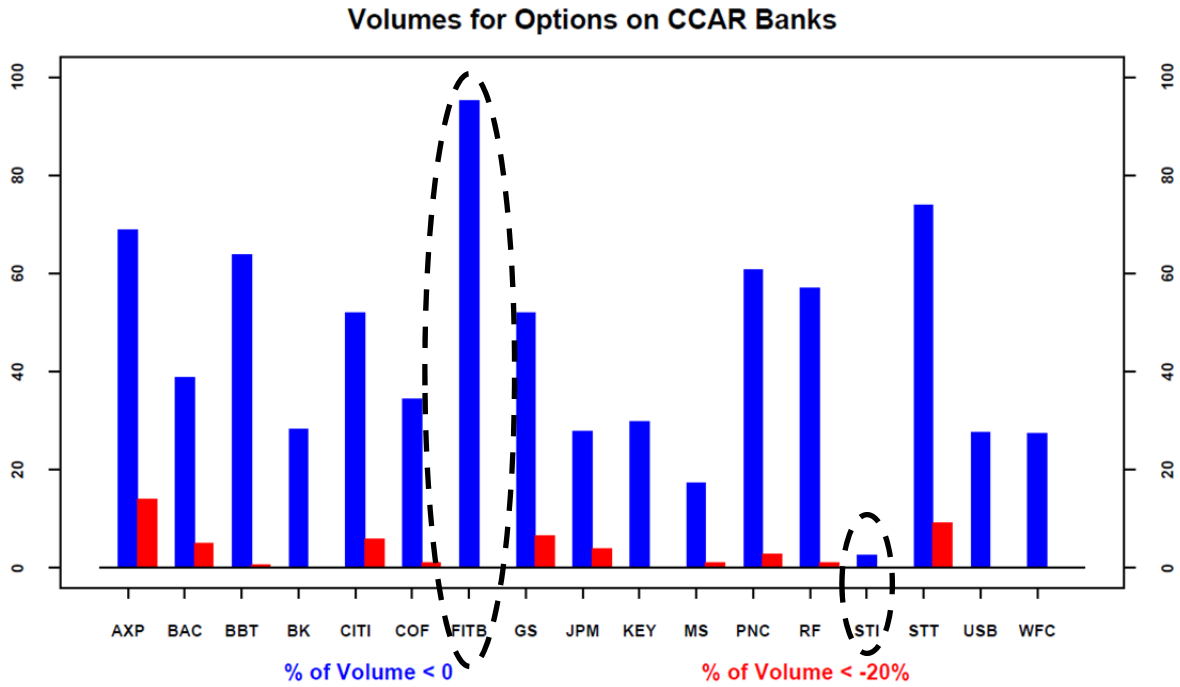
Minneapolis Options Report – May 31st

Banks
Trading volumes were near their averages for the 2013 and for the trailing one year periods. Two week performance for the banks was strong again with the median CCAR bank up 4.8%. In contrast to the performance of the group, RNPD standard deviations rose for every bank we follow last week and RNPD skews were higher.

Additional notes:

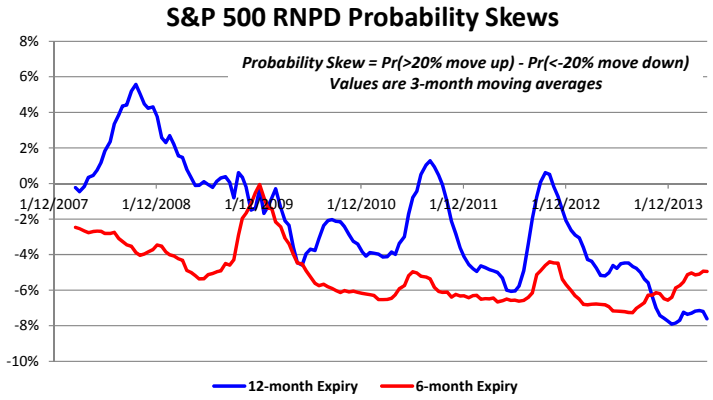
- Active trading led to a sharp rise in RNPD skew for GS last week though volumes favored puts. Risk neutral probabilities of large changes clicked higher. (*see GS report*)
- Among the CCAR banks options activity on shares of FITB and STI stood out as strong. The trading favored strikes below the current spot for FITB. The opposite was true of STI. (*see FITB and STI reports*)

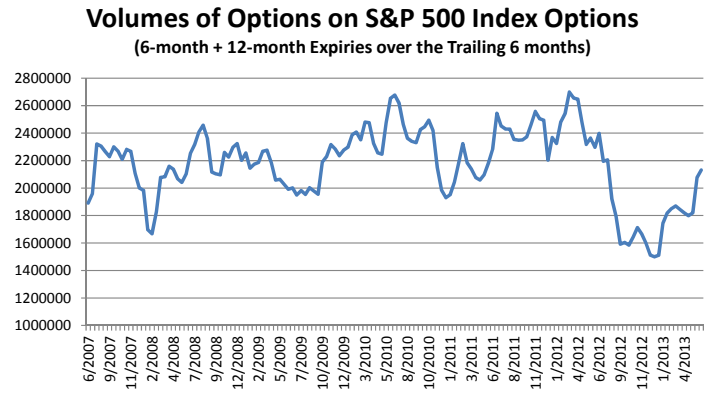


Other Commodity Markets
Activity in options on exchange rate futures was light last week. Traders were not particularly active in options on the S&P 500 index either. On the other hand, and consistent with seasonal behavior, activity in options on grain futures was brisk. The S&P 500 was flat over the past two weeks. Grain prices are higher, especially corn (+7.4%) and soybeans (+5.9%).

Additional notes:

- Probability skews remain more skewed to the downside at the 12-month expiry than at the at the 6-month expiry. Trailing volumes are recovering. (*See S&P 500 reports*)





- Strong activity in corn and soybeans influenced the respective RNPDs in different ways. The volatility smile related to corn options shifted higher leading to a higher RNPD standard deviation. The RNPD for soybeans was largely unchanged with risk neutral probabilities of large changes continuing to fall. (*See grain market reports*)

- The DJ Real Estate Index ETF corrected nearly -7% over the past two weeks. Trading was very strong and the RNPD standard deviation jumped 180 basis points. (*See Real Estate report*)

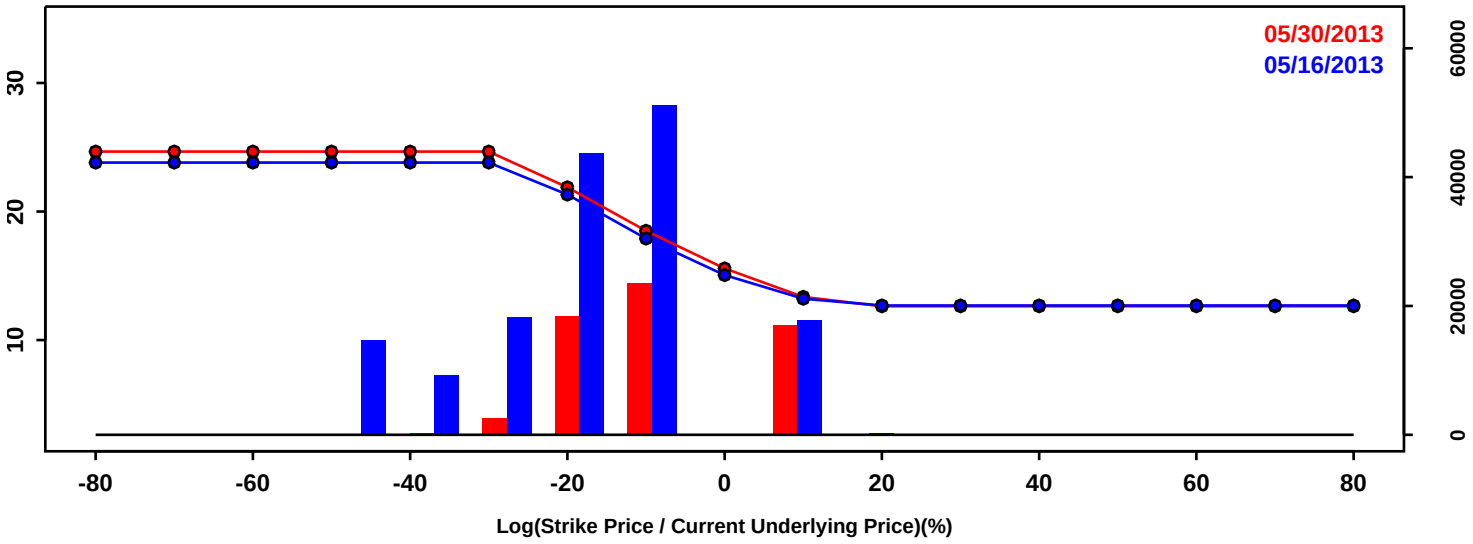
- Risk neutral probabilities of large moves favoring a stronger dollar relative to the Euro and the Pound continue to rise. (*See exchange rate reports*)

- Trading was about average for options on WTI and Brent crude. RNPD standard deviations were higher. (*See Oil Reports*).

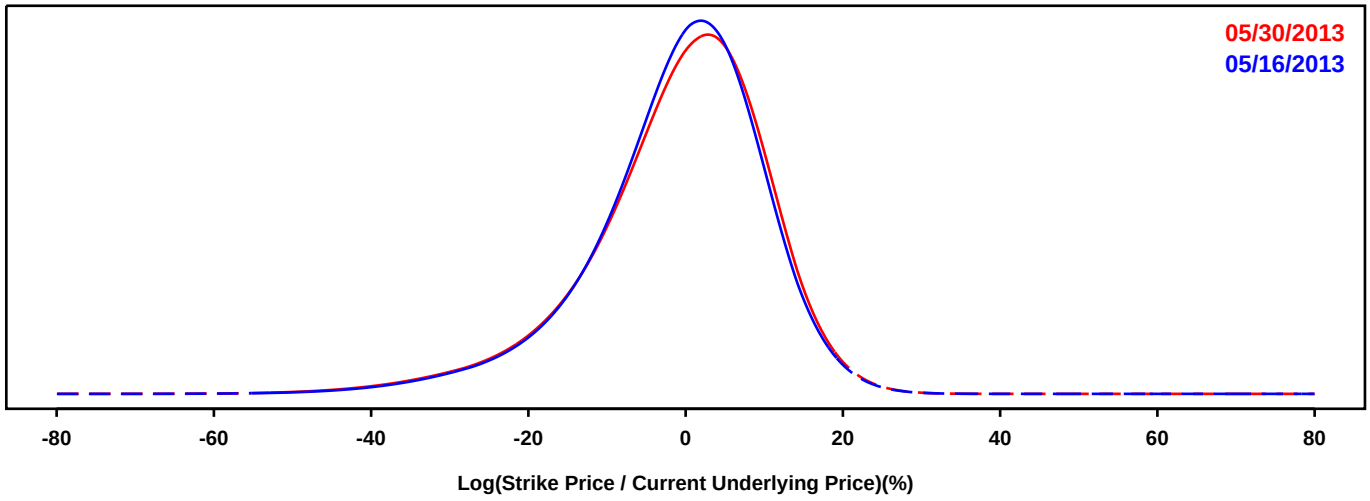
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- S&P 500

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

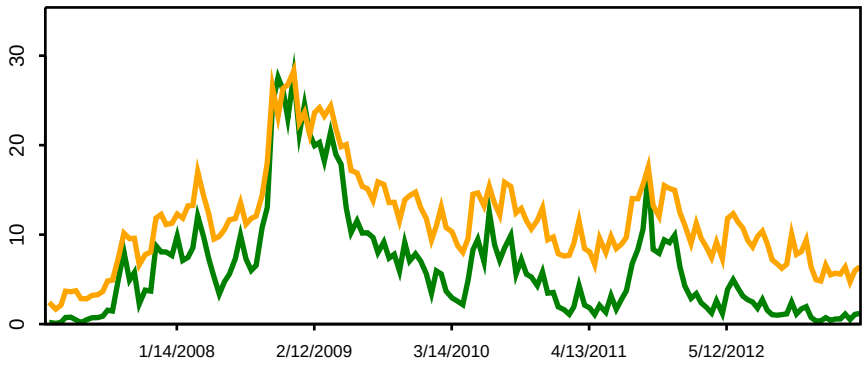
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <= -20% Increase >= 20%

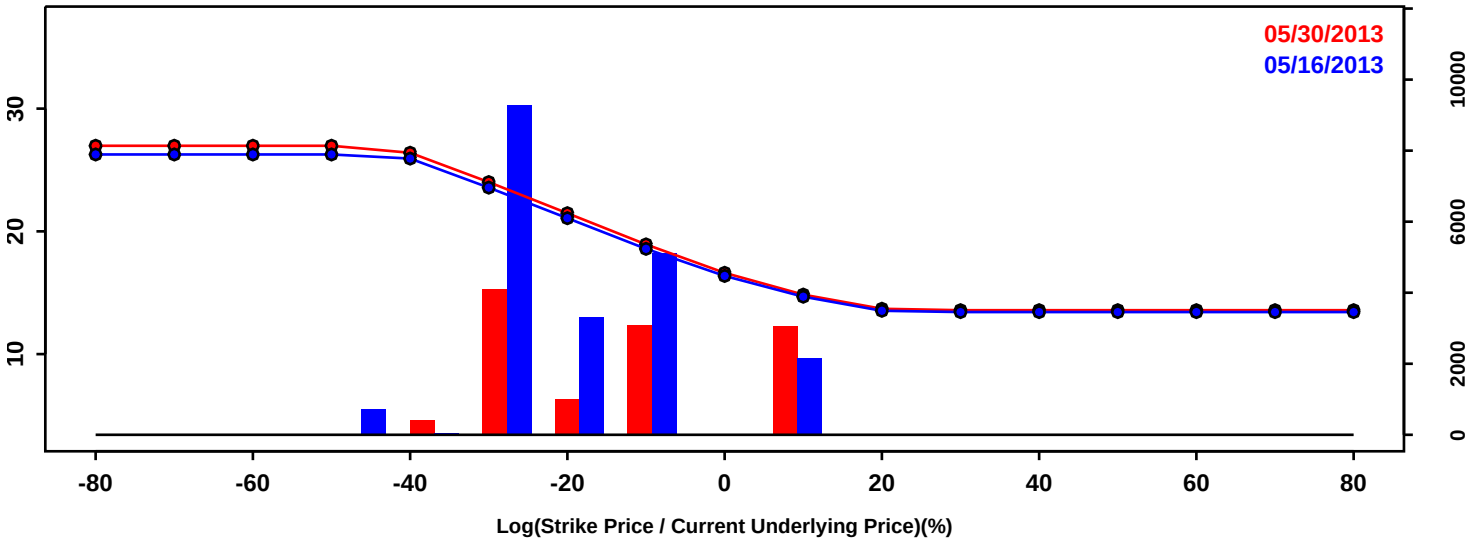
Statistics of the Log Return Distributions

	05/16/2013	05/30/2013	Change
10th Pct	-15.24%	-15.71%	-0.47%
50th Pct	0.25%	0.51%	0.26%
90th Pct	11.38%	11.84%	0.46%
Mean	-1.08%	-0.95%	0.12%
Std Dev	11.09%	11.47%	0.38%
Skew	-0.86	-0.89	-0.04
Kurtosis	1.56	1.57	0.00

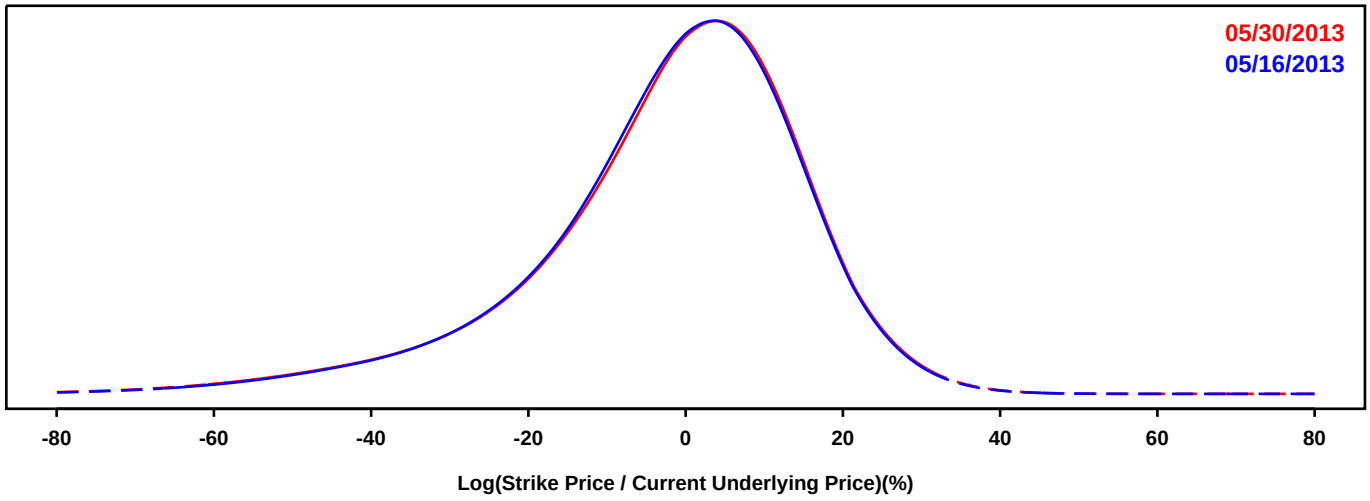
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- S&P 500

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%

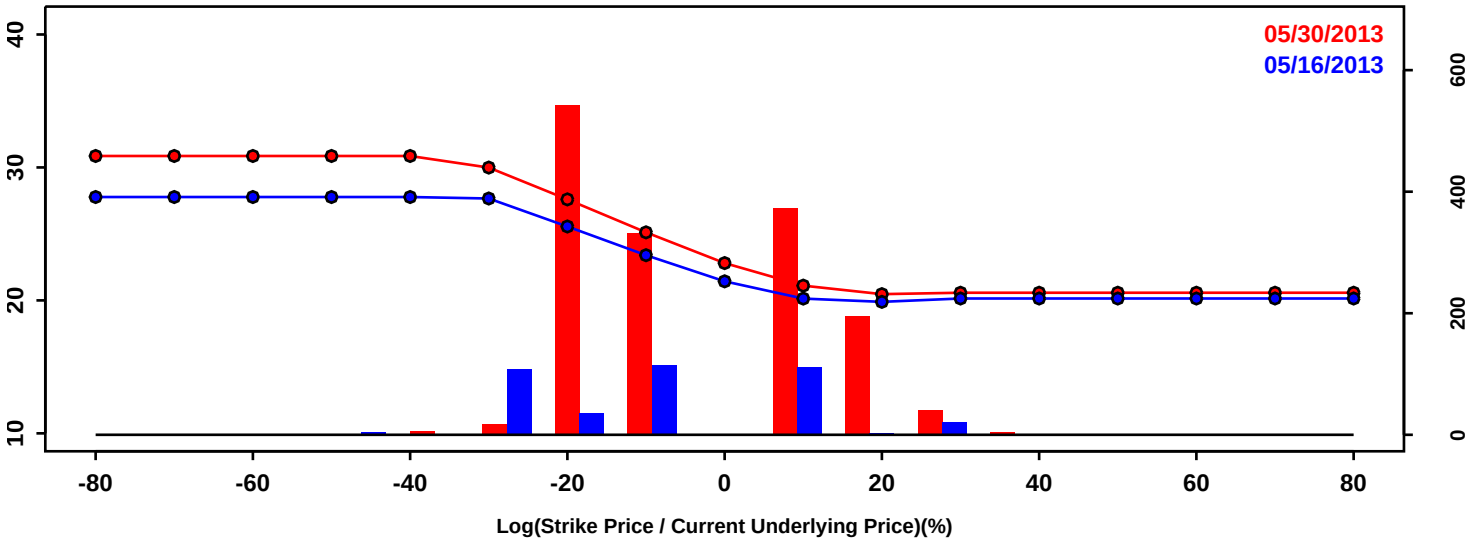
Statistics of the Log Return Distributions

	05/16/2013	05/30/2013	Change
10th Pct	-24.89%	-25.17%	-0.28%
50th Pct	0.26%	0.48%	0.22%
90th Pct	16.76%	16.99%	0.23%
Mean	-2.27%	-2.19%	0.08%
Std Dev	17.42%	17.71%	0.29%
Skew	-0.98	-1.02	-0.04
Kurtosis	1.76	1.86	0.10

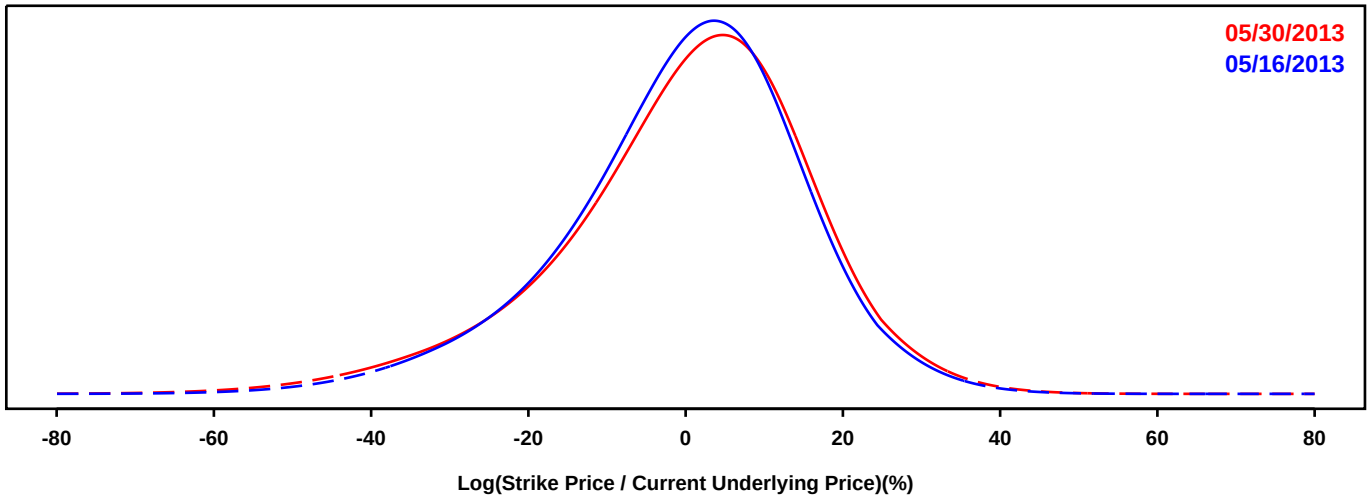
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- CRUDE OIL FUTURES (WTI)

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

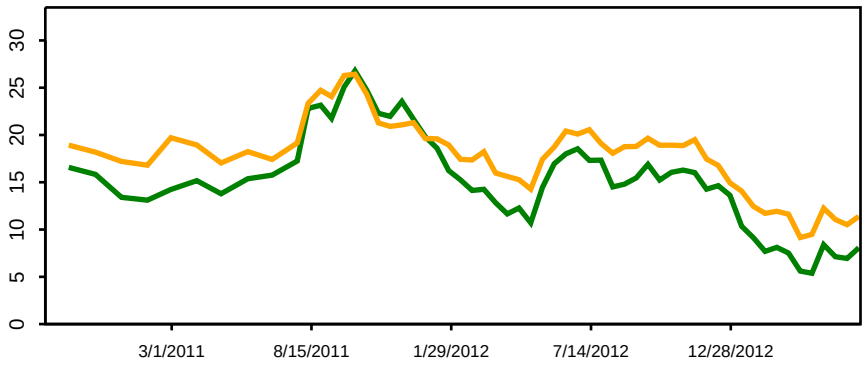
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <= -20% Increase >= 20%

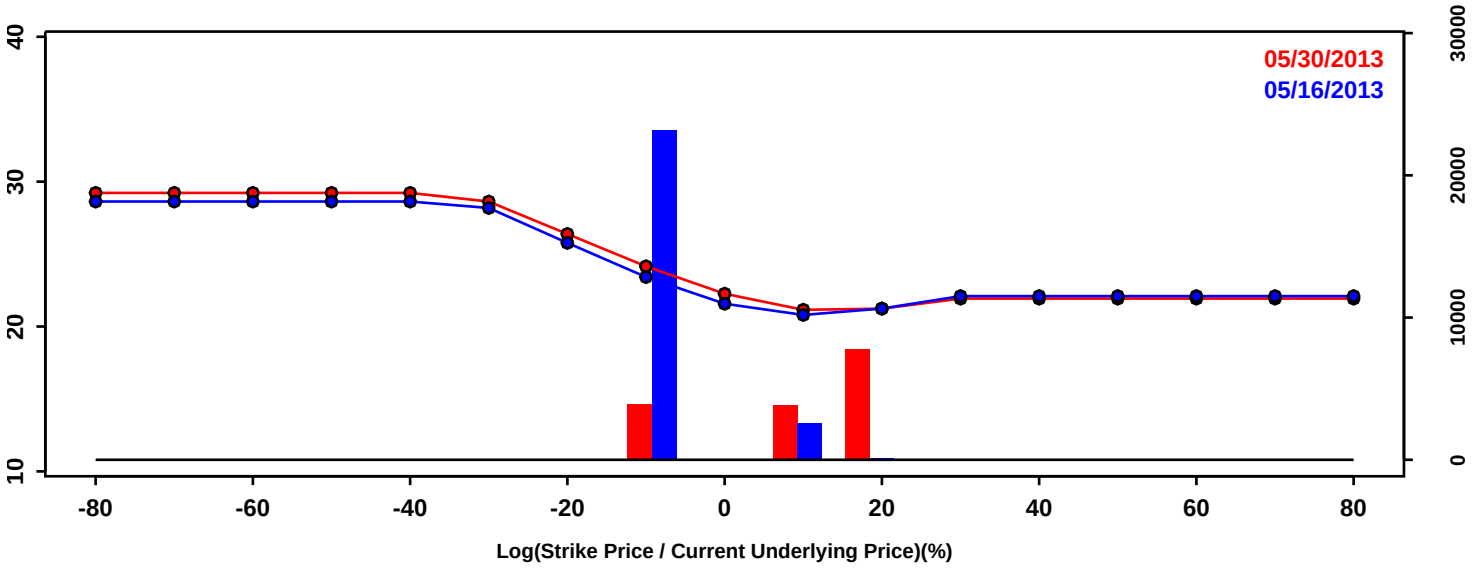
Statistics of the Log Return Distributions

	05/16/2013	05/30/2013	Change
10th Pct	-20.58%	-21.73%	-1.15%
50th Pct	1.12%	1.68%	0.56%
90th Pct	17.44%	18.44%	1.00%
Mean	-0.36%	-0.14%	0.21%
Std Dev	15.33%	16.33%	1.00%
Skew	-0.53	-0.64	-0.12
Kurtosis	0.72	0.92	0.19

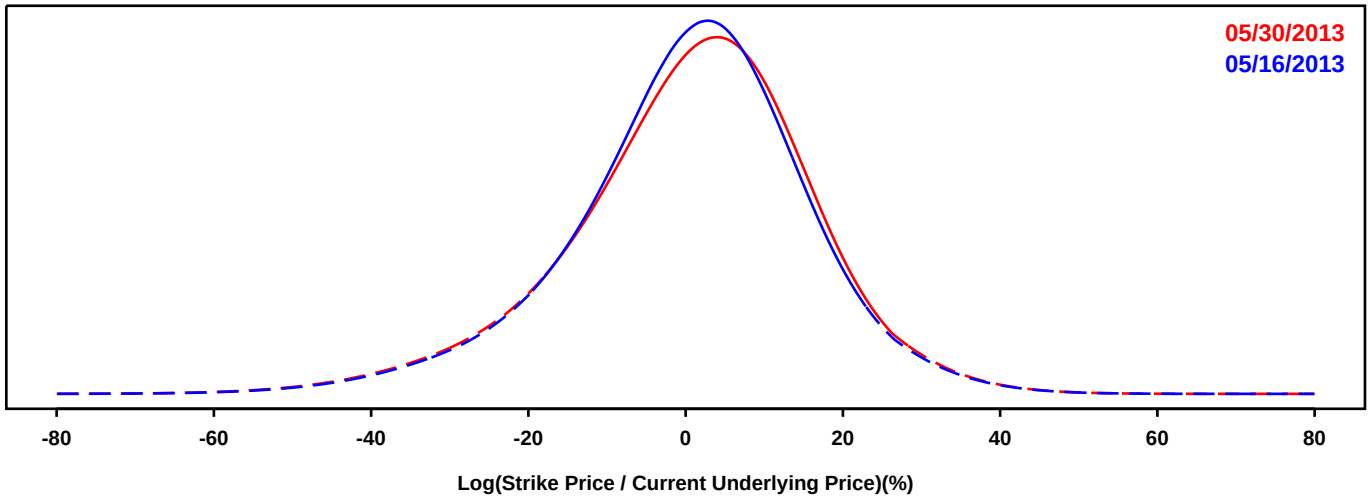
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- CRUDE OIL FUTURES (Brent)

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

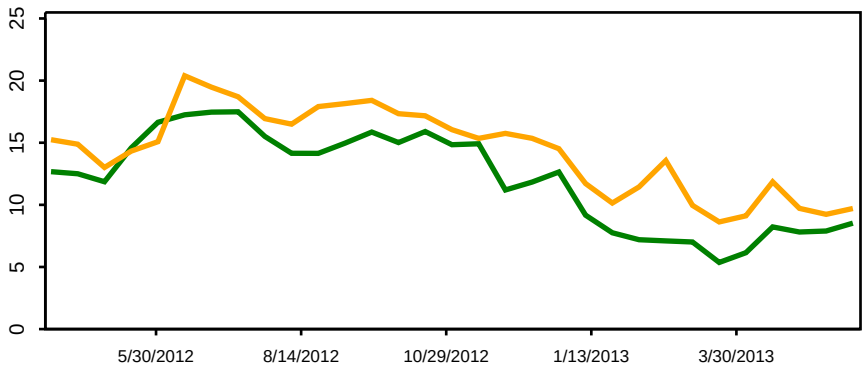
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <= -20% Increase >= 20%

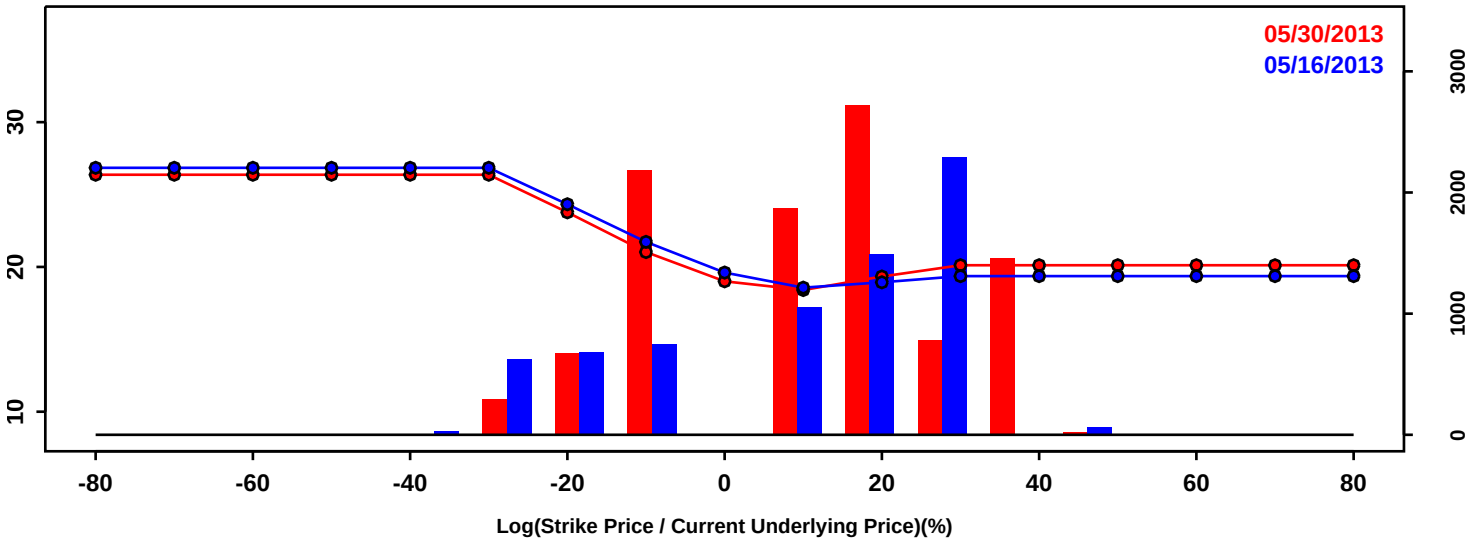
Statistics of the Log Return Distributions

	05/16/2013	05/30/2013	Change
10th Pct	-19.14%	-19.71%	-0.57%
50th Pct	1.35%	1.83%	0.48%
90th Pct	18.11%	18.73%	0.62%
Mean	0.34%	0.58%	0.25%
Std Dev	15.24%	15.66%	0.42%
Skew	-0.43	-0.48	-0.04
Kurtosis	0.92	0.84	-0.08

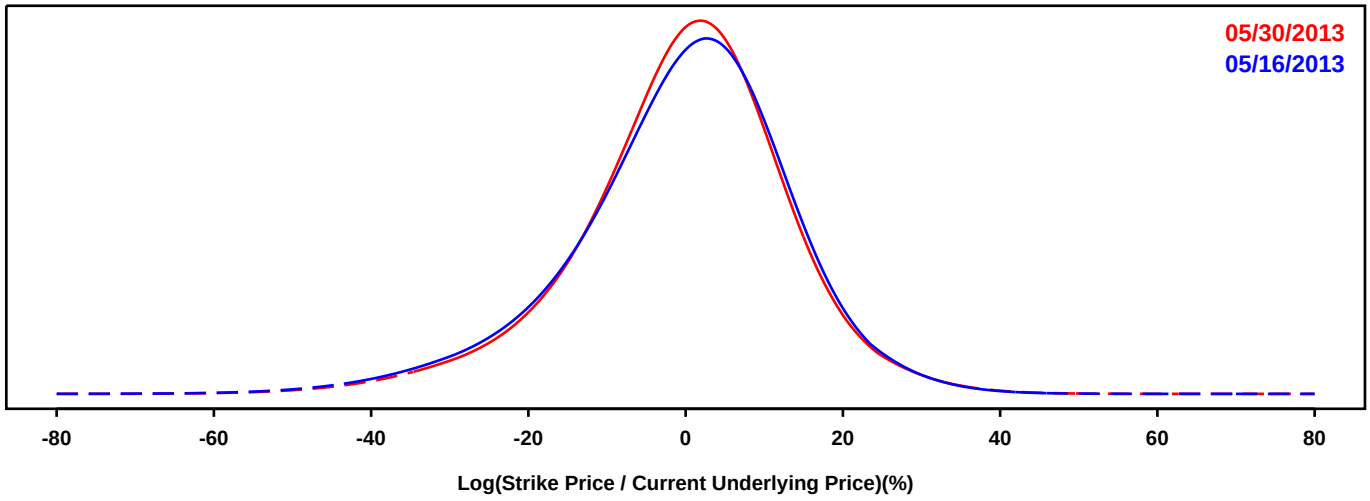
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- GOLD FUTURES

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

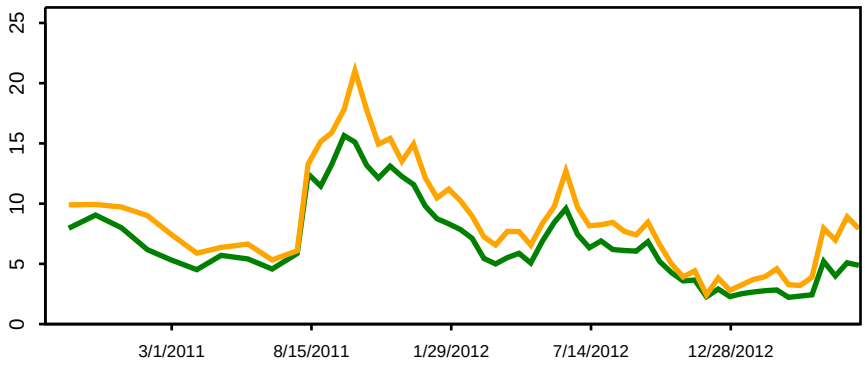
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <= -20% Increase >= 20%

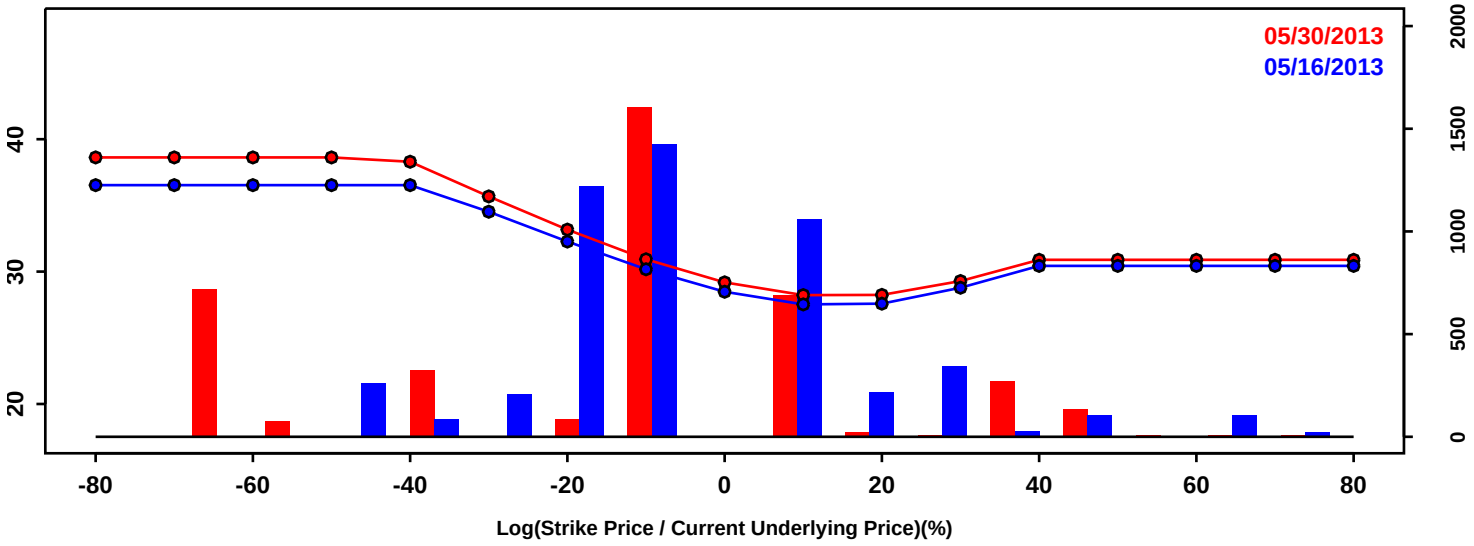
Statistics of the Log Return Distributions

	05/16/2013	05/30/2013	Change
10th Pct	-18.71%	-17.59%	1.12%
50th Pct	0.74%	0.54%	-0.20%
90th Pct	15.58%	15.15%	-0.44%
Mean	-0.56%	-0.45%	0.11%
Std Dev	14.06%	13.55%	-0.51%
Skew	-0.56	-0.50	0.07
Kurtosis	1.01	1.14	0.13

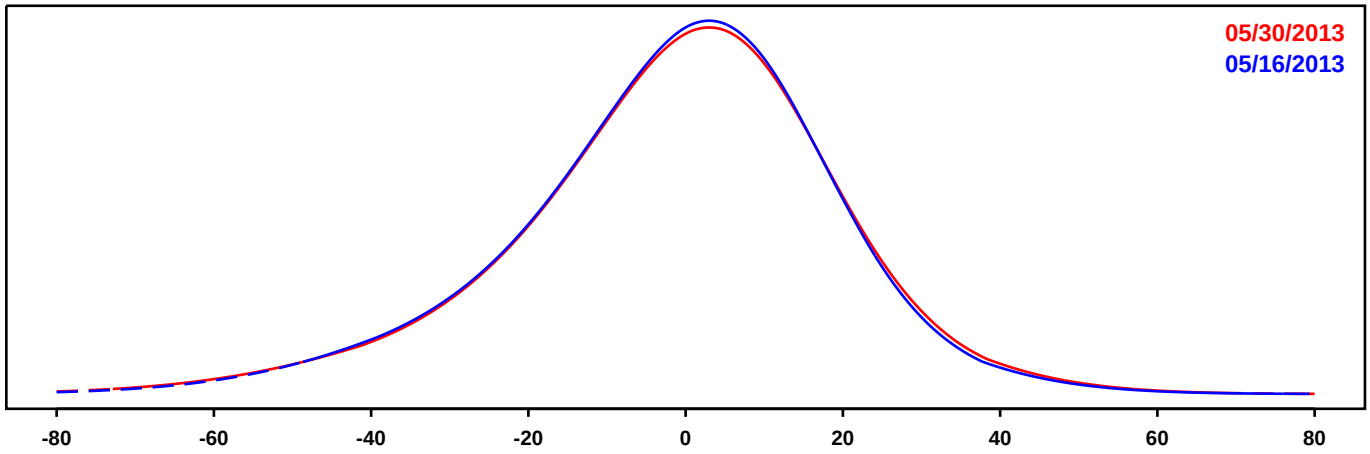
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- SILVER FUTURES

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

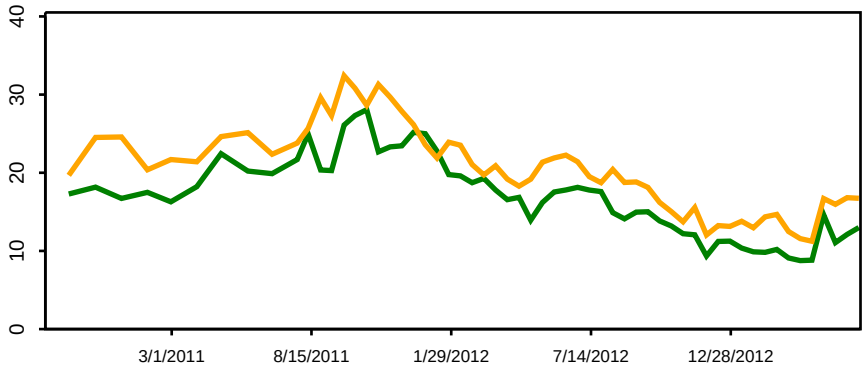
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <= -20% Increase >= 20%

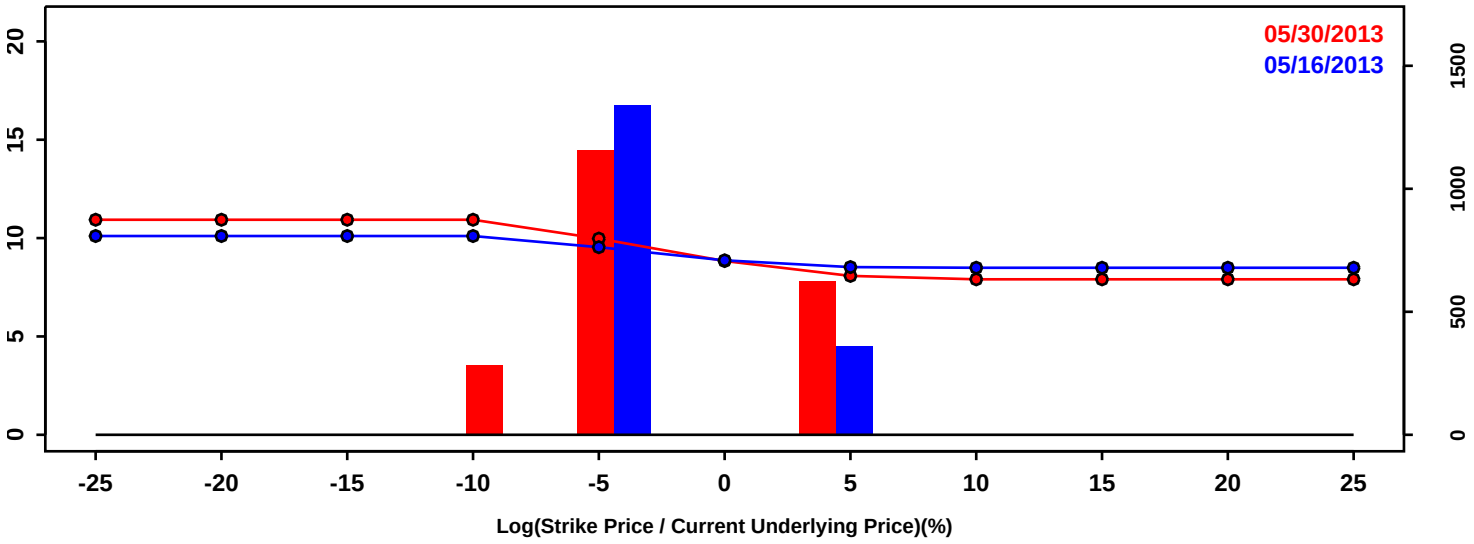
Statistics of the Log Return Distributions

	05/16/2013	05/30/2013	Change
10th Pct	-28.32%	-28.34%	-0.03%
50th Pct	0.09%	0.27%	0.18%
90th Pct	21.92%	22.78%	0.86%
Mean	-1.67%	-1.41%	0.26%
Std Dev	20.40%	20.91%	0.51%
Skew	-0.46	-0.47	-0.01
Kurtosis	0.79	0.91	0.12

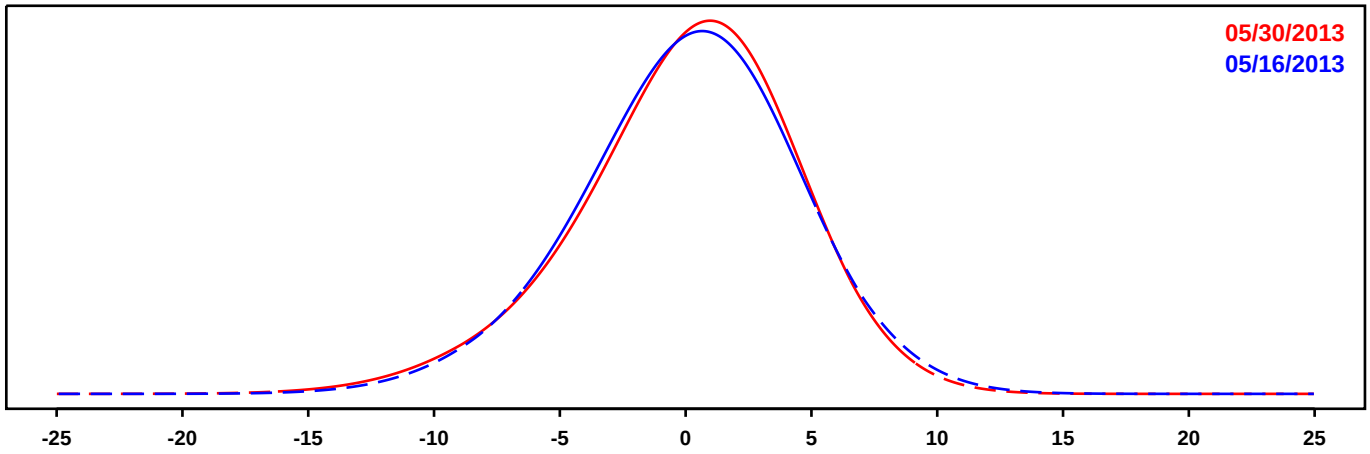
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- DOLLAR-EURO EXCHANGE RATE FUTURES

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

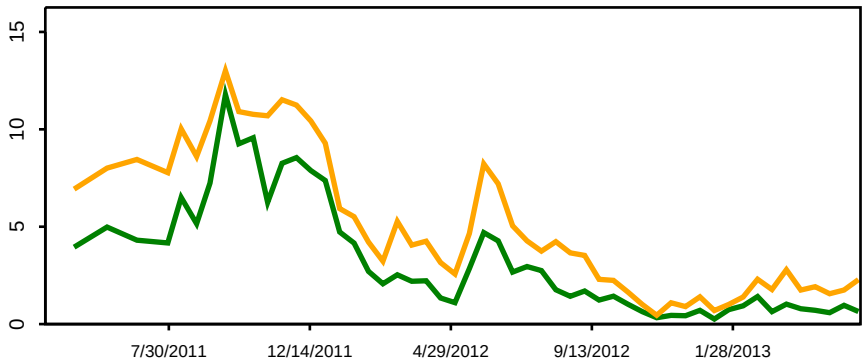
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



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

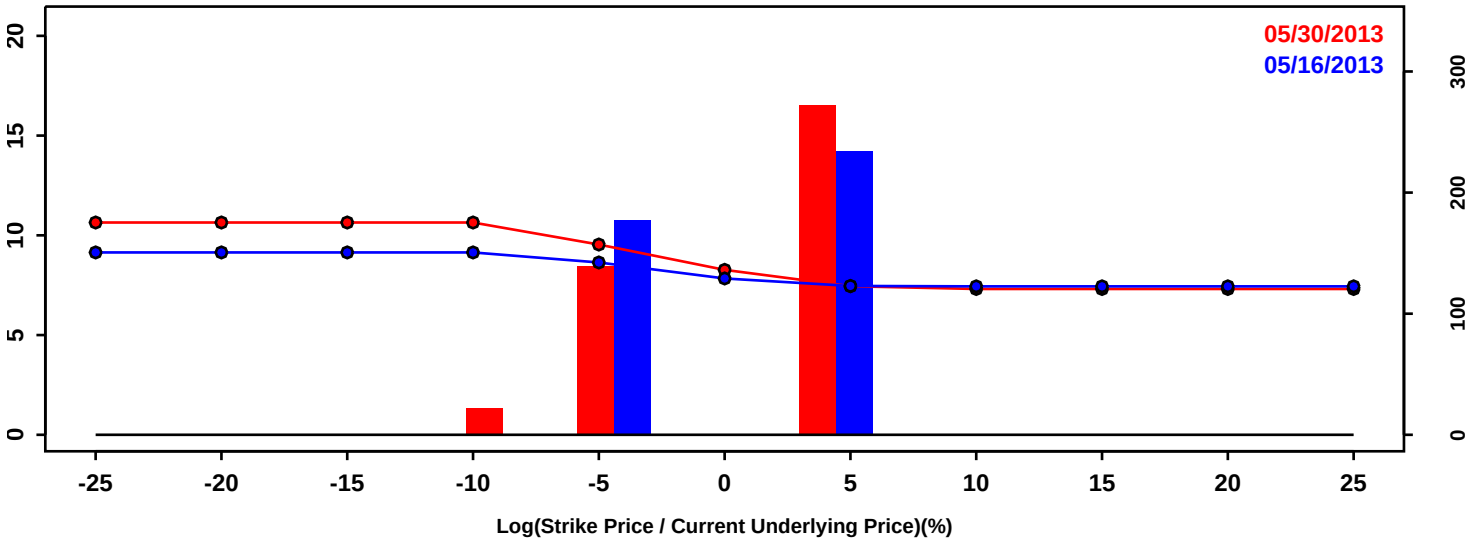
Statistics of the Log Return Distributions

	05/16/2013	05/30/2013	Change
10th Pct	-5.63%	-5.75%	-0.12%
50th Pct	0.28%	0.39%	0.11%
90th Pct	5.58%	5.39%	-0.18%
Mean	0.17%	0.07%	-0.10%
Std Dev	4.42%	4.44%	0.01%
Skew	-0.22	-0.43	-0.20
Kurtosis	0.24	0.45	0.21

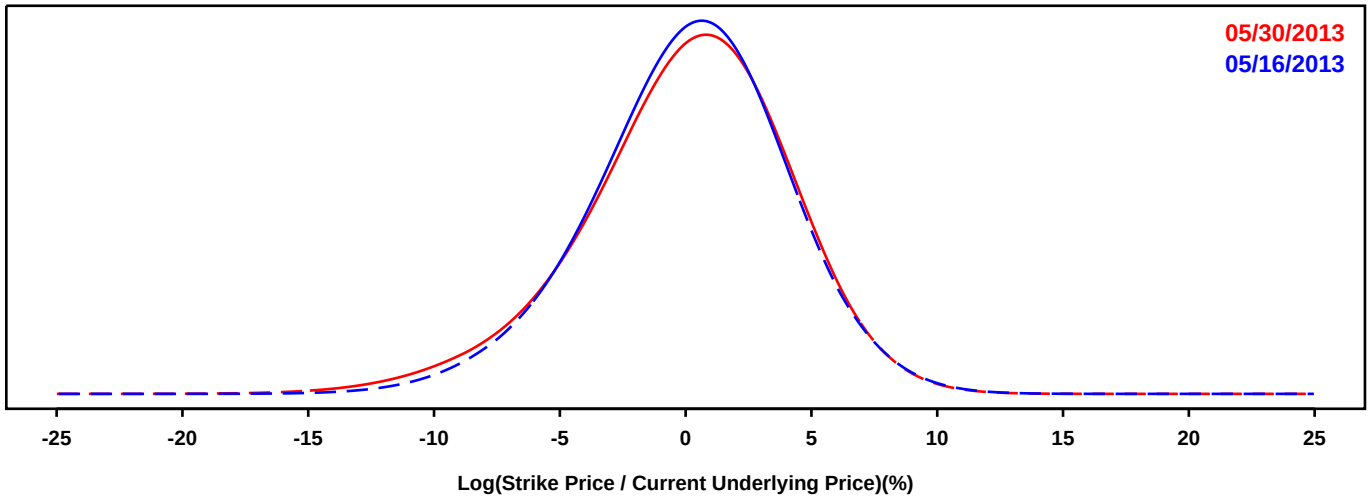
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- DOLLAR-POUND EXCHANGE RATE FUTURES

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

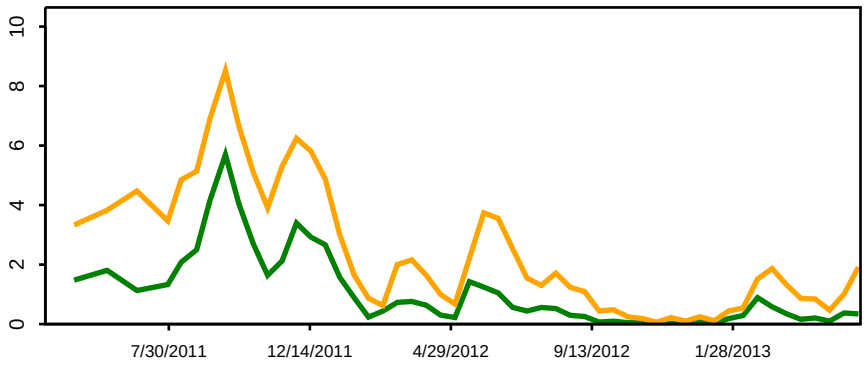
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



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

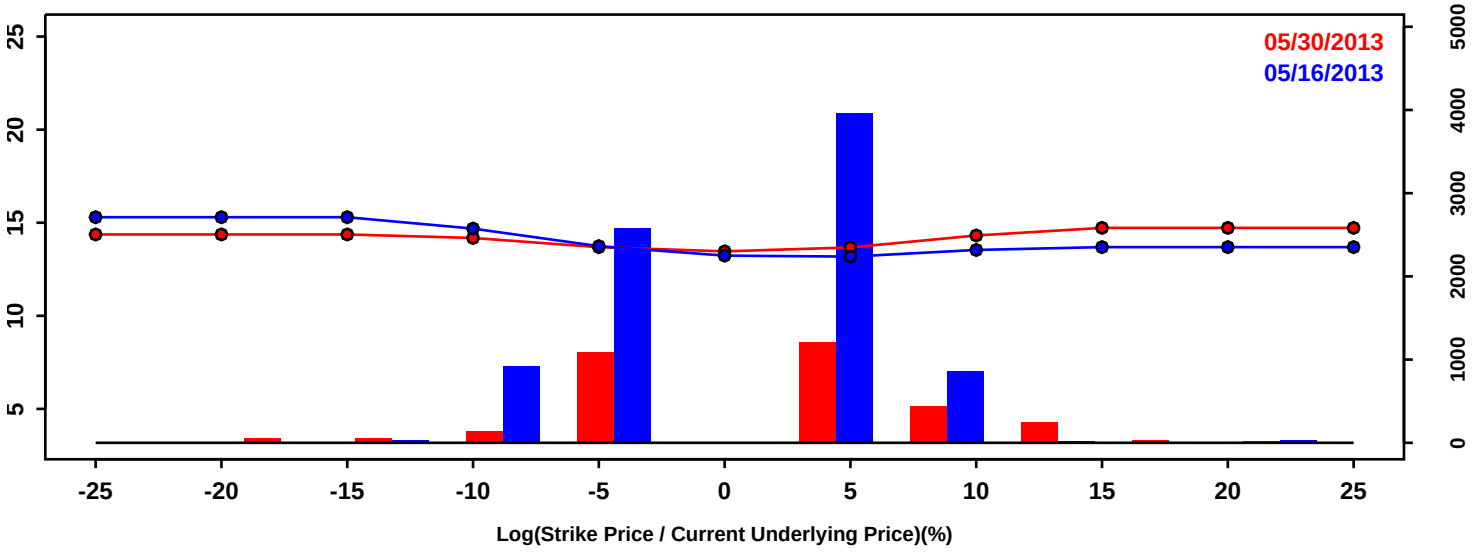
Statistics of the Log Return Distributions

	05/16/2013	05/30/2013	Change
10th Pct	-4.97%	-5.43%	-0.47%
50th Pct	0.28%	0.30%	0.02%
90th Pct	4.94%	4.98%	0.04%
Mean	0.15%	-0.00%	-0.15%
Std Dev	3.91%	4.17%	0.26%
Skew	-0.26	-0.47	-0.21
Kurtosis	0.30	0.57	0.26

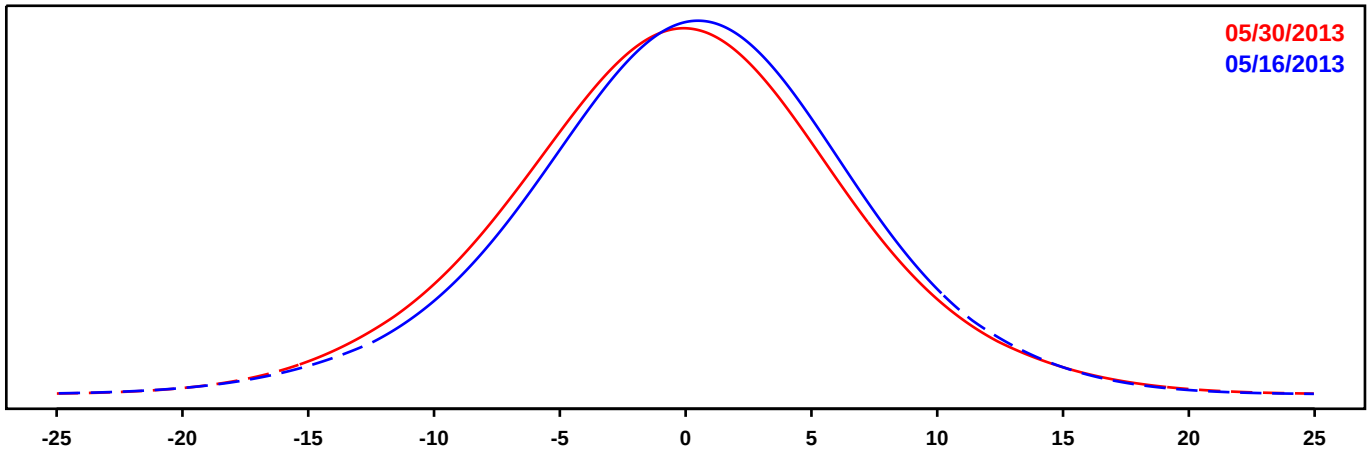
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- DOLLAR-YEN EXCHANGE RATE FUTURES

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

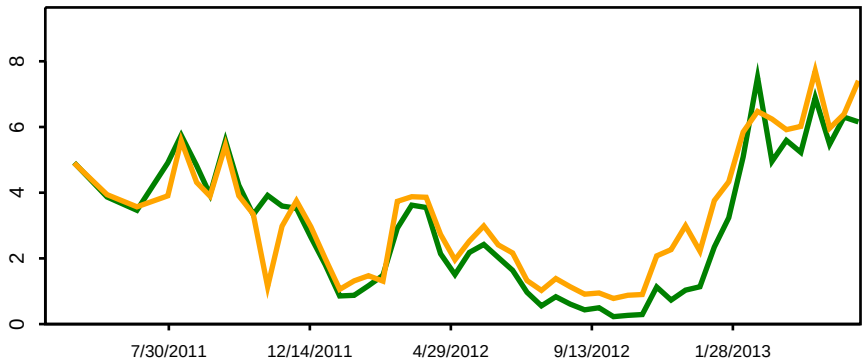
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



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

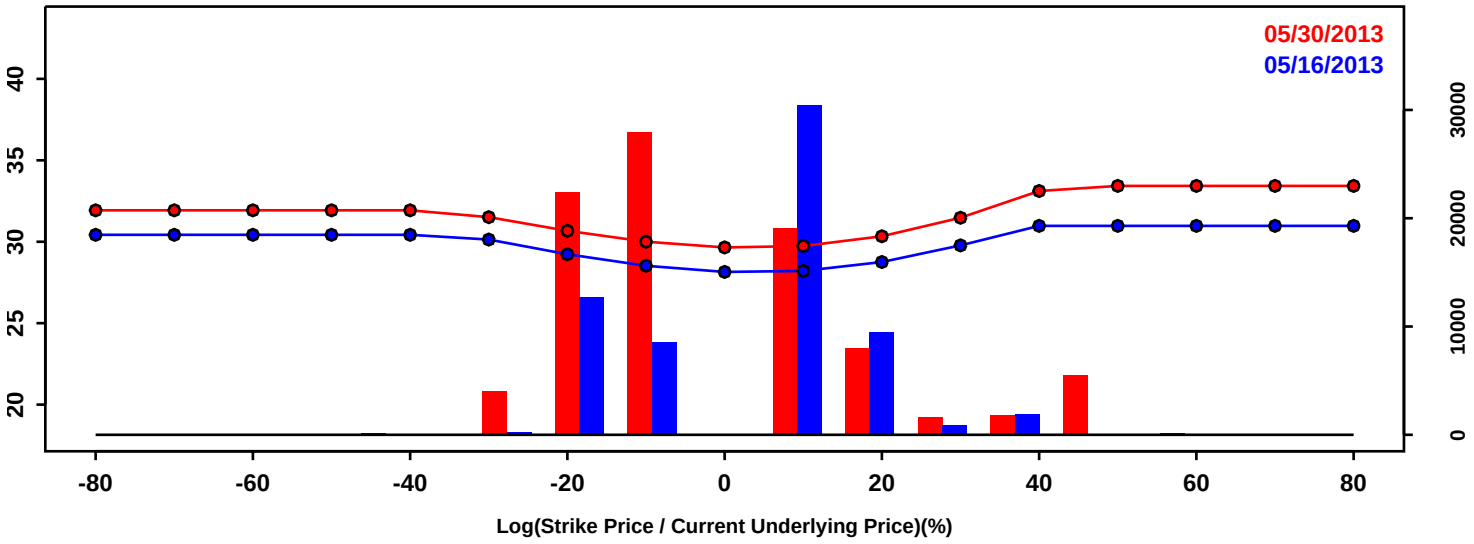
Statistics of the Log Return Distributions

	05/16/2013	05/30/2013	Change
10th Pct	-8.12%	-8.79%	-0.67%
50th Pct	0.28%	-0.22%	-0.50%
90th Pct	8.35%	8.10%	-0.25%
Mean	0.22%	-0.25%	-0.47%
Std Dev	6.59%	6.72%	0.12%
Skew	-0.12	-0.01	0.11
Kurtosis	0.38	0.32	-0.07

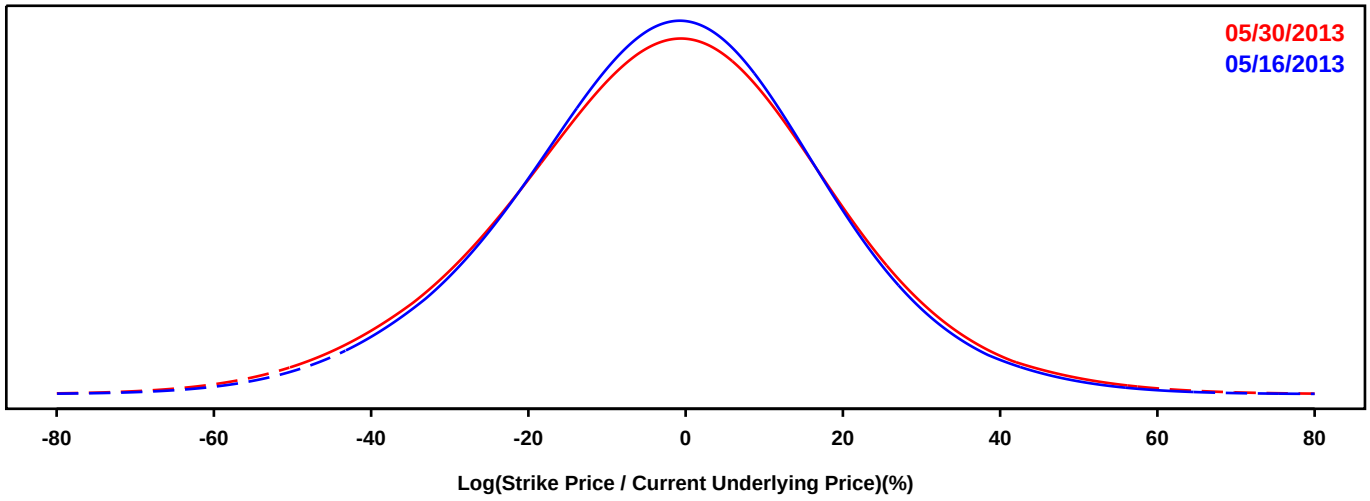
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- CORN FUTURES

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

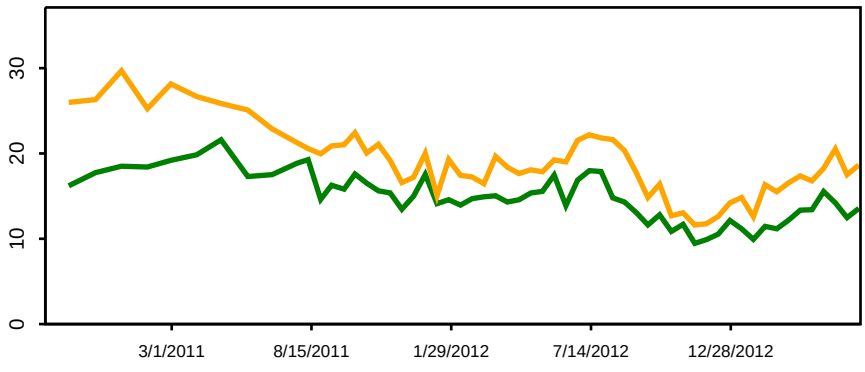
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <= -20% Increase >= 20%

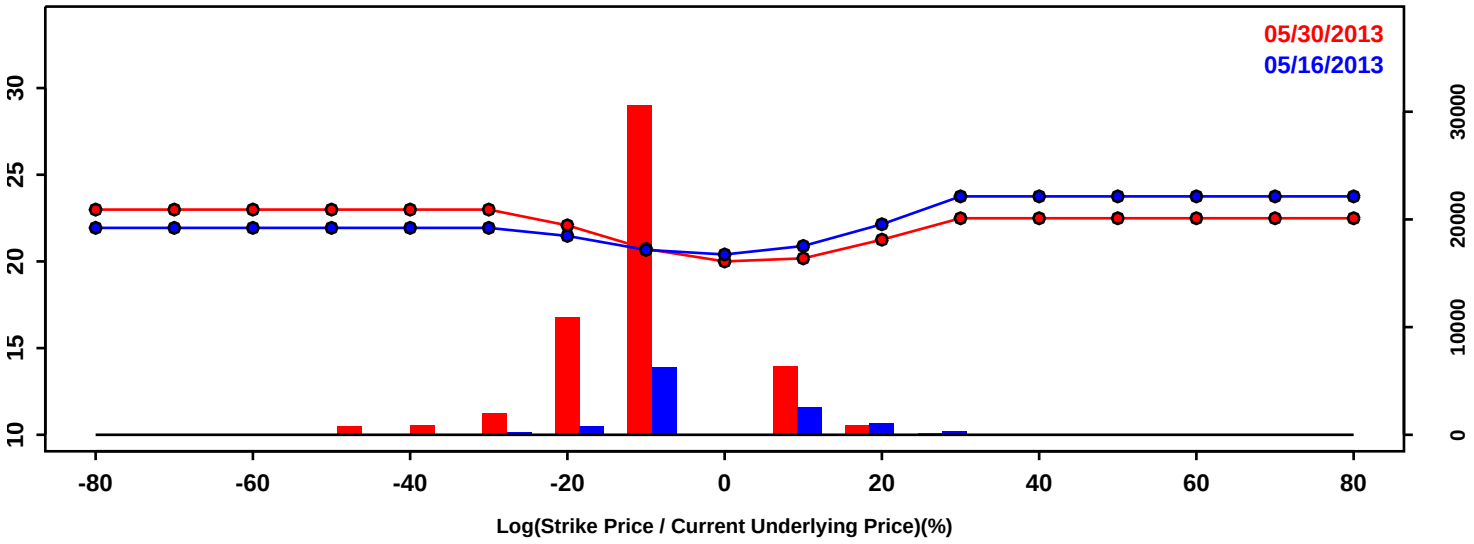
Statistics of the Log Return Distributions

	05/16/2013	05/30/2013	Change
10th Pct	-27.43%	-28.77%	-1.34%
50th Pct	-1.64%	-1.66%	-0.02%
90th Pct	22.59%	23.78%	1.19%
Mean	-2.00%	-2.02%	-0.02%
Std Dev	19.88%	20.92%	1.03%
Skew	-0.07	-0.06	0.01
Kurtosis	0.32	0.34	0.02

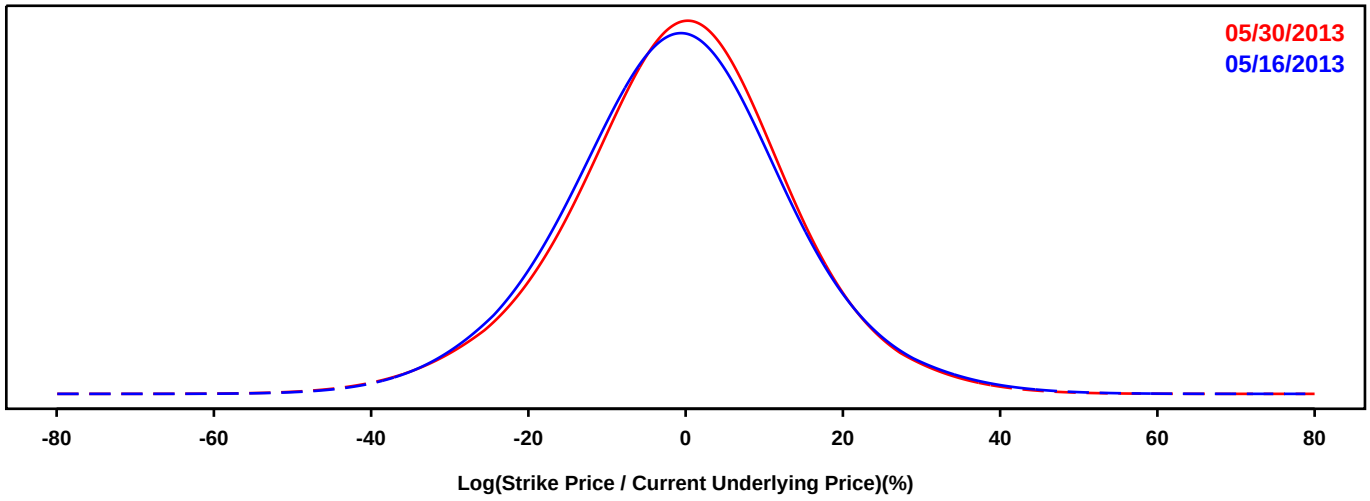
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- SOYBEAN FUTURES

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

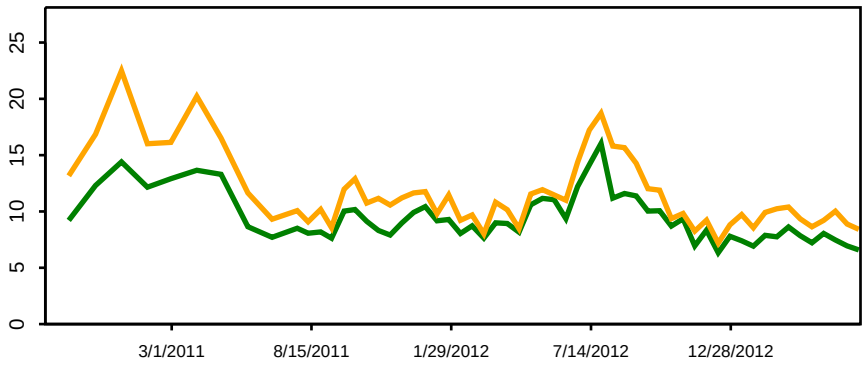
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <= -20% Increase >= 20%

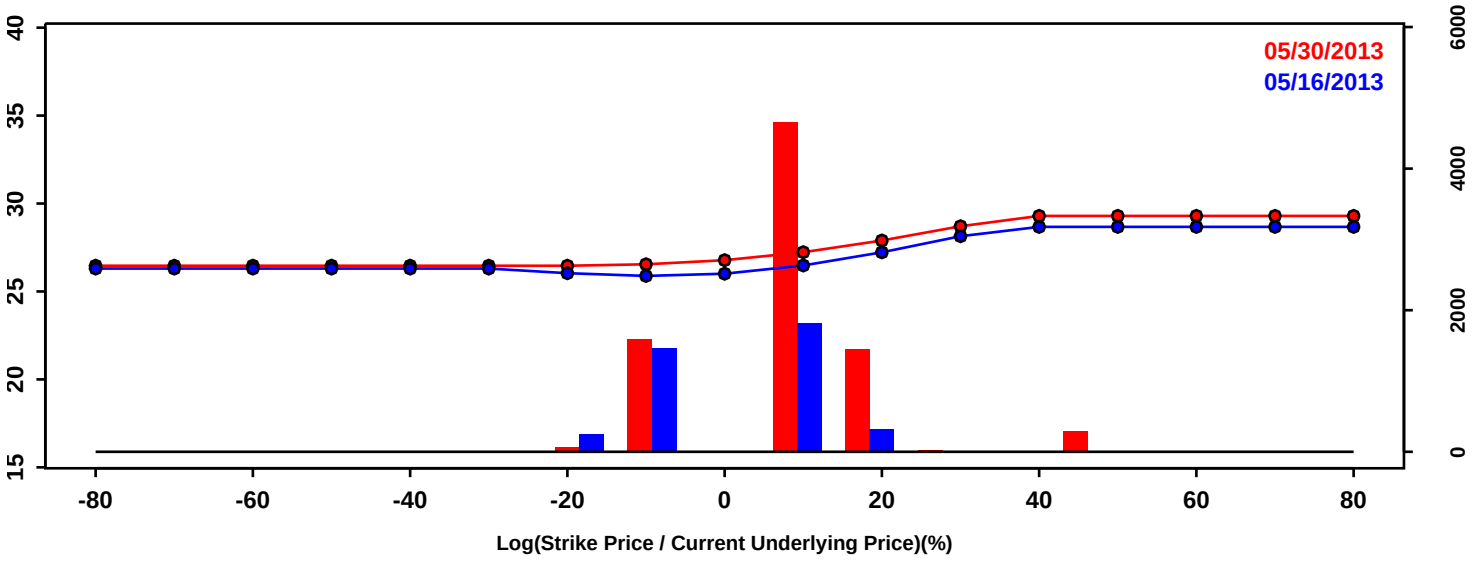
Statistics of the Log Return Distributions

	05/16/2013	05/30/2013	Change
10th Pct	-18.97%	-18.38%	0.58%
50th Pct	-0.86%	-0.30%	0.56%
90th Pct	16.87%	16.64%	-0.23%
Mean	-0.89%	-0.58%	0.30%
Std Dev	14.37%	14.11%	-0.26%
Skew	0.03	-0.10	-0.13
Kurtosis	0.45	0.53	0.08

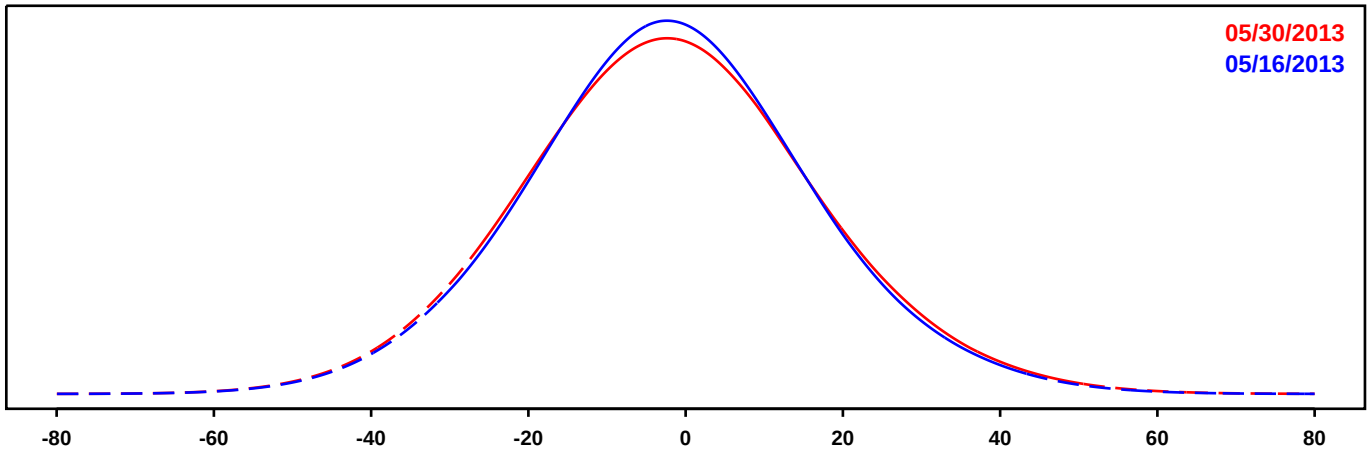
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- WHEAT FUTURES

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

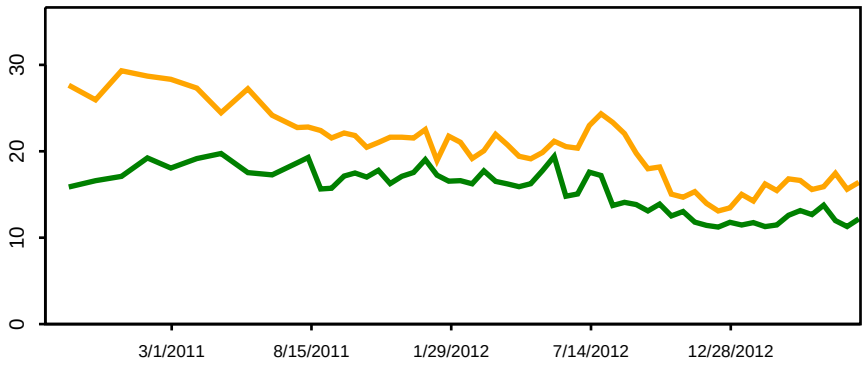
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <= -20% Increase >= 20%

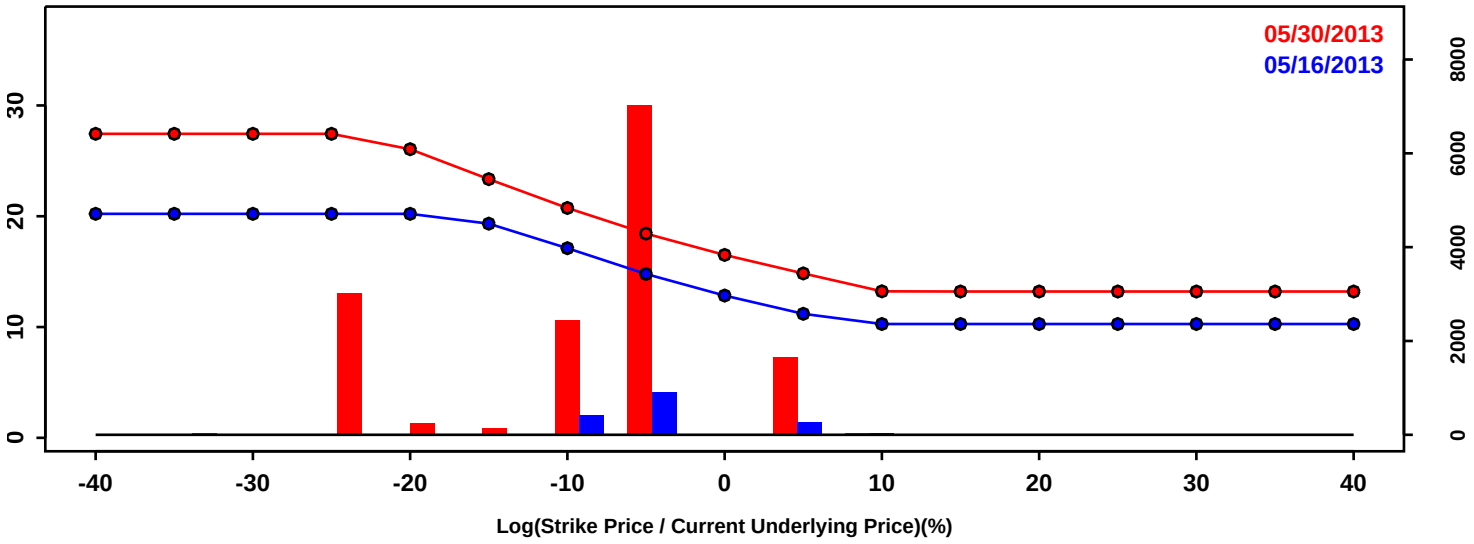
Statistics of the Log Return Distributions

	05/16/2013	05/30/2013	Change
10th Pct	-25.02%	-25.61%	-0.59%
50th Pct	-2.09%	-2.08%	0.01%
90th Pct	21.39%	22.36%	0.96%
Mean	-1.86%	-1.79%	0.07%
Std Dev	18.33%	18.88%	0.55%
Skew	0.08	0.10	0.02
Kurtosis	0.23	0.17	-0.07

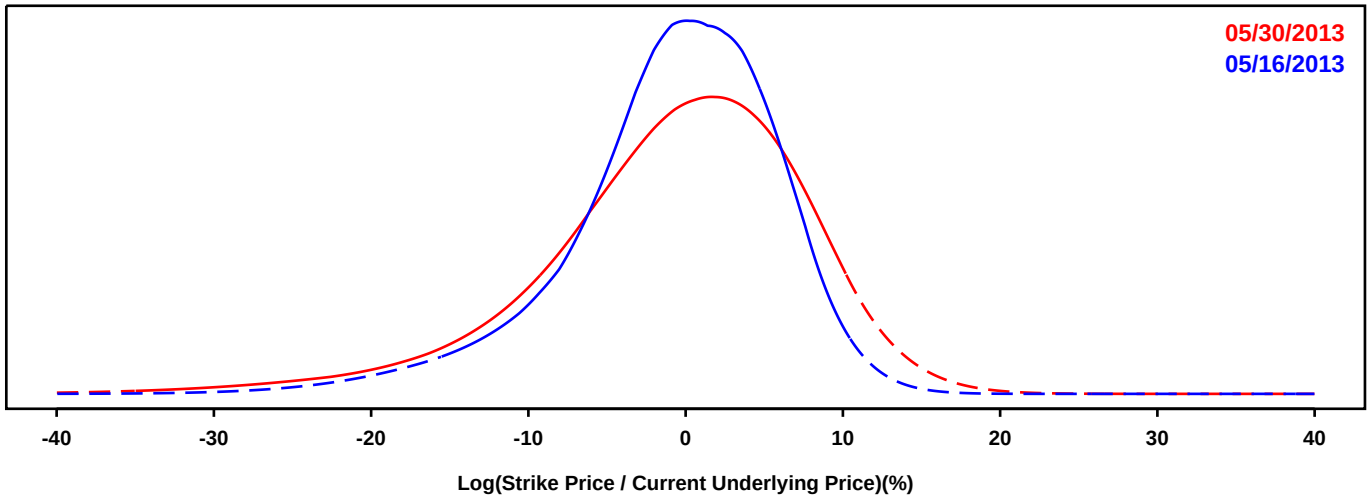
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- iSHARES DOW JONES US REAL ESTATE

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

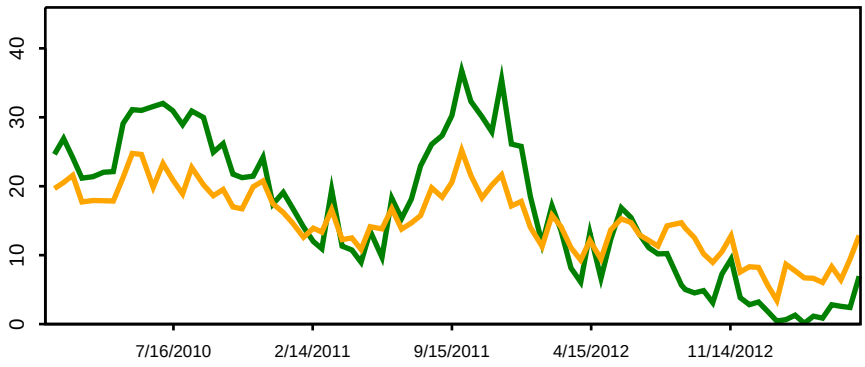
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



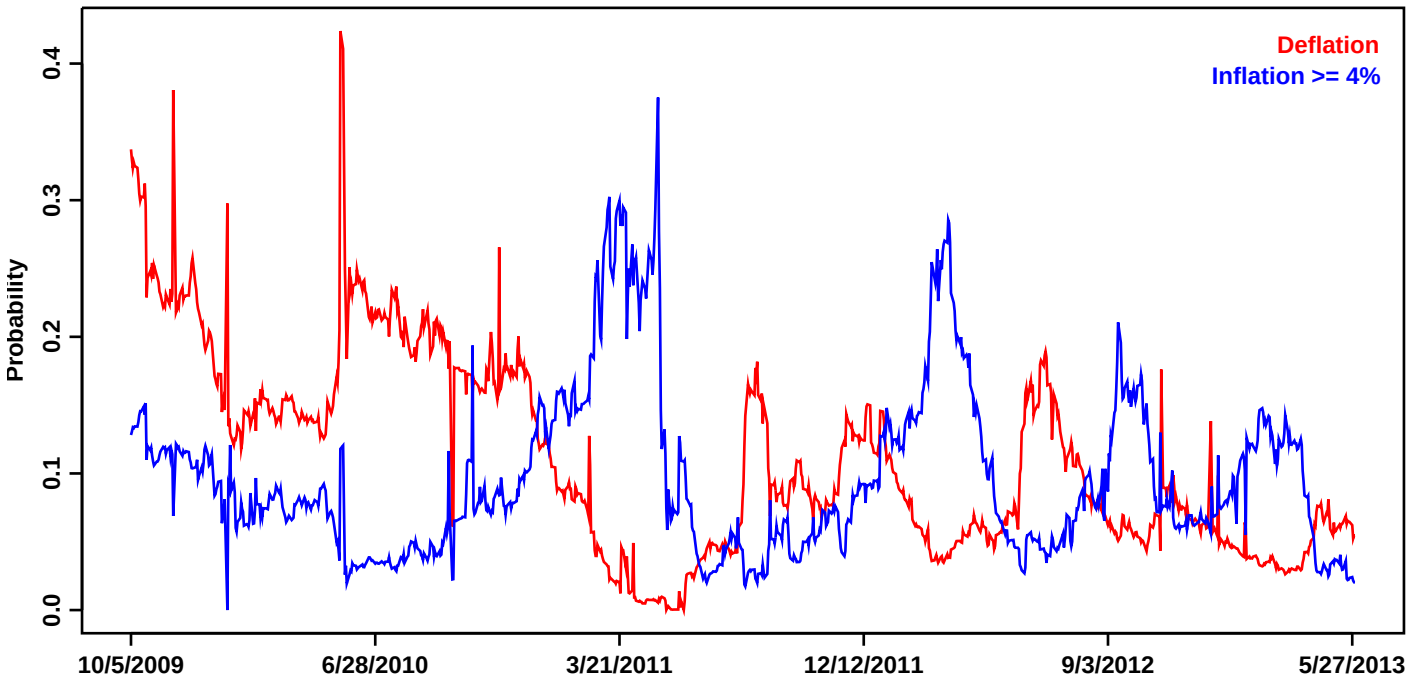
Decrease <= -10% Increase >= 10%

Statistics of the Log Return Distributions

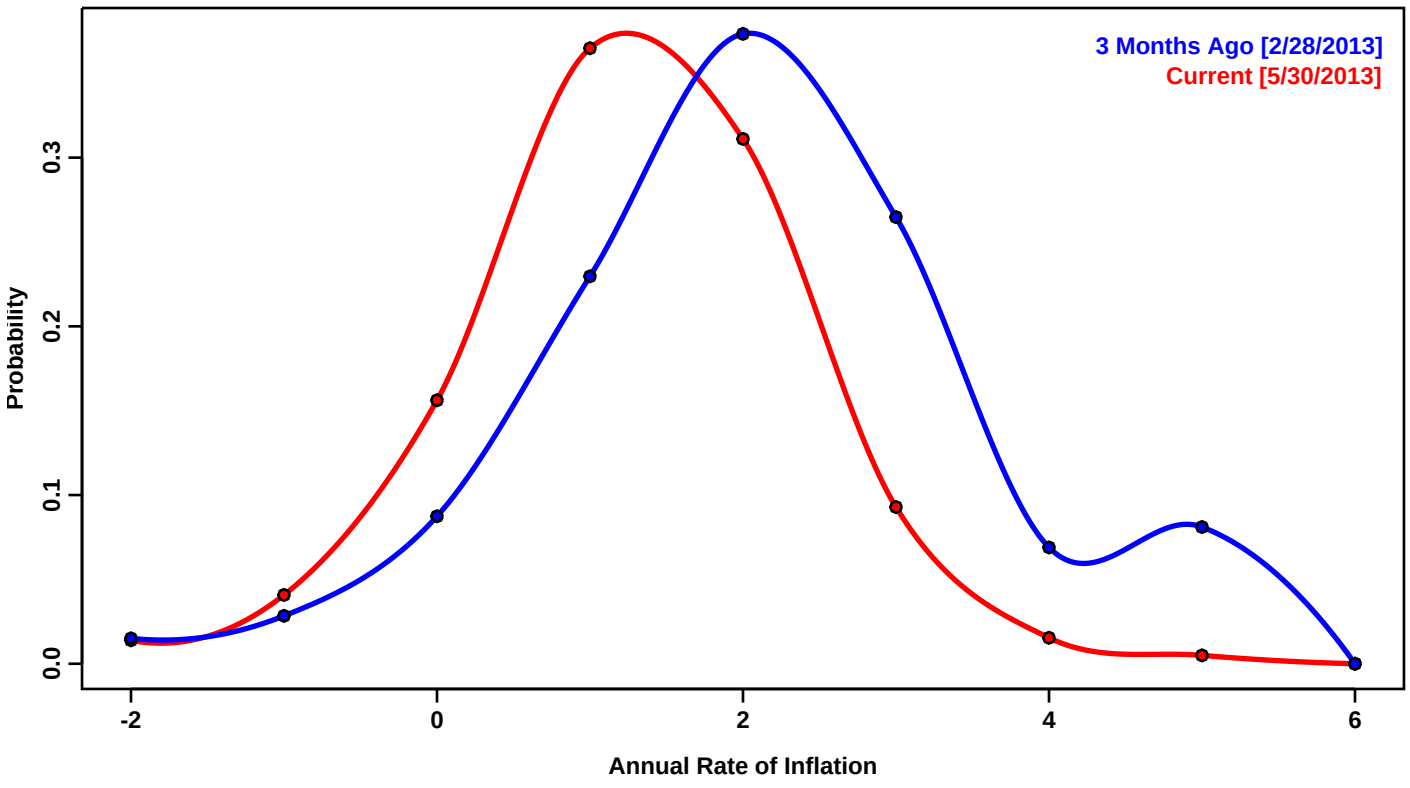
	05/16/2013	05/30/2013	Change
10th Pct	-9.68%	-11.73%	-2.05%
50th Pct	-0.11%	0.16%	0.28%
90th Pct	6.78%	8.82%	2.04%
Mean	-0.88%	-0.84%	0.04%
Std Dev	6.80%	8.58%	1.79%
Skew	-0.89	-0.90	-0.01
Kurtosis	1.49	1.72	0.23

RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- Inflation Caps & Floors

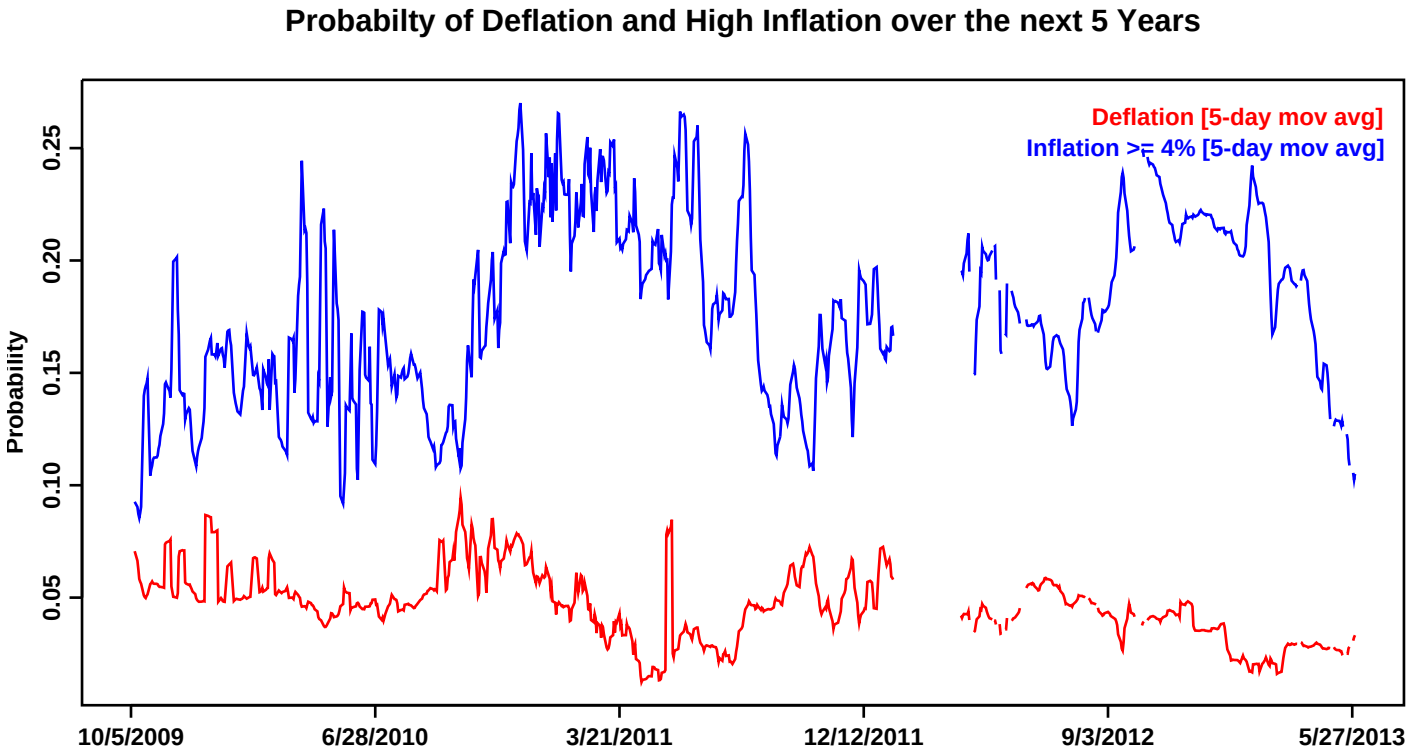
Probabilty of Deflation and High Inflation over the next 12 Months



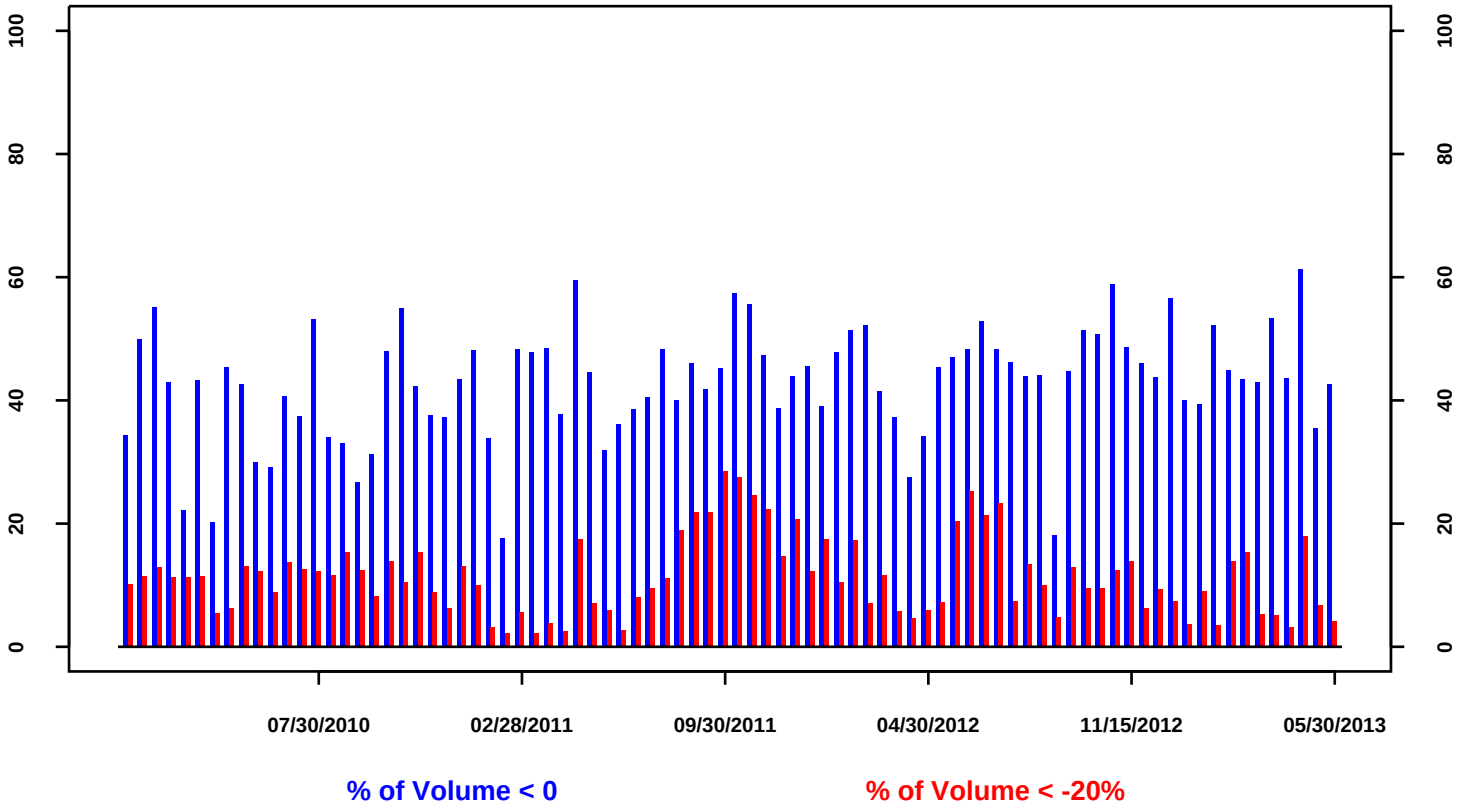
Risk Neutral Density Function for Inflation over the next 12 Months



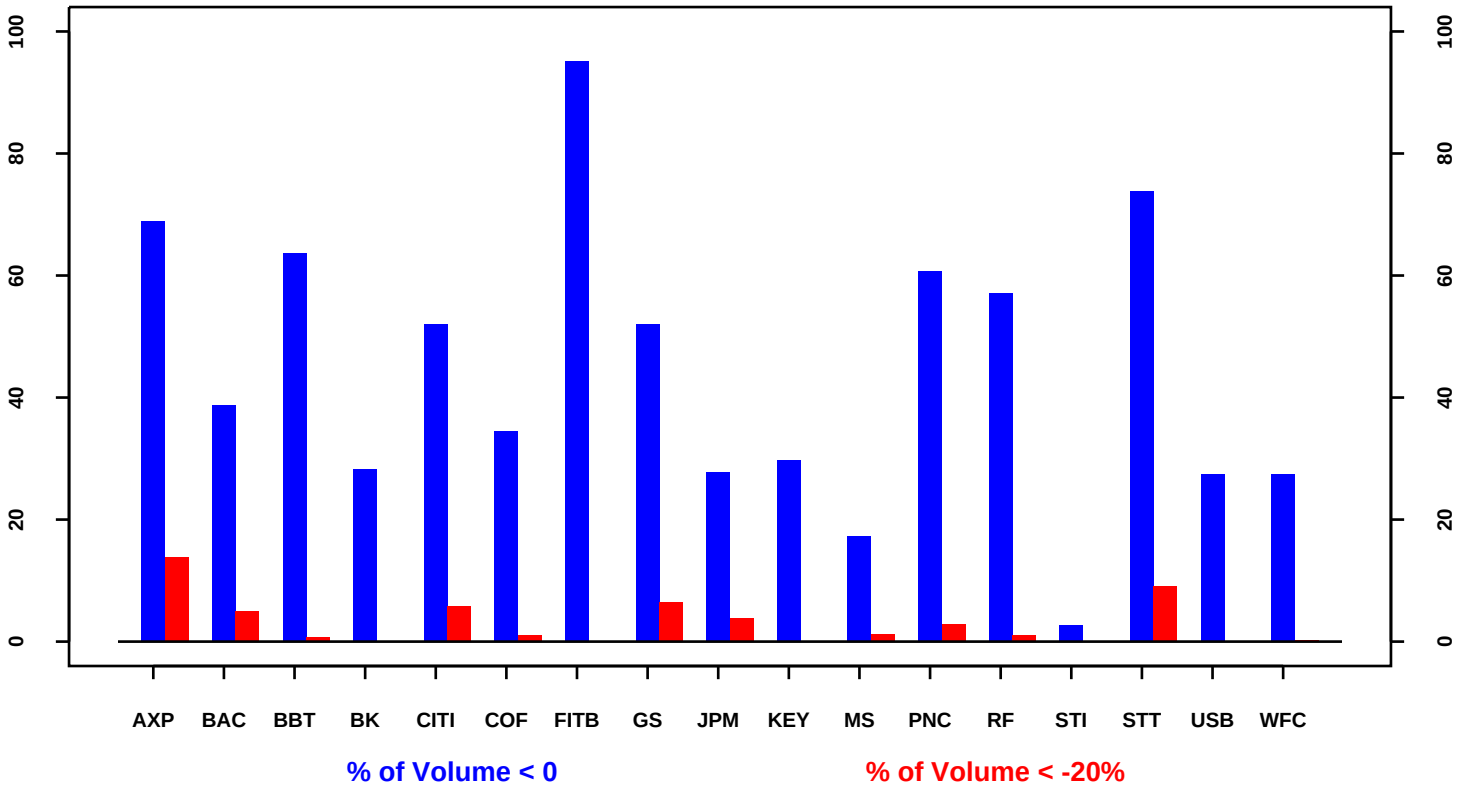
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- Inflation Caps & Floors



Aggregate Volumes for Options on CCAR Banks

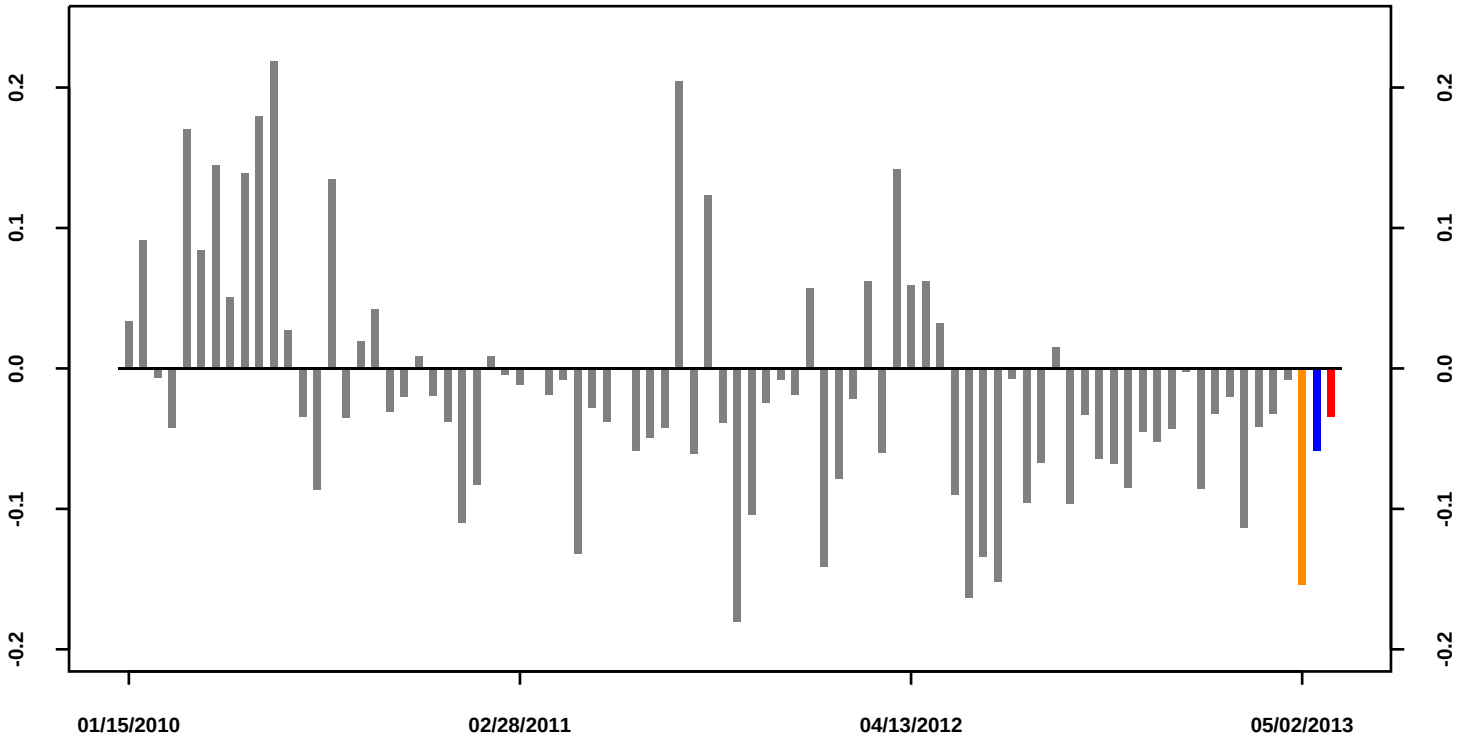


Volumes for Options on CCAR Banks

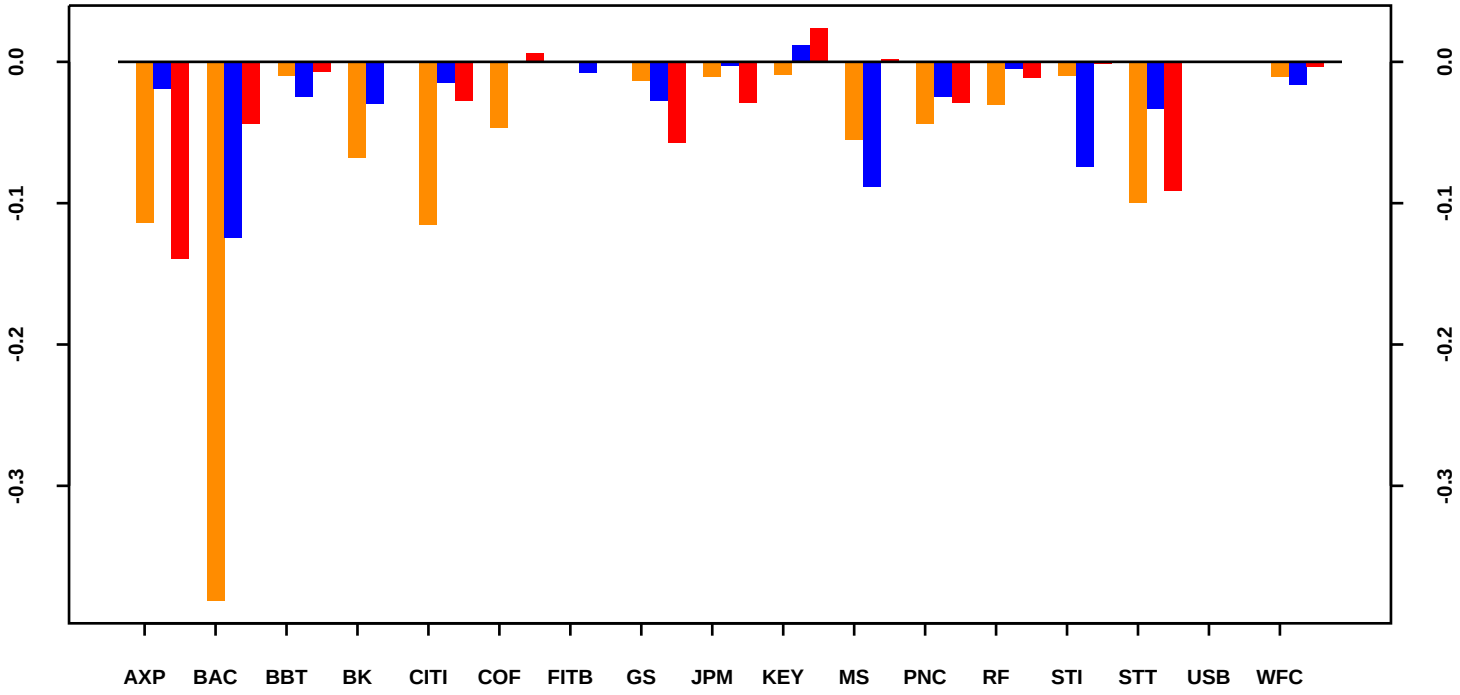


Aggregate Volume Skew--CCAR Banks

(% of volume traded in deep out-of-the-money calls LESS % of volume traded in deep out-of-the-money puts)



CCAR Bank Volume Skew -- Last Three Periods

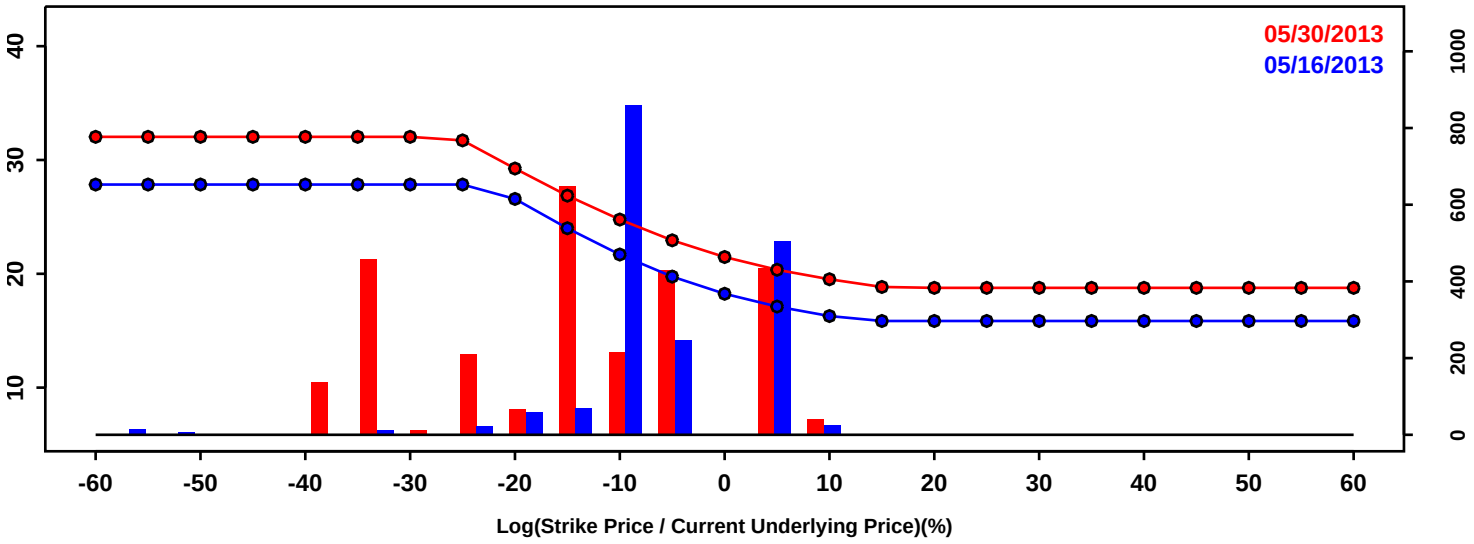


05/02/2013 05/16/2013 05/30/2013

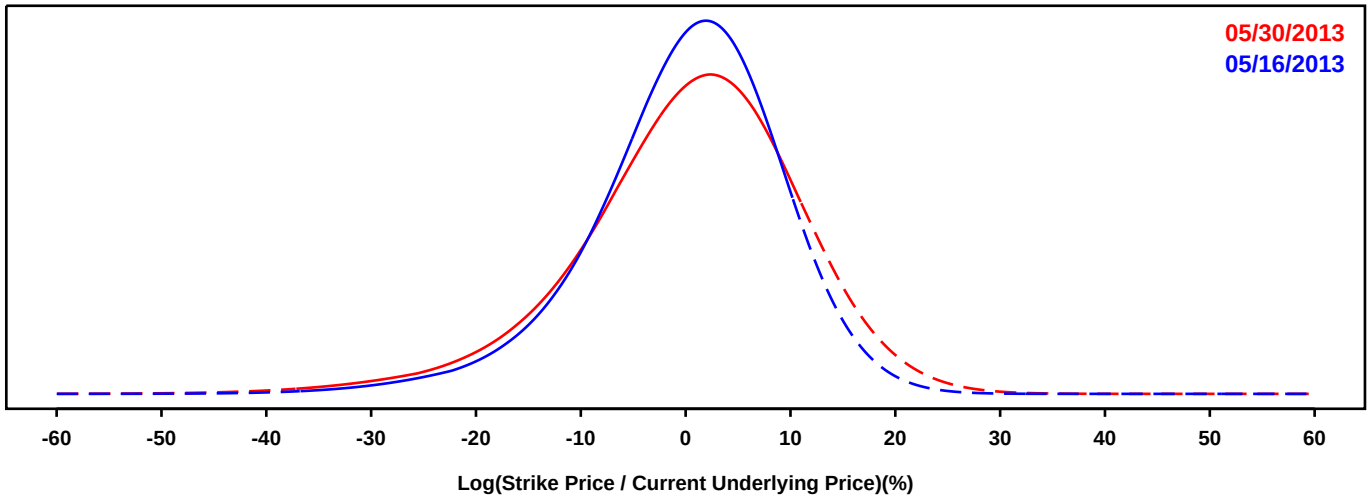
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- AMERICAN EXPRESS

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

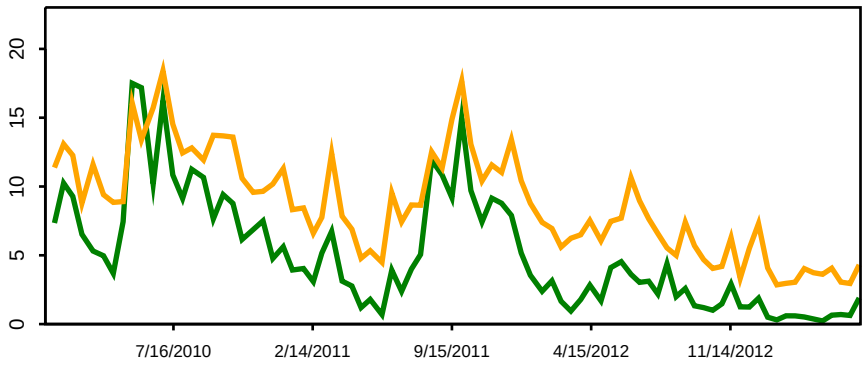
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



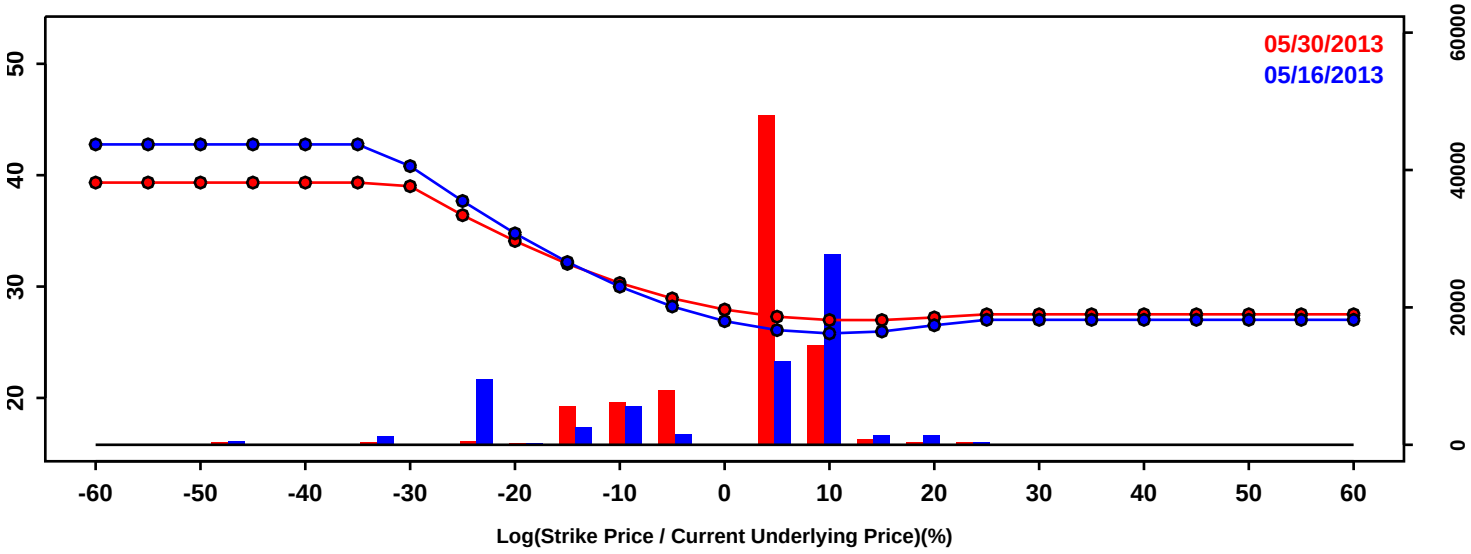
Statistics of the Log Return Distributions

	05/16/2013	05/30/2013	Change
10th Pct	-11.64%	-13.37%	-1.73%
50th Pct	0.79%	1.14%	0.34%
90th Pct	10.75%	12.81%	2.07%
Mean	0.02%	0.25%	0.23%
Std Dev	9.21%	10.75%	1.54%
Skew	-0.66	-0.63	0.03
Kurtosis	1.22	1.15	-0.07

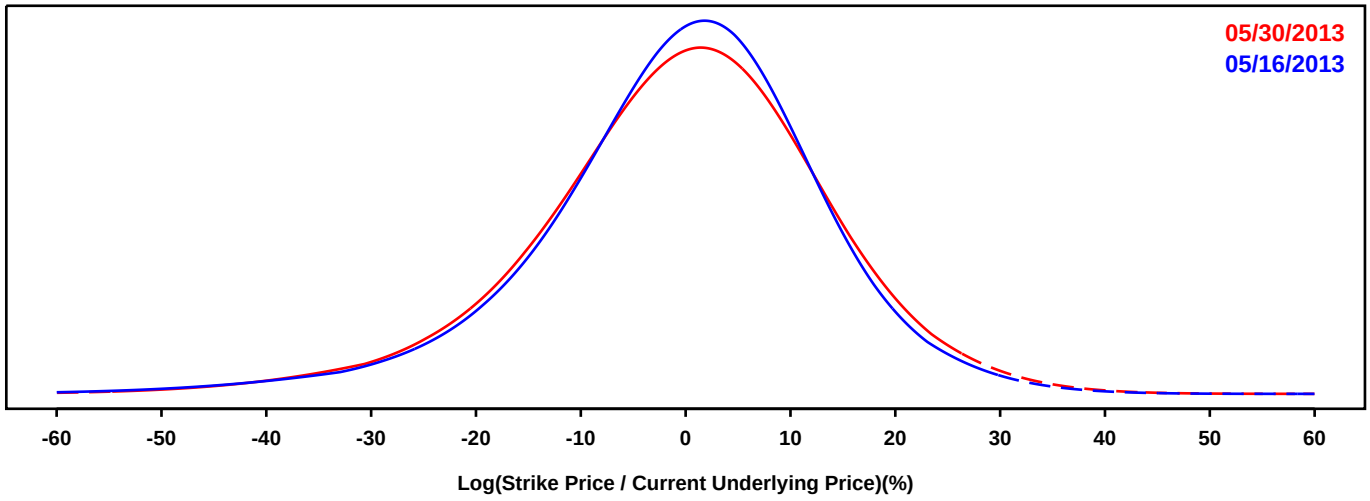
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- BANK OF AMERICA

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

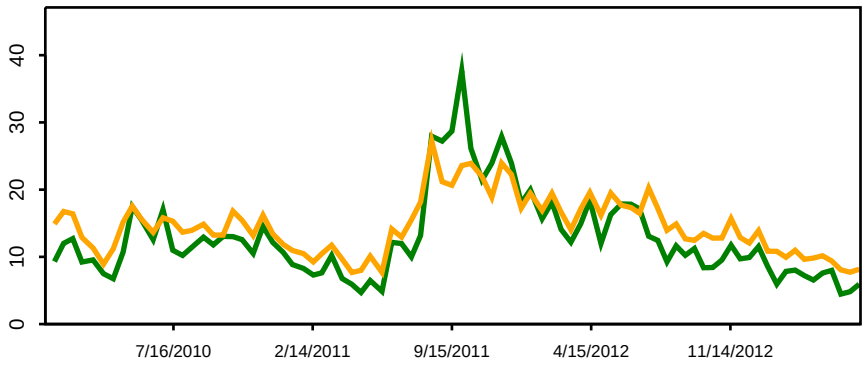
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <= -20% Increase >= 20%

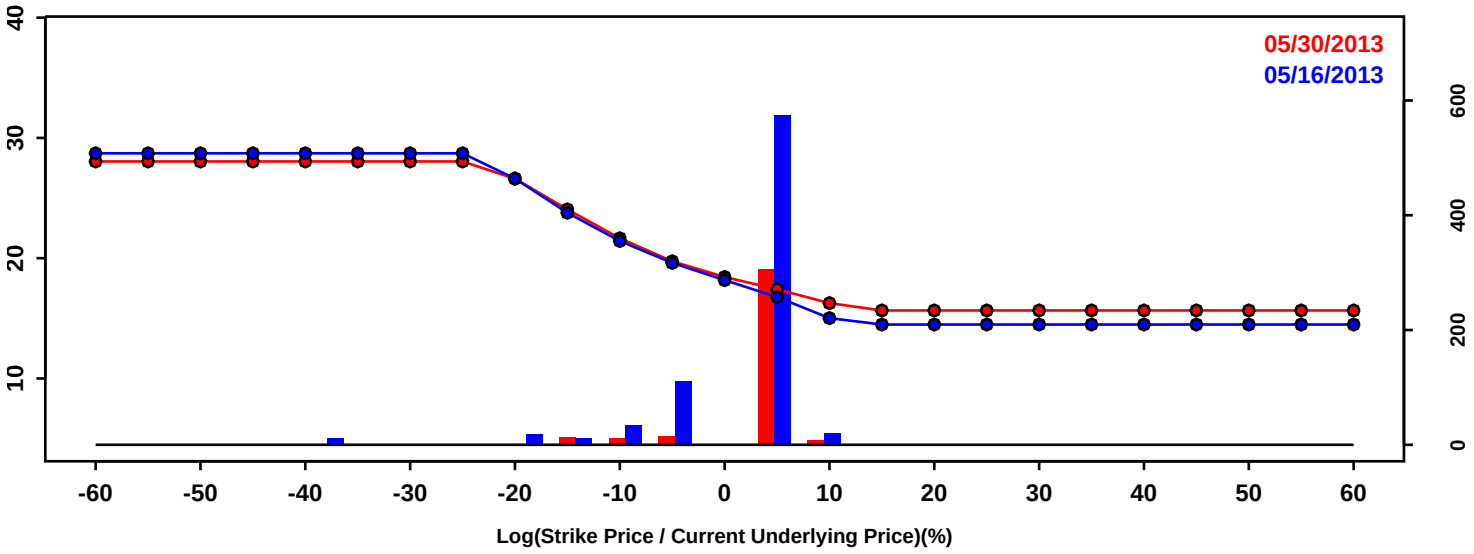
Statistics of the Log Return Distributions

	05/16/2013	05/30/2013	Change
10th Pct	-17.36%	-18.01%	-0.65%
50th Pct	0.45%	0.39%	-0.06%
90th Pct	15.20%	16.31%	1.12%
Mean	-0.55%	-0.40%	0.14%
Std Dev	13.67%	14.07%	0.41%
Skew	-0.62	-0.44	0.18
Kurtosis	1.56	0.96	-0.60

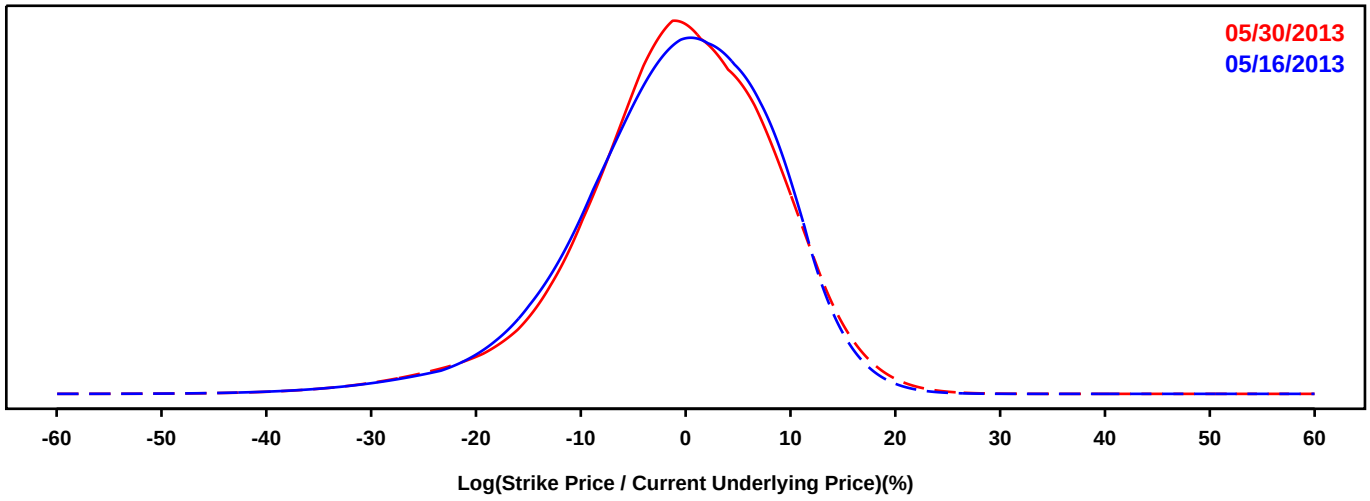
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- BB&T

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

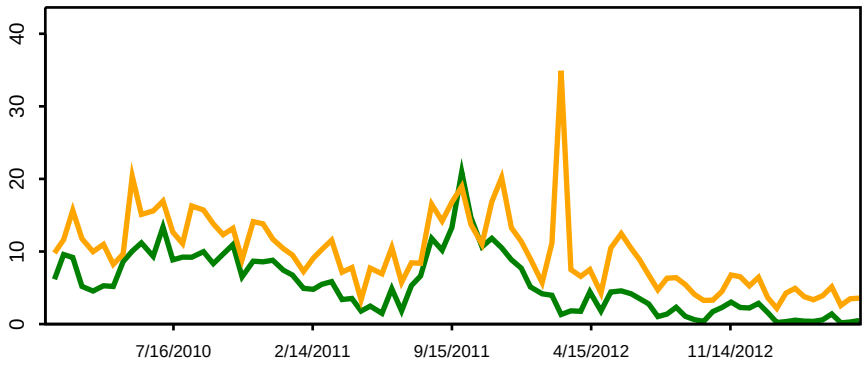
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <= -20% Increase >= 20%

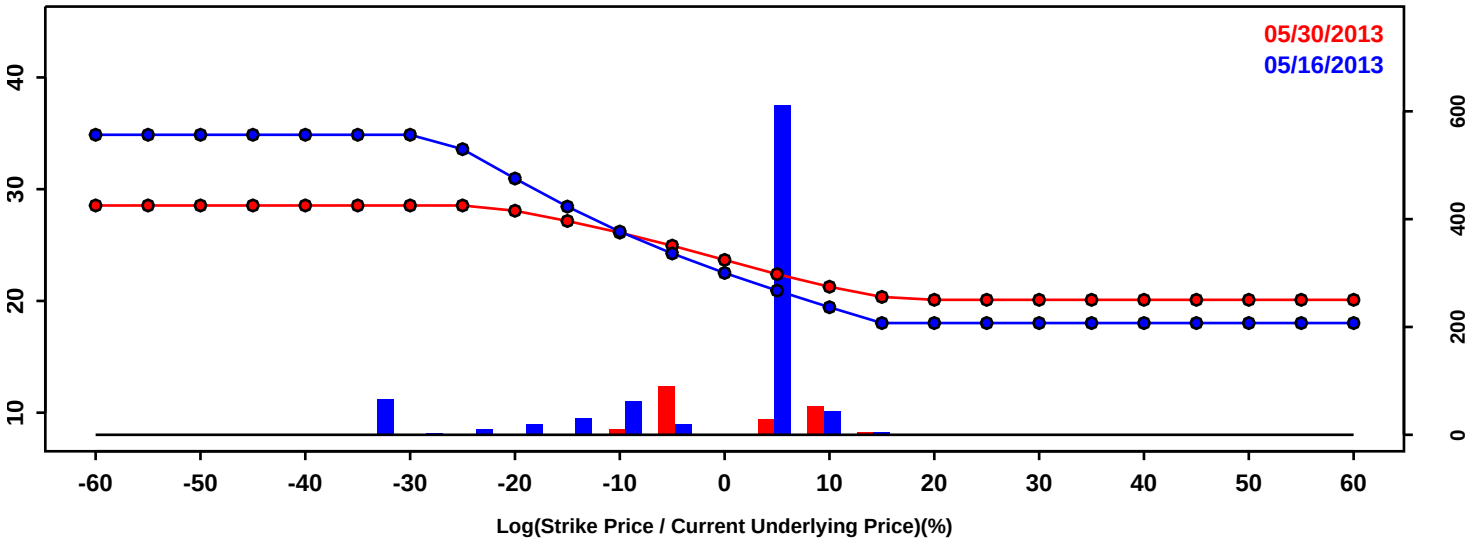
Statistics of the Log Return Distributions

	05/16/2013	05/30/2013	Change
10th Pct	-12.84%	-12.42%	0.42%
50th Pct	-0.11%	-0.20%	-0.09%
90th Pct	10.08%	10.41%	0.33%
Mean	-0.94%	-0.78%	0.16%
Std Dev	9.39%	9.42%	0.03%
Skew	-0.71	-0.65	0.06
Kurtosis	1.16	1.22	0.06

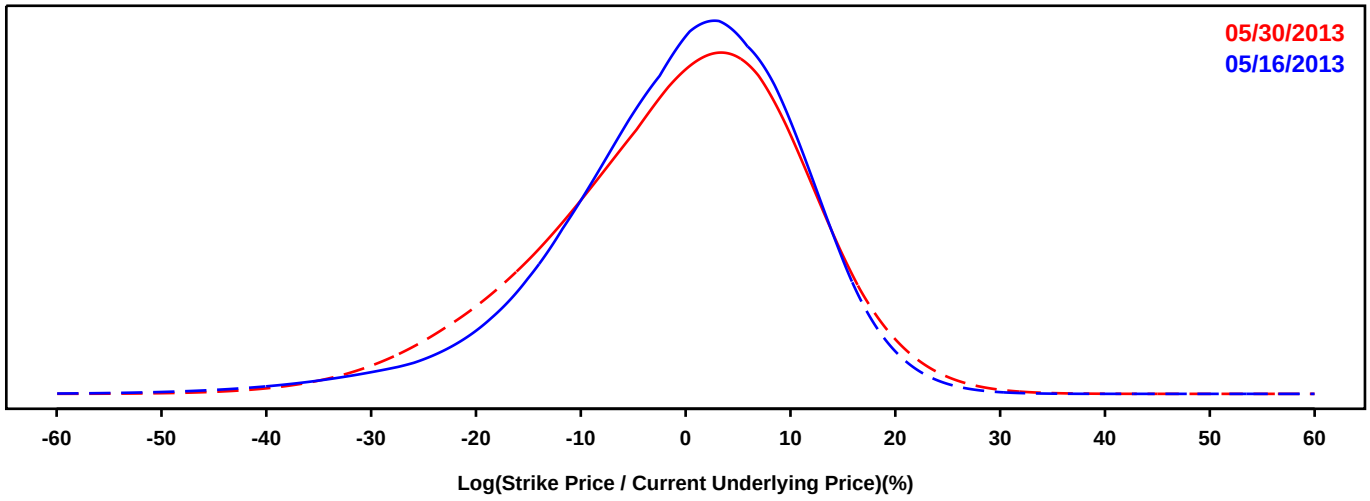
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- BANK OF NEW YORK MELLON

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

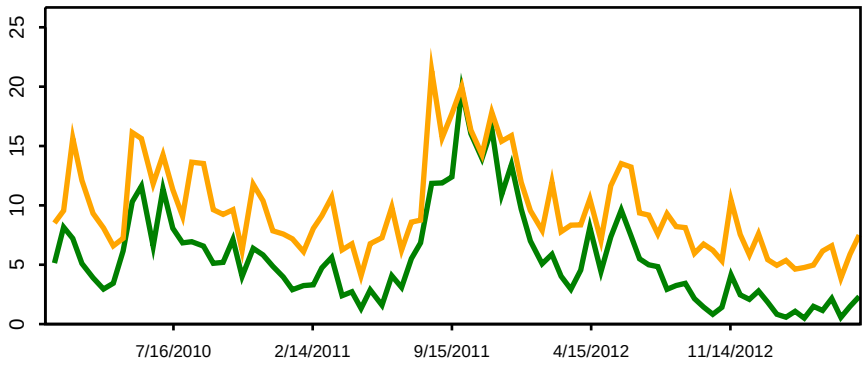
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <= -20% Increase >= 20%

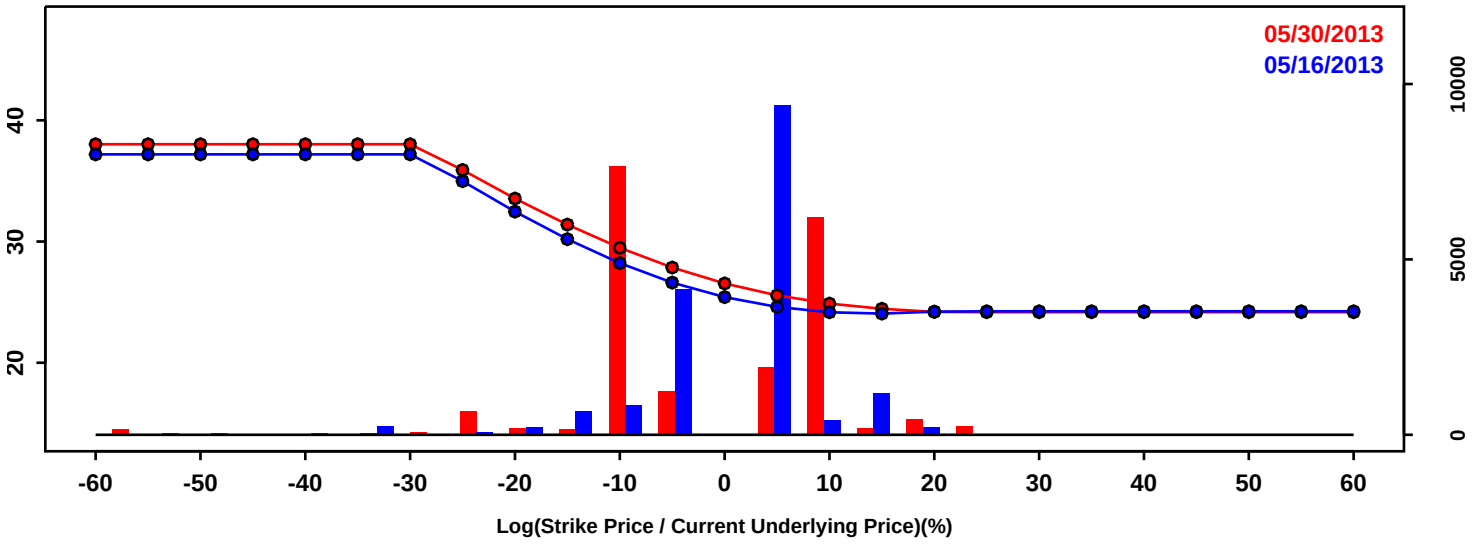
Statistics of the Log Return Distributions

	05/16/2013	05/30/2013	Change
10th Pct	-15.35%	-17.56%	-2.20%
50th Pct	0.64%	0.32%	-0.32%
90th Pct	12.57%	13.27%	0.70%
Mean	-0.64%	-1.01%	-0.36%
Std Dev	11.54%	12.13%	0.59%
Skew	-0.79	-0.50	0.29
Kurtosis	1.34	0.29	-1.05

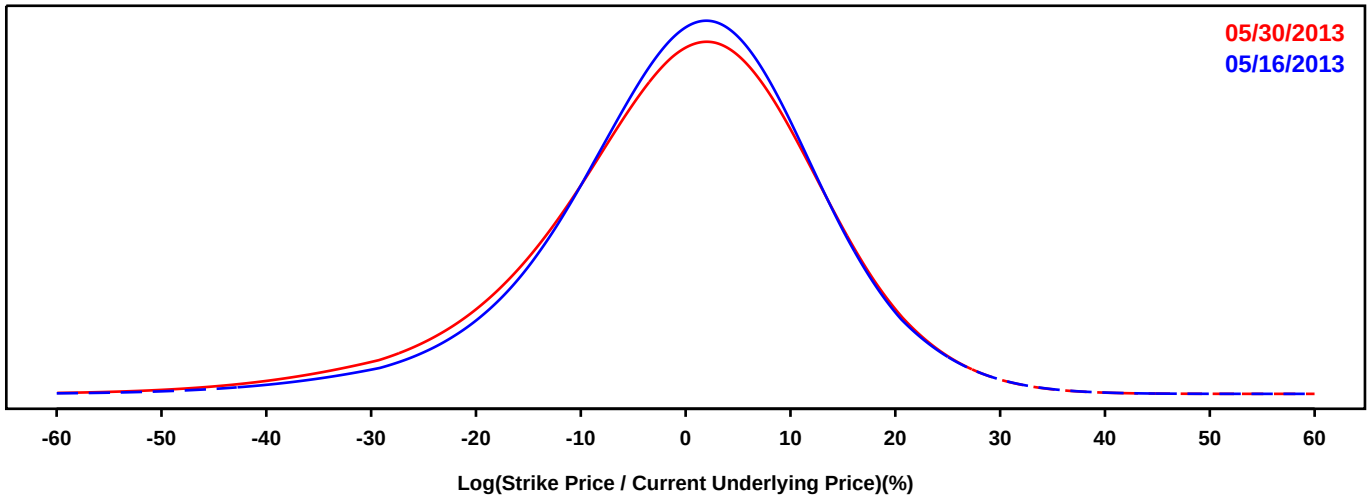
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- CITIGROUP

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

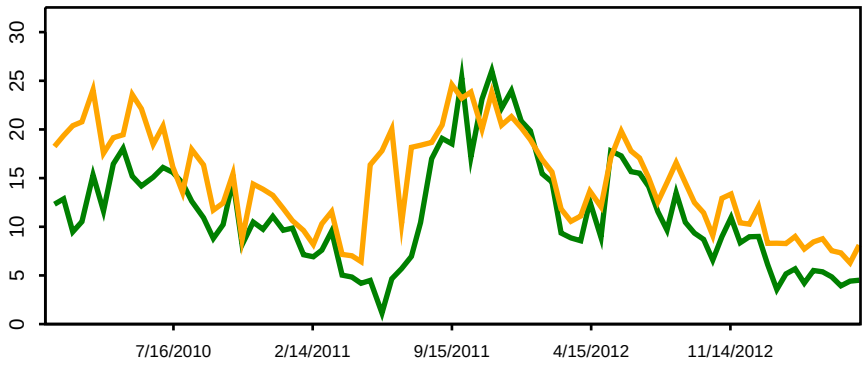
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



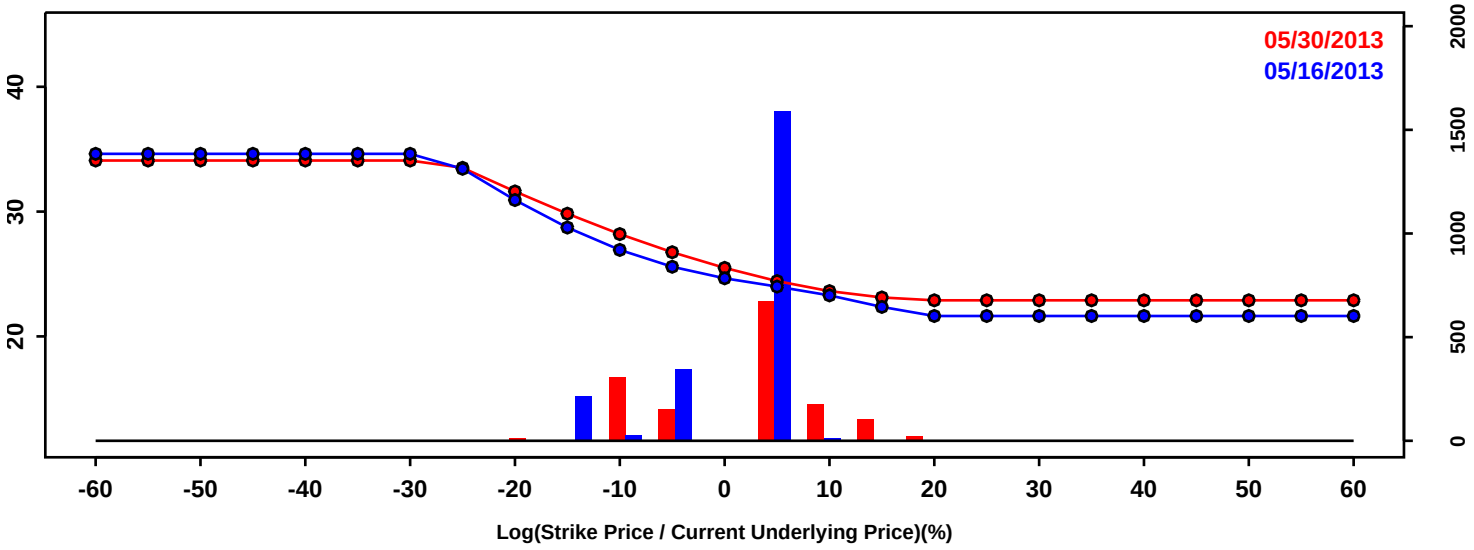
Statistics of the Log Return Distributions

	05/16/2013	05/30/2013	Change
10th Pct	-15.81%	-17.90%	-2.09%
50th Pct	0.85%	0.48%	-0.36%
90th Pct	15.08%	15.20%	0.12%
Mean	0.07%	-0.64%	-0.71%
Std Dev	12.71%	13.55%	0.83%
Skew	-0.51	-0.59	-0.08
Kurtosis	1.11	1.04	-0.07

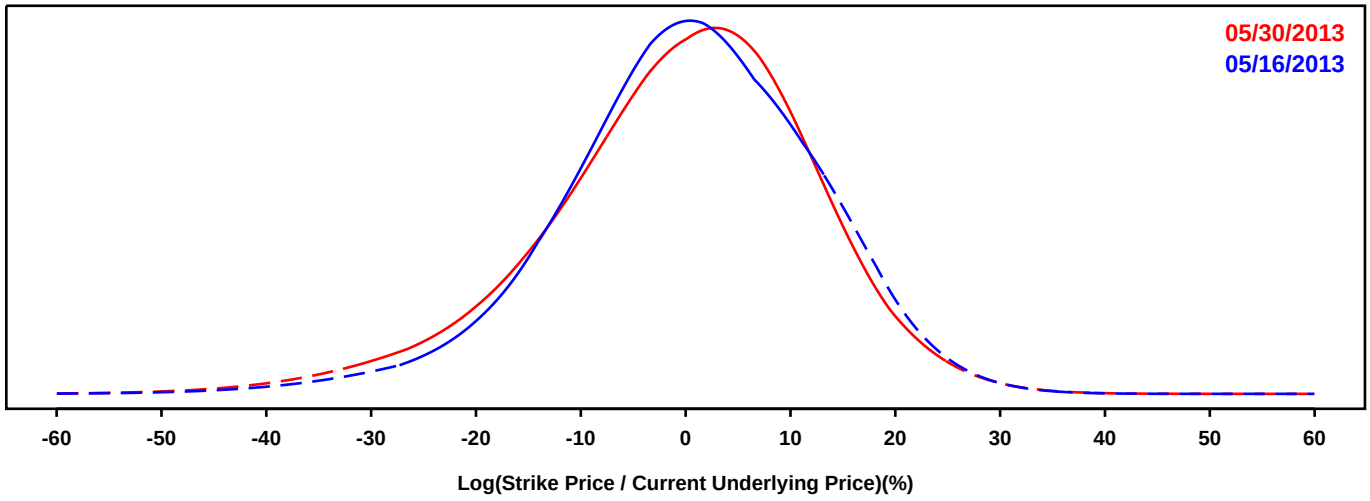
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- CAPITAL ONE

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

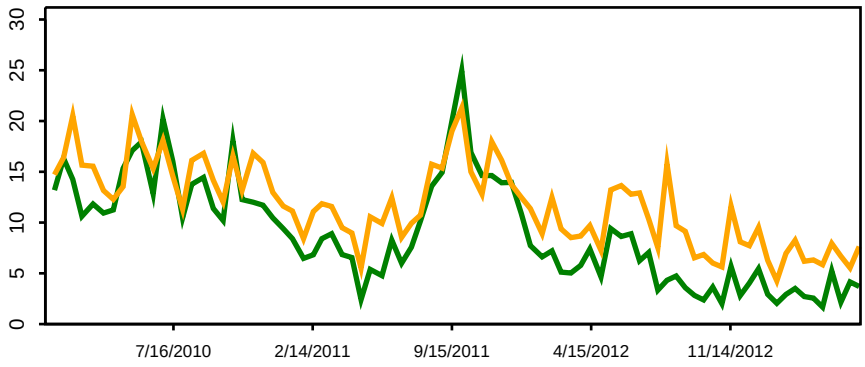
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



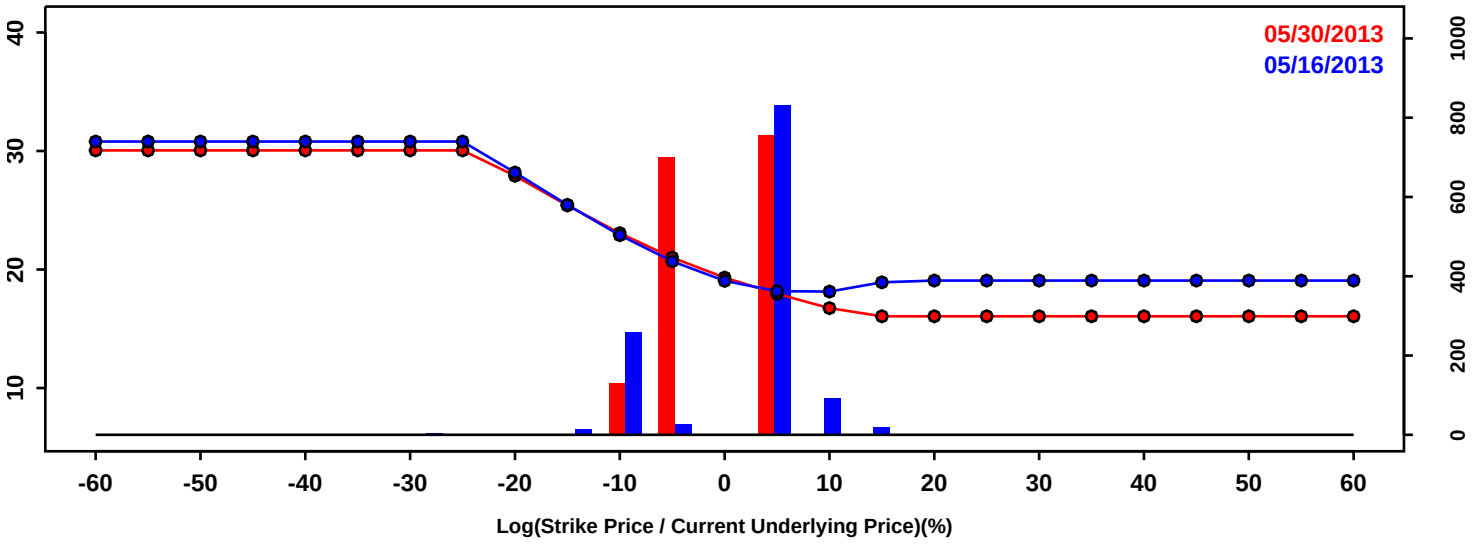
Statistics of the Log Return Distributions

	05/16/2013	05/30/2013	Change
10th Pct	-15.20%	-17.41%	-2.21%
50th Pct	0.64%	0.48%	-0.15%
90th Pct	15.40%	14.52%	-0.89%
Mean	0.19%	-0.64%	-0.83%
Std Dev	12.33%	12.93%	0.60%
Skew	-0.43	-0.54	-0.11
Kurtosis	0.73	0.75	0.01

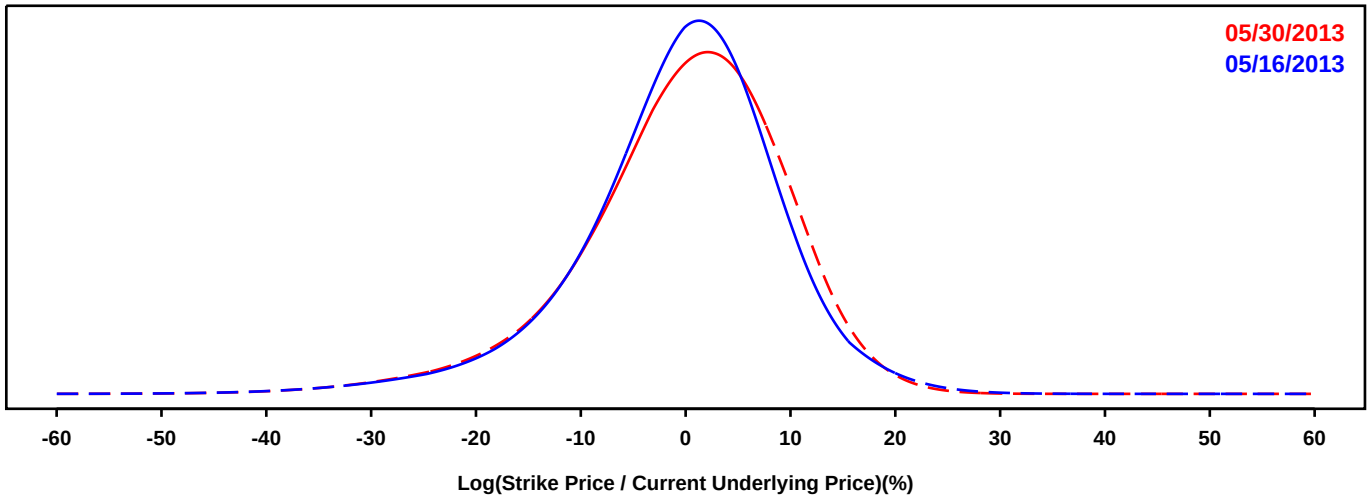
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- FIFTH THIRD

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

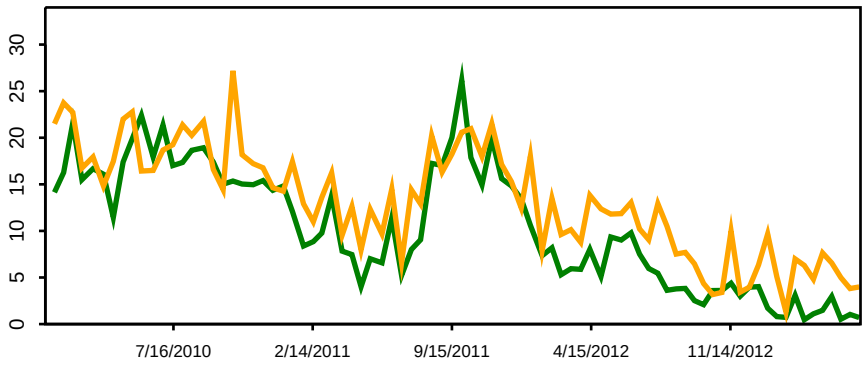
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <= -20% Increase >= 20%

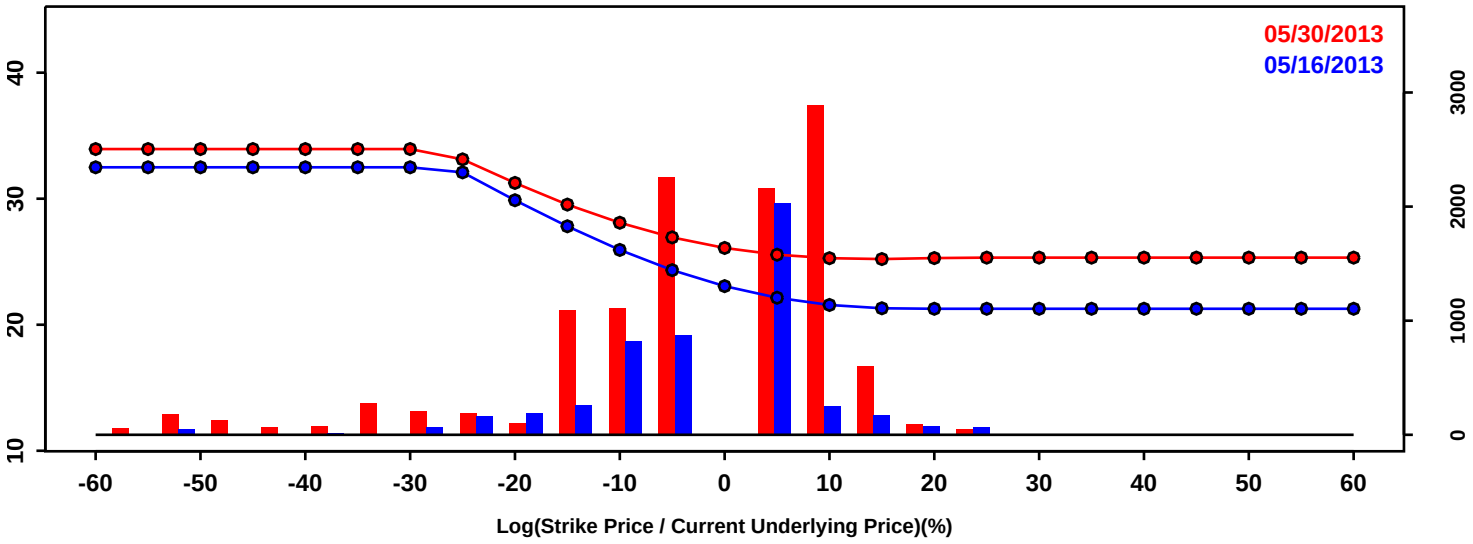
Statistics of the Log Return Distributions

	05/16/2013	05/30/2013	Change
10th Pct	-12.50%	-12.82%	-0.32%
50th Pct	0.31%	0.72%	0.41%
90th Pct	10.34%	11.11%	0.77%
Mean	-0.56%	-0.25%	0.30%
Std Dev	9.67%	9.88%	0.21%
Skew	-0.72	-0.77	-0.05
Kurtosis	1.77	1.38	-0.39

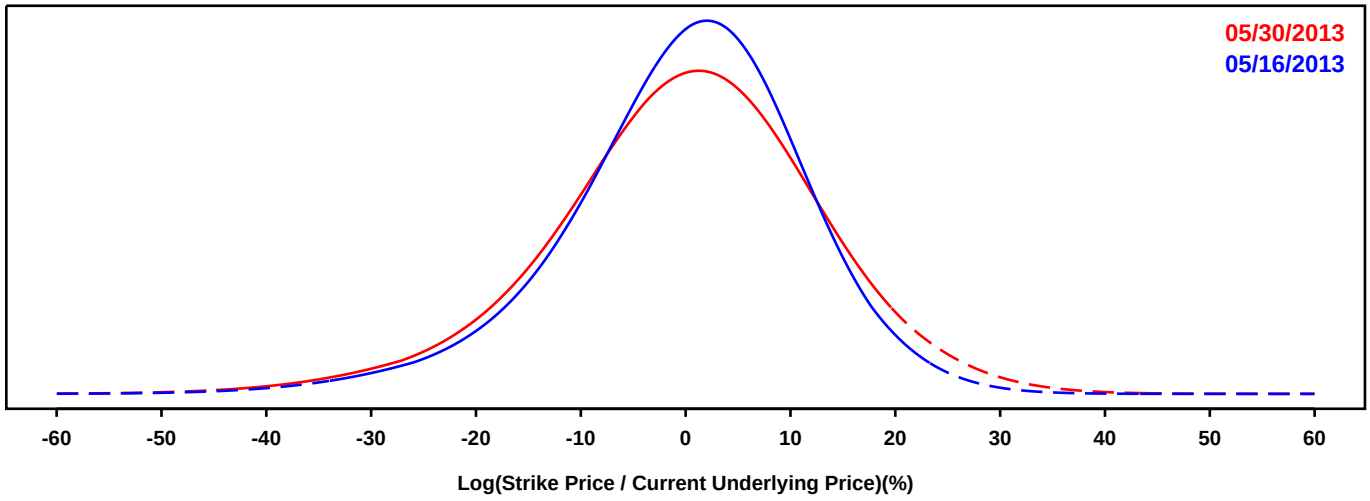
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- GOLDMAN SACHS

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

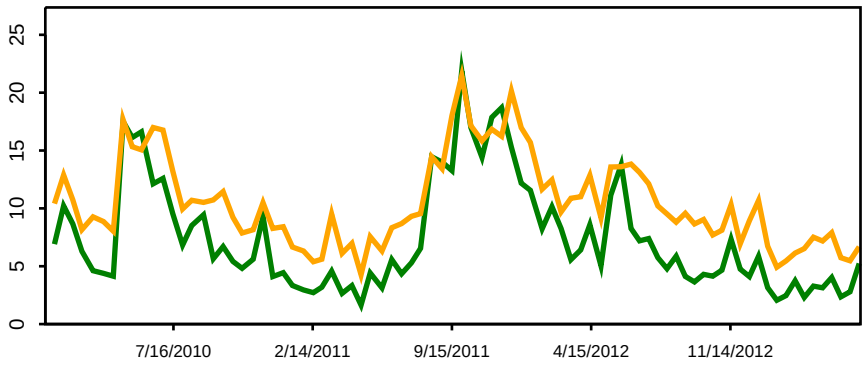
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



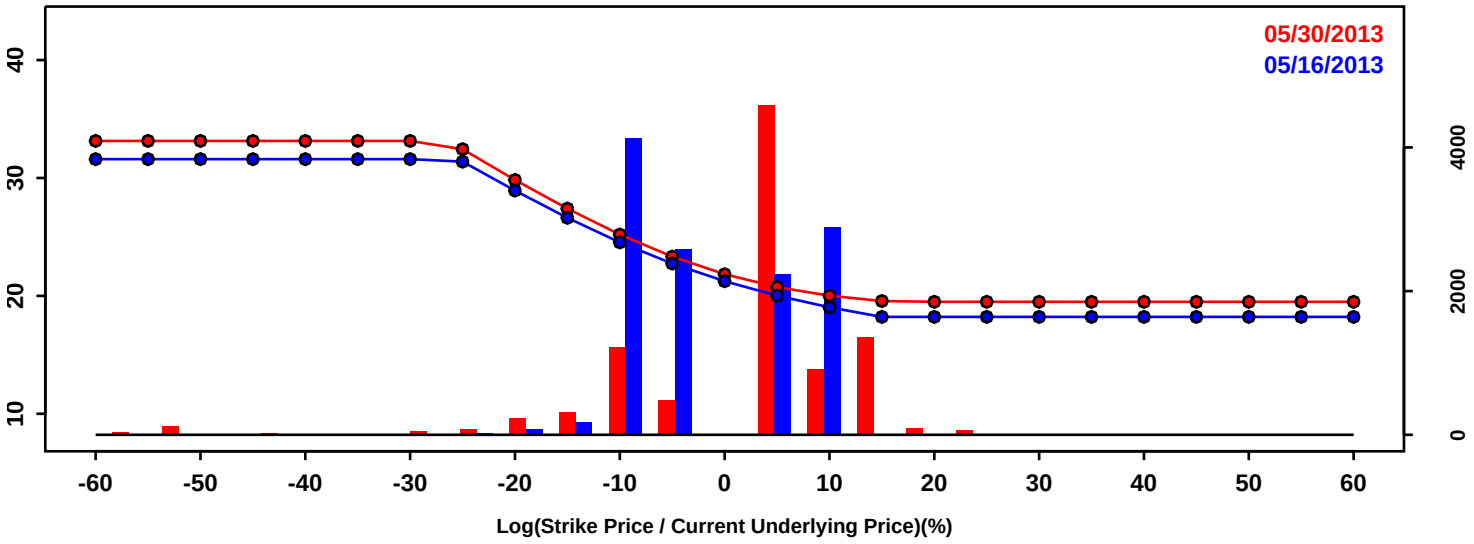
Statistics of the Log Return Distributions

	05/16/2013	05/30/2013	Change
10th Pct	-14.90%	-16.45%	-1.55%
50th Pct	0.74%	0.54%	-0.20%
90th Pct	13.48%	15.78%	2.31%
Mean	-0.14%	-0.02%	0.12%
Std Dev	11.60%	13.02%	1.42%
Skew	-0.54	-0.34	0.20
Kurtosis	0.96	0.66	-0.30

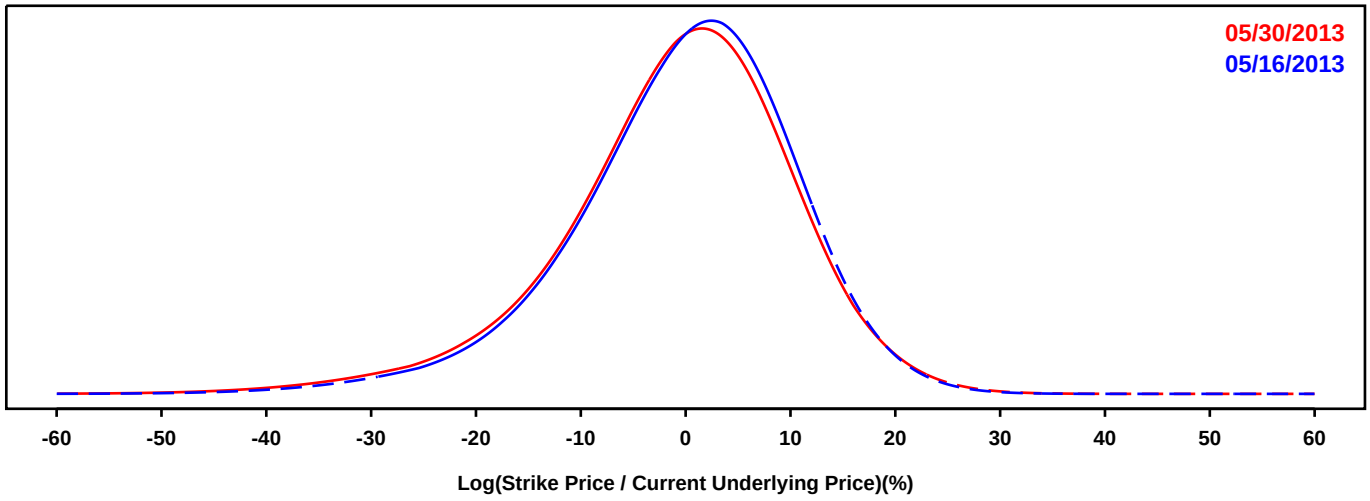
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- JP MORGAN

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

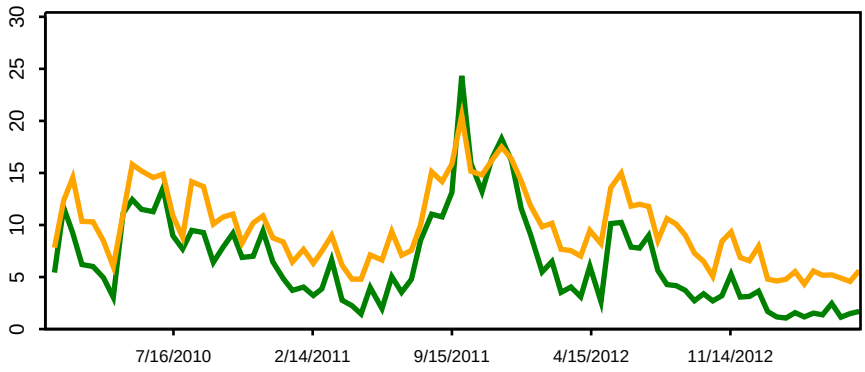
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



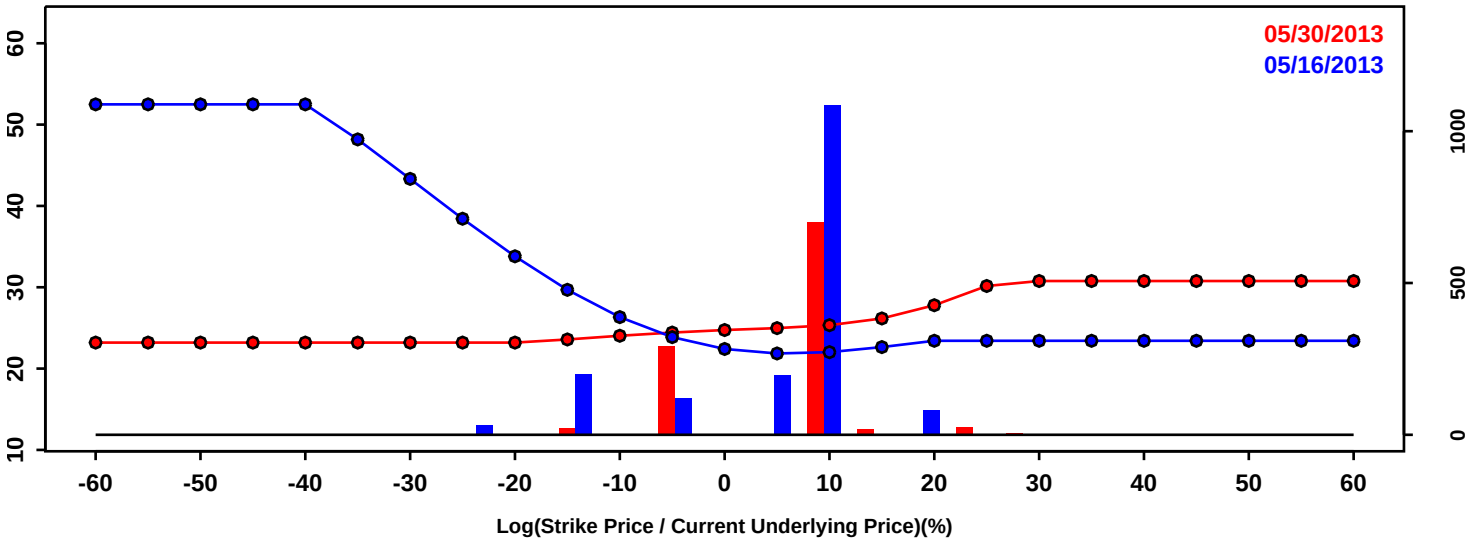
Statistics of the Log Return Distributions

	05/16/2013	05/30/2013	Change
10th Pct	-13.88%	-15.05%	-1.16%
50th Pct	0.79%	0.16%	-0.63%
90th Pct	12.29%	12.12%	-0.17%
Mean	-0.19%	-0.85%	-0.66%
Std Dev	10.71%	11.20%	0.50%
Skew	-0.66	-0.68	-0.03
Kurtosis	1.12	1.28	0.16

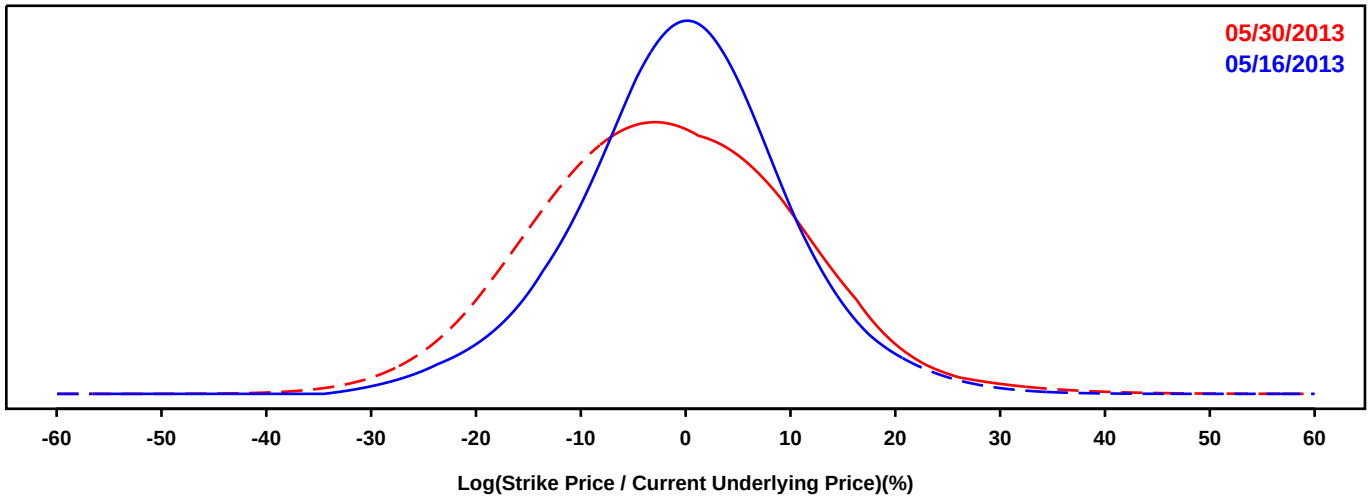
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- KEYCORP

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

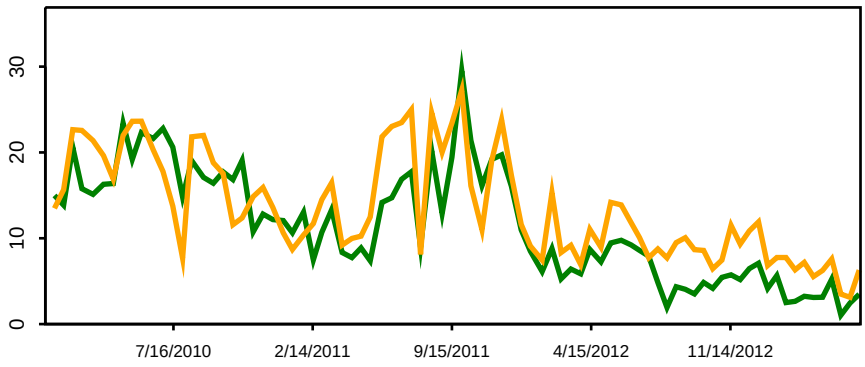
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <= -20% Increase >= 20%

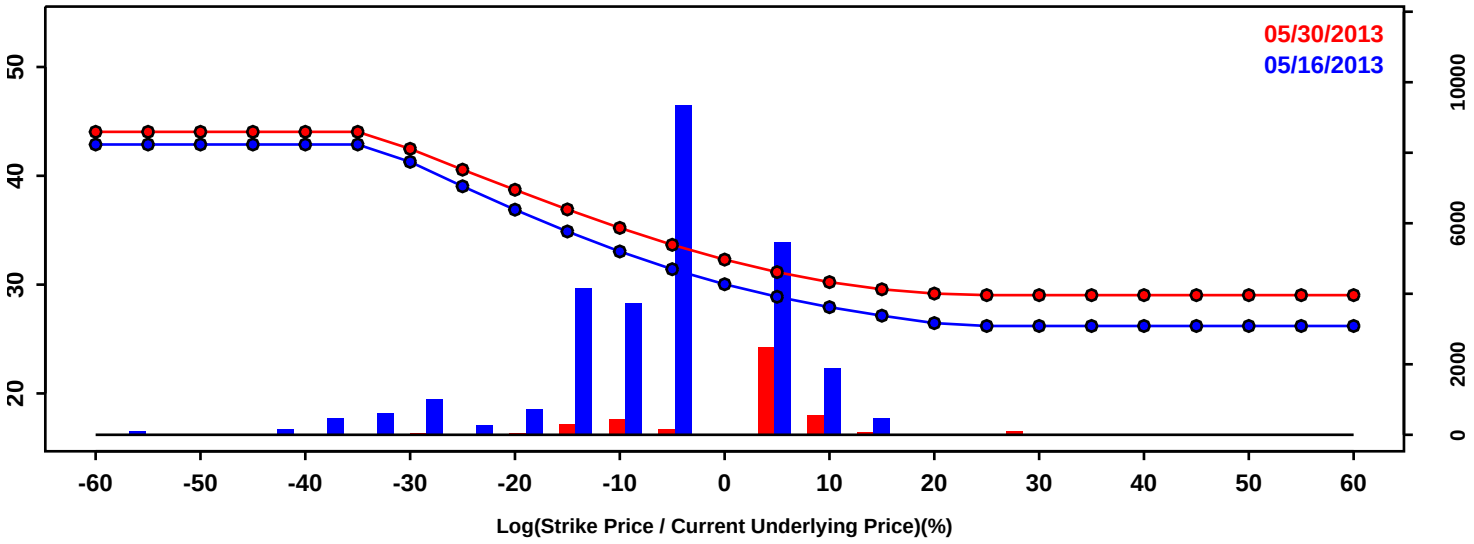
Statistics of the Log Return Distributions

	05/16/2013	05/30/2013	Change
10th Pct	-13.06%	-17.17%	-4.10%
50th Pct	-0.15%	-1.95%	-1.80%
90th Pct	12.05%	13.62%	1.57%
Mean	-0.28%	-1.75%	-1.47%
Std Dev	10.03%	12.15%	2.11%
Skew	-0.01	0.12	0.13
Kurtosis	0.39	0.14	-0.25

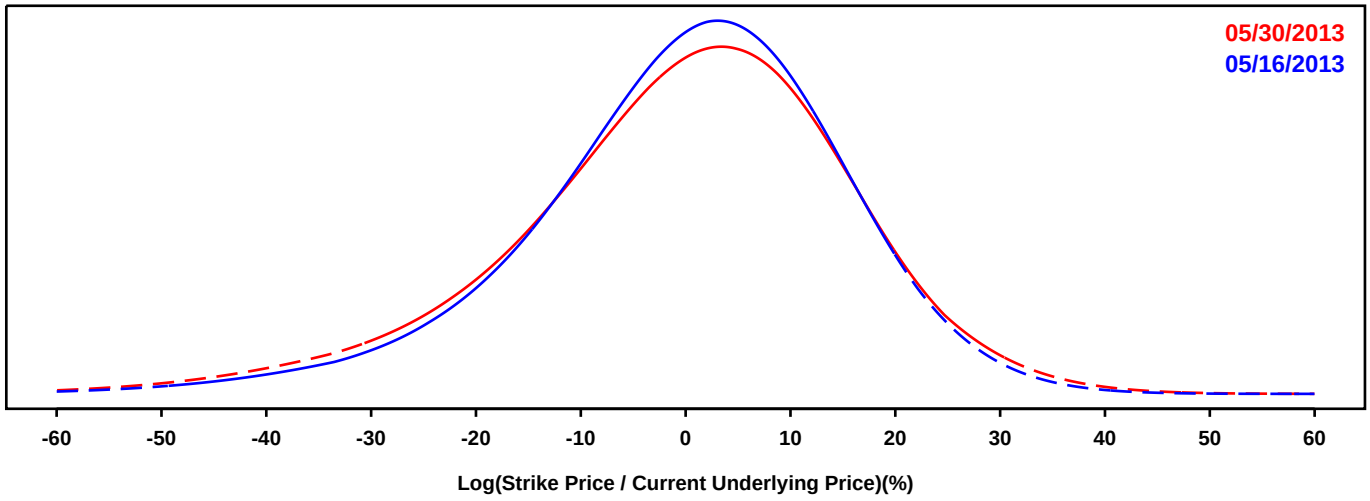
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- MORGAN STANLEY

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

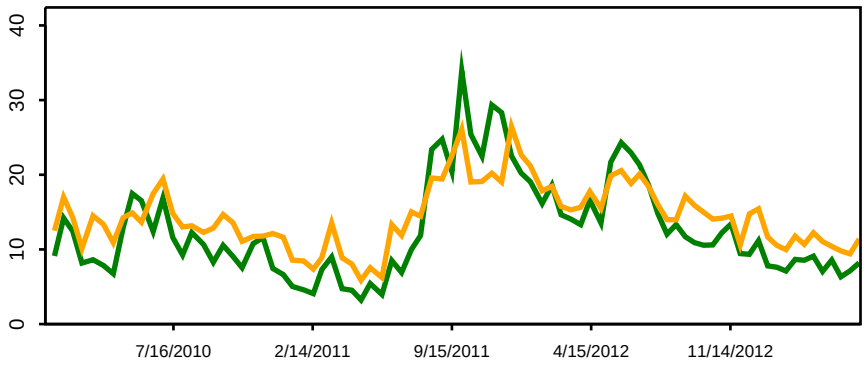
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <= -20% Increase >= 20%

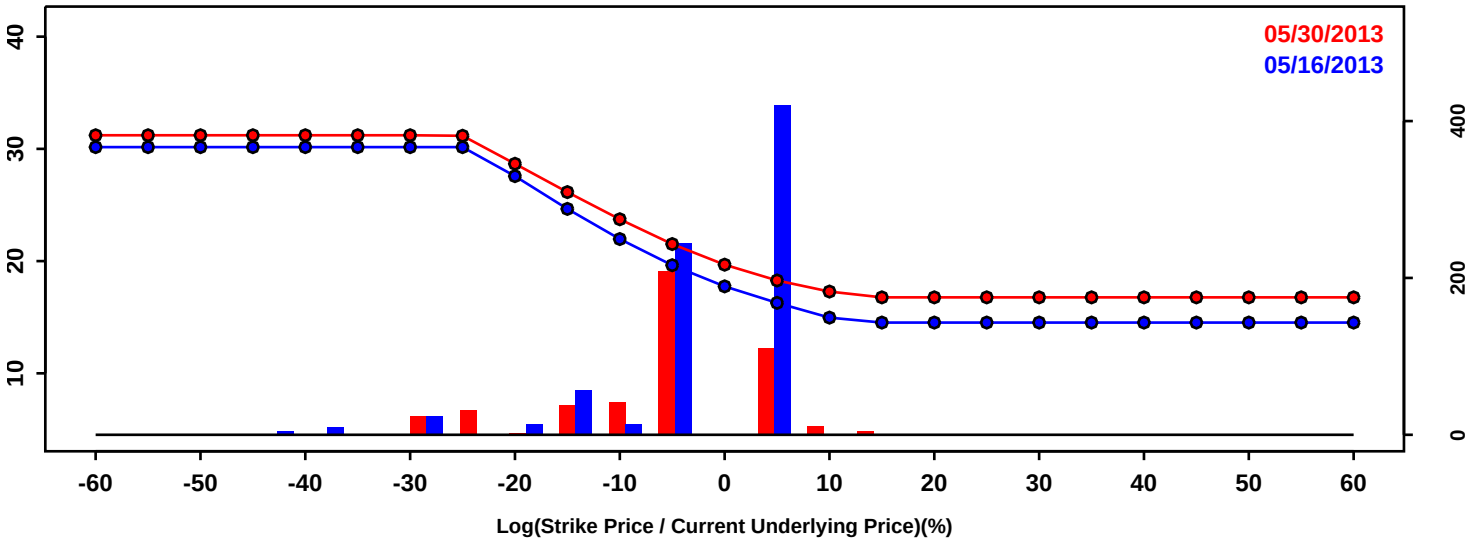
Statistics of the Log Return Distributions

	05/16/2013	05/30/2013	Change
10th Pct	-19.32%	-21.67%	-2.35%
50th Pct	1.27%	1.06%	-0.21%
90th Pct	17.71%	18.54%	0.83%
Mean	0.01%	-0.47%	-0.48%
Std Dev	15.11%	16.34%	1.23%
Skew	-0.61	-0.59	0.02
Kurtosis	1.00	0.88	-0.12

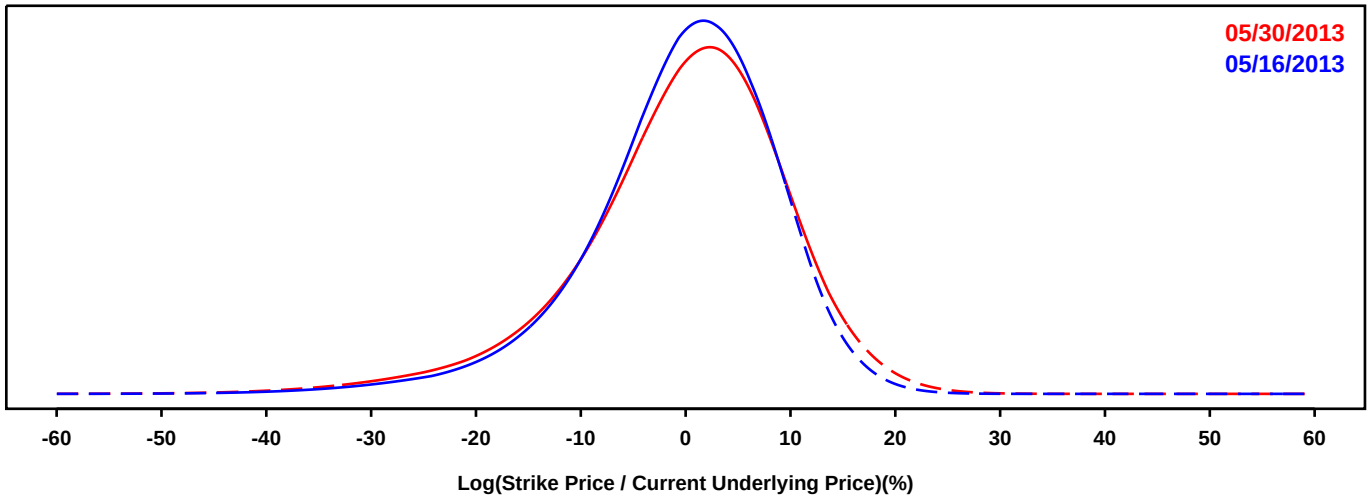
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- PNC FINANCIAL

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

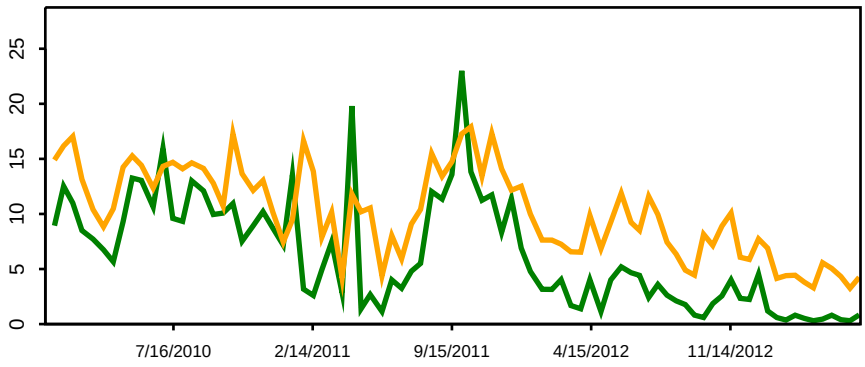
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <= -20% Increase >= 20%

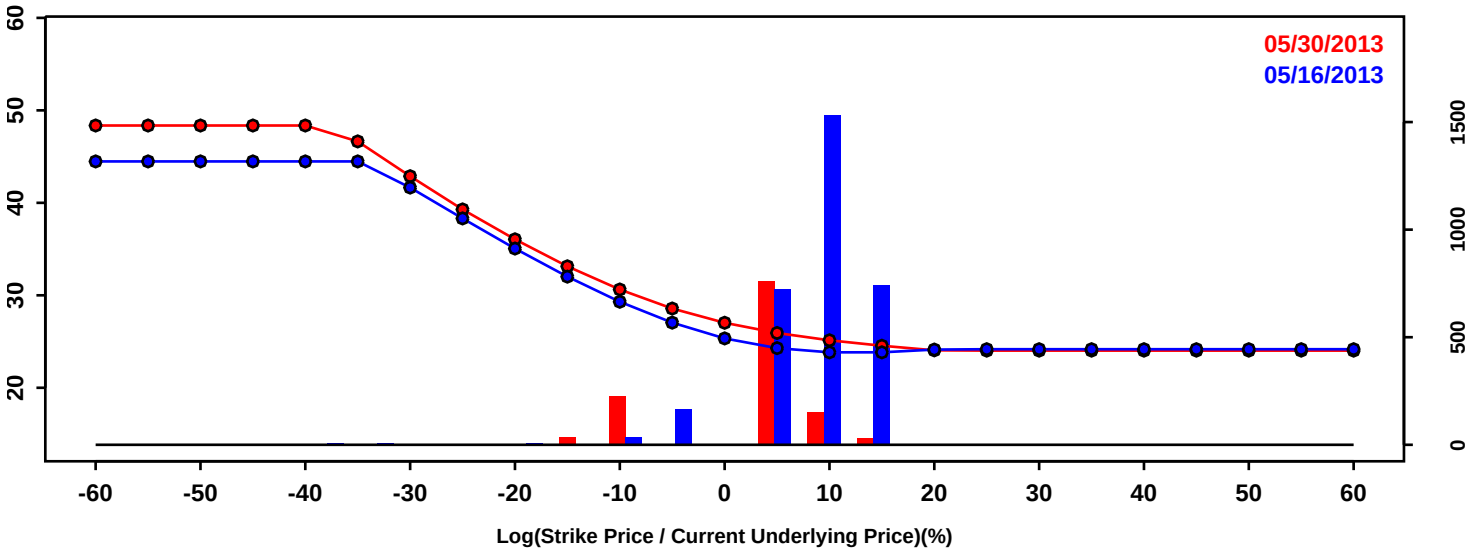
Statistics of the Log Return Distributions

	05/16/2013	05/30/2013	Change
10th Pct	-11.79%	-13.04%	-1.25%
50th Pct	0.62%	0.82%	0.20%
90th Pct	10.02%	11.07%	1.05%
Mean	-0.35%	-0.29%	0.06%
Std Dev	9.12%	10.05%	0.93%
Skew	-0.88	-0.82	0.05
Kurtosis	1.81	1.60	-0.22

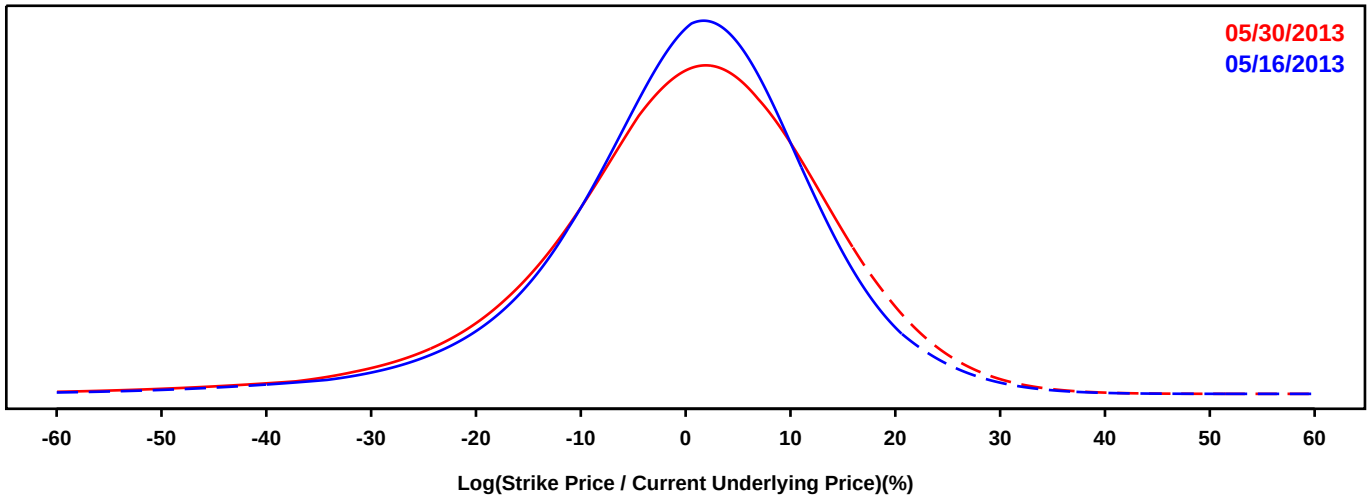
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- REGIONS FINANCIAL

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

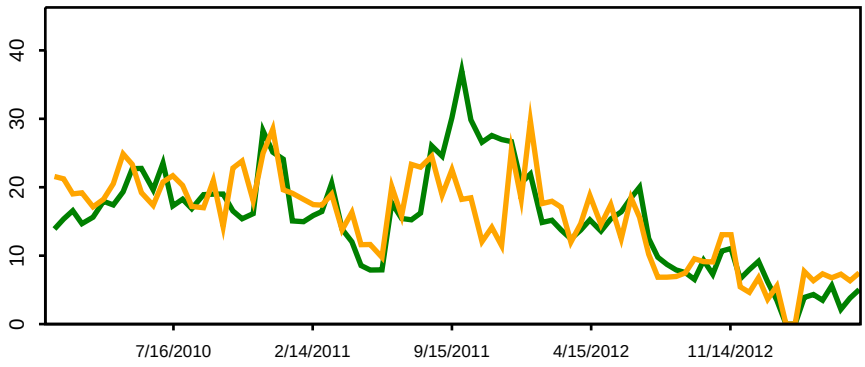
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <= -20% Increase >= 20%

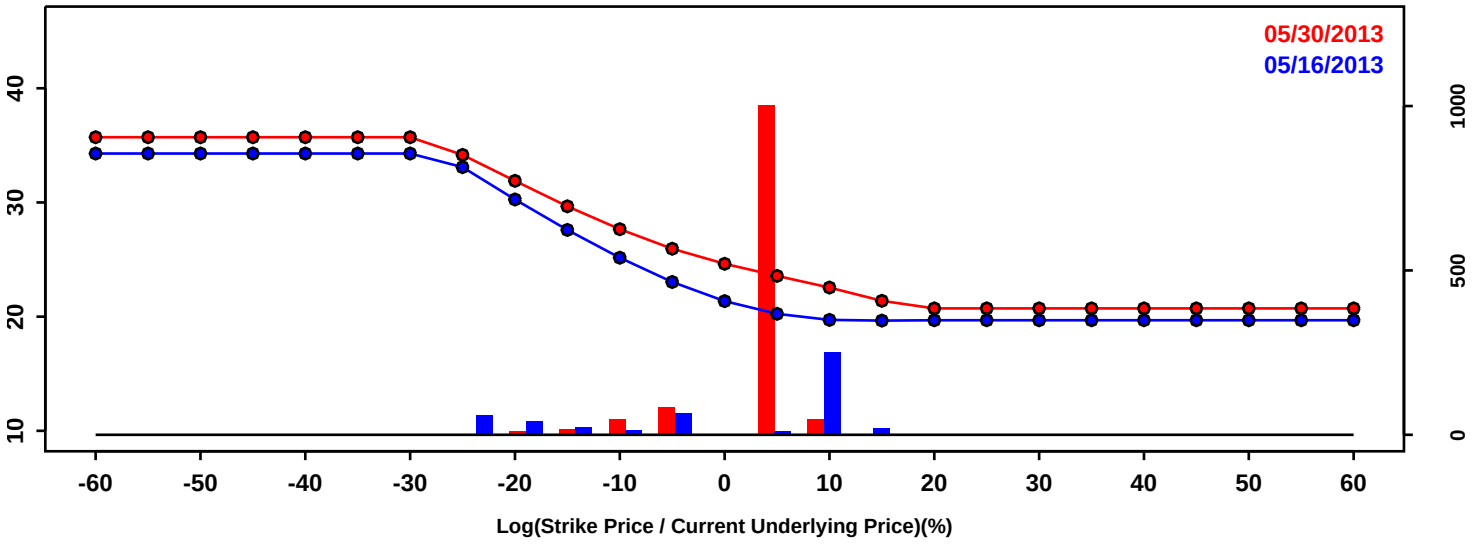
Statistics of the Log Return Distributions

	05/16/2013	05/30/2013	Change
10th Pct	-15.57%	-17.04%	-1.47%
50th Pct	0.84%	0.92%	0.07%
90th Pct	14.28%	15.81%	1.54%
Mean	-0.17%	-0.15%	0.02%
Std Dev	12.73%	13.83%	1.10%
Skew	-0.78	-0.79	-0.01
Kurtosis	2.18	2.00	-0.18

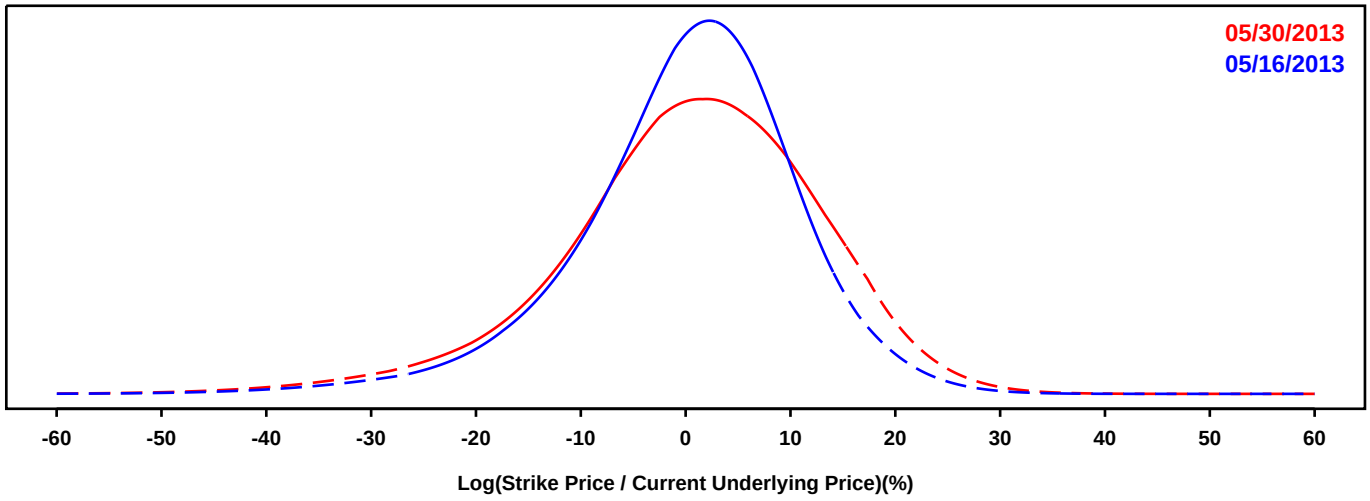
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- SUNTRUST

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

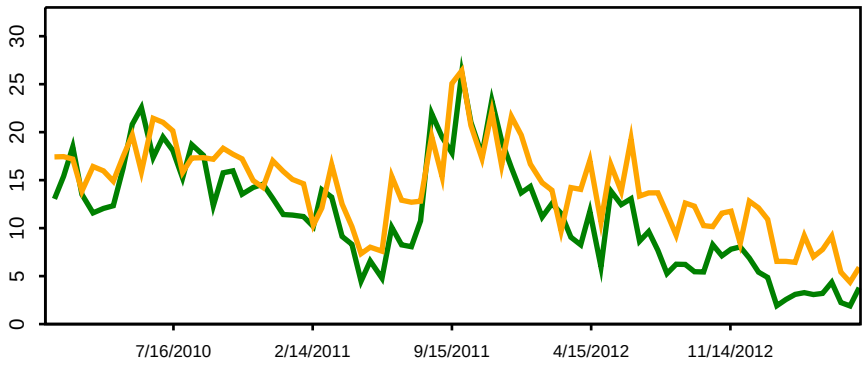
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <= -20% Increase >= 20%

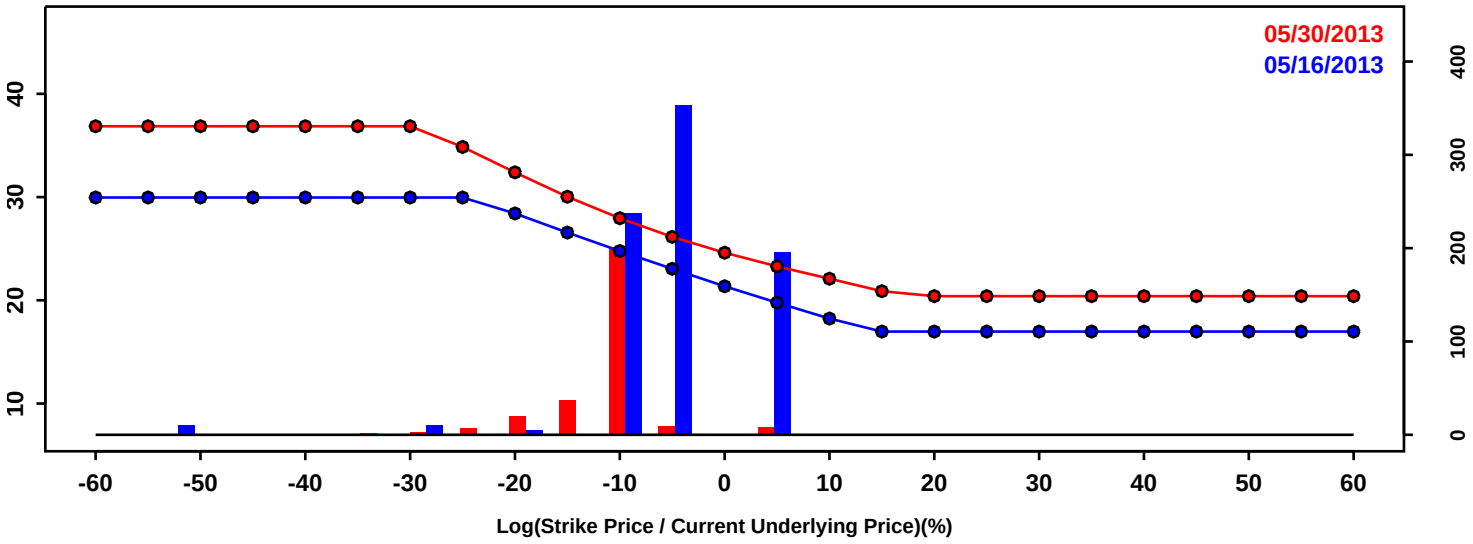
Statistics of the Log Return Distributions

	05/16/2013	05/30/2013	Change
10th Pct	-13.29%	-15.17%	-1.88%
50th Pct	1.06%	1.26%	0.20%
90th Pct	12.34%	15.19%	2.86%
Mean	0.11%	0.44%	0.34%
Std Dev	10.70%	12.37%	1.67%
Skew	-0.71	-0.61	0.10
Kurtosis	1.60	1.01	-0.59

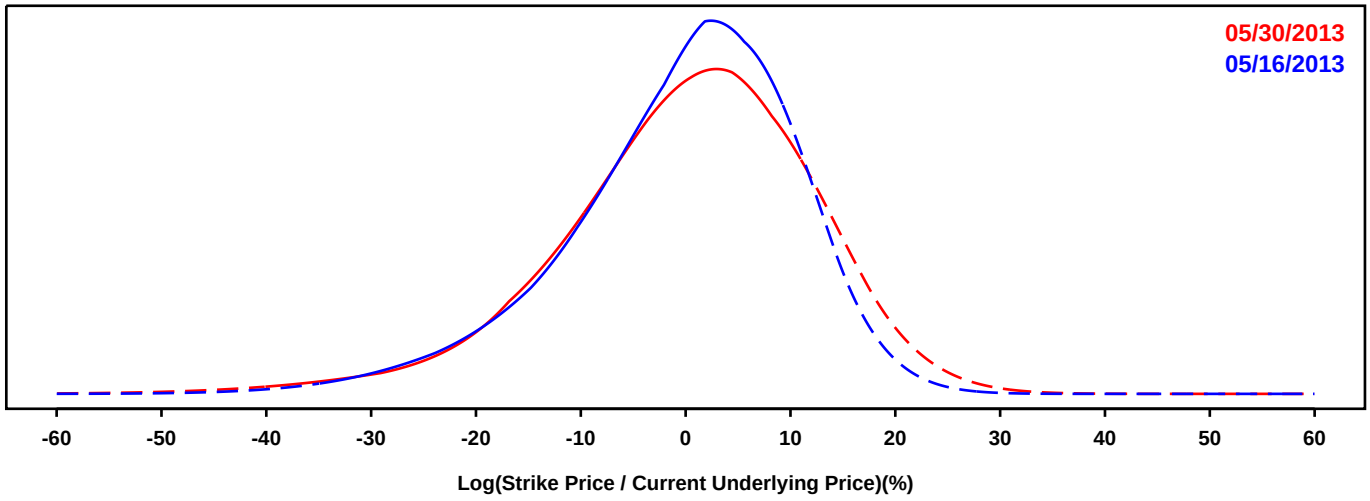
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- STATE STREET

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

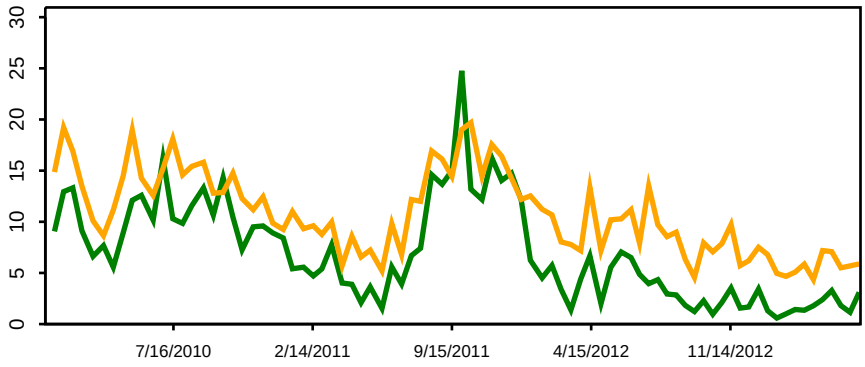
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <= -20% Increase >= 20%

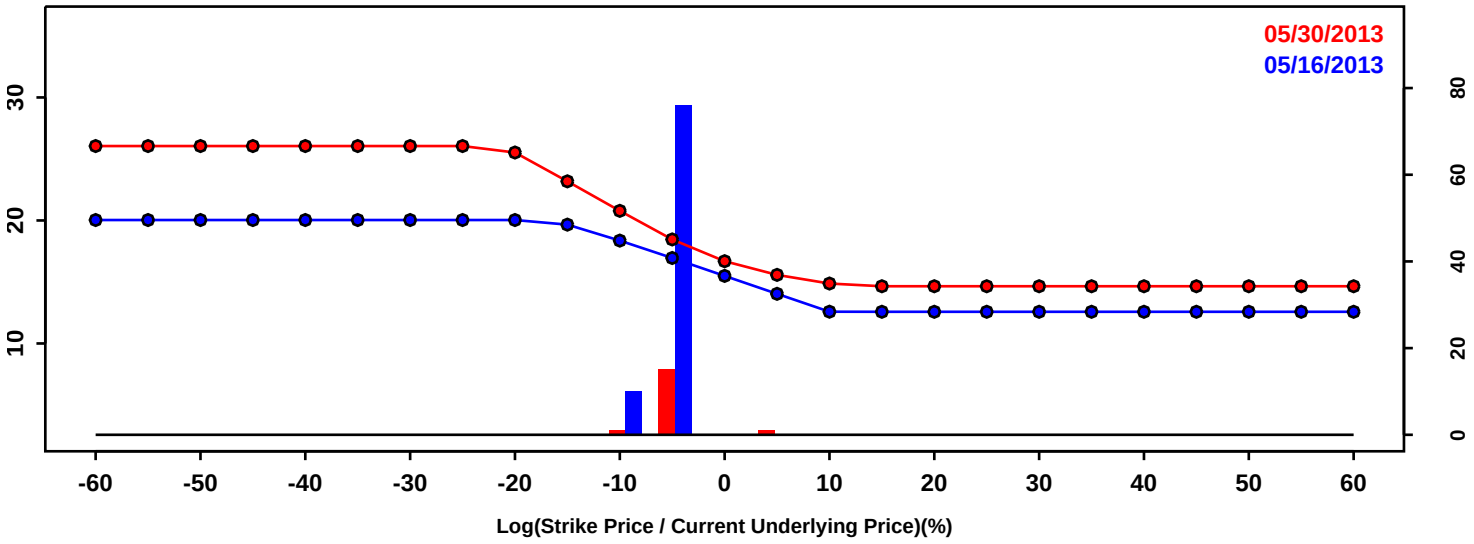
Statistics of the Log Return Distributions

	05/16/2013	05/30/2013	Change
10th Pct	-15.16%	-15.52%	-0.37%
50th Pct	0.98%	1.11%	0.13%
90th Pct	12.25%	14.42%	2.17%
Mean	-0.41%	0.06%	0.47%
Std Dev	11.05%	12.24%	1.19%
Skew	-0.73	-0.66	0.07
Kurtosis	0.87	1.14	0.27

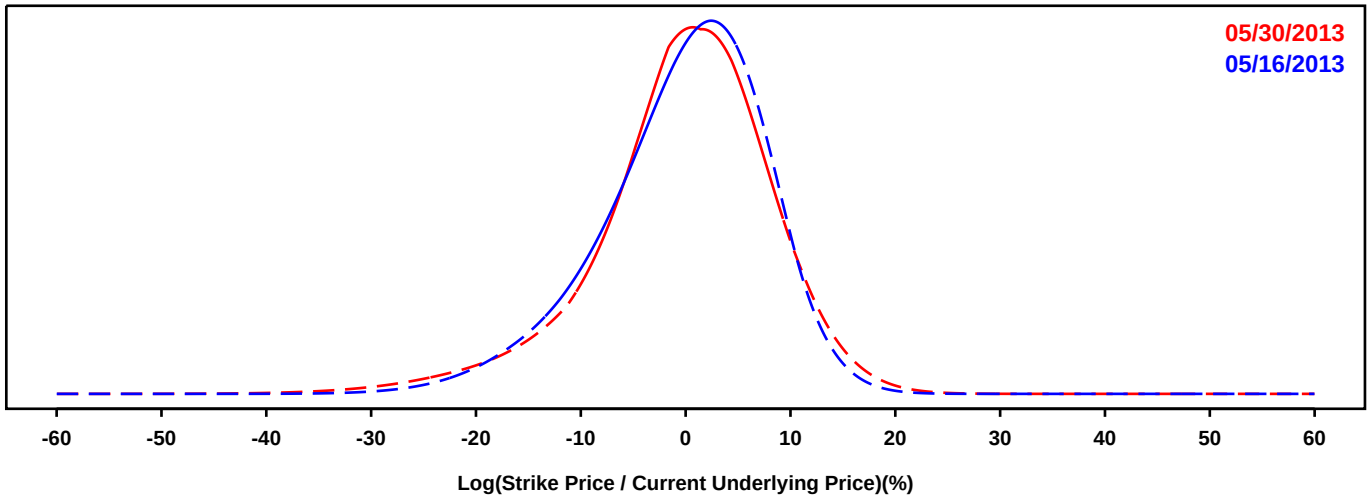
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- US BANCORP

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

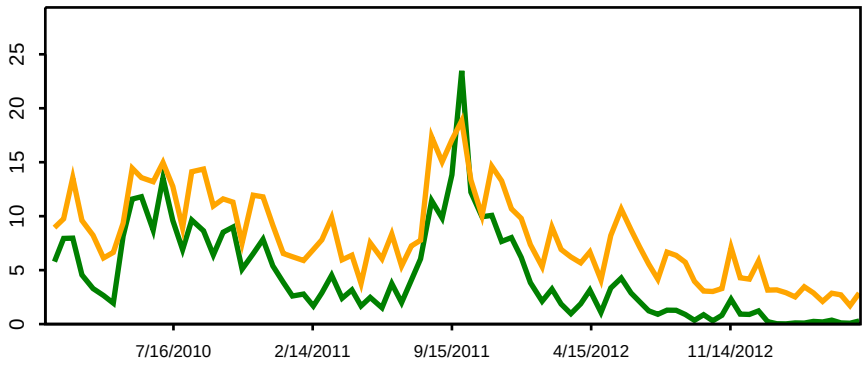
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <= -20% Increase >= 20%

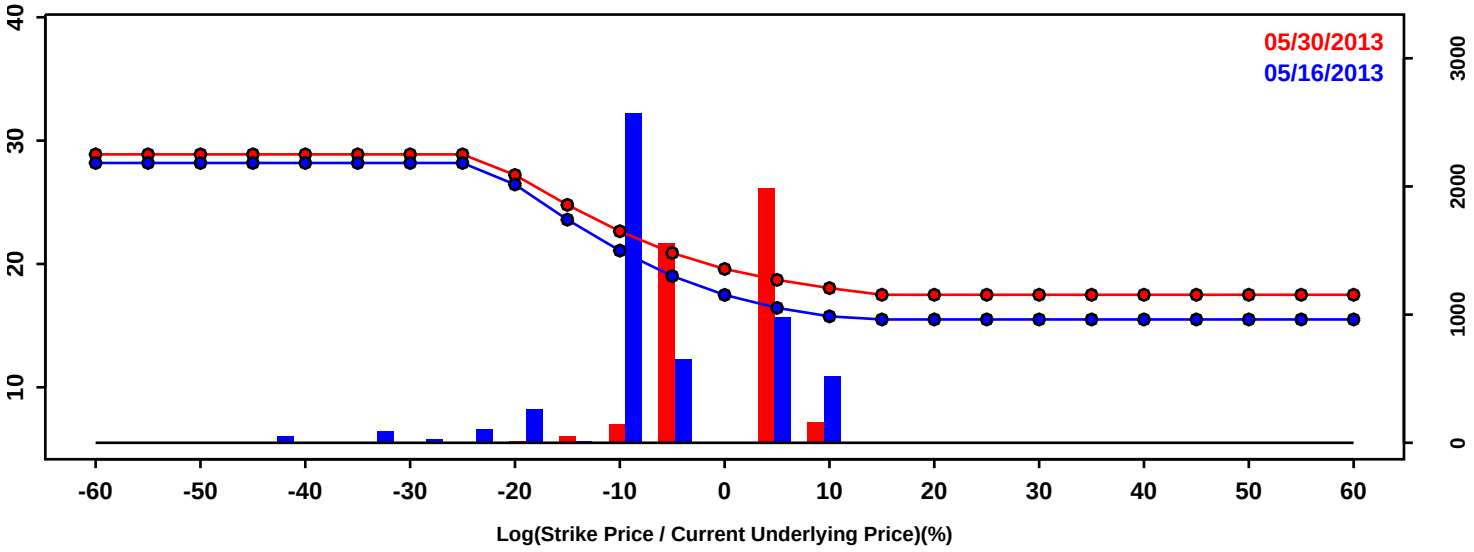
Statistics of the Log Return Distributions

	05/16/2013	05/30/2013	Change
10th Pct	-10.88%	-11.04%	-0.16%
50th Pct	0.69%	0.48%	-0.21%
90th Pct	8.94%	9.49%	0.55%
Mean	-0.23%	-0.30%	-0.07%
Std Dev	7.89%	8.57%	0.68%
Skew	-0.62	-0.78	-0.16
Kurtosis	0.56	1.56	1.00

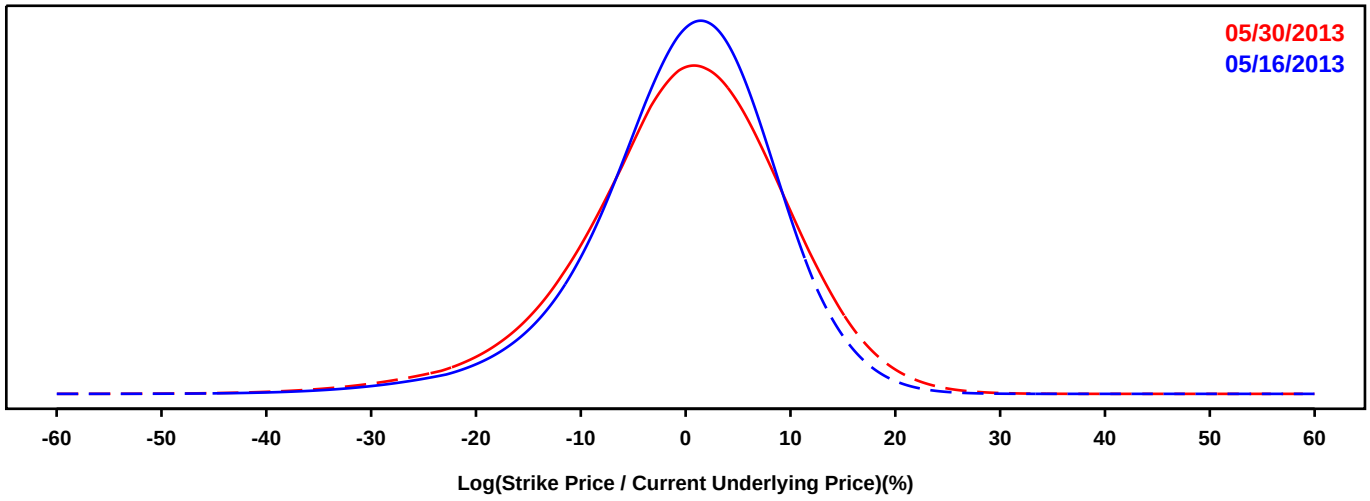
RISK NEUTRAL PROBABILITY DENSITY FUNCTIONS -- WELLS FARGO

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

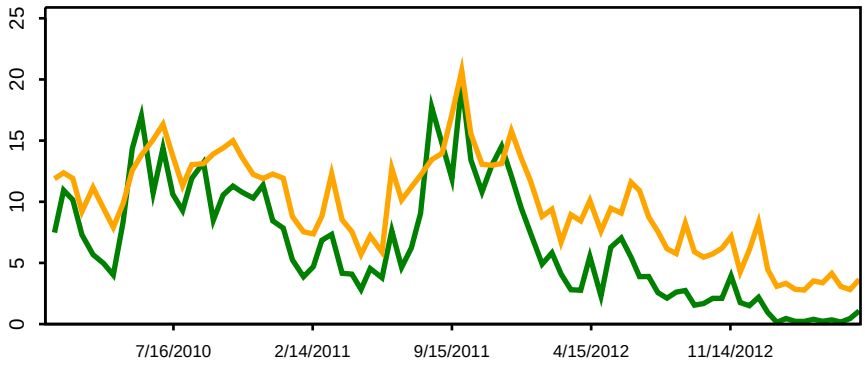
Implied Volatilities (lines--left axis) and Volume (bars--right axis)



Risk Neutral PDF of the Log Return Distribution



Probability of a Large Change



Decrease <= -20% Increase >= 20%

Statistics of the Log Return Distributions

	05/16/2013	05/30/2013	Change
10th Pct	-11.46%	-12.82%	-1.36%
50th Pct	0.48%	0.29%	-0.19%
90th Pct	10.02%	11.38%	1.36%
Mean	-0.28%	-0.37%	-0.09%
Std Dev	8.90%	9.89%	0.99%
Skew	-0.70	-0.56	0.14
Kurtosis	1.45	1.05	-0.40