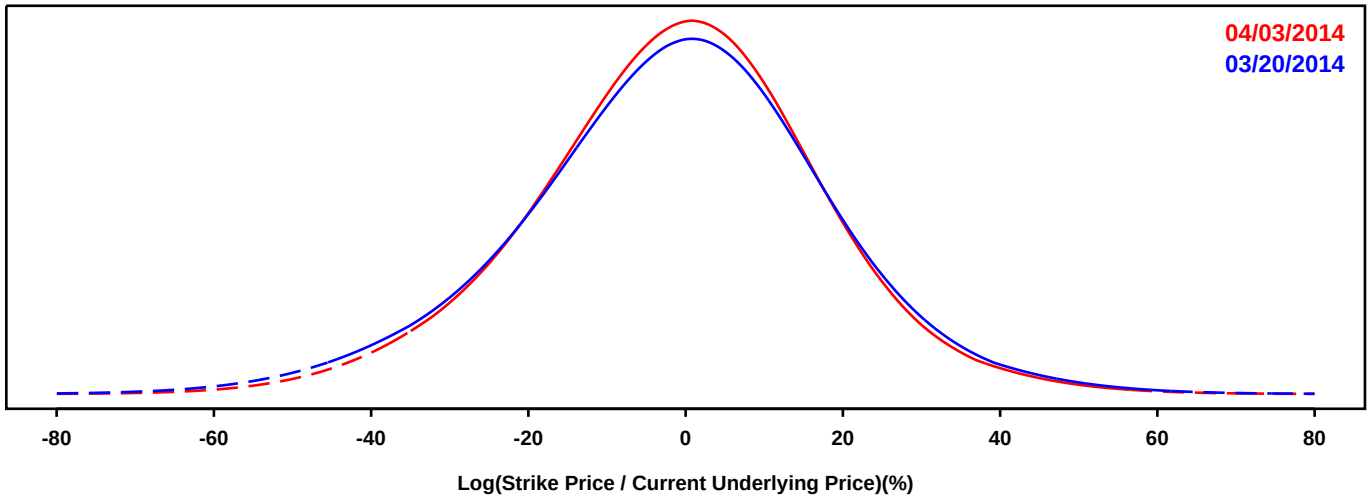
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- SILVER FUTURES

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

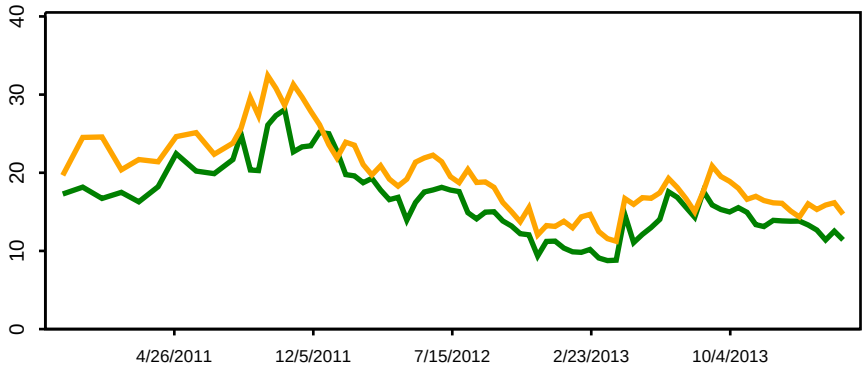
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <= -20% Increase >= 20%

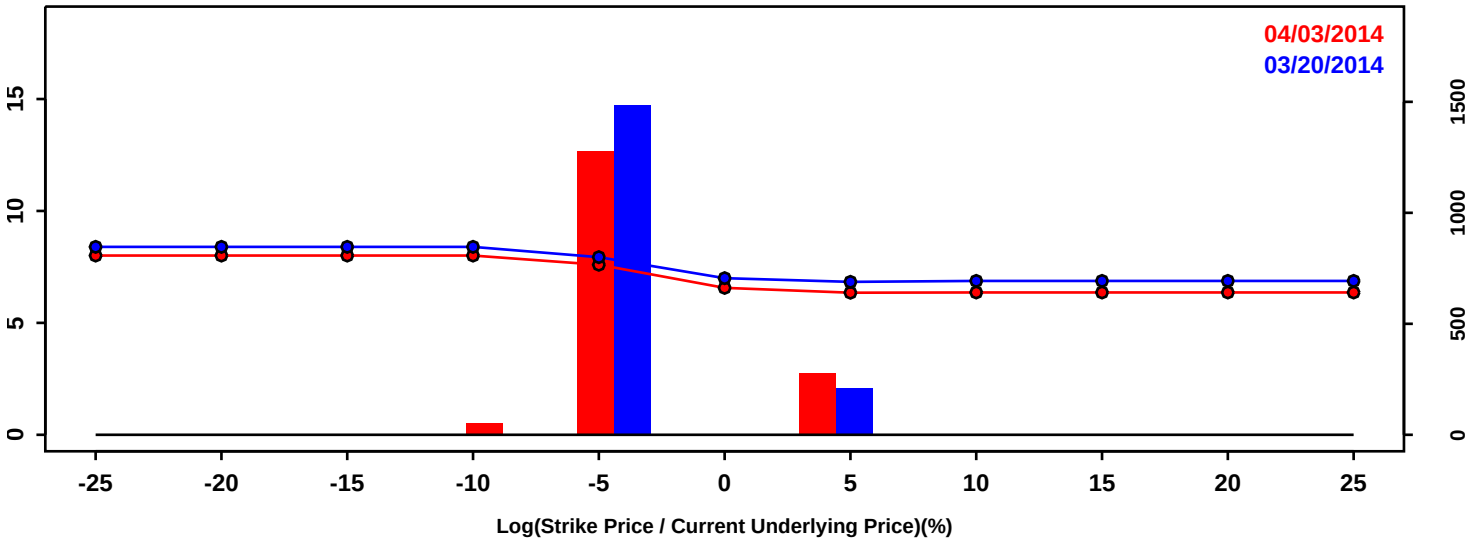
Statistics of the Log Return Distributions

	03/20/2014	04/03/2014	Change
10th Pct	-26.64%	-24.84%	1.80%
50th Pct	-0.63%	-0.55%	0.07%
90th Pct	22.51%	21.37%	-1.14%
Mean	-1.35%	-1.10%	0.24%
Std Dev	19.75%	18.52%	-1.23%
Skew	-0.16	-0.11	0.05
Kurtosis	0.52	0.46	-0.06

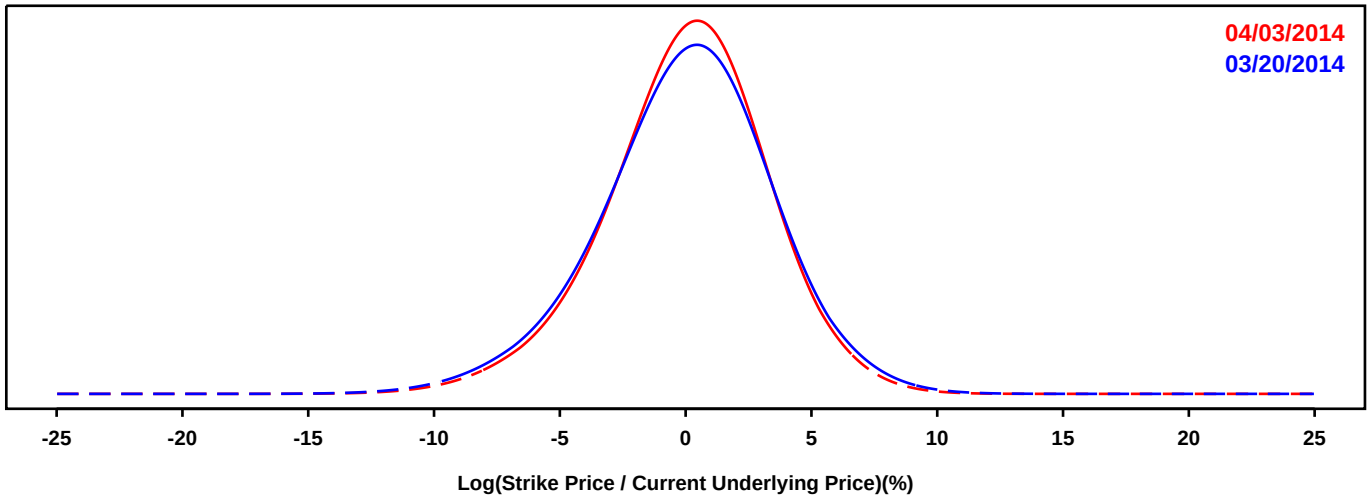
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- DOLLAR-EURO EXCHANGE RATE FUTURES

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

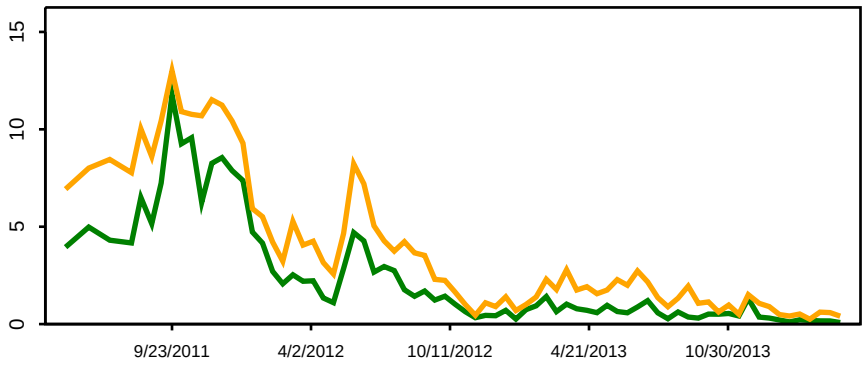
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <= -10% [stronger $] Increase >= 10% [weaker $]

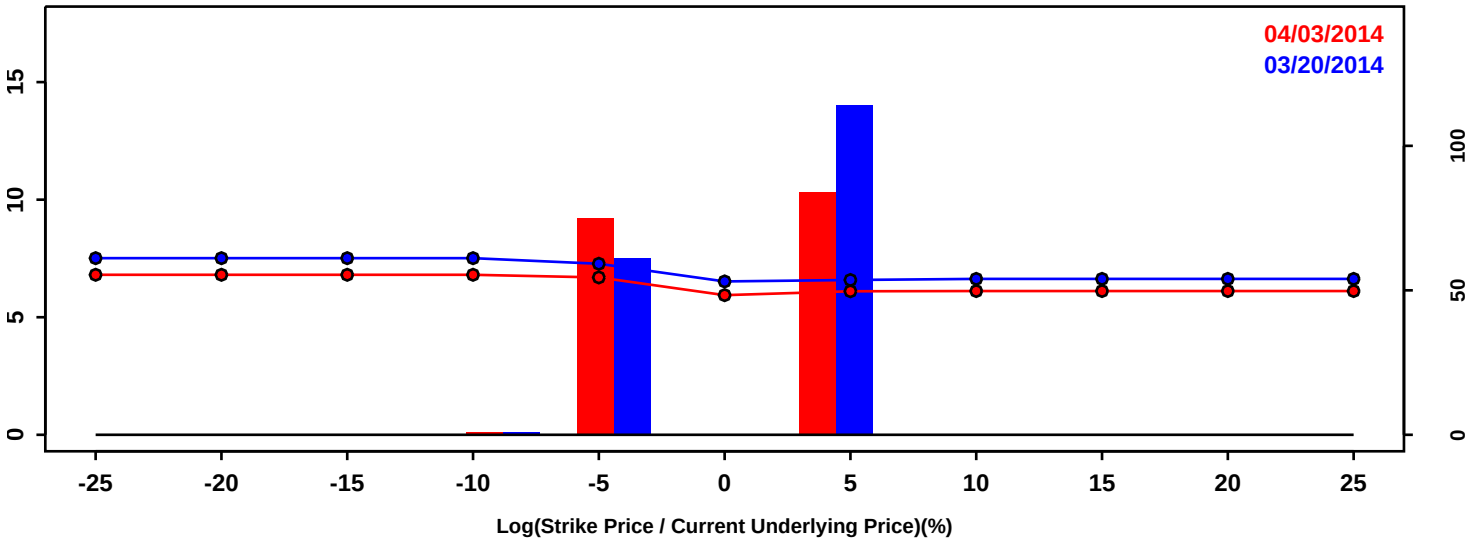
Statistics of the Log Return Distributions

	03/20/2014	04/03/2014	Change
10th Pct	-4.47%	-4.19%	0.28%
50th Pct	0.15%	0.22%	0.07%
90th Pct	4.25%	4.05%	-0.20%
Mean	0.03%	0.06%	0.03%
Std Dev	3.50%	3.28%	-0.22%
Skew	-0.27	-0.30	-0.03
Kurtosis	0.43	0.46	0.03

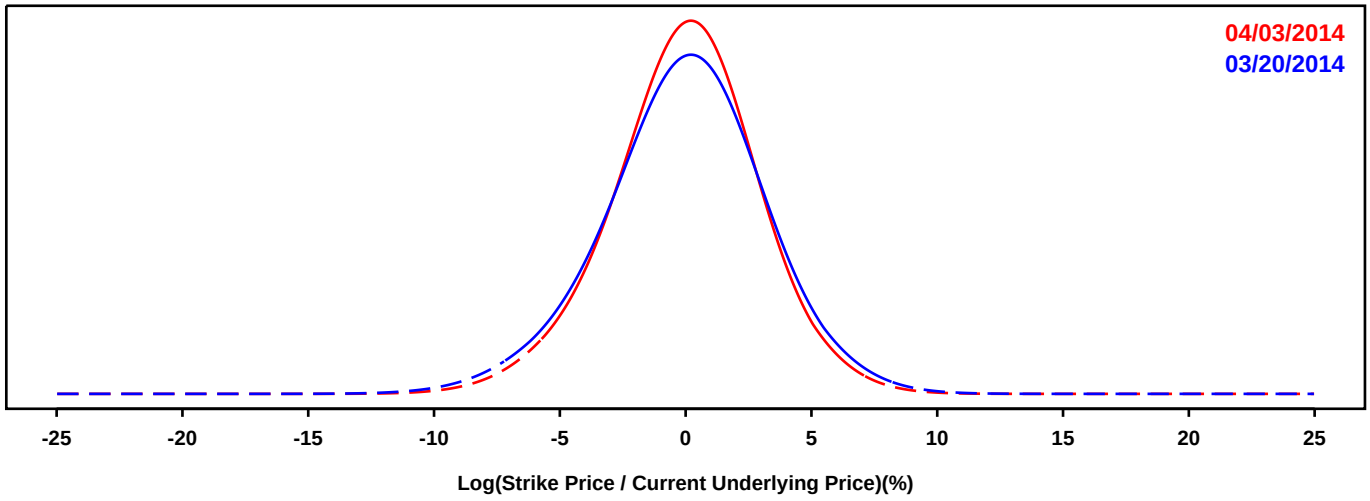
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- DOLLAR-POUND EXCHANGE RATE FUTURES

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

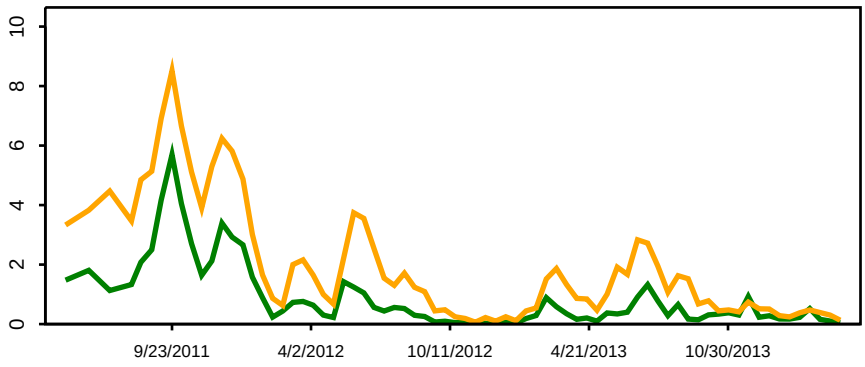
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <= -10% [stronger $] Increase >= 10% [weaker $]

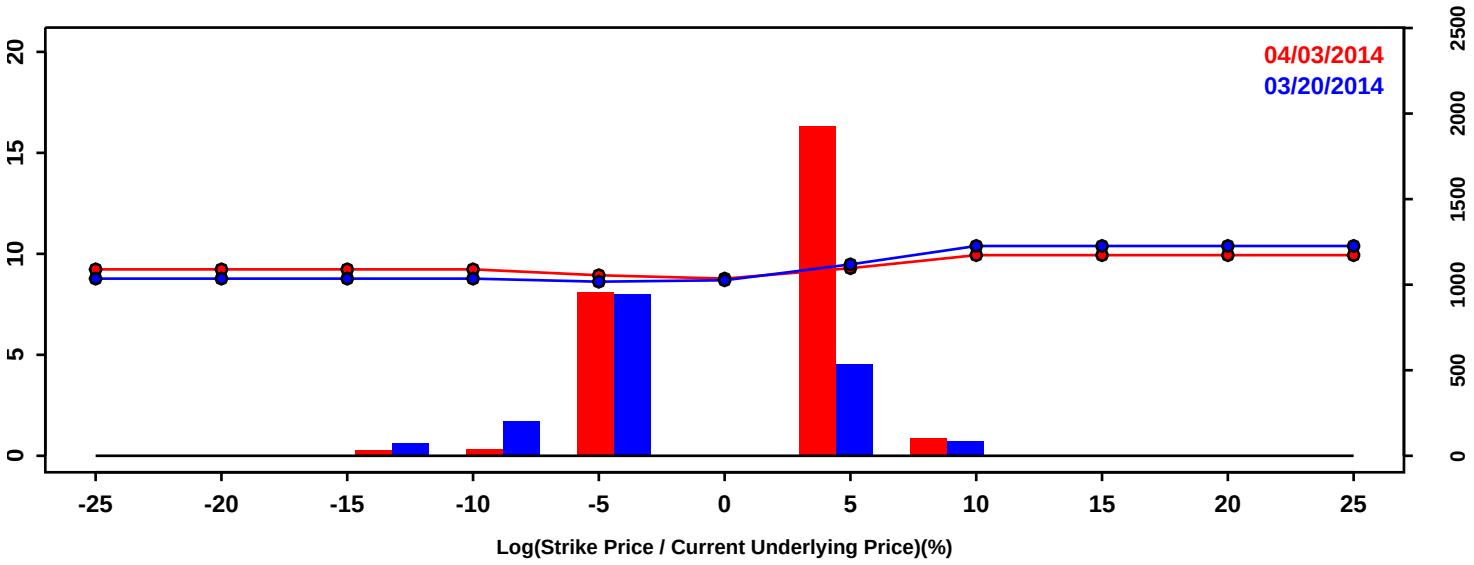
Statistics of the Log Return Distributions

	03/20/2014	04/03/2014	Change
10th Pct	-4.22%	-3.86%	0.36%
50th Pct	0.05%	0.05%	0.00%
90th Pct	3.97%	3.64%	-0.33%
Mean	-0.03%	-0.01%	0.02%
Std Dev	3.26%	2.97%	-0.29%
Skew	-0.18	-0.16	0.02
Kurtosis	0.37	0.37	0.01

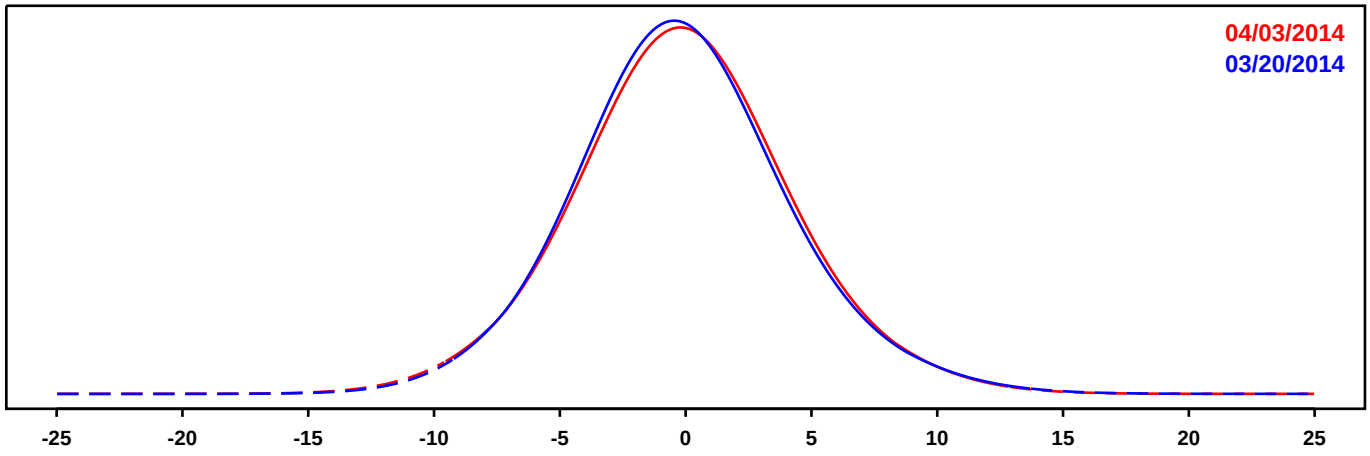
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- DOLLAR-YEN EXCHANGE RATE FUTURES

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

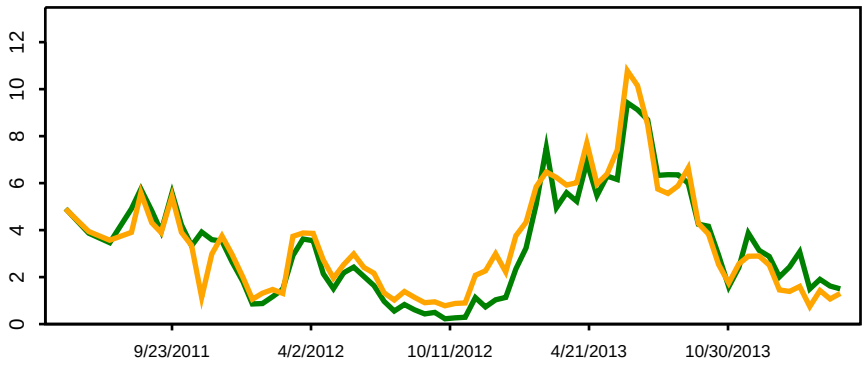
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <= -10% [stronger $] Increase >= 10% [weaker $]

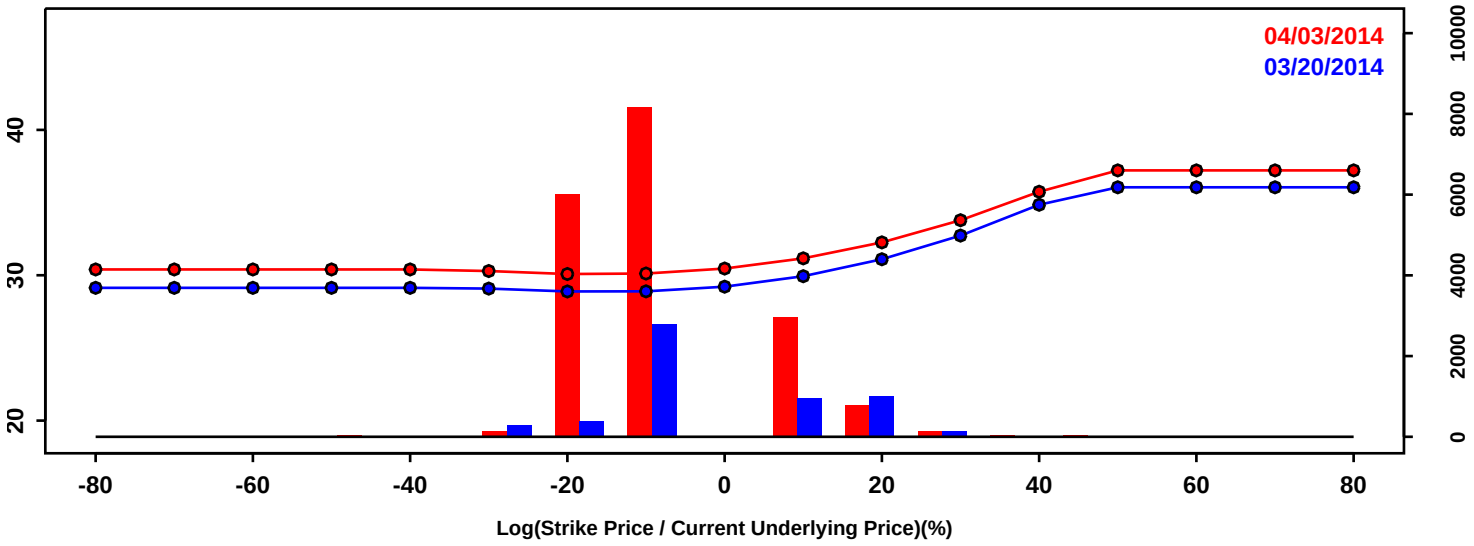
Statistics of the Log Return Distributions

	03/20/2014	04/03/2014	Change
10th Pct	-5.49%	-5.52%	-0.03%
50th Pct	-0.24%	-0.11%	0.14%
90th Pct	5.37%	5.44%	0.07%
Mean	-0.11%	-0.05%	0.06%
Std Dev	4.33%	4.37%	0.04%
Skew	0.19	0.08	-0.11
Kurtosis	0.44	0.37	-0.08

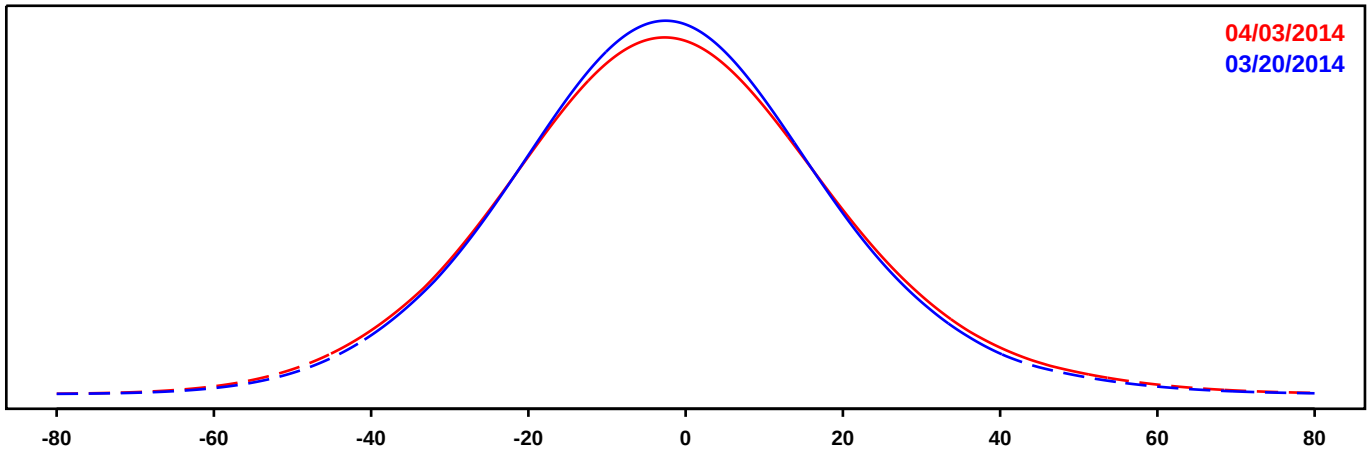
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- CORN FUTURES

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

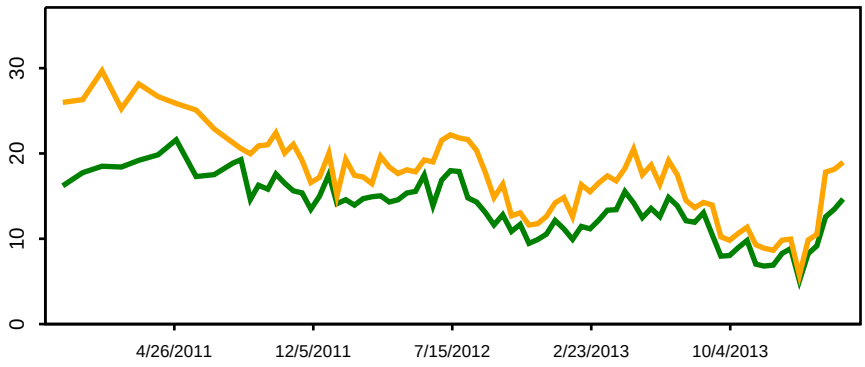
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <= -20% Increase >= 20%

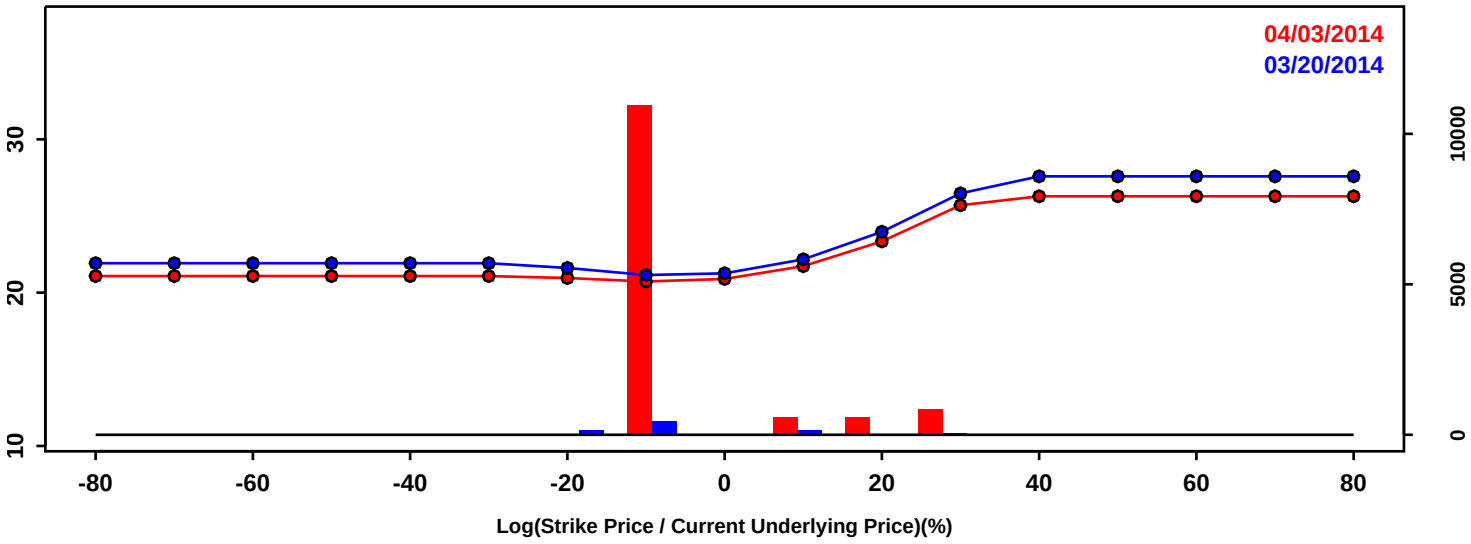
Statistics of the Log Return Distributions

	03/20/2014	04/03/2014	Change
10th Pct	-27.49%	-28.42%	-0.93%
50th Pct	-2.26%	-2.16%	0.10%
90th Pct	23.90%	25.28%	1.38%
Mean	-1.87%	-1.70%	0.17%
Std Dev	20.50%	21.43%	0.93%
Skew	0.16	0.17	0.01
Kurtosis	0.41	0.40	-0.01

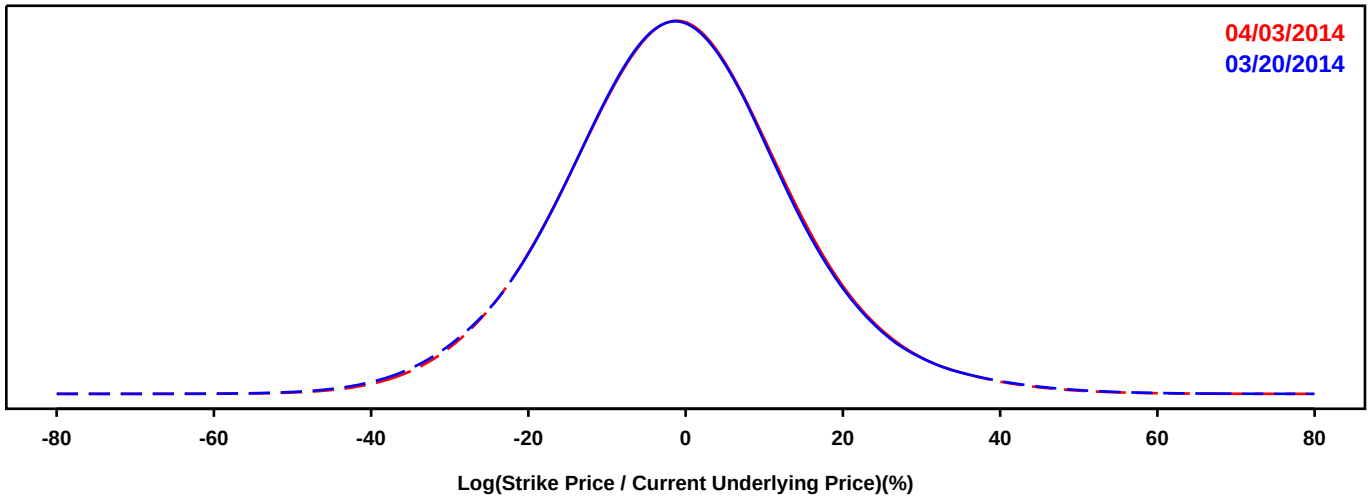
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- SOYBEAN FUTURES

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

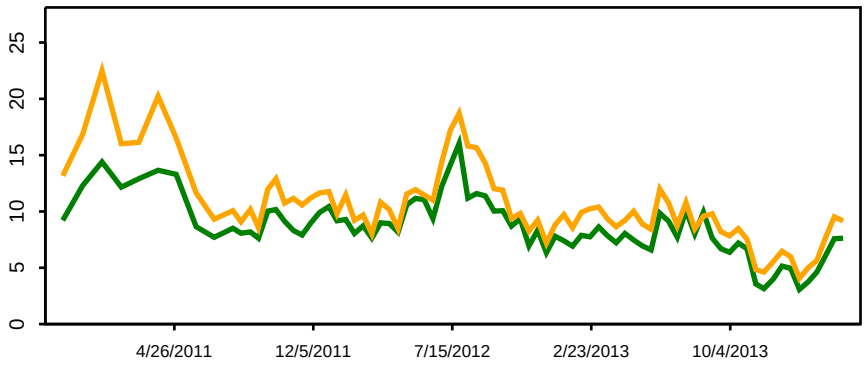
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <= -20% Increase >= 20%

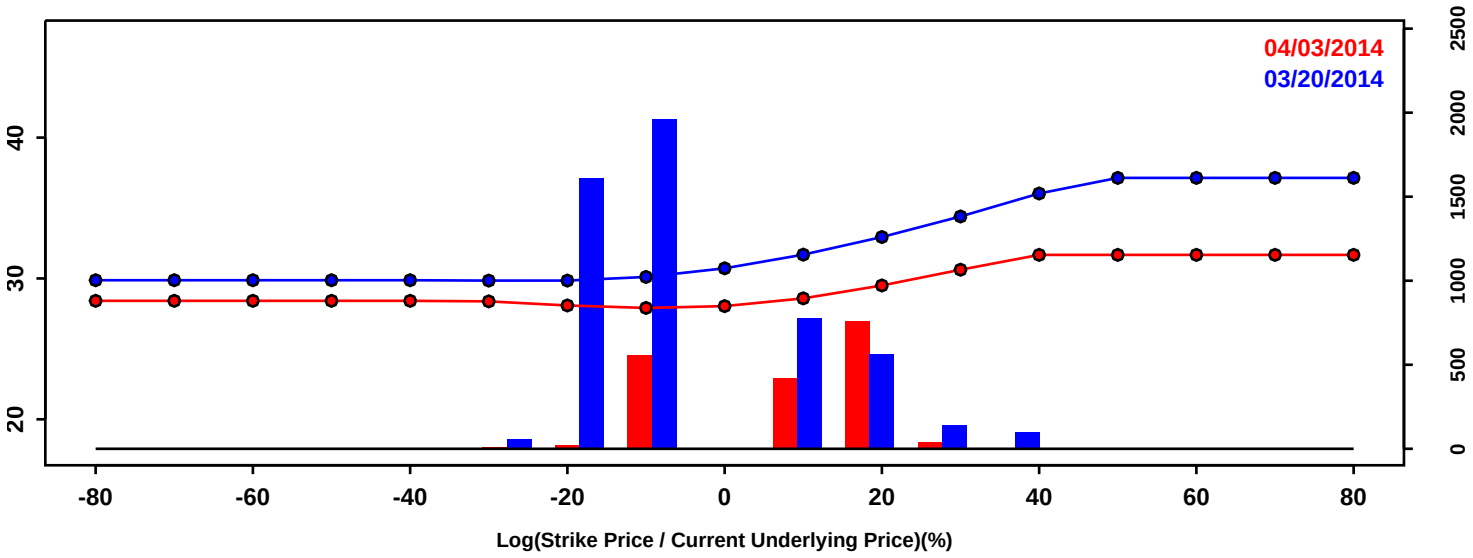
Statistics of the Log Return Distributions

	03/20/2014	04/03/2014	Change
10th Pct	-19.57%	-19.26%	0.32%
50th Pct	-1.27%	-1.12%	0.15%
90th Pct	17.42%	17.52%	0.10%
Mean	-1.03%	-0.86%	0.17%
Std Dev	14.94%	14.73%	-0.21%
Skew	0.17	0.17	0.00
Kurtosis	0.62	0.50	-0.12

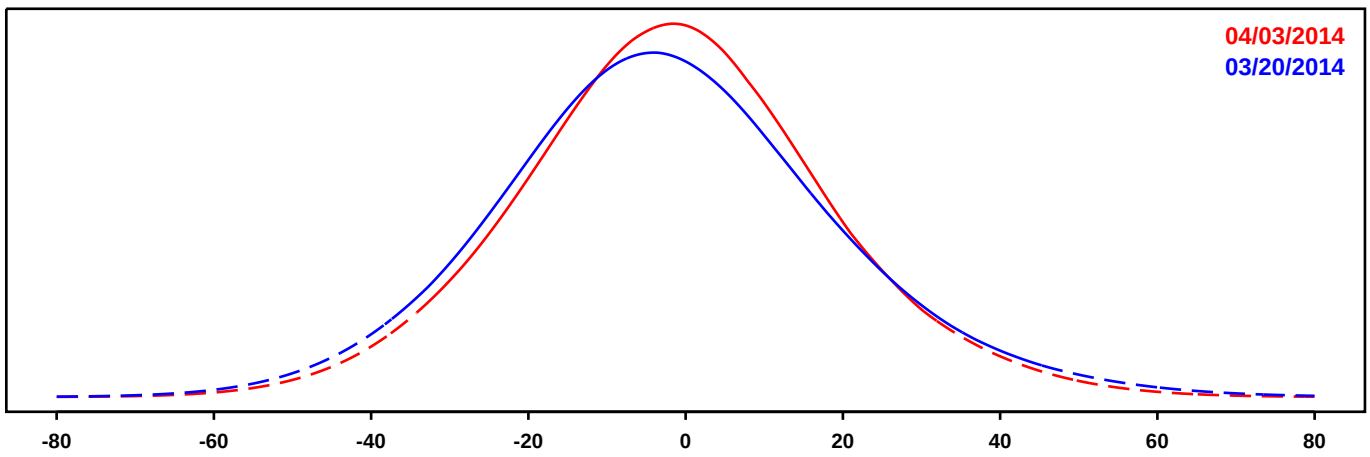
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- WHEAT FUTURES

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

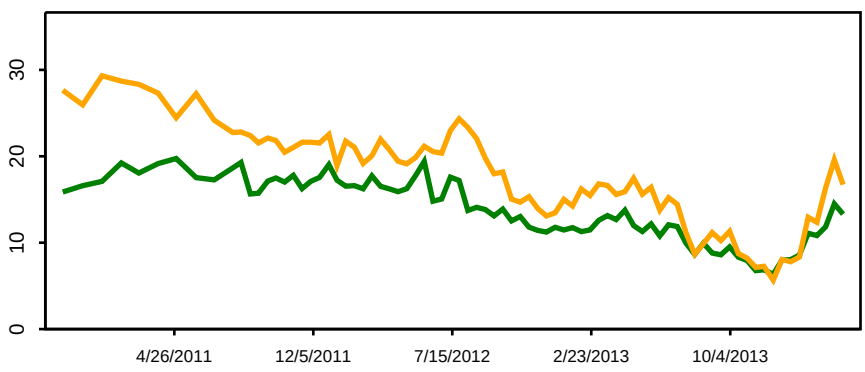
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <= -20% Increase >= 20%

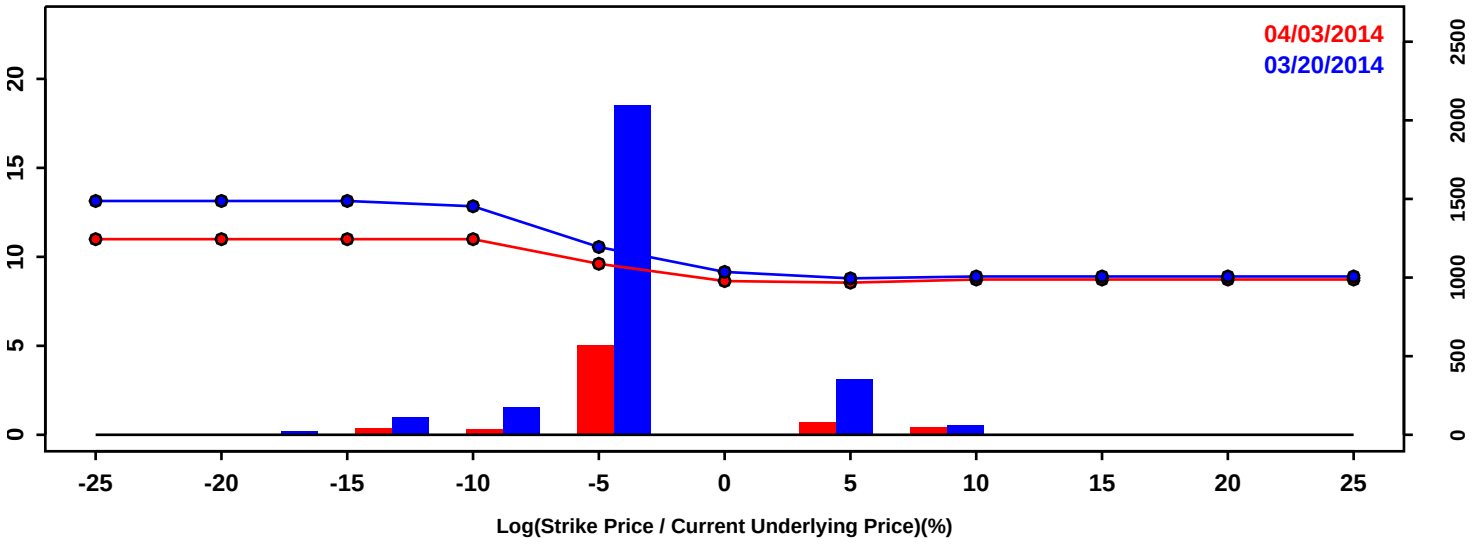
Statistics of the Log Return Distributions

	03/20/2014	04/03/2014	Change
10th Pct	-28.69%	-26.35%	2.34%
50th Pct	-2.91%	-1.64%	1.27%
90th Pct	25.42%	23.64%	-1.78%
Mean	-2.10%	-1.39%	0.71%
Std Dev	21.56%	19.80%	-1.76%
Skew	0.23	0.10	-0.13
Kurtosis	0.40	0.30	-0.09

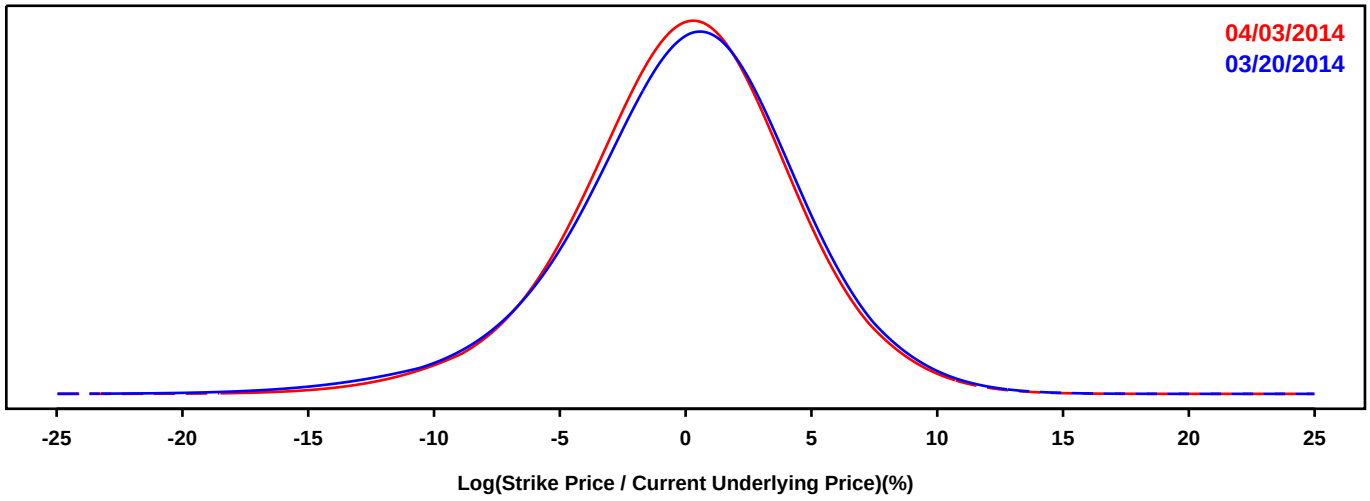
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- CATTLE FUTURES

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

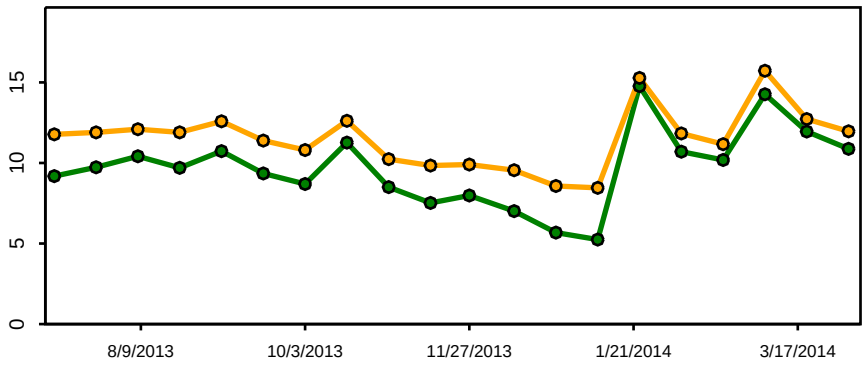
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <= -5% Increase >= 5%

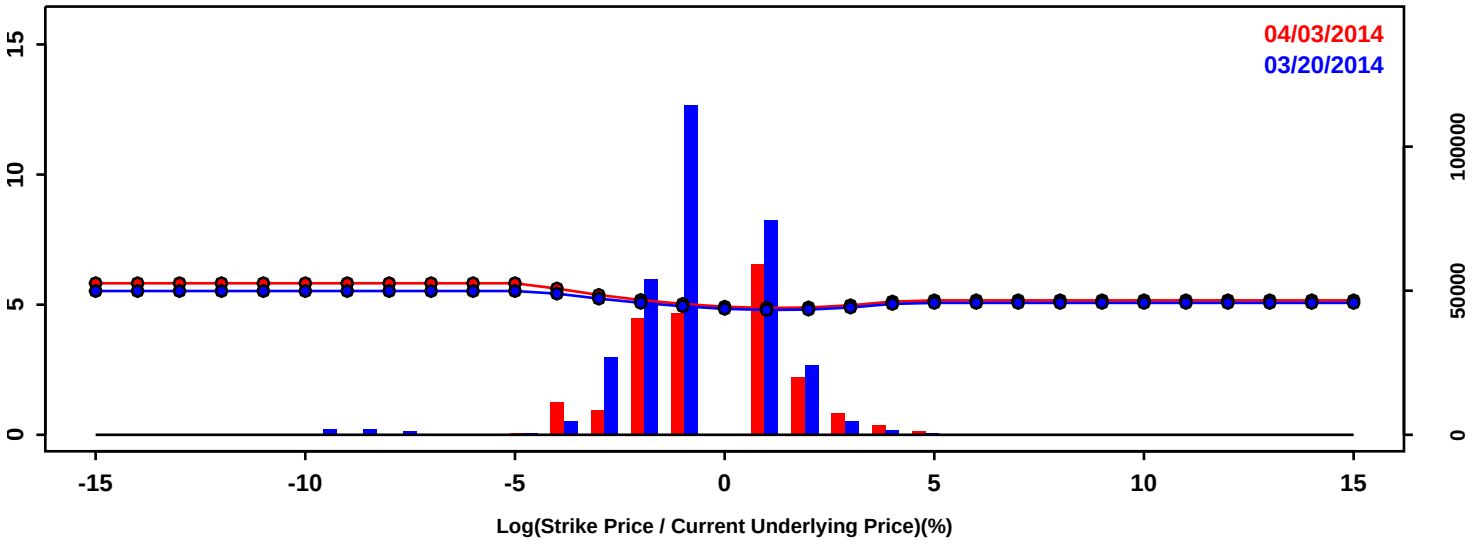
Statistics of the Log Return Distributions

	03/20/2014	04/03/2014	Change
10th Pct	-5.80%	-5.52%	0.27%
50th Pct	0.22%	0.08%	-0.14%
90th Pct	5.45%	5.20%	-0.26%
Mean	-0.02%	-0.04%	-0.02%
Std Dev	4.60%	4.33%	-0.28%
Skew	-0.46	-0.27	0.19
Kurtosis	1.01	0.61	-0.40

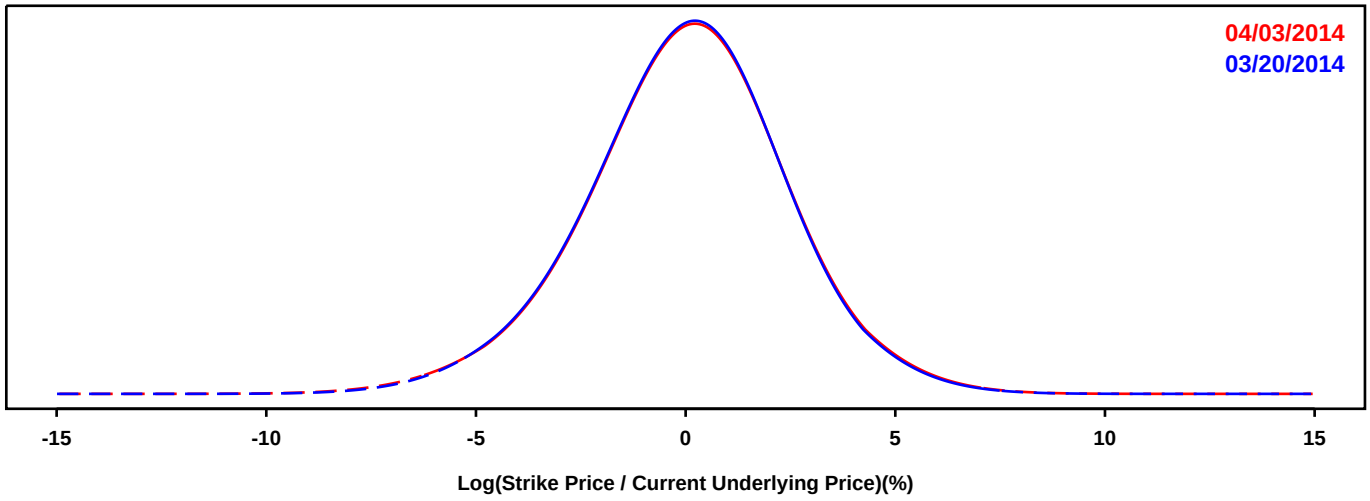
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- TEN YEAR TREASURY

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

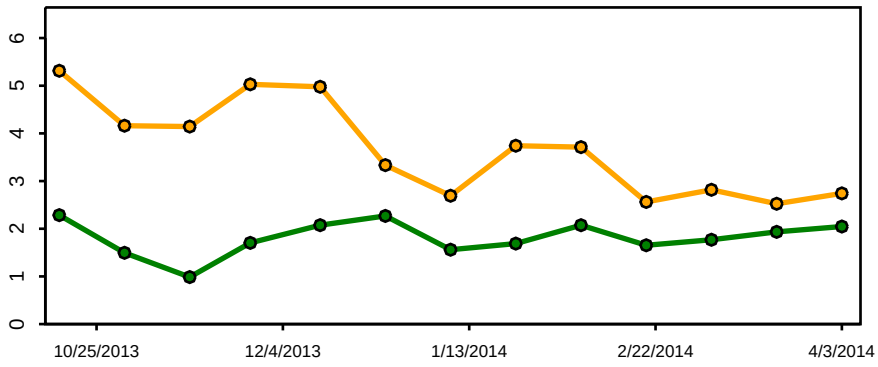
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <= -5% Increase >= 5%

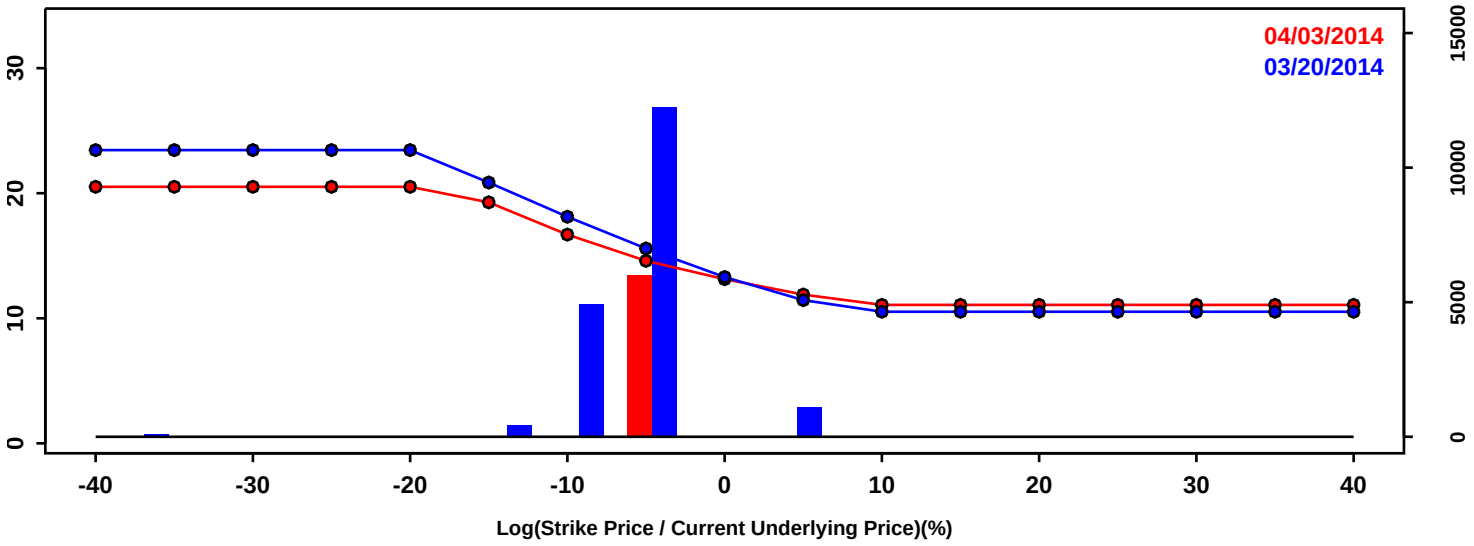
Statistics of the Log Return Distributions

	03/20/2014	04/03/2014	Change
10th Pct	-3.09%	-3.09%	-0.01%
50th Pct	0.05%	0.06%	0.01%
90th Pct	2.96%	3.03%	0.07%
Mean	0.03%	0.05%	0.02%
Std Dev	2.42%	2.45%	0.04%
Skew	-0.15	-0.17	-0.02
Kurtosis	0.38	0.47	0.09

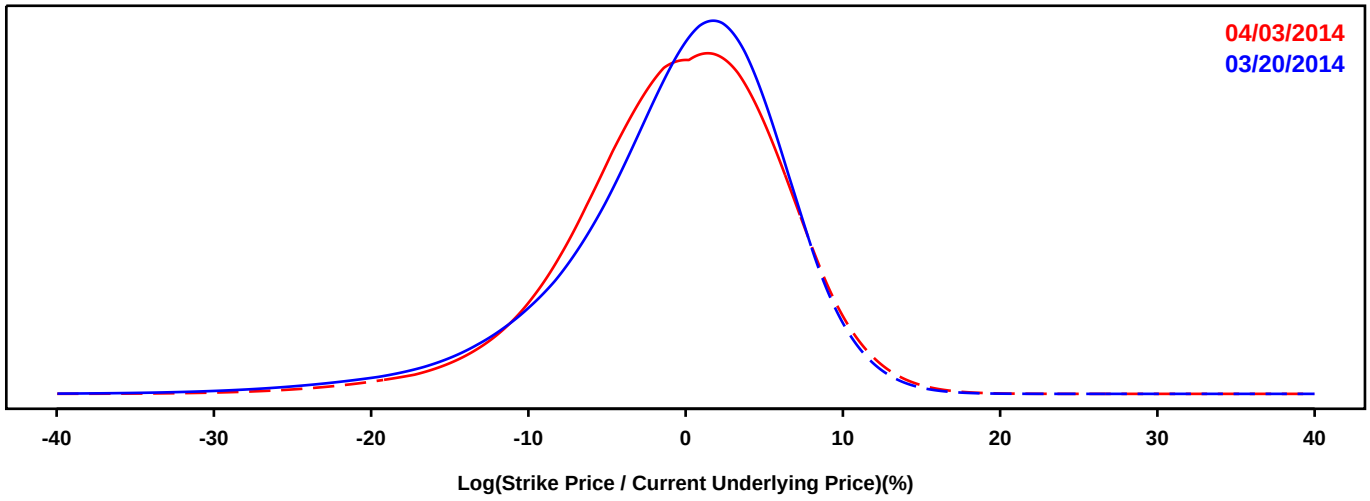
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- iSHARES DOW JONES US REAL ESTATE

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

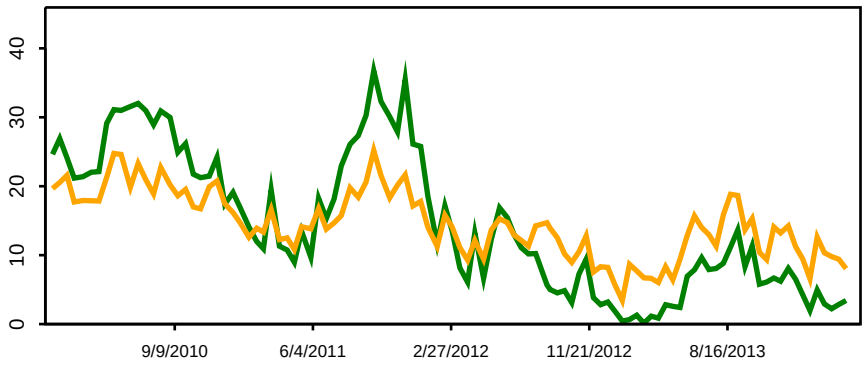
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



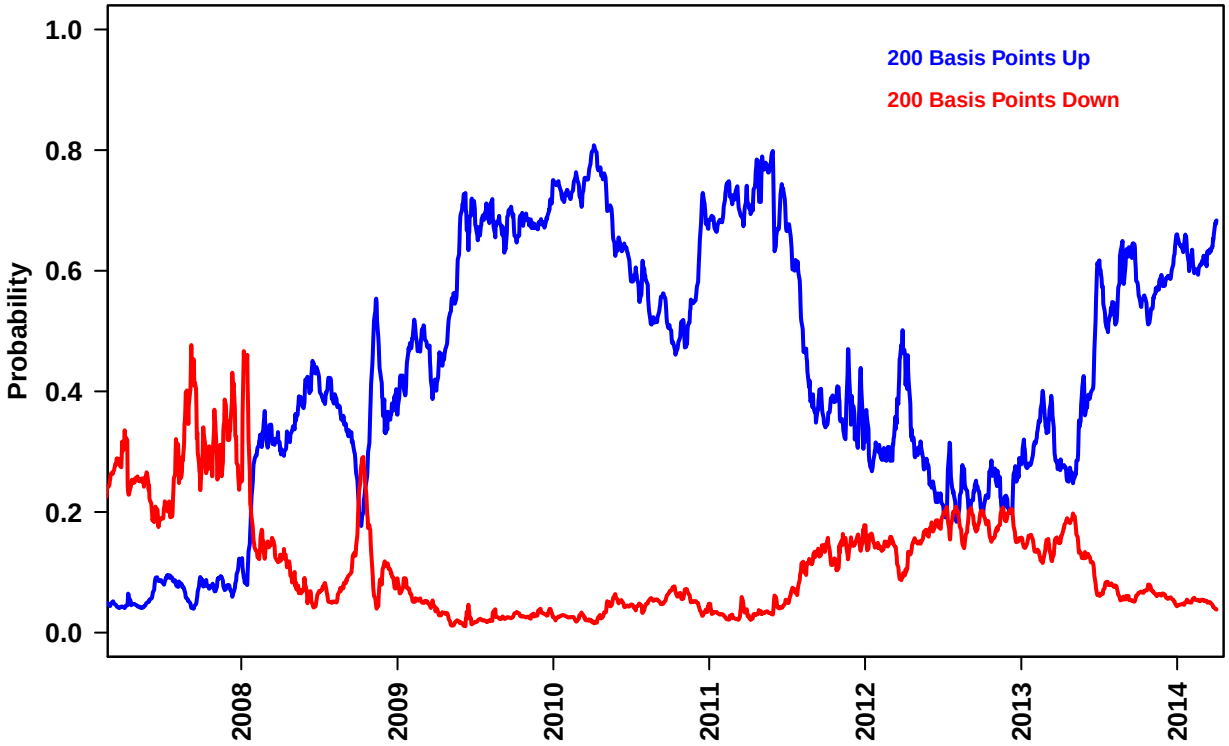
Decrease <= -10% Increase >= 10%

Statistics of the Log Return Distributions

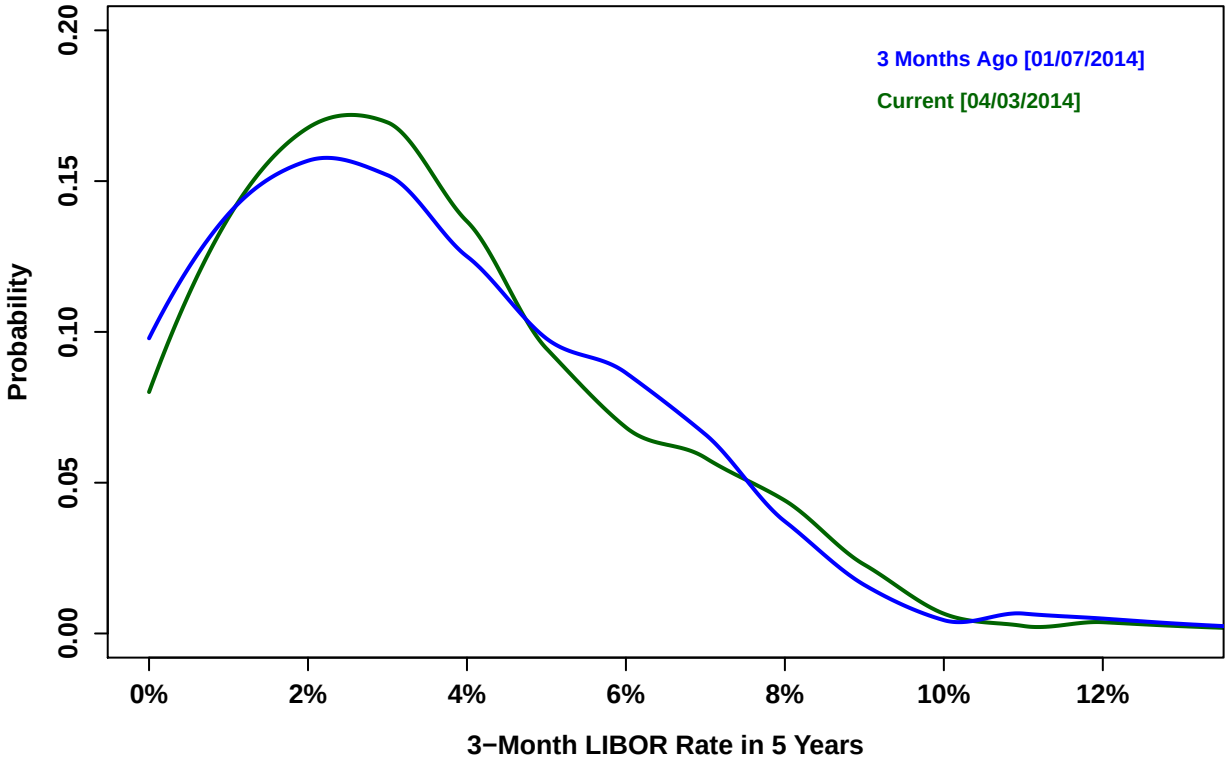
	03/20/2014	04/03/2014	Change
10th Pct	-9.66%	-8.96%	0.70%
50th Pct	0.36%	-0.05%	-0.40%
90th Pct	7.00%	7.20%	0.20%
Mean	-0.66%	-0.58%	0.07%
Std Dev	7.00%	6.65%	-0.35%
Skew	-1.04	-0.66	0.38
Kurtosis	2.10	1.18	-0.92

RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS −− Interest Rate Caps & Floors

Probability of 200 Basis Point Moves for 3−Month LIBOR, 5 Years Out
5−Day Rolling Average

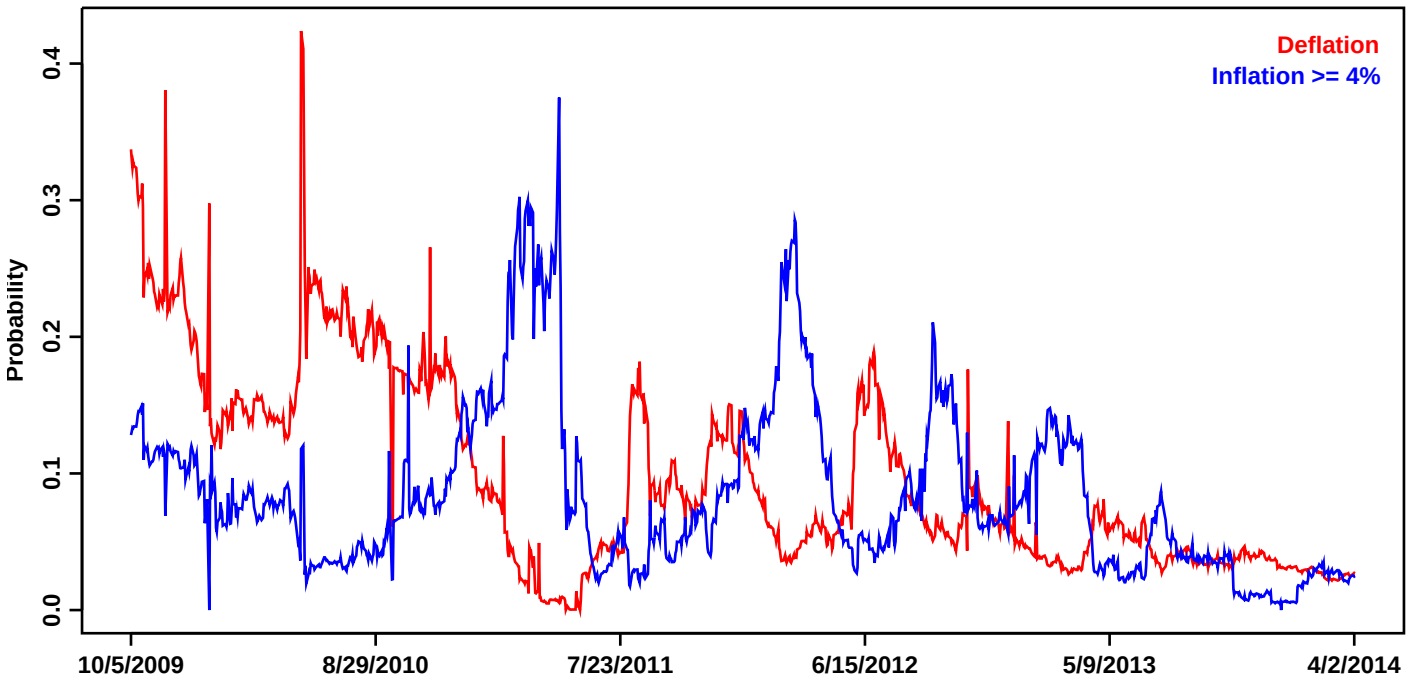


Risk Neutral Density Function for 3−Month LIBOR, 5 Years Out

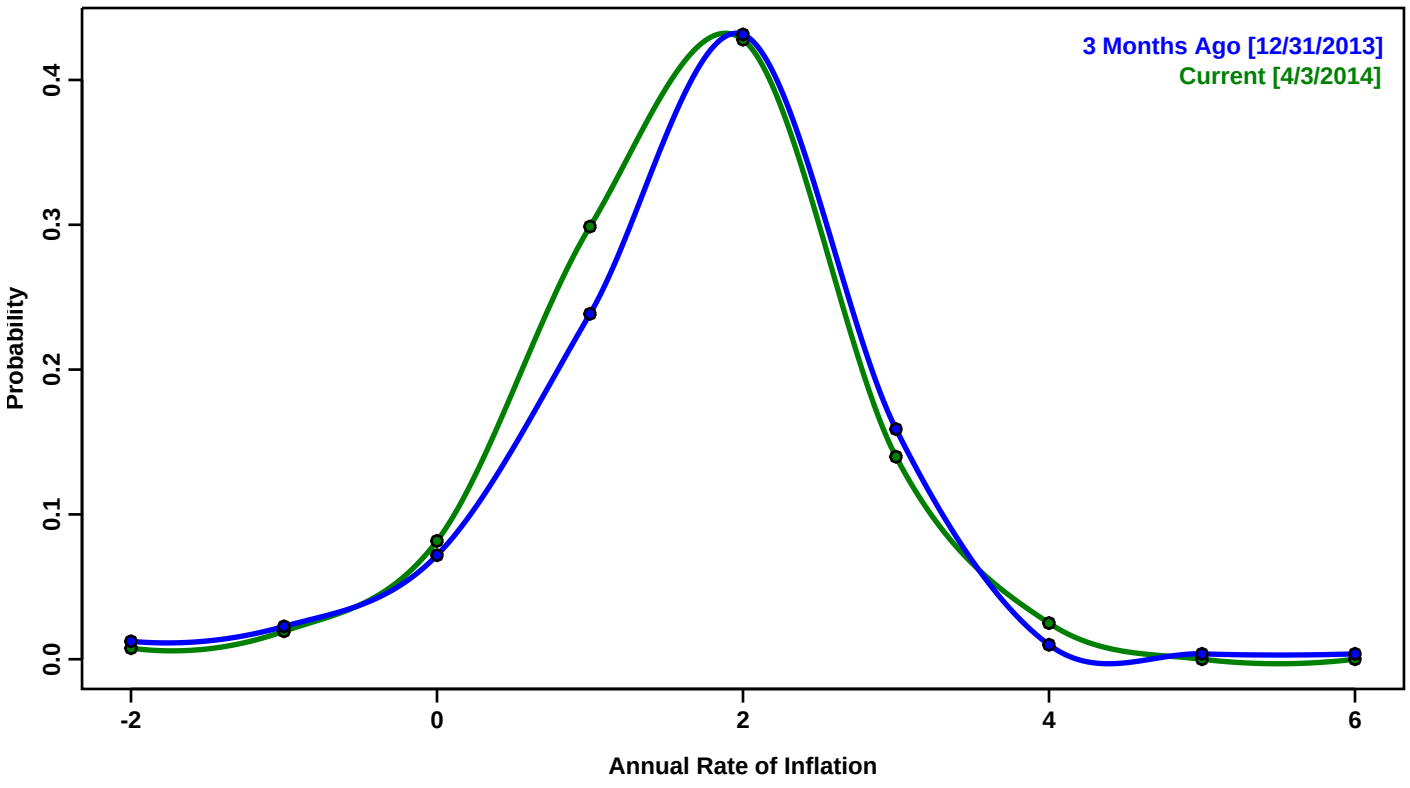


RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- Inflation Caps & Floors

Probabilty of Deflation and High Inflation over the next 12 Months



Risk Neutral Density Function for Inflation over the next 12 Months



RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- Inflation Caps & Floors