

FEDERAL RESERVE BANK OF MINNEAPOLIS

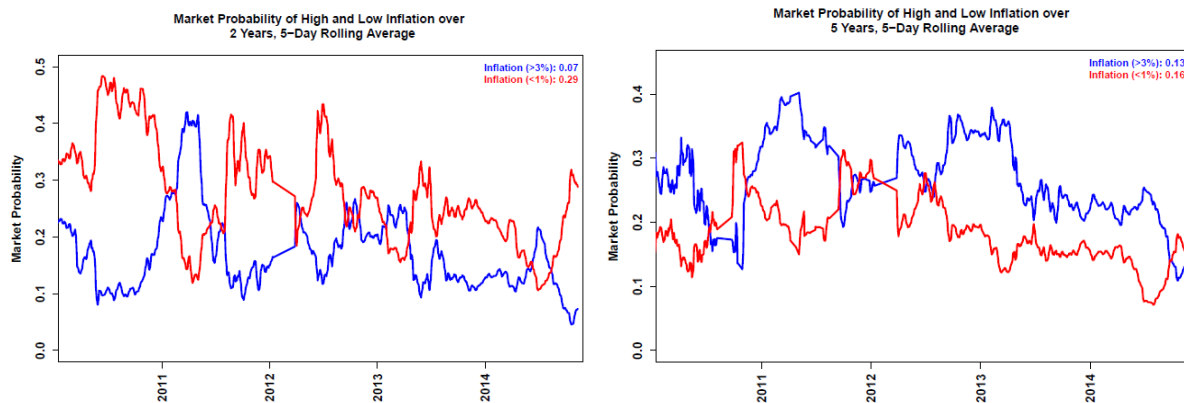
BANKING AND POLICY STUDIES

Minneapolis Options Report – November 14th

The dollar strengthened as the euro, yen, metals and oil fell in price. Uncertainty increased in all of these markets as measured by the standard deviation of market-based probability densities (MPDs) derived from options. Banks and equity markets were relatively quiet during the past two weeks as price increased steadily. Market expectations for inflation were stable during the period and the bias for higher short-term interest rates remained at historically low levels.

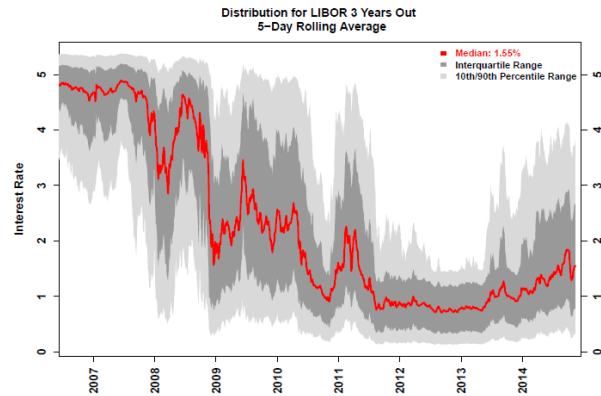
Inflation

Market probabilities for high inflation (based on caps and floors on the CPI) over the next two and five years increased slightly over the past two weeks but continue to remain at very low levels. Equivalently, the market probability of low inflation over these horizons remains elevated.



Interest rates

Spot prices for three-month LIBOR futures contracts that expire in three- and five-years continued to rise over the past two weeks from a mid-October low. While the skew of the MPD distribution for the three-year contract rose during this period, the skew measure associated with the five-year contract continued to decline. As noted two weeks ago, the market expectation calculated from options on LIBOR futures remains biased towards higher rates but the bias remains historically low.



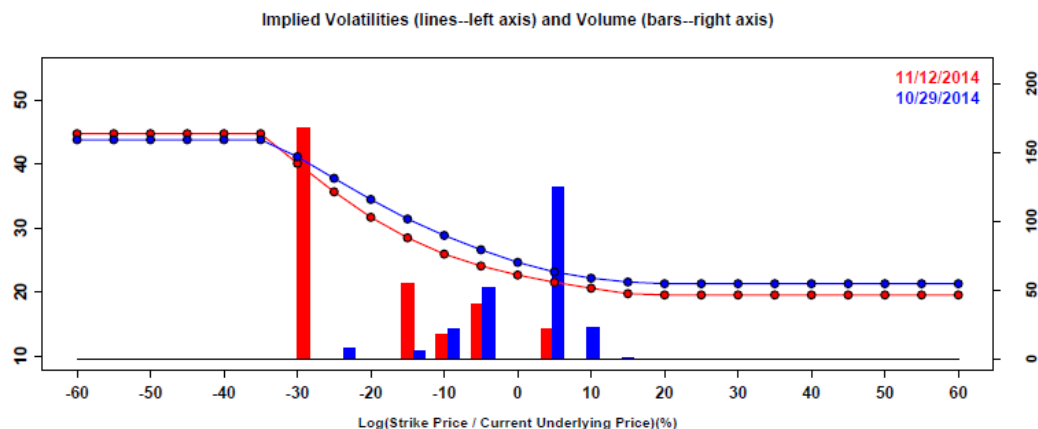
Banks and Insurance Companies

Financial firm equity saw modest gains in the last two weeks. The standard deviation of market probability densities was generally lower for insurance companies and banks. Trading volumes were light for many options on bank equity.

Additional Details:

- Lincoln National experienced heavy trading of deep out-of-the-money options with strike prices 30 percent below the spot price. These trades occurred on days in which a company insider sold large amounts of stock. However, the price of the options and shape of the MPD only experienced a small change in response to this activity.

Lincoln National



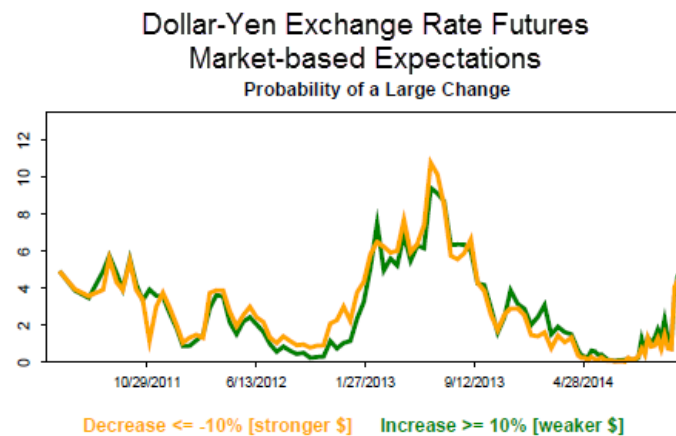
- The option trading volume of Principal Financial rebounded to more normal levels and the probability of a 20 percent equity decline has fallen to 6 percent. This probability still remains slightly higher than most peer institutions, but it is consistent with levels experienced in the last year for the firm.

Other commodity markets

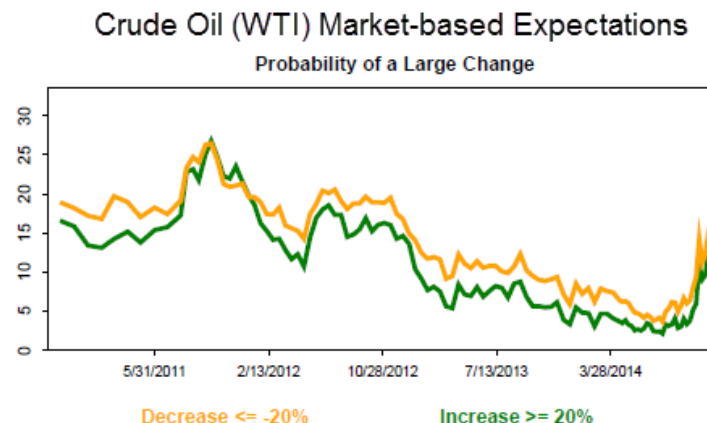
The dollar strengthened against the yen and the euro and the expected volatility in these currency markets continued to rise. Oil and metals declined in value and the standard deviations of the associated MPDs climbed noticeably. Agricultural commodities had small declines in volatility and mixed volumes.

Additional Details:


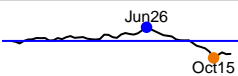


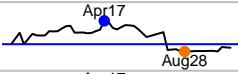








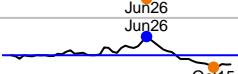


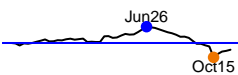


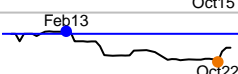








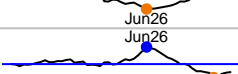


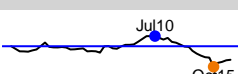





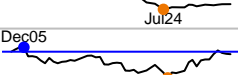





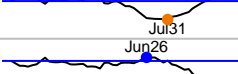

- The euro continued to decline against the dollar during the past two weeks. Uncertainty about future level of the exchange rate also continued to rise as the standard deviation of the market probability density increased 56 basis points from 3.77 percent to 4.32 percent (the highest level since July 2013).
- The dollar surged against the yen to a post-crisis high in response to the surprise announcement of additional quantitative easing at the end of October. The MPD for the dollar-yen exchange rate became flattened considerably and the probability of future large changes increased noticeably.



- The price of gold fell 4 percent over the last two weeks. The standard deviation of market expectations increased 178 basis points and was skewed more negatively than two weeks ago. Despite recent declines, the option market indicators are increasingly pessimistic.
- Silver MPDs standard deviations increased 364 basis points to 20.45 percent for 6 month contracts. Market uncertainty has increased during the last several weeks as prices have declined.
- Tail risks measured in the market for WTI crude oil increased from our last report. Spot prices have fallen further and the MPD standard deviation fell by 190 basis points. The probability of another 20 percent price decrease has risen to over 15 percent.





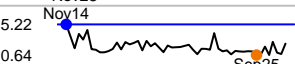


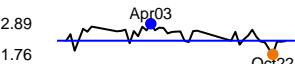
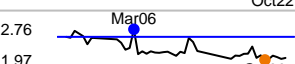



Inflation MPD Statistics as of November 12, 2014

Indicator	Latest	2-Week Change	1-Year Trend		Long-Term Range	
with min/max points						
with median, IQR, and max/min						
Inflation (1-Year Expiry)						
Median	1.15%	-0.062% 	2.2 0.99		Last time lower Jun2012	0.75  2.92 last 48 months
MPD Std Dev	0.94%	-0.022% 	1.72 0.83			0.83  2.75 last 48 months
MPD Skew	-0.29	 0.17	2.5 -0.61			-0.77  2.5 last 48 months
Market Prob of Less Than 1% Inflation	43.51%	 3.2%	50.63 11.88		Last time higher Jun2012	5.88  57.45 last 48 months
Market Prob of More Than 3% Inflation	3.02%	-0.21% 	18.71 1.48		48 month low	1.48  46.92 last 48 months
Inflation (2-Year Expiry)						
Median	1.57%	 0.05%	2.2 1.37		Last time lower Jul2012	1.18  2.75 last 47 months
MPD Std Dev	0.98%	 0.027%	1.09 0.88		47 month low	0.88  1.84 last 47 months
MPD Skew	-0.02	-0.0021 	0.19 -0.22			-0.4  2.74 last 47 months
Market Prob of Less Than 1% Inflation	28.87%	-1.1% 	34.04 10.74		Last time higher Jul2012	10.74  44.28 last 47 months
Market Prob of More Than 3% Inflation	7.3%	 0.92%	21.41 4.21		47 month low	4.21  43.02 last 47 months
Inflation (5-Year Expiry)						
Median	1.94%	 0.035%	2.34 1.82		Last time lower Sep2011	1.64  2.83 last 47 months
MPD Std Dev	0.96%	 0.00057%	1.2 0.91			0.91  1.89 last 47 months
MPD Skew	0.14	-0.013 	0.21 -0.1			-0.22  1.39 last 47 months
Market Prob of Less Than 1% Inflation	15.97%	-1.1% 	19.72 7.13		Last time higher Dec2012	7.13  31.67 last 47 months
Market Prob of More Than 3% Inflation	12.71%	 0.89%	25.22 9.83		47 month low	9.83  41.72 last 47 months


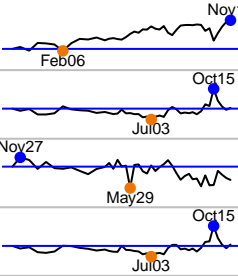


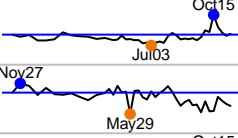


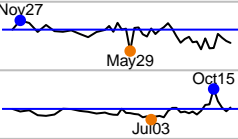


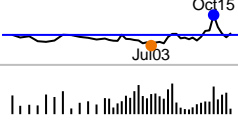



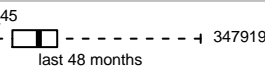

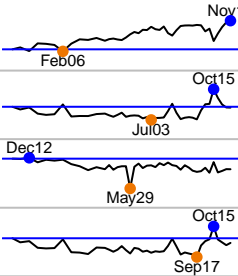


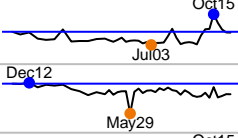


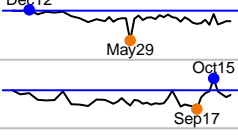
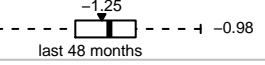

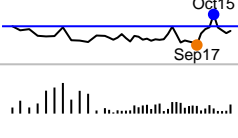
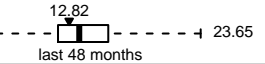


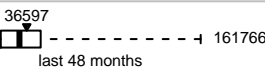

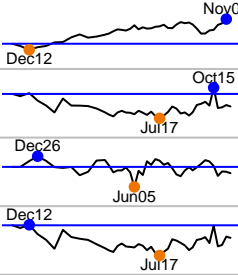


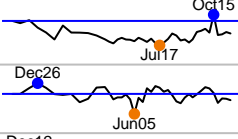


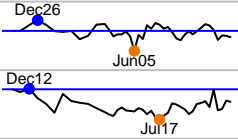
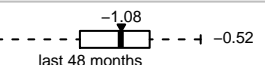

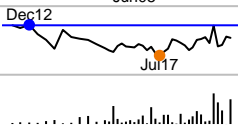
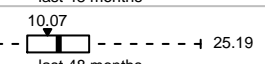


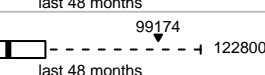
Medium-to-Long Interest Rates MPD Statistics as of November 12, 2014

Indicator	Latest	2-Week Change	1-Year Trend with min/max points	Long-Term Range with median, IQR, and max/min
5 Year Treasury (3-Month Expiry)				
Spot	118.58	-0.72%	120.69 118.05	2 month high 118.05 120.69
MPD Std Dev	1.59%	-0.6%	2.3 1.41	2 month high 1.41 2.3
MPD Skew	-0.13	-0.079	0.36 -0.5	2 month high -0.5 0.36
Market Prob of -3% or More Decline	3.59%	-4.8%	8.74 2.44	2 month high 2.44 8.74
Volume	11638	45%	377550 0	11638 2054 377550
10 Year Treasury (3-Month Expiry)				
Spot	125.62	-0.66%	128.59 122.97	13 month high 122.97 128.59
MPD Std Dev	2.57%	-0.55%	3.8 2.17	13 month high 2.17 3.8
MPD Skew	0.1	0.051	0.29 -0.75	13 month high -0.75 0.29
Market Prob of -5% or More Decline	2.79%	-2.5%	8.48 1.62	13 month high 1.62 8.48
Volume	181008	1200%	954197 0	181008 5226 954197

Short Interest Rates MPD Statistics as of November 12, 2014

Indicator	Latest	2-Week Change	1-Year Trend with min/max points	Long-Term Range with median, IQR, and max/min
3 Month LIBOR (3-Year Expiry)				
Median	1.58%	0.063%		0.72 - 1.58 - 2.19 last 48 months
MPD Std Dev	1.67%	0.28%		0.68 - 1.67 - 2.61 last 48 months
MPD Skew	2.34	1.3		0.29 - 2.34 - 7.06 last 48 months
Market Prob of Less Than 0.5% LIBOR	15.88%	0.82%		7.32 - 15.88 - 38.35 last 48 months
Market Prob of More Than 1% + Spot	60.75%	1%		7.61 - 60.75 - 71.73 last 48 months
3 Month LIBOR (5-Year Expiry)				
Median	2.25%	0.017%	 Last time lower Jun2013	0.94 - 2.25 - 3.79 last 45 months
MPD Std Dev	2.02%	-0.023%	 Last time higher Jun2013	1.5 - 2.02 - 2.99 last 45 months
MPD Skew	0.57	-0.22	 45 month high	0.35 - 0.57 - 4.1 last 45 months
Market Prob of Less Than 1% LIBOR	27.08%	0.41%	 45 month high	9.43 - 27.08 - 53.02 last 45 months
Market Prob of More Than 2% + Spot	60.53%	11%	 45 month high	10.68 - 60.53 - 72.25 last 45 months

Equity Index MPD Statistics as of November 12, 2014

Indicator	Latest	2-Week Change	1-Year Trend with min/max points		Long-Term Range with median, IQR, and max/min
S&P 500 (6-Month Expiry)					
Spot	2038.25	 2.8%	2038.25 1773.43		48 month high 1131.42 
MPD Std Dev	11.11%	 -0.25%	14.77 8.87		Last time higher Aug2012 
MPD Skew	-1.28	 -0.068	-0.98 -1.39		-1.52 
Market Prob of -20% or More Decline	6.28%	 0.034%	10.32 3.65		Last time higher Aug2012 
Volume	36645	 -72%	203412 0		13428 
S&P 500 (12-Month Expiry)					
Spot	2038.25	 2.8%	2038.25 1773.43		48 month high 1131.42 
MPD Std Dev	17.08%	 -0.53%	20.16 15.02		Last time higher Dec2012 
MPD Skew	-1.25	 0.028	-1.05 -1.57		-1.57 
Market Prob of -20% or More Decline	12.82%	 -0.11%	16.05 10.07		Last time higher Dec2012 
Volume	36597	 260%	123271 0		3174 
iShares US Real Estate Index (3-Month Expiry)					
Spot	75.42	 2.2%	75.65 62.01		48 month high 50.57 
MPD Std Dev	6.95%	 0.13%	9.69 5.22		Last time higher Oct2013 
MPD Skew	-1.08	 -0.057	-0.52 -1.55		-2.09 
Market Prob of -10% or More Decline	10.07%	 2.3%	14.24 4.45		3.43 
Volume	99174	 82%	122800 0		158 


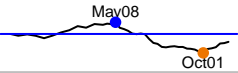

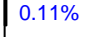
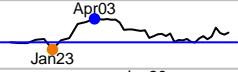

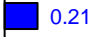
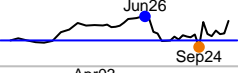


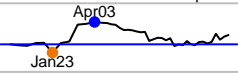





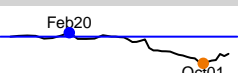





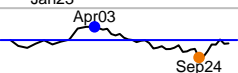


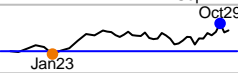








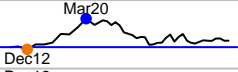


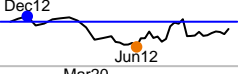


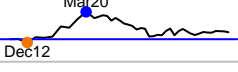


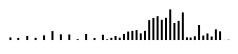


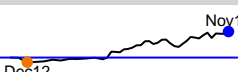


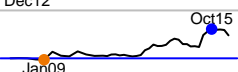


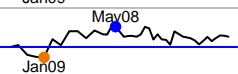


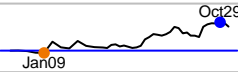




Exchange Rate MPD Statistics as of November 12, 2014

Indicator	Latest	2-Week Change	1-Year Trend with min/max points	Long-Term Range with median, IQR, and max/min
Dollar-Euro Futures (3-Month Expiry)				
Spot	1.24	-1.6%		
MPD Std Dev	4.32%	0.56%		
MPD Skew	0.1	0.013		
Market Prob of -10% or More Decline	1.06%	0.6%		
Volume	66804	75%		
Dollar-Pound Futures (3-Month Expiry)				
Spot	157.77	-1.5%		
MPD Std Dev	3.42%	0.32%		
MPD Skew	-0.24	-0.006		
Market Prob of -10% or More Decline	0.44%	0.21%		
Volume	20240	72%		
Dollar-Yen Futures (3-Month Expiry)				
Spot	86.56	-5.9%		
MPD Std Dev	5.89%	1.9%		
MPD Skew	0.04	-0.052		
Market Prob of -10% or More Decline	4.43%	3.7%		
Volume	34826	130%		


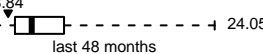



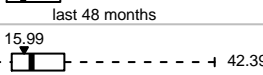


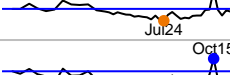

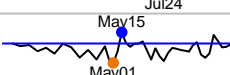



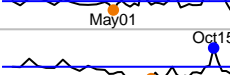



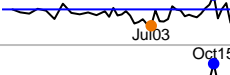

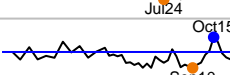



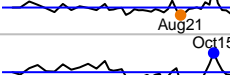

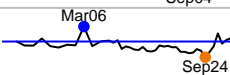
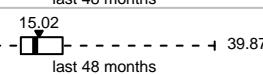
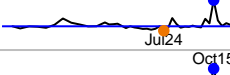






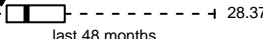
Metal and Energy Commodity MPD Statistics as of November 12, 2014

Indicator	Latest	2-Week Change	1-Year Trend with min/max points	Long-Term Range with median, IQR, and max/min
Gold (6-Month Expiry)				
Spot	1159.16	-5.5%	1352.4 1145.55 	48 month low 1145.55 1159.16 1859.2
MPD Std Dev	12.81%	1.8%	14.43 9.39 	9.39 12.81 23.3
MPD Skew	-0.42	-0.19	0.02 -0.47 	-0.71 -0.42 0.25
Market Prob of -20% or More Decline	6.81%	2.3%	9 2.39 	2.39 6.81 21.03
Volume	4423	150%	31121 0 	691 4423 93550
Silver (6-Month Expiry)				
Spot	15.67	-9.6%	21.75 15.49 	48 month low 15.49 15.67 48.61
MPD Std Dev	20.45%	3.6%	20.81 13.16 	13.16 20.45 40.41
MPD Skew	-0.45	0.054	0.15 -0.57 	-0.63 -0.45 0.15
Market Prob of -20% or More Decline	15.95%	5.1%	17.06 6.54 	Last time higher Oct2013 6.54 15.95 32.41
Volume	2369	-3%	9415 0 	134 2369 27970
West Texas Intermediate Crude (6-Month Expiry)				
Spot	77.2	-4.4%	102.41 77.2 	48 month low 77.2 77.2 114.82
MPD Std Dev	19.16%	1.9%	19.73 10.25 	Last time higher Dec2012 10.25 19.16 34
MPD Skew	-0.57	-0.056	-0.1 -0.61 	-0.81 -0.57 0
Market Prob of -20% or More Decline	14.89%	2.6%	15.14 3.65 	Last time higher Dec2012 3.65 14.89 26.43
Volume	1003	-86%	85645 0 	165 1003 180997

Agricultural Commodity MPD Statistics as of November 12, 2014

Indicator	Latest	2-Week Change	1-Year Trend with min/max points	Long-Term Range with median, IQR, and max/min
Corn (6-Month Expiry)				
Spot	399.03	 2.5%	513.25 334.65 	399.03 334.65  823.75 last 48 months
MPD Std Dev	17.38%	 0.11%	21.43 12.43 	17.38 12.43  29.14 last 48 months
MPD Skew	0.23	 0.21	0.31 -0.19 	0.23 -0.19  0.34 last 48 months
Market Prob of -20% or More Decline	13.33%	 2%	18.97 5.73 	13.33 5.73  29.69 last 48 months
Volume	10997	 -83%	216660 0 	10997 6059  472954 last 48 months
Soybeans (6-Month Expiry)				
Spot	1057.44	 0.2%	1331.75 934.57 	1057.44 934.57  1691.25 last 48 months
MPD Std Dev	15.45%	 -2.1%	17.52 10.93 	Last time higher Sep2012 15.45 10.93  23.07 last 48 months
MPD Skew	-0.19	 -0.084	0.17 -0.5 	-0.19 -0.5  0.59 last 48 months
Market Prob of -20% or More Decline	10.51%	 -1.9%	12.43 4.07 	Last time higher Sep2012 10.51 4.07  22.49 last 48 months
Volume	52022	 -26%	238213 0 	52022 679  326132 last 48 months
Wheat (6-Month Expiry)				
Spot	554.91	 0.63%	743.75 492.25 	554.91 492.25  930 last 48 months
MPD Std Dev	15.37%	 -0.63%	21.56 12.95 	15.37 12.95  28.19 last 48 months
MPD Skew	0.21	 0.031	0.35 0.03 	0.21 0.01  0.54 last 48 months
Market Prob of -20% or More Decline	10.3%	 -0.47%	19.59 5.67 	10.3 5.67  29.32 last 48 months
Volume	503	 -96%	46977 0 	503 179  51689 last 48 months
Cattle (3-Month Expiry)				
Spot	168.34	 1.7%	168.34 129.05 	16 month high 129.05  168.34 last 16 months
MPD Std Dev	8.23%	 -1.1%	9.42 3.6 	16 month high 3.6  9.42 last 16 months
MPD Skew	-0.42	 -0.031	-0.17 -0.94 	-0.42 -0.94  -0.17 last 16 months
Market Prob of -5% or More Decline	24.5%	 -2.6%	27.15 8.46 	16 month high 8.46  27.15 last 16 months
Volume	10691	 15%	33850 0 	10691 1263  33850 last 16 months

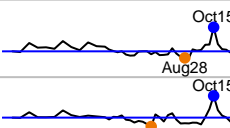
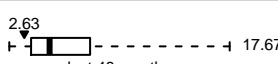
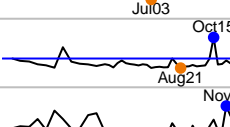
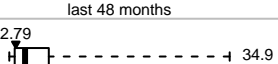

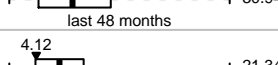
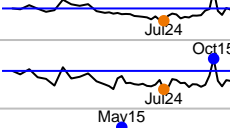
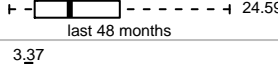
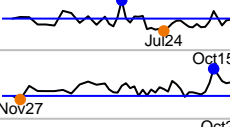
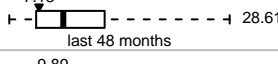
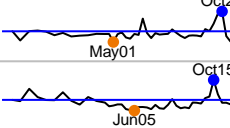
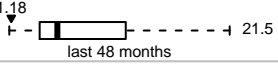
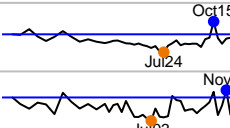

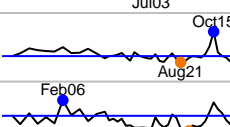
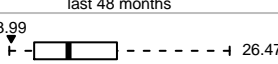

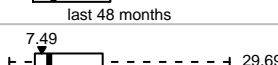
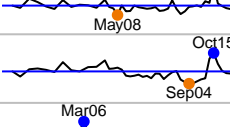
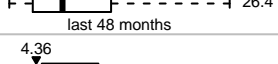
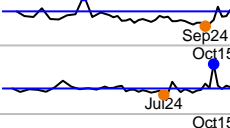


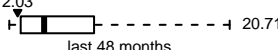
Bank MPD Statistics as of November 12, 2014

Indicator	Latest	2-Week Change	1-Year Trend		Long-Term Range
			with min/max points		with median, IQR, and max/min
MPD Standard Deviation (3-Month Expiry)					
American Express	8.84%	-0.73%	13.33 7.82		Last time higher Jun2012 8.84 7.82 
Bank of America	10.47%	-1.2%	15.89 10.22		Last time higher Feb2013 10.47 10.22 
BB&T	8.62%	0.59%	12.4 7.29		Last time higher Jul2012 8.62 7.29 
Barclays	15.99%	1.7%	28.84 11.86		 15.99 11.86 
Bank of NY Mellon	9.63%	-0.081%	13.49 7.88		Last time higher Nov2012 9.63 7.88 
Citigroup	10.61%	0.89%	15.52 8.52		Last time higher Dec2012 10.61 8.52 
Capital One	9.22%	0.53%	12.94 7.72		Last time higher Jun2013 9.22 7.72 
Credit Suisse	13.25%	0.53%	15.53 9.84		 13.25 9.84 
Deutsche Bank	15.08%	-0.24%	17.05 11.33		Last time higher Jul2013 15.08 11.33 
Fifth Third	8.23%	-4.6%	15.13 8.21		 8.23 8.21 
Goldman Sachs	9.12%	-0.44%	13.57 8.23		Last time higher Jun2013 9.12 8.23 
JP Morgan	9.58%	0.61%	12.95 7.41		Last time higher Dec2012 9.58 7.41 
Keycorp	10.21%	-2.1%	14.47 9.76		Last time higher Dec2012 10.21 9.76 
Morgan Stanley	10.34%	-1.4%	17.04 10.11		Last time higher Jun2013 10.34 10.11 
PNC Financial	8.41%	-0.69%	10.91 7.45		Last time higher Jul2013 8.41 7.45 
Regions Financial	12.95%	-2.2%	15.36 10.57		 12.95 10.57 
SunTrust	9.16%	-0.64%	14.6 8.87		Last time higher Jan2013 9.16 8.87
State Street	10.14%	-0.77%	13.7 8.73		Last time higher Jun2013 10.14 8.73
UBS	15.02%	1.7%	19.02 8.7		 15.02 8.7
US Bancorp	7.82%	0.24%	13.1 6.58		Last time higher Jun2012 7.82 6.58 
Wells Fargo	7.85%	-0.48%	12.75 7.16		Last time higher Dec2012 7.85 7.16 

Bank MPD Statistics as of November 12, 2014

Indicator	Latest	2-Week Change	1-Year Trend with min/max points	Long-Term Range with median, IQR, and max/min
MPD Skew (3-Month Expiry)				
American Express	-0.7	-0.077		Last time lower Jun2013 -1.32 last 48 months
Bank of America	-0.52	0.08		Last time lower Jul2012 -1.17 last 48 months
BB&T	-1.01	-0.056		-1.54 last 48 months
Barclays	-0.61	-0.09		-1.97 last 48 months
Bank of NY Mellon	-0.74	-0.21		-1.56 last 48 months
Citigroup	-0.64	0.059		Last time lower Jun2012 -1.23 last 48 months
Capital One	-0.82	-0.5		Last time lower Jul2013 -1.38 last 48 months
Credit Suisse	-0.47	-1		-2.07 last 48 months
Deutsche Bank	-0.46	-0.043		-1.31 last 48 months
Fifth Third	-1.48	-0.13		48 month low -1.48 last 48 months
Goldman Sachs	-0.8	0.03		Last time lower Jun2012 -1.38 last 48 months
JP Morgan	-0.86	-0.064		Last time lower Jun2012 -1.44 last 48 months
Keycorp	-0.68	0.11		-2.24 last 48 months
Morgan Stanley	-0.65	0.037		-1.2 last 48 months
PNC Financial	-0.51	0.14		-1.51 last 48 months
Regions Financial	-1.15	-0.45		Last time lower May2013 -1.94 last 48 months
SunTrust	-1.02	-0.24		-1.16 last 48 months
State Street	-0.88	-0.26		Last time lower Mar2013 -1.28 last 48 months
UBS	-1.15	-1.1		Last time higher Oct2012 -3.36 last 48 months
US Bancorp	-0.87	0.066		-1.45 last 48 months
Wells Fargo	-0.87	0.32		Last time lower Jun2012 -1.73 last 48 months

Bank MPD Statistics as of November 12, 2014

Indicator	Latest	2-Week Change	1-Year Trend		Long-Term Range		
with min/max points							
with median, IQR, and max/min							
Market Probability of -20% or More Decline (3-Month Expiry)							
American Express	2.63%	-0.69%	7.79 1.53		Last time higher Jun2012	2.63 1.53	
Bank of America	4.36%	-1.5%	10.91 3.13		Last time higher Feb2013	4.36 3.13	
BB&T	2.79%	0.13%	8.19 1.82		Last time higher Jun2012	2.79 1.82	
Barclays	14.42%	6.3%	18.72 5.5		Last time higher Sep2012	14.42 5.5	
Bank of NY Mellon	4.12%	0.56%	8.35 1.72		Last time higher Jun2013	4.12 1.72	
Citigroup	4.82%	1.4%	9.93 1.93		Last time higher Dec2012	4.82 1.93	
Capital One	3.37%	1.1%	7.94 1.64		Last time higher Jun2013	3.37 1.64	
Credit Suisse	7.13%	1.7%	12.84 3.77			7.13 3.77	
Deutsche Bank	9.89%	-0.36%	13.76 4.99		Last time higher Jun2013	9.89 4.99	
Fifth Third	1.18%	-11%	11.8 0.99		Last time higher Jul2012	1.18 0.99	
Goldman Sachs	3.12%	-0.32%	8.27 1.79		Last time higher Oct2013	3.12 1.79	
JP Morgan	3.96%	1.1%	6.95 1.31		Last time higher Dec2012	3.96 1.31	
Keycorp	3.98%	-1.9%	8.86 2.82		Last time higher Sep2013	3.98 2.82	
Morgan Stanley	3.99%	-1.7%	13.03 3.79		Last time higher Jun2013	3.99 3.79	
PNC Financial	2.27%	-1.5%	5.41 1.43			2.27 1.43	
Regions Financial	7.49%	-7.2%	14.66 4.26		Last time higher Jun2012	7.49 3.64	
SunTrust	3.37%	-0.83%	10.15 1.73		Last time higher Jan2013	3.37 1.73	
State Street	4.36%	-0.58%	8.74 2.23		Last time higher Jun2013	4.36 2.23	
UBS	10.75%	3.6%	18.15 2.28			10.75 2.28	
US Bancorp	2.28%	0.38%	6.91 0.74		Last time higher Nov2012	2.28 0.74	
Wells Fargo	2.03%	-0.68%	7.53 1.3		Last time higher Dec2012	2.03 1.3	

Bank MPD Statistics as of November 12, 2014

Indicator	Latest	2-Week Change	1-Year Trend with min/max points	Long-Term Range with median, IQR, and max/min
Volume (3-Month Expiry)				
American Express	2614	-39%	10151 0	2614 623 - 20941 last 48 months
Bank of America	16104	-10%	132589 0	16104 7419 - 363160 last 48 months
BB&T	865	-44%	6490 0	865 190 - 6903 last 48 months
Barclays	325	-81%	11011 0	325 29 - 15208 last 48 months
Bank of NY Mellon	259	-35%	15678 0	259 59 - 17091 last 48 months
Citigroup	2840	-82%	78527 0	2840 1104 - 284278 last 48 months
Capital One	1371	-40%	9311 0	1371 164 - 38646 last 48 months
Credit Suisse	39	-88%	4011 0	39 0 - 14201 last 48 months
Deutsche Bank	1936	-87%	25112 0	1936 62 - 29575 last 48 months
Fifth Third	396	-85%	15351 0	396 28 - 19324 last 48 months
Goldman Sachs	2998	-47%	21840 0	2998 296 - 43413 last 48 months
JP Morgan	2013	-92%	52517 0	2013 943 - 119246 last 48 months
Keycorp	44	-92%	3014 0	44 44 - 76270 last 48 months
Morgan Stanley	17104	55%	48955 0	17104 327 - 84281 last 48 months
PNC Financial	83	-58%	4810 0	83 83 - 12224 last 48 months
Regions Financial	345	-32%	4635 0	345 20 - 19649 last 48 months
SunTrust	580	-42%	4232 0	580 61 - 13788 last 48 months
State Street	470	-30%	5339 0	470 42 - 5370 last 48 months
UBS	275	190%	2766 0	275 6 - 6502 last 48 months
US Bancorp	2551	-8.6%	5746 0	2551 172 - 29201 last 48 months
Wells Fargo	15719	-23%	121351 0	15719 950 - 167820 last 48 months

Insurance Company MPD Statistics as of November 12, 2014

Indicator	Latest	2-Week Change	1-Year Trend with min/max points	Long-Term Range with median, IQR, and max/min
MPD Standard Deviation (3-Month Expiry)				
Aflac	8.57%	-0.17%		Last time higher Jun2013 7.29 8.57 28.3 last 48 months
AIG	9.79%	-1.6%		Last time higher Jun2013 8.7 9.79 34.63 last 48 months
Allstate	6.71%	-1%		5.83 6.71 22.82 last 48 months
Ameriprise	10.09%	1.1%		48 month low 8.98 10.09 28.12 last 48 months
Chubb	5.96%	-0.42%		48 month low 5.96 5.96 18.33 last 48 months
Hartford Financial	10.16%	1.4%		Last time higher Sep2013 8.68 10.16 34.59 last 48 months
Lincoln National	11.27%	-1%		Last time higher Jun2013 10.28 11.27 35.56 last 48 months
Met Life	11.26%	-0.044%		Last time higher Nov2012 10.08 11.26 31.28 last 48 months
Principal Financial	11.93%	-5.4%		8.02 11.93 34.89 last 48 months
Progressive	8.31%	-0.33%		6.2 8.31 24.84 last 48 months
Prudential	11.32%	-0.66%		Last time higher Nov2012 10.11 11.32 30.06 last 48 months


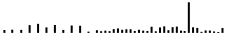











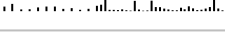


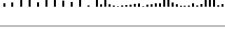
















Insurance Company MPD Statistics as of November 12, 2014

Indicator	Latest	2-Week Change	1-Year Trend with min/max points	Long-Term Range with median, IQR, and max/min
MPD Skew (3-Month Expiry)				
Aflac	-0.95	0.13		Last time lower Oct2012 -1.24 -0.95 last 48 months -0.32
AIG	-0.53	0.13		-1.23 -0.53 last 48 months 1.25
Allstate	-1.5	-0.65		48 month low -1.5 -1.5 last 48 months -0.12
Ameriprise	-0.76	-0.26		-4.03 -0.76 last 48 months 0.33
Chubb	-0.98	-0.29		Last time lower Oct2013 -1.56 -0.98 last 48 months -0.21
Hartford Financial	-0.93	0.66		48 month low -1.59 -0.93 last 48 months -0.16
Lincoln National	-0.64	0.22		-1.59 -0.64 last 48 months 0.15
Met Life	-0.75	-0.12		-1.52 -0.75 last 48 months -0.23
Principal Financial	-2	-1.1		Last time higher Jul2012 -2.95 -2 last 48 months 0.24
Progressive	-2.78	-1.8		Last time lower Sep2013 -3.54 -2.78 last 48 months 0.71
Prudential	-0.69	0.032		-1.45 -0.69 last 48 months -0.36

Insurance Company MPD Statistics as of November 12, 2014

Indicator	Latest	2-Week Change	1-Year Trend with min/max points	Long-Term Range with median, IQR, and max/min
Market Probability of -20% or More Decline (3-Month Expiry)				
Aflac	3.36%	-0.68%		Last time higher Apr2013 1.39 3.36 20.31 last 48 months
AIG	3.7%	-2%		Last time higher Nov2012 2.44 3.7 25.58 last 48 months
Allstate	1.67%	-0.31%		0.56 1.67 18.62 last 48 months
Ameriprise	4.44%	2%		48 month low 2.4 4.44 22.78 last 48 months
Chubb	0.77%	-0.15%		Last time higher Dec2012 0.64 0.77 14.62 last 48 months
Hartford Financial	4.36%	1.6%		2.19 4.36 23.29 last 48 months
Lincoln National	4.59%	-1%		Last time higher Sep2013 3.85 4.59 27.65 last 48 months
Met Life	5.76%	0.11%		Last time higher Jun2013 3.79 5.76 20.81 last 48 months
Principal Financial	6.15%	-11%		0.43 6.15 28.98 last 48 months
Progressive	4.45%	1.7%		0 4.45 39.73 last 48 months
Prudential	6.29%	0.21%		Last time higher Nov2012 3.99 6.29 22.23 last 48 months

Insurance Company MPD Statistics as of November 12, 2014

Indicator	Latest	2-Week Change	1-Year Trend with min/max points	Long-Term Range with median, IQR, and max/min
Volume (3-Month Expiry)				
Aflac	2130	 240%	13324 0 	2130 405  22718 last 48 months
AIG	6239	 420%	38744 0 	6239 432  103998 last 48 months
Allstate	191	 -57%	5708 0 	191 76  68926 last 48 months
Ameriprise	45	 -94%	1114 0 	45 5  1114 last 48 months
Chubb	73	 -94%	2541 0 	73 43  11114 last 48 months
Hartford Financial	1153	 -87%	13441 0 	1153 198  37285 last 48 months
Lincoln National	311	 -70%	8403 0 	311 51  10682 last 48 months
Met Life	915	 -45%	14685 0 	915 319  161416 last 48 months
Principal Financial	104	 240%	310 0 	104 2  3846 last 48 months
Progressive	5	 -90%	474 0 	5 0  4283 last 48 months
Prudential	1439	 -62%	13225 0 	1439 222  13225 last 48 months