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HEDGEYE ASSET ALLOCATION

	CASH	U.S. EQUITIES	INT'L EQUITIES	COMMODITIES	FOREIGN EXCHANGE	FIXED INCOME
1/26/2017	26	20	16	10	28	0
1/27/2017	31	18	15	10	26	0

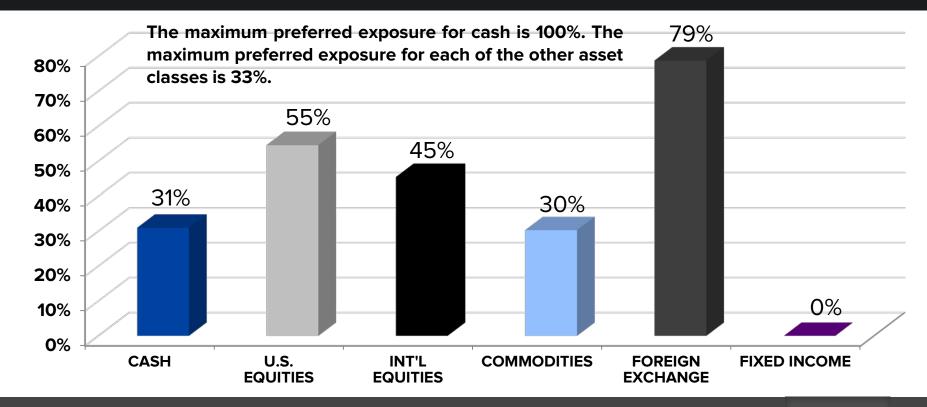
	CASH	U.S. EQUITIES	INT'L EQUITIES	COMMODITIES	FOREIGN EXCHANGE	FIXED INCOME
1/26/2017	26%	61%	48%	30%	85%	0%
1/27/2017	31%	55%	45%	30%	79%	0%

The maximum preferred exposure for cash is 100%. The maximum preferred exposure for each of the other asset classes is 33%.

January 27, 2017



HEDGEYE ASSET ALLOCATION



January 27, 2017



EARNINGS

Z S&P 500

3 GOLD

EARNINGS

30% of the way done on EPS Season (148 of 500 S&P companies had reported as of last night). Aggregate SALES and EARNINGS are currently +2.4% and +5.0%, year-over-year, respectively. Tech, Basic Materials, and Financials year-over-year EPS growth beating SPX at +13.2%, +20.9%, and +8.7%, respectively.

YORK STOCK EXCHANGE

S&P 500

The S&P 500 signaled immediate-term TRADE overbought at 2303 putting the refreshed risk range at 2265-2303 which implies higher-lows and higher-highs as realized volatility continues to get smashed. We'll see if they sell them or buy them on the news this morning.



Obviously when U.S. growth accelerates, Gold underperforms (see 2013 and the last 3 months for details). That said, Gold signaled immediate-term TRADE oversold within its bearish TREND yesterday (in the last 3 months Gold is -6.1% vs. SPX +6.8%).

MACRO GRIND

WHY DOES THE 2ND DERIVATIVE MATTER?

BECAUSE FINANCIAL ASSET RETURNS HAVE HISTORICALLY ANCHORED ON THE MARGINAL RATE OF CHANGE IN BOTH GROWTH AND INFLATION – ESPECIALLY WHEN THESE DELTAS ARE COUNTER TO CONSENSUS EXPECTATIONS.

Hedgeye Macro U.S. GIP Model Backtest	Weighted	Average Expe	ected Value, by	Quadrant	Percentile of V	Veighted Averag	e Expected Valu	e, by Asset Class	Percentile of	Weighted Averag	ge Expected Valu	e, by Quadrant	Positive Hit	Rate (color-cod	ing by Asset Class	& Quadrant)	Total C	uarterly Perf	ormance Obser	vations
Exposure	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
S&P 500 Index	3.3%	0.8%	-0.2%	-0.7%	38%	31%	23%	46%	78%	53%	22%	47%	80%	69%	56%	65%	20	13	27	20
S&P 500 Consumer Discretionary Sector Index	4.4%	1.0%	-0.4%	0.1%	92%	38%	15%	69%	97%	58%	19%	78%	75%	69%	48%	55%	20	13	27	20
S&P 500 Consumer Staples Sector Index	2.7%	1.3%	0.1%	0.6%	15%	62%	62%	85%	69%	67%	47%	89%	85%	69%	59%	60%	20	13	27	20
S&P 500 Energy Sector Index	2.7%	1.0%	0.3%	-1.4%	23%	46%	92%	8%	72%	61%	64%	19%	80%	77%	63%	50%	20	13	27	20
S&P 500 Financials Sector Index	3.6%	0.3%	-0.5%	-0.8%	46%	15%	8%	31%	81%	39%	14%	42%	75%	62%	56%	70%	20	13	27	20
S&P 500 Health Care Sector Index	2.4%	2.0%	0.2%	0.8%	8%	100%	69%	100%	67%	92%	50%	94%	75%	69%	52%	75%	20	13	27	20
S&P 500 Industrials Sector Index	3.6%	1.5%	0.1%	-0.8%	54%	85%	54%	38%	83%	75%	44%	44%	65%	69%	48%	50%	20	13	27	20
S&P 500 Information Technology Sector Index	4.0%	1.5%	0.0%	-0.9%	85%	77%	46%	23%	94%	72%	36%	39%	80%	77%	52%	60%	20	13	27	20
S&P 500 Materials Sector Index	4.0%	0.1%	-0.9%	0.1%	77%	8%	0%	77%	92%	28%	0%	83%	85%	69%	52%	50%	20	13	27	20
S&P 500 REITS Index	3.9%	1.6%	0.3%	-2.4%	62%	92%	85%	0%	86%	81%	61%	11%	67%	56%	64%	77%	15	9	22	13
S&P 500 Utilities Sector Index	1.5%	-0.6%	1.7%	-0.6%	0%	O96	100%	54%	58%	14%	86%	50%	65%	31%	67%	55%	20	13	27	20
S&P 500 Low Beta Minimum Volatility Index	3.2%	0.3%	0.3%	0.7%	31%	23%	77%	92%	75%	42%	58%	92%	75%	54%	52%	80%	20	13	27	20
S&P 500 High Beta Index	4.9%	1.3%	-0.1%	-1.3%	100%	69%	31%	15%	100%	69%	28%	22%	70%	62%	59%	55%	20	13	27	20
Russell 2000 Index	3.9%	1.0%	0.0%	-0.5%	69%	54%	38%	62%	89%	64%	31%	56%	70%	69%	59%	60%	20	13	27	20
Bloomberg Barclays US Agg Credit Yield To Worst	-2.1%	-1.1%	1.0%	-2.2%	56%	44%	44%	22%	14%	11%	83%	14%	40%	38%	52%	30%	20	13	27	20
Bloomberg Barclays US High Yield Average Yield To Worst	-3.2%	-1.8%	2.1%	0.0%	33%	33%	56%	67%	8%	8%	89%	72%	30%	46%	59%	45%	20	13	27	20
Bloomberg Barclays US Corporate Average OAS	-2.4%	-2.5%	4.7%	0.1%	44%	11%	100%	78%	11%	3%	100%	81%	30%	38%	52%	40%	20	13	27	20
Bloomberg Barclays US High Yield Average OAS	-4.0%	-1.8%	4.2%	2.8%	22%	22%	89%	89%	6%	6%	97%	97%	20%	38%	48%	50%	20	13	27	20
Bloomberg Barclays US Composite Convertible Cvt. Yield	-4.6%	-5.6%	4.1%	3.0%	11%	0%	78%	100%	3%	0%	94%	100%	43%	0%	60%	46%	14	7	20	13
US Treasury 2Y Note Yield	0.3%	0.1%	0.4%	-2.6%	100%	56%	22%	11%	39%	33%	69%	8%	50%	54%	52%	35%	20	13	27	20
US Treasury 10Y Note Yield	-0.7%	0.7%	-0.8%	-1.6%	78%	67%	0%	33%	19%	50%	3%	17%	45%	62%	48%	35%	20	13	27	20
US Treasury 30Y Bond Yield	-0.6%	0.9%	-0.7%	-1.1%	89%	78%	11%	56%	22%	56%	6%	28%	45%	69%	52%	35%	20	13	27	20
Bond Buyer US 40 Municipal Bond YTM	-1.0%	1.8%	0.7%	-1.3%	67%	89%	33%	44%	17%	86%	72%	25%	33%	88%	52%	22%	15	8	23	18
Bloomberg Barclays US Treasury Inflation 10Y Note Yield To Worst	-10.7%	11.5%	3.5%	-10.2%	0%	100%	67%	0%	O%	100%	92%	0%	15%	46%	59%	15%	20	13	27	20
Thomson Reuters/CoreCommodity CRB Commodity Index	0.5%	1.9%	0.1%	-3.0%	25%	50%	25%	25%	47%	89%	42%	6%	65%	77%	63%	30%	20	13	27	20
Commodity Research Bureau BLS/US Spot Raw Industrials Index	1.0%	1.7%	-0.2%	-0.9%	50%	25%	0%	75%	53%	83%	25%	36%	65%	69%	44%	45%	20	13	27	20
Commodity Research Bureau BLS/US Spot Foodstuff Index	-0.3%	1.5%	0.8%	-1.0%	0%	O96	50%	50%	25%	78%	75%	33%	50%	54%	56%	40%	20	13	27	20
Front-month Brent Crude Oil	1.7%	3.9%	0.9%	-3.2%	75%	100%	100%	0%	61%	97%	81%	3%	55%	77%	52%	40%	20	13	27	20
Gold Spot	1.8%	2.0%	0.9%	0.0%	100%	75%	75%	100%	64%	94%	78%	69%	60%	69%	56%	50%	20	13	27	20
U.S. Dollar Index	-0.1%	0.3%	0.0%	0.4%	14%	71%	57%	100%	31%	36%	39%	86%	45%	46%	52%	75%	20	13	27	20
AUD/USD	1.2%	0.4%	-0.6%	-0.2%	100%	86%	0%	57%	56%	44%	8%	64%	55%	77%	67%	40%	20	13	27	20
CAD/USD	0.1%	0.5%	0.0%	-0.5%	29%	100%	43%	14%	33%	47%	33%	53%	40%	54%	52%	40%	20	13	27	20
CHF/USD	0.6%	0.0%	0.4%	0.0%	86%	43%	100%	86%	50%	25%	67%	75%	60%	62%	59%	35%	20	13	27	20
EUR/USD	-0.2%	-0.5%	0.2%	-0.3%	0%	0%	71%	43%	28%	17%	53%	61%	50%	46%	56%	30%	20	13	27	20
GBP/USD	0.2%	0.1%	-0.5%	-0.4%	43%	57%	14%	29%	36%	31%	11%	58%	45%	69%	41%	40%	20	13	27	20
JPY/USD	0.4%	-0.1%	0.2%	-0.1%	57%	29%	86%	71%	42%	22%	56%	67%	35%	54%	56%	40%	20	13	27	20
JPMorgan EM FX Index	0.5%	-0.1%	-0.4%	-1.1%	71%	14%	29%	0%	44%	19%	17%	31%	60%	50%	57%	39%	15	10	23	18

Source: Bloomberg data; Hedgeye calculations. Trailing 20 years.

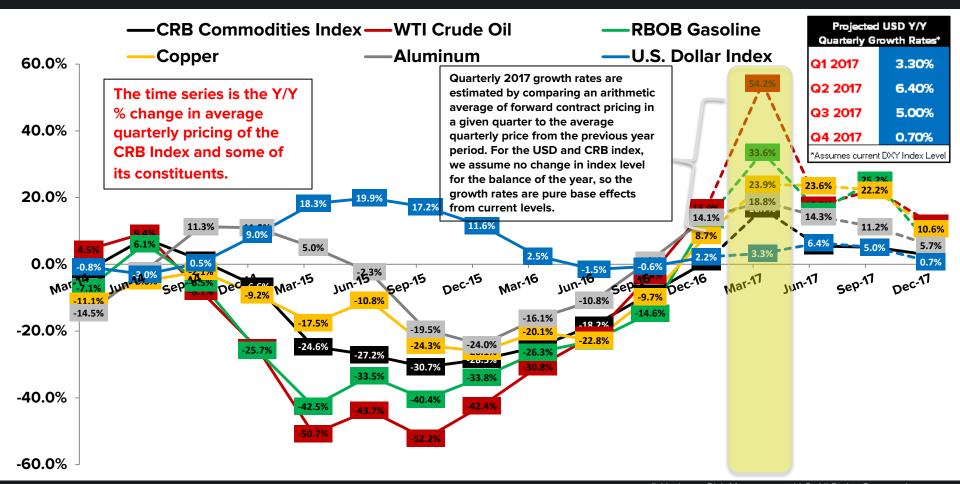
S&P 500 EARNINGS ACCELERATING

Q4 2016 QTD

SECTOR	SALES GROWTH (% CHG)	EARNINGS GROWTH (% CHG)	#REPORTED
S&P 500 (Aggregate)	2.4%	5.0%	148 / 500
Energy	-14.3%	-68.5%	7 / 35
Materials	6.4%	20.9%	8 / 25
Industrials	1.2%	-5.8%	28 / 67
Consumer Discretionary	2.5%	-7.7%	17 / 82
Consumer Staples	-1.0%	1.9%	9 / 37
Healthcare	6.6%	18.3%	13 / 60
Financials	4.0%	8.7%	33 / 63
Information Technology	6.6%	13.2%	26 / 66
Telecom	-2.9%	0.8%	2 / 5
Utilities	2.9%	39.9%	1 / 28
Real Estate	0.6%	-3.7%	3 / 29

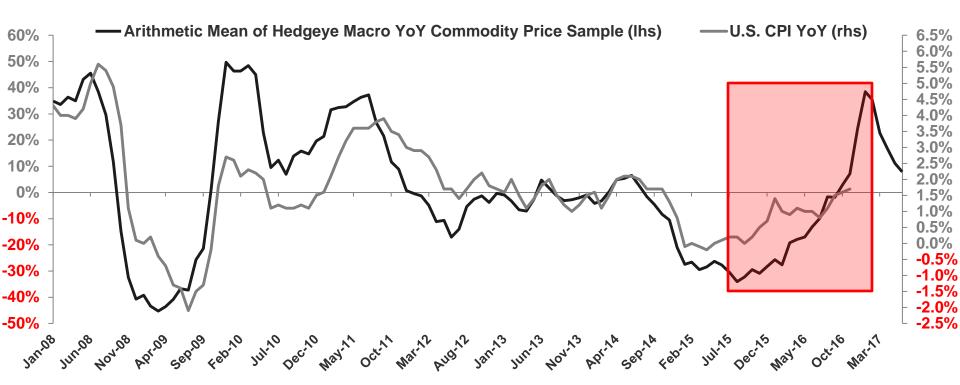
Source: BBG

Q1 2017: THE REFLATION TRADE SWEET SPOT



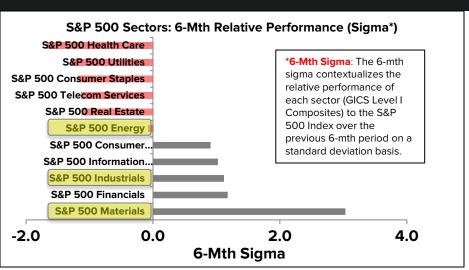
#REFLATION'S PEAK: KEY PROPRIETARY COMMODITY PRICE SAMPLE

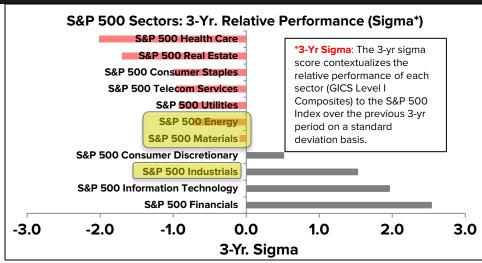
THE Y/Y GROWTH RATE IN OUR COMMODITY PRICE SAMPLE, WHICH HAS BEEN A GOOD PREDICTOR OF CPI, CLEARLY PEAKS ON A SECOND DERIVATIVE BASIS IN Q1 OF 2017 BEFORE EASING INTO Q2.



The Hedgeye Macro commodity price sample includes the CRB Index, CRB Raw Industrials Index, Brent Crude Oil and the UN Food and Agriculture Price Index. YoY deltas are calculated from monthly averages. Forward estimates assume no change to current monthly averages.

6-MTH MOVE TO 3-YR REVERSION: WHERE TO NOW?





	S&P Sector Total	al Returns (GIC	S Level I Comp	osites)		
INDEX	5 Day %	1-Mth %	3-Mth %	6-Mth %	1-Yr %	3 Yr %
S&P 500 Index	1.13%	1.35%	8.24%	7.13%	24.66%	11.14%
U.S. Dollar Index	-0.08%	-2.29%	1.79%	3.72%	1.78%	25.01%
S&P 500 Energy	0.41%	-2.34%	7.82%	11.53%	37.87%	-1.04%
S&P 500 Materials	3.73%	4.93%	14.43%	9.64%	43.57%	8.82%
S&P 500 Industrials	1.62%	1.91%	14.00%	11.32%	34.72%	11.28%
S&P 500 Consumer Discretionary	1.72%	3.17%	9.83%	6.03%	20.14%	12.38%
S&P 500 Consumer Staples	0.25%	1.20%	1.28%	-1.22%	10.05%	11.31%
S&P 500 Health Care	-0.95%	-0.54%	0.35%	-7.04%	5.13%	9.55%
S&P 500 Financials	2.61%	0.56%	20.20%	24.89%	41.57%	13.92%
S&P 500 Information Technology	1.98%	3.58%	6.85%	12.30%	32.80%	16.22%
S&P 500 Telecom Services	-2.41%	-3.23%	8.51%	-4.20%	14.46%	9.63%
S&P 500 Utilities	-0.47%	-0.54%	1.12%	-4.54%	14.36%	12.34%
S&P 500 Real Estate	-0.05%	1.60%	3.39%	-7.75%	7.59%	8.88%

COMPARING VOLUME ON UP VS. DOWN DAYS

MARKET SHARE VOLUME & TOTAL VALUE TRADED

INDEX/SECURITY		VOLUME: (1/25) vs.							
	Prior Day	1M Ave	3M ave	1Y Ave					
Total Market Volume*	11%	32%	36%	62%					
Total Exchange Volume**	1%	12%	-1%	-1%					
Total Traded Value (R3K)***	10%	15%	1%	6%					

*Total Market Volume = Total US exchange volume plus OTC and OTCBB trading volume for all security types. Calculated by Bloomberg.

Source: Bloomberg, Hedgeye

MARKET SHARE VOLUME & TOTAL VALUE TRADED

INDEX/SECURITY		VOLUME: (1/23) vs.							
	Prior Day	1M Ave	3M ave	1Y Ave					
Total Market Volume*	-1%	27%	28%	52%					
Total Exchange Volume**	-7%	-1%	-13%	-13%					
Total Traded Value (R3K)***	-24%	0%	-13%	-9%					

*Total Market Volume = Total US exchange volume plus OTC and OTCBB trading volume for all security types. Calculated by Bloomberg.

Source: Bloomberg, Hedgeye

MARKET SHARE VOLUME & TOTAL VALUE TRADED

INDEX/SECURITY		VOLUME: (1/26) vs.	
	Prior Day	1M Ave	3M ave	1Y Ave
Total Market Volume*	-9%	19%	24%	48%
Total Exchange Volume**	-5%	6%	-6%	-6%

*Total Market Volume = Total US exchange volume plus OTC and OTCBB trading volume for all security types. Calculated by Bloomberg.

Source: Bloomberg, Hedgeye

^{**}Tape A+B+C volume = total US exchange volume

^{***} Total Traded Value for Russell 3000 (total mkt proxy)

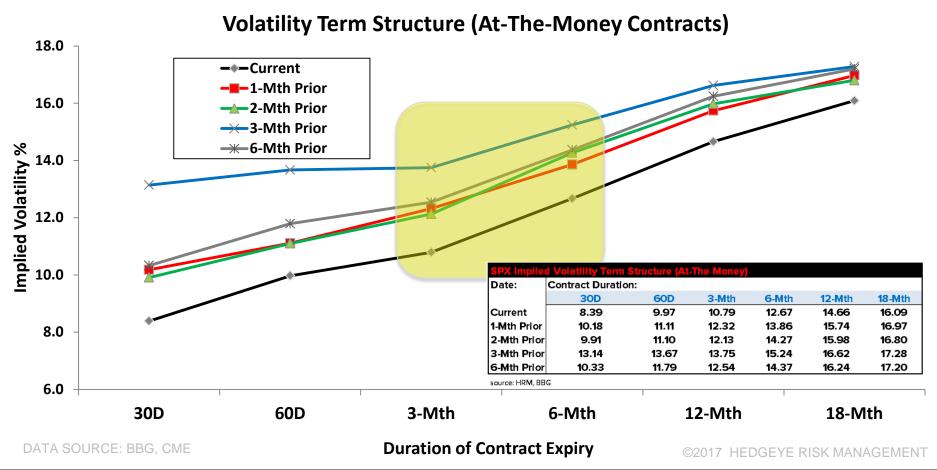
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VOLATILITY COMPRESSION IN LONGER-DATED EXPIRIES

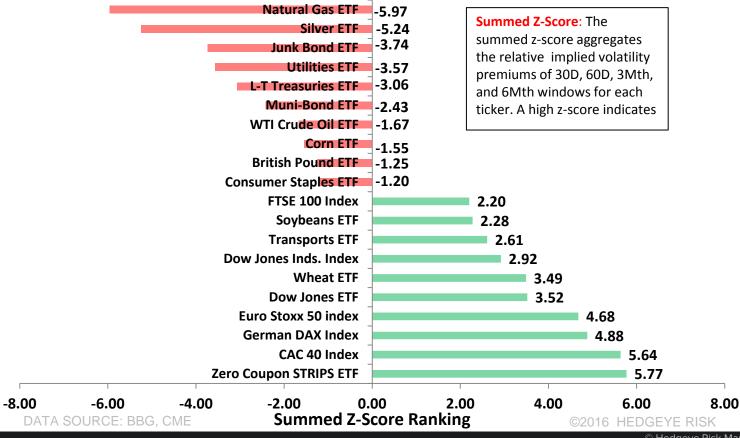


A COMPLETE SHIFT IN EXPECTATIONS IN JANUARY

	VULA	TILITY																
		REALIZ	ED VOLA	TILITY	IMPLIE	VOLATI	LTY*		IMPLIE	y VS. RI	EALIZED	VOLATIL	JTY					
										30 Day				60 Day			3 Month	
		Duratio	on of Real	lized (%)		At-The-N	loney %				Z-S	core		Z-S	core		Z-S	core
Index/Security	Ticker	30D	60D	90D	Current	v 1M Avg	v 3M Avg	v 6M Avg.	Ticker	Premium	TTM	3Yr	Premium	TTM	3Yr	Premium	TTM	3Yr
S&P 500	SPX	7.6%	8.9%	10.2%	12.2%	10.8%	-1.8%	3.0%	SPX	51.4%	1.09	1.51	38.8%	1.26	1.40	31.6%	1.26	1.08
Russell 2000	RTY	13.4%	16.2%	16.2%	18.6%	9.1%	4.6%	11.1%	RTY	32.6%	1.31	1.32	15.8%	0.79	0.46	20.3%	1.27	0.61
Nasdag	NDX	11.3%	12.6%	12.8%	16.0%	13.7%	7.6%	12.8%	NDX	37.0%	0.91	1.22	29.9%	1.05	1.24	32.8%	1.39	1.41
USD Index	UUP	7.6%	7.0%	6.7%	9.9%	9.0%	14.8%	20.9%	UUP	14.5%	0.07	-0.05	42.2%	1.47	1.16	50.6%	2.57	1.71
Energy	XLE	19.8%	18.2%	20.3%	20.0%	7.7%	-1.7%	0.1%	XLE	-5.2%	-0.17	-0.43	10.6%	1.10	0.41	3.6%	0.82	0.05
Materials	XLB	10.2%	11.7%	13.1%	15.9%	7.8%	0.6%	1.9%	XLB	52.0%	1.72	1.59	36.9%	1.68	1.39	26.8%	1.65	1.03
Industrials	XLI	9.7%	12.1%	12.8%	15.7%	11,6%	9,1%	13.7%	XLI	45.5%	1.27	1.58	30.5%	1.21	1.28	26.1%	1.55	1.20
Transports	IYT	13.2%	13.8%	14.4%	19.2%	9.1%	7.5%	8.6%	IYT	41.9%	1.08	1.49	41.0%	1.52	1.91	37.6%	1.92	2.07
WTI Crude Oil	USO	38.6%	35.2%	35.5%	28.4%	-5.9%	-20.7%	-23.1%	USO	-5.9%	-1.38	-1.81	-18.5%	1.02	1.51		- III	-1,20
Natural Gas	UNG	49.5%	48.7%	43.0%	49.5%	-1.5%	3.2%	13.0%	UNG	3.5%	0.09	-0.21	-2.8%	-0.35	-0.45	2.3%	-0.01	-0.23
Gold Gas	GLD	12.7%	12.3%	43.0% 12.9%	14.8%	-1.5%	-3.6%	-4.0%	GLD	14.2%	0.09	0.36	21.3%	1.25	0.93	16.3%	0.98	0.72
Silver	SLV	21.0%	23.0%	25.0%	25.9%	2.7%	3.1%	1.6%	SLV	20.7%	1.39	0.19	12.9%	0.62	0.00	4.5%	-0.42	-0.44
Copper	JJC	23.4%	23.8%	20.6%	28.5%	0.9%	7.0%	12.4%	JJC	12.0%	-0.11	-0.09	18.3%	0.08	0.19	34.8%	0.76	0.97
Corn	CORN	17.9%	18.3%	19.4%	19.3%	8.9%	2.4%	-9.7%	CORN	5.7%	-0.45	-0.61	7.5%	-0.41	-0.65	3.9%	-0.61	-0.84
Soybeans	SOYB	17.0%	15.1%	15.6%	17.4%	-22.7%	-19.4%	-22.5%	SOYB	6.4%	-0.82	-0.66	15.1%	-0.56	-0.51	10.1%	-0.57	-0.61
Wheat	WEAT	18.0%	19.4%	19.4%	35.6%	5.8%	19.9%	6.0%	WEAT	80.0%	0.11	0.34	77.8%	0.19	0.49	68.2%	0.25	0.56
implied volatility of		y options	nth contract expiring in t		ation vs. re	alized volat	lity over the	given duratio	n									
implied volatility of	at-the-mone	y options		he given du		olized volati		given duratio) VS. RE		VOLATILI	ΤΥ	50.0			2.11	
implied volatility of	at-the-mone	ry options TILITY REALIZ	ED VOLA	he given du	IMPLIED	VOLATIL	IY•	given duratio) VS. RE	30 Day		TY	60 Day			3 Month	
	at-the-mone	ry options TILITY REALIZ	expiring in t	he given du	IMPLIED		TY*		IMPLIED)** VS. RE	30 Day Z-S	core	TY	Z-S	icore		Z-S	core
implied volatility of	at-the-mone	ry options TILITY REALIZ	ED VOLA	he given du	IMPLIED	VOLATIL	IY•	given duration) VS. RE	30 Day		TY		core 3Yr	Premium		core 3Yr
Index/Security S&P 500	VOLA Ticker SPX	y options TILITY REALIZ Duratio	ED VOLA	TILITY	IMPLIED	VOLATIL	TY*	v 6M	Ticker SPX		30 Day Z-S TTM 0.30	3Yr 0.58		Z-S TTM 0.33	3Yr 0.39		Z-S TTM 0.87	3Yr 0.71
Index/Security S&P 500 Russell 2000	Ticker SPX RTY	Py options TILITY REALIZ Duratio	EED VOLA on of Real	TILITY Ized (%)	Current 9.7% 15.2%	VOLATIL At-The-Me	oney %	v 6M Avg.	Ticker SPX RTY	Premium 24.7% 2.9%	Z-S TTM 0.30 0.05	3Yr 0.58 -0.14	Premium 16.5% -4.9%	Z-S TTM 0.33 -0.33	3Yr 0.39 -0.72	Premium 24.3% 3.9%	Z-S TTM 0.87 0.16	3Yr 0.71 -0.40
Index/Security S&P 500 Russell 2000 Nasdaq 100	Ticker SPX RTY NDX	Duratic 30D 6.8% 14.2% 7.8%	expiring in 8 EED VOLA on of Real 60D 8.6% 16.4% 12.1%	### given dui ####################################	Current 9.7% 15.2% 11.9%	VOLATIL At-The-Mov 1M Avo -3.4% -7.9% -10.0%	oney % v 3M -15.6% -12.3% -16.8%	v 6M Avg. -16.7% -9.6% -15.6%	Ticker SPX RTY NDX	Premium 24.7% 2.9% 37.1%	Z-S TTM 0.30 0.05 0.87	3Yr 0.58 -0.14 1.22	Premium 16.5% -4.9% 1.8%	Z-S TTM 0.33 -0.33 -0.21	3Yr 0.39 -0.72 -0.18	Premium 24.3% 3.9% 15.0%	Z-S TTM 0.87 0.16 0.44	3Yr 0.71 -0.40 0.43
Index/Security S&P 500 Russell 2000 Nasdaq 100 USD Index	Ticker SPX RTY NDX UUP	y options TILITY REALIZ Duratic 30D 6.8% 14.2% 7.8% 9.1%	EED VOLA on of Real 60D 8.6% 16.4% 12.1% 8.3%	### given dui ####################################	Current 9.7% 15.2% 11.9% 9.1%	VOLATIL* At-The-Mov 1M Ava -3.4% -7.9% -10.0% -1.5%	oney % v 3M -15.6% -12.3% -16.8% 2.2%	v 6M Avg. -16.7% -9.6% -15.6% 9.8%	Ticker SPX RTY NDX UUP	Premium 24.7% 2.9% 37.1% -9.3%	Z-S TTM 0.30 0.05 0.87 -0.97	3Yr 0.58 -0.14 1.22 -0.90	Premium 16.5% -4.9% 1.8% 10.3%	Z-S TTM 0.33 -0.33 -0.21 -0.13	3Yr 0.39 -0.72 -0.18 -0.20	Premium 24.3% 3.9% 15.0% 26.7%	Z-S TTM 0.87 0.16 0.44 0.94	3Yr 0.71 -0.40 0.43 0.58
Index/Security S&P 500 Russell 2000 Nasdaq 100 USD Index Energy	Ticker SPX RTY NDX UUP XLE	y options TILITY REALIZ Duratic 30D 6.8% 14.2% 7.8% 9.1% 11.7%	ED VOLA on of Real 60D 8.6% 16.4% 12.1% 8.3% 18.1%	### given dustricts ###################################	Current 9.7% 15.2% 11.9% 9.1% 14.7%	VOLATIL* At-The-Move 1M Ave -3.4% -7.9% -10.0% -1.5% 16.8%	-15.6% -12.3% -16.8% 2.2% -24.2%	v 6M Avg. -16.7% -9.6% -15.6% 9.8% -25.3%	Ticker SPX RTY NDX UUP XLE	Premium 24.7% 2.9% 37.1% -9.3% 18.6%	Z-S TTM 0.30 0.05 0.87 -0.97 0.94	3Yr 0.58 -0.14 1.22 -0.90 0.68	Premium 16.5% -4.9% 1.8% 10.3% -16.6%	Z-S TTM 0.33 -0.33 -0.21 -0.13 -0.82	3Yr 0.39 -0.72 -0.18 -0.20 -1.05	Premium 24.3% 3.9% 15.0% 26.7% -11.4%	Z-S TTM 0.87 0.16 0.44 0.94 -0.27	3Yr 0.71 -0.40 0.43 0.58 -0.71
Index/Security S&P 500 Russell 2000 Nasdaq 100 USD Index Energy	Ticker SPX RTY NDX UUP XLE XOP	y options TILITY REALIZ Duratic 30D 6.8% 14.2% 7.8% 9.1% 11.7% 18.9%	EED VOLA on of Real 60D 8.6% 16.4% 12.1% 8.3% 18.7% 33.0%	### Property Property	Current 9.7% 15.2% 11.9% 9.1% 14.7% 24.7%	VOLATIL* At-The-Me v 1M Avo -3.4% -7.9% -10.0% -1.5% 16.8% 11.9%	-15.6% -12.3% -16.8% -24.2% -22.3%	v 6M Avg. -16.7% -9.6% -15.6% 9.8% -25.3% -23.9%	Ticker SPX RTY NDX UUP XLE XOP	Premium 24.7% 2.9% 37.1% -9.3% 18.6% 20.1%	30 Day Z-S: TTM 0.30 0.05 0.87 -0.97 0.94 0.92	3Yr 0.58 -0.14 1.22 -0.90 0.68 0.90	Premium 16.5% -4.9% 1.8% 10.3% -16.6% -23.8%	Z-S TTM 0.33 -0.33 -0.21 -0.13 -0.82 -1.36	3Yr 0.39 -0.72 -0.18 -0.20 -1.05 -1.53	Premium 24.3% 3.9% 15.0% 26.7% -11.4% -18.8%	Z-S TTM 0.87 0.16 0.44 0.94 -0.27 -0.86	3Yr 0.71 -0.40 0.43 0.58 -0.71 -1.06
Index/Security S&P 500 Russell 2000 Nasdaq 100 USD Index Energy Energy Materials	Ticker SPX RTY NDX UUP XLE XOP XLB	y options TILITY REALIZ Duratic 30D 6.8% 14.2% 7.8% 9.1% 11.7% 18.9% 12.4%	EED VOLA on of Real 60D 8.6% 16.4% 12.1% 8.3% 13.9% 12.0%	ITILITY Ized (%) 90D 8.7% 15.8% 11.5% 7.3% 18.3% 32.1% 12.1%	Current 9.7% 15.2% 11.9% 9.1% 14.7% 24.7% 13.2%	VOLATIL* At-The-Me v 1M Avo -3.4% -7.9% -10.0% -15% 16.8% 11.9% -3.0%	-15.6% -15.6% -16.8% -16.8% -24.2% -24.2% -10.5%	v 6M Avg. -16.7% -9.6% -15.6% 9.8% -25.3% -23.9% -12.9%	Ticker SPX RTY NDX UUP XLE XOP XLB	Premium 24.7% 2.9% 37.1% -9.3% 18.6% 20.1% 0.9%	30 Day Z-Si TTM 0.30 0.05 0.87 -0.97 0.94 0.92 -0.32	3Yr 0.58 -0.14 1.22 -0.90 0.68 0.90 -0.28	Premium 16.5% -4.9% 1.8% 10.3% -16.6% -23.8% 12.5%	Z-S TTM 0.33 -0.33 -0.21 -0.13 -0.82 -1.36 0.50	3Yr 0.39 -0.72 -0.18 -0.20 -1.05 -1.53 0.28	Premium 24.3% 3.9% 15.0% 26.7% -11.4% -18.8% 15.2%	Z-S TTM 0.87 0.16 0.44 0.94 -0.27 -0.86 0.97	3Yr 0.71 -0.40 0.43 0.58 -0.71 -1.06 0.45
Index/Security S&P 500 Russell 2000 Nasdaq 100 USD Index Energy Materials Industrials	Ticker SPX RTY NDX UUP XLE XOP XLB XLI	y options TILITY REALIZ Duratic 30D 6.8% 14.2% 7.8% 9.1% 11.7% 18.9% 12.4% 9.6%	EED VOLA on of Real 60D 8.6% 16.4% 12.1% 8.3% 13.0% 12.0%	TILITY	Current 9.7% 15.2% 9.7% 14.7% 24.7% 13.2% 11.7%	VOLATIL* At-The-Mo -3.4% -7.9% -10.0% -15% 16.8% 19% -3.0% -11.2%	15.6% -12.3% -16.6% -12.2% -2.2% -24.2% -10.5% -15.3%	v 6M Avg. -16.7% -9.6% -15.6% 9.8% -25.3% -23.9% -12.9% -14.1%	Ticker SPX RTY NDX UUP XLE XOP XLB XLI	24.7% 2.9% 37.1% -9.3% 18.6% 20.1% 0.9% 17.0%	Z-S TTM 0.30 0.05 0.87 -0.97 0.94 0.92 -0.32 0.22	3Yr 0.58 -0.14 1.22 -0.90 0.68 0.90 -0.28 0.41	Premium 16.5% -4.9% 1.8% 10.3% -16.6% -23.8% 12.5% -0.1%	Z-S TTM 0.33 -0.33 -0.21 -0.13 -0.82 -1.36 0.50 -0.21	3Yr 0.39 -0.72 -0.18 -0.20 -1.05 -1.53 0.28 -0.28	Premium 24.3% 3.9% 15.0% 26.7% -11.4% -18.8% 15.2% 11.2%	Z-S TTM 0.87 0.16 0.44 0.94 -0.27 -0.86 0.97 0.61	3Yr 0.71 -0.40 0.43 0.58 -0.71 -1.06 0.45 0.33
Index/Security S&P 500 Russell 2000 USD Index Energy Materials Industrials Transports	Ticker SPX RTY NDX UUP XLE XOP XLB XLI IYT	y options TILITY REALIZ Duratic 30D 6.8% 14.2% 7.8% 9.1% 11.7% 18.9% 12.4% 9.6% 13.5%	ED VOLA on of Real 60D 8.6% 12.1% 8.3% 18.1% 33.0% 12.0% 12.0% 14.6%	### given du ####################################	Current 9.7% 15.2% 11.9% 9.1% 14.7% 24.7% 13.2% 11.7% 15.5%	VOLATIL* At-The-M- v 1M Avo -3.4% -7.9% -10.0% -1.5% 16.8% 11.9% -3.0% -13.4%	TY* oney % v 3M -15.6% -12.3% -16.8% 2.2% -24.2% -24.2% -10.5% -15.3% -12.7%	v 6M Avg. -16.7% -9.6% -15.6% 9.8% -25.3% -23.9% -14.7%	Ticker SPX RTY NDX UUP XLE XOP XLB XUI IYT	Premium 24.7% 2.9% 37.1% -9.3% 18.6% 20.1% 0.9% 17.0% 9.6%	30 Day Z-S TTM 0.30 0.05 0.87 -0.97 0.94 0.92 -0.32 0.22 -0.06	0.58 -0.14 1.22 -0.90 0.68 0.90 -0.28 0.41 0.08	Premium 16.5% -4.9% 18.8 10.3% -16.6% -23.8% 12.5% -0.1% 7.6%	Z-S TTM 0.33 -0.33 -0.21 -0.13 -0.82 -1.36 0.50 -0.21 0.00	3Yr 0.39 -0.72 -0.18 -0.20 -1.05 -1.53 0.28 -0.28 0.03	Premium 24.3% 3.9% 15.0% 26.7% -11.4% -18.8% 15.2% 11.2% 22.1%	Z-S TTM 0.87 0.16 0.44 0.94 -0.27 -0.86 0.97 0.61 0.92	3Yr 0.71 -0.40 0.43 0.58 -0.71 -1.06 0.45 0.33 0.96
Index/Security S&P 500 Russell 2000 Nasdaq 100 USD Index Energy Materials Industrials	Ticker SPX RTY NDX UUP XLE XOP XLB XLI	y options TILITY REALIZ Duratic 30D 6.8% 14.2% 7.8% 9.1% 11.7% 18.9% 12.4% 9.6%	EED VOLA on of Real 60D 8.6% 16.4% 12.1% 8.3% 13.0% 12.0%	TILITY	Current 9.7% 15.2% 9.7% 14.7% 24.7% 13.2% 11.7%	VOLATIL* At-The-Mo -3.4% -7.9% -10.0% -15% 16.8% 19% -3.0% -11.2%	15.6% -12.3% -16.6% -12.2% -2.2% -24.2% -10.5% -15.3%	v 6M Avg. -16.7% -9.6% -15.6% 9.8% -25.3% -23.9% -12.9% -14.1%	Ticker SPX RTY NDX UUP XLE XOP XLB XLI	24.7% 2.9% 37.1% -9.3% 18.6% 20.1% 0.9% 17.0%	Z-S TTM 0.30 0.05 0.87 -0.97 0.94 0.92 -0.32 0.22	3Yr 0.58 -0.14 1.22 -0.90 0.68 0.90 -0.28 0.41	Premium 16.5% -4.9% 1.8% 10.3% -16.6% -23.8% 12.5% -0.1%	Z-S TTM 0.33 -0.33 -0.21 -0.13 -0.82 -1.36 0.50 -0.21	3Yr 0.39 -0.72 -0.18 -0.20 -1.05 -1.53 0.28 -0.28	Premium 24.3% 3.9% 15.0% 26.7% -11.4% -18.8% 15.2% 11.2%	Z-S TTM 0.87 0.16 0.44 0.94 -0.27 -0.86 0.97 0.61	3Yr 0.71 -0.40 0.43 0.58 -0.71 -1.06 0.45 0.33
Index/Security S&P 500 Russell 2000 Nasdaq 100 USD Index Energy Energy Materials Industrials Transports WTI Crude Oil	Ticker SPX RTY NDX LE XOP XLB XLII IYT USO	y options TILITY REALIZ Duratic 30D 6.8% 14.2% 7.8% 9.1% 11.7% 18.9% 12.4% 9.6% 13.5% 25.5%	ED VOLA on of Real 60D 8.6% 16.4% 12.7% 18.7% 33.0% 12.0% 12.0% 12.0% 34.9%	ILLITY Ized (%) 900 8.7% 15.8% 11.5% 7.3% 18.3% 32.1% 12.1% 11.4% 32.2% 34.2%	Current 9.7% 11.9% 9.1% 14.7% 13.2% 11.7% 15.5% 29.6%	VOLATIL* At-The -Md v 1M Avo -3.4% -10.0% -1.5% 16.8% 11.9% -3.0% -11.2% -13.4% 1.4%	Dney % v 3M -15.6% -12.3% -16.8% 2.2% -24.2% -10.5% -15.5% -12.7% -14.8%	v 6M Avg. -16.7% -9.6% -15.6% 9.8% -25.3% -23.9% -12.9% -14.7% -17.7%	Ticker SPX RTY NDX UUP XLE XOP XLB XUI IYT USO	Premium 24.7% 2.9% 37.1% -9.3% 18.6% 20.1% 0.9% 17.0% 9.6% 1.4%	Z-S TTM 0.30 0.05 0.87 -0.97 0.94 0.92 -0.32 0.22 -0.06 0.46	3Yr 0.58 -0.14 1.22 -0.90 0.68 0.90 -0.28 0.41 0.08 0.15	Premium 16.5% -4.9% 1.8% 10.3% -16.6% -23.8% 12.5% -0.1% 7.6% -15.5%	Z-S TTM 0.33 -0.33 -0.21 -0.13 -0.82 -1.36 0.50 -0.21 0.00 -0.85	3Yr 0.39 -0.72 -0.18 -0.20 -1.05 -1.53 0.28 -0.28 0.03 -1.16	Premium 24.3% 3.9% 15.0% 26.7% -11.4% -18.8% 15.2% 11.2% 22.1% -13.6%	Z-S TTM 0.87 0.16 0.44 0.94 -0.27 -0.86 0.97 0.61 0.92 -0.61	3Yr 0.71 -0.40 0.43 0.58 -0.71 -1.06 0.45 0.33 0.96
Index/Security S&P 500 Russell 200 Nasdaq 100 USD Index Energy Energy Materials Industrials Transports WIT Crude Oil Natural Gas	Ticker SPX RTY NDX UUP XLE XOP XLB XLI IYT USO UNG	y options TILITY REALIZ Duratic 30D 6.8% 14.2% 7.8% 9.1% 11.7% 18.9% 12.4% 9.6% 15.5% 25.5% 55.4%	EED VOLA on of Real 60D 8.6% 16.4% 12.1% 8.3% 12.0% 12.0% 12.0% 14.6% 53.1%	ITLITY Ized (%) 900 8.7% 15.8% 11.5% 7.3% 32.1% 12.1% 11.4% 13.2% 47.9%	Current 9.7% 15.2% 11.9% 9.1% 14.7% 24.7% 13.2% 11.7% 15.5% 29.6% 41.8%	VOLATIL* At-The-M -3.4% -7.9% -10.0% -15.8% 11.9% -3.0% -11.2% -13.4% -11.6%	15.6% -15.6% -12.3% -16.8% -22.3% -10.5% -12.7% -10.5% -12.7% -15.3%	v 6M Avg. -16.7% -9.6% -15.6% 9.8% -23.3% -23.9% -14.7% -12.7% -5.8%	Ticker SPX RTY NDX UUP XLE XOP XLB XLI IYT USO UNG	Premium 24.7% 2.9% 37.1% -9.3% 18.6% 20.1% 17.0% 9.6% 1.4% -23.3%	30 Day Z-S TTM 0.30 0.05 0.87 -0.97 0.94 0.92 -0.32 0.22 -0.06 0.46 -1.74	3Yr 0.58 -0.14 1.22 -0.90 0.68 0.90 -0.28 0.41 0.08 0.15 -1.04	Premium 16.5% -4.9% 1.8% 10.3% -16.6% -23.8% 12.5% -0.1% -7.6% -15.5% -21.8%	Z-S TTM 0.33 -0.33 -0.21 -0.13 -0.82 -1.36 0.50 -0.21 0.00 -0.85 -1.54	3Yr 0.39 -0.72 -0.18 -0.20 -1.05 -1.53 0.28 -0.28 -0.28 0.03 -1.16 -1.11	Premium 24.3% 3.9% 15.0% 26.7% -11.4% -18.8% 15.2% 11.2% 22.1% -13.6% -15.1%	Z-S TTM 0.87 0.16 0.44 0.94 -0.27 -0.86 0.97 0.61 0.92 -0.61 -1.23	3Yr 0.71 -0.40 0.43 0.58 -0.71 -1.06 0.45 0.33 0.96 -0.95
Index/Security S&P 500 Russell 2000 Nasdaq 100 USD Index Energy Materials Industrials Iransports WTI Crude Oil Natural Gas Gold	Ticker SPX RTY NDX UUP XLE XOP XLI IYT USO UNG GLD	y options TILITY REALIZ Duratic 30D 6.8% 14.2% 7.8% 9.1% 11.7% 18.9% 12.4% 9.6% 13.5% 25.5% 55.4% 12.8%	ED VOLA on of Real 60D 8.6% 16.4% 8.3% 18.7% 33.0% 12.0% 12.0% 14.6% 34.9% 13.6%	ILLITY IZed (%) 90D 8.7% 15.8% 7.3% 18.3% 32.7% 11.4% 13.2% 34.2% 34.2% 14.9% 13.3%	Current 9.7% 15.2% 11.9% 9.1% 14.7% 24.7% 13.2% 11.7% 15.5% 29.6% 41.8% 13.6%	VOLATIL* At-The-M -3.4% -7.9% -10.0% -1.5% 16.8% -3.0% -11.2% -13.4% 1.4% -1.16% -2.2%	15.6% -12.3% -24.2% -24.2% -24.2% -10.5% -15.3% -12.7% -14.8% -9.9%	v 6M Avg. -16.7% -9.6% -15.6% -25.3% -22.3% -23.9% -14.1% -12.7% -17.7% -5.8% -8.8%	Ticker SPX RTY NDX UUP XLE XOP XLB XLI IYT USO UNG GLD	Premium 24.7% 2.9% 37.1% -9.3% 18.6% 20.1% 0.9% 17.0% 9.6% 1.4% -23.3% 0.3%	30 Day Z-S TTM 0.30 0.05 0.87 -0.97 0.94 0.92 -0.32 0.22 -0.06 0.46 -1.74 -0.34	0.58 -0.14 1.22 -0.90 0.68 0.90 -0.28 0.41 0.08 0.15 -1.04 -0.35	Premium 16.5% -4.9% 18% 10.3% -16.6% -23.8% 12.5% -0.1% 7.6% -15.5% -21.8% -0.7%	Z-S TTM 0.33 -0.33 -0.21 -0.13 -0.82 -1.36 0.50 -0.21 0.00 -0.85 -1.54 -0.29	3Yr 0.39 -0.72 -0.18 -0.20 -1.05 -1.53 0.28 -0.28 -0.28 -1.16 -1.11 -0.36	Premium 24.3% 3.9% 15.0% 26.7% -11.4% -18.8% 15.2% 11.2% -13.6% -15.7% 1.6%	Z-S TTM 0.87 0.16 0.44 0.94 -0.27 -0.86 0.97 0.61 0.92 -0.61 -1.23 -0.08	3Yr 0.71 -0.40 0.43 0.58 -0.71 -1.06 0.45 0.33 0.96 -0.95 -0.83 -0.24
Index/Security S&P 500 Russell 2000 Nasdaq 100 USD Index Energy Energy Materials Industrials Transports WTI Crude Oil Natural Gas Gold Silver	Ticker SPX RTY NDX UUP XLE XOP XLB XLI IYT USO UNG GLD SLV	y options TILITY REALIZ Duratic 30D 6.8% 14.2% 7.8% 11.7% 18.9% 12.4% 25.5% 55.4% 12.8% 21.7%	expiring in 8 EED VOLA on of Real 600 8.6% 16.4% 12.7% 8.3% 12.0% 12.0% 14.6% 34.9% 53.6% 13.6% 23.9%	ITILITY ized (%) 900 8.7% 15.8% 11.5% 7.3% 18.3% 32.1% 12.1% 11.4% 34.2% 47.9% 13.3% 32.6%	Current 9.7% 15.2% 11.9% 14.7% 24.7% 13.2% 29.6% 41.8% 21.5%	VOLATIL* At-The -Mc -3.4% -7.9% -10.0% -15% 16.8% 11.9% -3.0% -11.2% -13.4% 1.4% -1.16% -2.2% -8.5%	15.6% -12.3% -16.8% -12.3% -16.2% -24.2% -24.2% -22.3% -10.5% -12.7% -14.8% -15.3% -12.7% -14.8% -15.6%	v 6M Avg. -16.7% -9.6% -15.6% -25.3% -23.9% -12.7% -17.7% -5.8% -8.8% -12.9%	Ticker SPX RTY NDX UUP XLE XOP XLB XLI IYT USO UNG GLD SLV	Premium 24.7% 2.9% 37.1% -9.3% 18.6% 20.1% 0.9% 17.0% 9.6% 1.4% -23.3% 0.3% -5.8%	30 Day Z-S TTM 0.30 0.05 0.87 -0.97 0.94 0.92 -0.32 0.22 -0.06 0.46 -1.74 -0.34 -0.85	0.58 -0.14 1.22 -0.90 0.68 0.90 -0.28 0.41 0.08 0.15 -1.04 -0.35 -0.82	Premium 16.5% -4.9% 18% 10.3% -16.6% -23.8% 12.5% -0.1% 7.6% -15.5% -0.1% -10.5%	Z-S TTM 0.33 -0.33 -0.21 -0.13 -0.82 -1.36 0.50 -0.21 0.00 -0.85 -1.54 -0.29 -1.75	3Yr 0.39 -0.72 -0.18 -0.20 -1.05 -1.53 0.28 -0.28 -0.28 -0.33 -1.16 -1.11 -0.36 -1.18	Premium 24.3% 3.9% 15.0% 26.7% -11.4% 15.2% 11.2% 22.7% -13.6% -5.7%	Z-S TTM 0.87 0.16 0.44 0.94 -0.27 -0.86 0.97 0.61 -1.23 -0.08 -1.37	3Yr 0.71 -0.40 0.43 0.58 -0.71 -1.06 0.45 0.33 0.96 -0.95 -0.83 -0.24 -1.05
Index/Security S&P 500 Russell 200 Russell 200 Nasdaq 100 USD Index Energy Energy Materials Industrials Transports WTI Crude Oil Natural Gas Gold Siliver Copper	Ticker SPX RTY NDX UUP XLB XLI IYT USO UNG GLD SLV JJC	y options TILITY REALIZ Duratic 30D 6.8% 14.2% 7.8% 11.7% 18.9% 12.4% 9.6% 13.5% 25.5% 55.4% 12.8% 21.1% 26.1%	EED VOLA on of Real 60D 8.6% 12.7% 12.7% 8.3% 18.7% 12.0% 12.0% 14.6% 53.7% 13.6% 53.7% 13.6% 53.7% 53.7%	TILITY 90D 8.7% 15.8% 11.5% 7.3% 18.3% 2.1% 12.1% 14.4% 13.3% 47.9% 13.3% 23.6% 23.7%	IMPLIED Current 9.7% 15.2% 11.9% 14.7% 24.7% 13.2% 11.7% 15.5% 29.6% 41.8% 13.6% 22.5%	VOLATIL* At-The-M • 1M Ave • 3.4% • 10.0% • 15% • 16.8% • 3.0% • 11.2% • 13.4% • 11.6% • 2.2% • 13.7% • 13.7%	15.6% -15.6% -12.3% -16.8% 2.2% -24.2% -10.5% -15.3% -19.3% -19.3% -17.4%	v 6M Avg. -16.7% -9.6% -15.6% 9.8% -25.39 -12.9% -14.1% -12.7% -5.8% -8.8% -12.99 -10.7%	Ticker SPX RTY NDX UUP XLE XOP XLB XLI IYT USO UNG GLD SLV JJC	Premium 24.7% 2.9% 37.1% -9.3% 18.6% 20.1% 0.9% 17.0% 9.6% 1.4% -23.3% -5.8% -5.9%	30 Day Z-S TTM 0.30 0.05 0.87 -0.97 0.94 -0.32 0.22 -0.06 0.46 -1.74 -0.34 -0.35 -0.37	0.58 -0.14 1.22 -0.90 0.68 0.90 -0.28 0.41 0.08 0.15 -1.04 -0.35 -0.82 -0.46	Premium 16.5% -4.9% 1.8% 10.3% -16.6% -23.8% 12.5% -0.1% -15.5% -21.8% -0.76% -15.5% -11.2%	Z-S TTM 0.33 -0.33 -0.21 -0.13 -0.82 -1.36 0.50 -0.21 0.00 -0.85 -1.54 -0.29 -1.75 -0.65	3Yr 0.39 -0.72 -0.18 -0.20 -1.05 -1.53 0.28 -0.28 0.03 -1.16 -1.11 -0.36 -1.18 -0.82	Premium 24.3% 3.9% 15.0% 26.7% -11.4% -18.8% 15.2% 11.2% 22.7% -13.6% -15.7% 9.3%	Z-S TTM 0.87 0.16 0.44 0.94 -0.27 -0.86 0.97 0.61 0.92 -0.61 1.23 -0.08 -1.37 -0.10	3Yr 0.71 -0.40 0.43 0.58 -0.71 -1.06 0.45 0.33 0.96 -0.95 -0.83 -0.24 -1.05
Index/Security S&P 500 Russell 2000 Nasdaq 100 USD Index Energy Materials Industrials Transports WTI Crude Oil Natural Gas Gold Siliver Copper Corn	VOLA Ticker SPX RTY NDX UUP XLE XOP XLI IYT USO UNG GLD SLV JJC CORN	y options TILITY REALIZ Duratic 30D 6.8% 14.2% 9.1% 11.7% 18.9% 12.4% 9.6% 13.5% 55.4% 12.8% 21.1% 13.9%	ED VOLA ON OF Real 600 8.6% 16.4% 12.1% 8.3% 12.0% 14.6% 34.9% 15.8% 15.6% 12.9% 16.8%	ILITY Ized (%) 900 8.7% 15.8% 11.5% 7.3% 32.1% 12.1% 13.2% 34.2% 44.9% 47.9% 13.3% 23.6% 23.7% 27.6%	Unrent 9.7% 15.2% 11.7% 14.7% 15.5% 11.7% 15.5% 24.7% 11.6% 13.6% 11.6% 17.6%	VOLATIL* At-The -May 1M Ayo -3.4% -7.9% -1.5% 16.8% 11.9% -3.0% -11.2% -3.4% -1.4% -1.4% -1.6% -2.2% -8.5% -13.7% 1.2%	15.6% -12.3% -16.8% -24.2% -24.2% -12.5% -15.5% -12.7% -15.2% -12.7% -15.2% -19.9% -19	v 6M Avg16.7% -9.6% -15.6% 9.8% -25.3% -23.9% -12.7% -12.7% -15.7% -8.8% -12.9% -10.7% -11.6%	Ticker SPX RTY NDX UUP XLE XOP XLB XLI IYT USO UNG GLD SLV JJC CORN	Premium 24.7% 2.9% 37.7% -9.3% 18.6% 20.1% 0.9% 17.0% 1.4% -23.3% 0.3% -5.8% 23.1%	30 Day Z-S TTM 0.30 0.05 0.87 -0.97 0.94 0.92 -0.32 0.22 -0.06 0.46 -1.74 -0.34 -0.85 -0.37 0.35	3Yr 0.58 -0.14 1.22 -0.90 0.68 0.90 -0.28 0.41 0.08 0.15 -1.04 -0.35 -0.82 -0.46 0.14	Premium 16.5% -4.9% 10.3% -16.6% -23.8% -0.1% 7.6% -15.5% -0.7% -0.7% -10.5% -11.2% -6.8%	Z-S TTM 0.33 -0.33 -0.21 -0.13 -0.82 -1.36 0.50 -0.21 0.00 -0.85 -1.54 -0.29 -1.75 -0.65 -0.34	3Yr 0.39 -0.72 -0.18 -0.20 -1.05 -1.53 -0.28 -0.28 -0.03 -1.16 -1.11 -0.36 -1.18 -0.82 -0.67	Premium 24.3% 3.9% 15.0% 26.7% -11.4% -18.8% 15.2% 11.2% -13.6% -15.1% -16.9% -5.7% -9.3% -6.1%	Z-S TTM 0.87 0.16 0.44 0.94 -0.27 -0.86 0.97 0.61 0.92 -0.61 -1.23 -0.08 -1.37 -0.10	3Yr 0.71 -0.40 0.43 0.58 -0.71 -1.06 0.45 0.33 0.96 -0.95 -0.83 -0.24 -1.05 -0.10

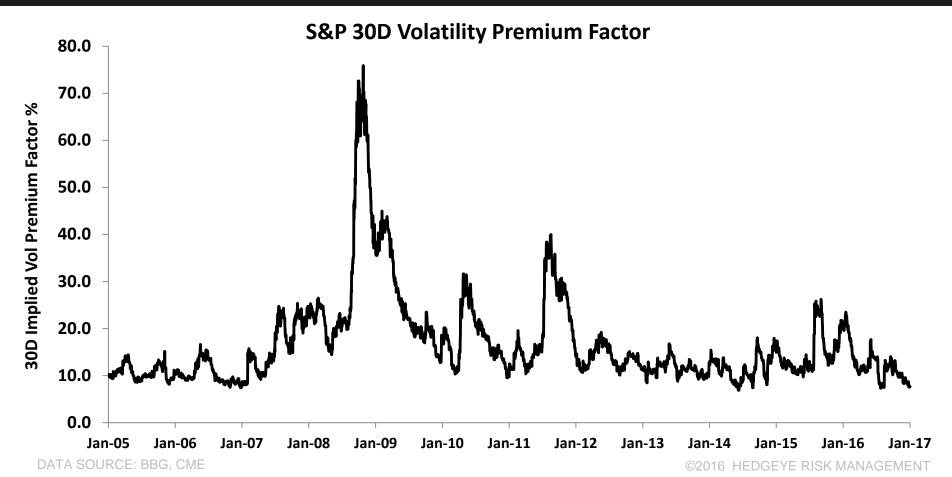
ANOTHER LOOK AT THE SHIFT





Historical Volatility Percentile F	Pankings (Aggte 4)
Nasdag 100 Index	1.9%
KOSPI Index	3.6%
Dow Jones ETF	3.7%
Consumer Discret, ETF	3.8%
Hong Kong H Shares	4.0%
Materials ETF	5.2%
Dow Jones Inds. Index	5.2%
Nifty 50 India Index	7.9%
Taiwan Stock Exchg.	8.3%
S&P 500 Index	8.9%
Wheat ETF	9.1%
Transports ETF	9.7%
Technology	9.7%
S&P 500 ETF	9.7%
Hang Seng Index	11.6%
Corn ETF	12.6%
CAC 40 Index	12.8%
S&P TSX 60 Index	
Industrials ETF	12.8% 13.1%
German DAX Index	15.6%
Energy ETF	18.1%
IBOV Brazil Index	19.6%
Silver ETF	19.9%
Russell 2000 ETF	20.2%
Gold ETF	20.6%
FTSE 100 Index	20.9%
Swiss Market Index	21.2%
Euro Stoxx 50 index	22.9%
Health Care ETF	32.0%
High Yield Corp. ETF	32.2%
Consumer Staples ETF	34.5%
Soybeans ETF	34.6%
Zero Coupon STRIPS ETF	36.9%
Junk Bond ETF	37.5%
FTSE MIB Index	37.5%
Financials ETF	38.3%
S&P ASX Index	39.6%
Mid-Term Treasuries ETF	40.3%
U.S. Dollar ETF	41.9%
Nikkei 225 Index	42.3%
Tokyo TOPIX Index	43.9%
Muni-Bond ETF	45.3%
Utilities ETF	45.8%
Euro ETF	46.5%
Copper ETF	47.3%
Russell 2000 Index	49.2%
L-T Treasuries ETF	56.3%
WTI Crude Oil ETF	57.0%
Natural Gas ETF	72.5%
Yen ETF	77.5%
British Pound ETF	82.6%

NEAR THE LOWS IN REALITY AND EXPECTATIONS

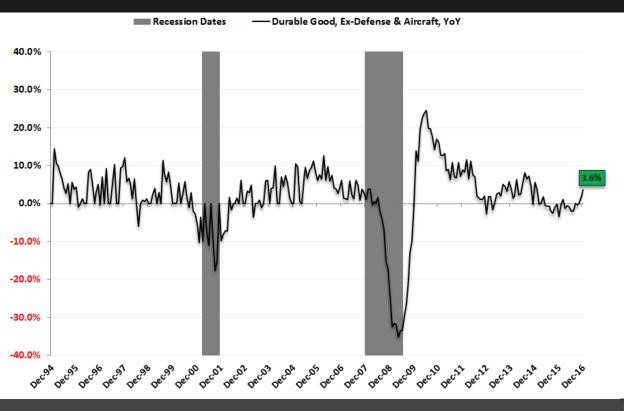


WHEN PREMIUMS NEED SOME SERIOUS CONTEXT...

S	&P Realized Vol	atility Bac	ktest (5th	& 95th Pe	rcentiles)
	10D Realized	1 Mth % Chg	3 Mth % Chg	6 Mth % Chg	9 Mth % Chg
	Mean % Chg	102%	110%	143%	130%
5	Median % Chg	76%	87%	100%	96%
t	Positive Hit Rate %	88.5%	96.1%	93.4%	93.3%
h	20D Realized	1 Mth % Chg	3 Mth % Chg	6 Mth % Chg	9 Mth % Chg
	Mean % Chg	58%	57%	74%	85%
P	Median % Chg	54%	43%	54%	51%
е	Positive Hit Rate %	86.7%	86.7%	96.4%	92.9%
r	30D Realized	1 Mth % Chg	3 Mth % Chg	6 Mth % Chg	9 Mth % Chg
С	Mean % Chg	33%	54%	61%	82%
е	Median % Chg	10%	41%	60%	42%
n	Positive Hit Rate %	71.4%	82.1%	82.1%	82.1%
t	60D Realized	1 Mth % Chg	3 Mth % Chg	6 Mth % Chg	9 Mth % Chg
I	Mean % Chg	4%	24%	50%	39%
- 1	Median % Chg	-4%	19%	46%	42%
e	Positive Hit Rate %	37.5%	75.0%	100.0%	62.5%
-	Positive Hit Rate %	37.3%	75.0%	100.0%	62.5%
-	10D Realized	1 Mth % Chg	3 Mth % Chg	6 Mth % Chg	9 Mth % Chg
9	10D Realized Mean % Chg	1 M th % Chg -29%	3 M th % Chg -48%	6 M th % Chg -46%	
	10D Realized	1 M th % Chg -29% -43%	3 M th % Chg -48% -57%	6 M th % Chg -46%	9 M th % Chg -52% -54%
9	10D Realized Mean % Chg	1 M th % Chg -29%	3 M th % Chg -48% -57%	6 M th % Chg -46% -53%	9 M th % Chg -52%
9	10D Realized Mean % Chg Median % Chg Negative Hit Rate % 20D Realized	1 M th % Chg -29% -43% 85.7% 1 M th % Chg	3 M th % Chg -48% -57% 92.9% 3 M th % Chg	6 M th % Chg -46% -53% 92.9% 6 M th % Chg	9 M th % Chg -52% -54% 96.4 % 9 M th % Chg
9 5 t	10D Realized Mean % Chg Median % Chg Negative Hit Rate % 20D Realized Mean % Chg	1 M th % Chg -29% -43% 85.7% 1 M th % Chg -18%	3 M th % Chg -48% -57% 92.9% 3 M th % Chg -35%	6 M th % Chg -46% -53% 92.9% 6 M th % Chg -39%	9 M th % Chg -52% -54% 96.4% 9 M th % Chg -46%
9 5 t	10D Realized Mean % Chg Median % Chg Negative Hit Rate % 20D Realized Mean % Chg Median % Chg	1 M th % Chg -29% -43% 85.7% 1 M th % Chg -18% -26%	3 Mth % Chg -48% -57% 92.9% 3 Mth % Chg -35% -50%	6 Mth % Chg -46% -53% 92.9% 6 Mth % Chg -39% -49%	9 Mth % Chg -52% -54% 96.4% 9 Mth % Chg -46% -49%
9 5 t h	10D Realized Mean % Chg Median % Chg Negative Hit Rate % 20D Realized Mean % Chg Median % Chg Negative Hit Rate %	1 M th % Chg -29% -43% 85.7% 1 M th % Chg -18% -26% 77.8%	3 Mth % Chg -48% -57% 92.9% 3 Mth % Chg -35% -50% 88.9%	6 Mth % Chg -46% -53% 92.9% 6 Mth % Chg -39% -49% 83.3%	9 Mth % Chg -52% -54% 96.4% 9 Mth % Chg -46% -49% 88.9%
9 5 t h	10D Realized Mean % Chg Median % Chg Negative Hit Rate % 20D Realized Mean % Chg Median % Chg Negative Hit Rate % 30D Realized	1 Mth % Chg -29% -43% 85.7% 1 Mth % Chg -18% -26% 77.8% 1 Mth % Chg	3 Mth % Chg -48% -57% 92.9% 3 Mth % Chg -35% -50% 88.9% 3 Mth % Chg	6 Mth % Chg -46% -53% 92.9% 6 Mth % Chg -39% -49% 83.3% 6 Mth % Chg	9 Mth % Chg -52% -54% 96.4% 9 Mth % Chg -46% -49% 88.9% 9 Mth % Chg
9 5 t h P e	10D Realized Mean % Chg Median % Chg Negative Hit Rate % 20D Realized Mean % Chg Median % Chg Negative Hit Rate % 30D Realized Mean % Chg	1 Mth % Chg -29% -43% 85.7% 1 Mth % Chg -18% -26% 77.8% 1 Mth % Chg 8%	3 Mth % Chg -48% -57% 92.9% 3 Mth % Chg -35% -50% 88.9% 3 Mth % Chg	6 Mth % Chg -46% -53% 92.9% 6 Mth % Chg -39% -49% 83.3% 6 Mth % Chg	9 Mth % Chg -52% -54% 96.4% 9 Mth % Chg -46% -49% 88.9% 9 Mth % Chg
9 5 t h P e r	10D Realized Mean % Chg Median % Chg Negative Hit Rate % 20D Realized Mean % Chg Median % Chg Negative Hit Rate % 30D Realized Mean % Chg Mean % Chg Median % Chg	1 Mth % Chg -29% -43% 85.7% 1 Mth % Chg -18% -26% 77.8% 1 Mth % Chg	3 Mth % Chg -48% -57% 92.9% 3 Mth % Chg -35% -50% 88.9% 3 Mth % Chg	6 Mth % Chg -46% -53% 92.9% 6 Mth % Chg -39% -49% 83.3% 6 Mth % Chg -37% -40%	9 Mth % Chg -52% -54% 96.4% 9 Mth % Chg -46% -49% 88.9% 9 Mth % Chg -47% -49%
95 th Percen	10D Realized Mean % Chg Median % Chg Negative Hit Rate % 20D Realized Mean % Chg Median % Chg Negative Hit Rate % 30D Realized Mean % Chg Median % Chg Median % Chg Median % Chg Median % Chg Negative Hit Rate %	1 Mth % Chg -29% -43% 85.7% 1 Mth % Chg -18% -26% 77.8% 1 Mth % Chg 8% -1% 50.0%	3 Mth % Chg -48% -57% 92.9% 3 Mth % Chg -35% -50% 88.9% 3 Mth % Chg -31% -50% 83.3%	6 Mth % Chg -46% -53% 92.9% 6 Mth % Chg -39% -49% 83.3% 6 Mth % Chg -37% -40% 91.7%	9 Mth % Chg -52% -54% 96.4% 9 Mth % Chg -46% -49% 88.9% 9 Mth % Chg -47% -47% -49% 100.0%
95th Perce	10D Realized Mean % Chg Median % Chg Negative Hit Rate % 20D Realized Mean % Chg Median % Chg Negative Hit Rate % 30D Realized Mean % Chg Median % Chg Negative Hit Rate % 60D Realized	1 Mth % Chg -29% -43% 85.7% 1 Mth % Chg -18% -26% 77.8% 1 Mth % Chg 8% -1% 50.0% 1 Mth % Chg	3 Mth % Chg -48% -57% 92.9% 3 Mth % Chg -35% -50% 88.9% 3 Mth % Chg -31% -50% 83.3% 3 Mth % Chg	6 Mth % Chg -46% -53% 92.9% 6 Mth % Chg -39% -49% 83.3% 6 Mth % Chg -37% -40% 91.7%	9 Mth % Chg -52% -54% 96.4% 9 Mth % Chg -46% -49% 88.9% 9 Mth % Chg -47% -47% -49% 100.0% 9 Mth % Chg
95 th Percen	10D Realized Mean % Chg Median % Chg Negative Hit Rate % 20D Realized Mean % Chg Median % Chg Negative Hit Rate % 30D Realized Mean % Chg Median % Chg Median % Chg Median % Chg Median % Chg Negative Hit Rate % 60D Realized Mean % Chg	1 Mth % Chg -29% -43% 85.7% 1 Mth % Chg -18% -26% 77.8% 1 Mth % Chg 8% -1% 50.0% 1 Mth % Chg	3 Mth % Chg -48% -57% 92.9% 3 Mth % Chg -35% -50% 88.9% 3 Mth % Chg -31% -50% 83.3% 3 Mth % Chg	6 Mth % Chg -46% -53% 92.9% 6 Mth % Chg -49% 83.3% 6 Mth % Chg -37% -40% 91.7% 6 Mth % Chg	9 Mth % Chg -52% -54% 96.4% 9 Mth % Chg -46% -49% 88.9% 9 Mth % Chg -47% -49% 100.0% 9 Mth % Chg
95 th Percen	10D Realized Mean % Chg Median % Chg Negative Hit Rate % 20D Realized Mean % Chg Median % Chg Negative Hit Rate % 30D Realized Mean % Chg Median % Chg Negative Hit Rate % 60D Realized	1 Mth % Chg -29% -43% 85.7% 1 Mth % Chg -18% -26% 77.8% 1 Mth % Chg 8% -1% 50.0% 1 Mth % Chg	3 Mth % Chg -48% -57% 92.9% 3 Mth % Chg -35% -50% 88.9% 3 Mth % Chg -31% -50% 83.3% 3 Mth % Chg	6 Mth % Chg -46% -53% 92.9% 6 Mth % Chg -49% 83.3% 6 Mth % Chg -37% -40% 91.7% 6 Mth % Chg	9 Mth % Chg -52% -54% 96.4% 9 Mth % Chg -46% -49% 88.9% 9 Mth % Chg -47% -47% -49% 100.0% 9 Mth % Chg

	*% Chg. is change in th	atility Back			
	30D Implied			6 Mth % Chg	9 Mth % Chg
	Mean % Chg	13%	20%	18%	34%
5	Median % Chg	6%	18%	16%	19%
ŧ	Positive Hit Rate %	73.1 %	80.0%	91.3%	78.3%
ı	60D Implied	1 Mth % Chg	3 Mth % Chg	6 Mth % Chg	9 Mth % Chg
	Mean % Chg	14%	28%	22%	28%
١	Median % Chg	6%	20%	15%	20%
	Positive Hit Rate %	88.2%	88.2%	94.1%	88.2%
	3-Mth Implied	1 Mth % Chg	3 Mth % Chg	6 Mth % Chg	9 Mth % Chg
:	Mean % Chg	14%	28%	23%	20%
•	Median % Chg	8%	19%	15%	19%
١	Positive Hit Rate %	84.6%	84.6%	84.6%	69.2%
	6-Mth Implied	1 Mth % Chg	3 Mth % Chg	6 Mth % Chg	9 Mth % Chg
	Mean % Chg	7%	28%	38%	52%
	Median % Chg	6%	20%	35%	30%
•	Positive Hit Rate %	83.3%	100.0%	91.7%	83.3%
	30D Implied			6 Mth % Chg	
)	Mean % Chg	2%	-23%	-47%	-46%
5	Median % Chg	-18%	-25%	-59%	-44%
t	Negative Hit Rate %				
١	60D Implied			6 Mth % Chg	
	Mean % Chg	-2%	-26%		
•	Median % Chg	-18%	-27 %	-50%	-41%
•	Negative Hit Rate %		80.0%		
	3-Mth Implied		3 Mth % Chg	6 Mth % Chg	
	Mean % Chg	5%	-26%		
•	Median % Chg	-22%	-40%		
١	Negative Hit Rate %		66.7%		
	6-Mth Implied	1 Mth % Chg			
		4707	-35%	-47%	-50%
	Mean % Chg	-17%			
	Mean % Chg Median % Chg Negative Hit Rate %	-22%	-39% 100.0 %	-62%	-51%

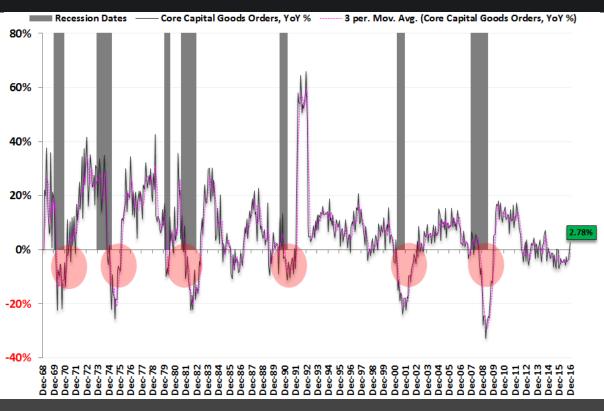
U.S. DURABLE GOODS



January 27, 2017



CAPITAL GOODS ORDERS



January 27, 2017



U.S. DURABLE CAPITAL GOODS

	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16
GDP: Durable Goods in Context													
Real GDP, Chained \$'s	16,491	-	-	16,525	-	-	16,583	-	-	16,727	-	-	-
Consumer Spending (Real PCE)	11,352	11,345	11,376	11,374	11,457	11,475	11,522	11,558	11,546	11,603	11,619	11,636	-
Services	7,388	7,390	7,417	7,405	7,441	7,453	7,482	7,497	7,504	7,525	7,514	7,528	-
Goods (i.e. Retail Sales)	3,968	3,958	3,962	3,974	4,023	4,029	4,047	4,069	4,048	4,087	4,116	4,119	-
Durable Goods	1,535	1,519	1,529	1,527	1,556	1,556	1,571	1,607	1,583	1,623	1,641	1,638	-
NonDurable Goods	2,466	2,470	2,466	2,478	2,500	2,506	2,510	2,502	2,501	2,505	2,519	2,523	-
Durable Goods, % of PCE	13.5%	13.4%	13.4%	13.4%	13.6%	13.6%	13.6%	13.9%	13.7%	14.0%	14.1%	14.1%	-
Durable Goods, % of GDP	9.3%	-	-	9.2%	-	-	9.5%	-	-	9.7%	-	-	-

TV HEDGEYE

DURABLE GOODS													
Durable Goods - New Orders	223,402	231,756	224,081	228,499	235,729	228,827	219,055	226,948	227,470	228,204	239,530	227,987	227,018
M/M, % Chg	-3.9%	3.7%	-3.3%	2.0%	3.2%	-2.9%	-4.3%	3.6%	0.2%	0.32%	4.96%	-4.8%	-0.4%
Y/Y, % Chg	-0.8%	1.1%	1.2%	-2.8%	1.8%	2.4%	-6.7%	-4.1%	-1.0%	2.0%	2.1%	-1.9%	1.6%
2Y Ave	-1.2%	2.2%	-1.1%	-1.3%	-0.2%	-0.6%	-3.7%	-11.4%	-2.1%	-1.3%	1.5%	-0.1%	0.4%
Durable Goods - Ex-Transports	148,171	150,383	148,136	148,523	148,984	148,237	147,738	149,315	149,367	149,526	151,198	152,639	153,363
M/M, % Chg	-0.5%	1.5%	-1.5%	0.3%	0.3%	-0.5%	-0.3%	1.1%	0.0%	0.1%	1.1%	1.0%	0.5%
Y/Y, % Chg	-3.2%	-0.6%	-1.4%	-2.0%	-1.4%	-0.8%	-3.5%	-1.1%	-0.7%	-0.2%	0.3%	2.5%	3.5%
2Y Ave	0.0%	-0.3%	-1.3%	-2.0%	-1.3%	-1.7%	-3.1%	-1.5%	-2.4%	-2.7%	-0.8%	0.4%	0.1%
Durable Goods - Ex-Defense	212,217	219,616	214,453	213,435	221,094	217,471	208,679	214,721	213,081	215,784	227,044	211,698	215,305
M/M, % Chg	-1.9%	3.5%	-2.4%	-0.5%	3.6%	-1.6%	-4.0%	2.9%	-0.8%	1.3%	5.2%	-6.8%	1.7%
Y/Y, % Chg	-1.4%	0.6%	0.3%	-4.4%	0.0%	2.2%	-6.5%	-3.9%	-2.8%	0.9%	2.5%	-2.1%	1.5%
2Y Ave	-1.8%	1.7%	-1.0%	-1.9%	1.0%	-0.6%	-3.3%	-12.2%	-3.1%	-2.1%	1.7%	-1.4%	0.0%
Durable Goods - Non-Defense Aircraft & parts	10,225	14,234	10,432	10,226	17,309	16,341	6,591	11,394	8,626	11,264	21,903	4,298	6,122
M/M, % Chg	-20.1%	39.2%	-26.7%	-2.0%	69.3%	-5.6%	-59.7%	72.9%	-24.3%	30.6%	94.5%	-80.4%	42.4%
Y/Y, % Chg	62.7%	13.1%	-13.6%	-41.6%	7.9%	61.9%	-61.6%	-28.1%	-41.6%	32.7%	26.7%	-66.4%	-40.1%
2Y Ave	-4.4%	2.9%	-20.7%	-18.0%	6.0%	12.0%	-26.7%	-53.0%	-30.7%	-4.8%	26.3%	-37.2%	11.3%
Durable Goods - Ex-Defense & Aircraft	201,992	205,382	204,021	203,209	203,785	201,130	202,088	203,327	204,455	204,520	205,141	207,400	209,183
M/M, % Chg	-0.7%	1.7%	-0.7%	-0.4%	0.3%	-1.3%	0.5%	0.6%	0.6%	0.0%	0.3%	1.1%	0.9%
Y/Y, % Chg	-3.3%	-0.2%	1.1%	-1.2%	-0.6%	-0.8%	-2.0%	-2.0%	0.0%	-0.4%	0.4%	1.9%	3.6%
2Y Ave	1.1%	1.7%	0.5%	-0.5%	0.6%	-0.7%	-1.3%	-1.4%	-0.9%	-1.5%	-0.2%	0.9%	0.1%
Durable Goods - Ex-Defense & Transports	136,986	138,243	138,508	133,459	134,349	136,881	137,362	137,088	134,978	137,106	138,712	136,350	141,650
M/M, % Chg	3.2%	0.9%	0.2%	-3.6%	0.7%	1.9%	0.4%	-0.2%	-1.5%	1.6%	1.2%	-1.7%	3.9%
Y/Y, % Chg	-4.3%	-1.5%	-2.8%	-4.4%	-4.4%	-1.3%	-3.1%	-0.4%	-3.5%	-2.0%	0.7%	2.7%	3.4%
2Y Ave	-0.8%	-1.3%	-1.0%	-3.0%	0.7%	-1.8%	-2.5%	-2.4%	-4.0%	-4.1%	-0.7%	-1.5%	-0.5%
CAPITAL GOODS - Non-Defense Ex-Air	62,747	64,277	62,924	63,109	62,546	62,153	62,437	62,931	63,681	62,710	63,044	63,972	64,493
M/M, % Chg	-4.1%	2.4%	-2.1%	0.3%	-0.9%	-0.6%	0.5%	0.8%	1.2%	-1.5%	0.5%	1.5%	0.8%
Y/Y, % Chg	-7.1%	-5.2%	-3.3%	-4.6%	-4.7%	-4.0%	-3.5%	-5.6%	-2.6%	-4.5%	-4.0%	-2.3%	2.8%
2Y Ave	-3.2%	-2.7%	-3.2%	-4.0%	-3.0%	-2.7%	-5.1%	-3.6%	-4.2%	-5.8%	-1.9%	-1.2%	-2.1%

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HEDGEYE



U.S. GDP SUMMARY

_													
-	Mar-14	Jul-14	Sep-14	Dec-14	Mar-15	Jun-15	Sep-15	Dec-15	Mar-16	Jun-16	Sep-16	Dec-16	Q/Q Chg
Real GDP, Q/Q	-1.20	4.00	5.00	2.30	2.00	2.60	2.00	0.90	0.80	1.40	3.50	1.90	-1.60
Real GDP, Y/Y	1.60	2.40	2.90	2.50	3.30	3.00	2.20	1.90	1.60	1.30	1.70	1.90	0.20
GDP Nominal Dollars	17,025	17,286	17,569	17,692	17,784	17,998	18,142	18,223	18,282	18,450	18,675	18,861	
GDP Chained Dollars	15,747	15,901	16,095	16,187	16,269	16,374	16,455	16,491	16,525	16,583	16,727	16,805	
CONTRIBUTION TO % CHANGE IN GDP													
Real GDP, Q/Q	-1.2	4.0	5.0	2.3	2.0	2.6	2.0	0.9	0.8	1.4	3.5	1.9	-1.60
C: Consumption	1.26	2.56	2.52	3.07	1.63	1.94	1.81	1.53	1.11	2.88	2.03	1.70	-0.33
I: Investment	-1.10	1.79	1.49	0.45	1.62	0.18	0.35	-0.39	-0.56	-1.34	0.50	1.67	1.17
G: Government	-0.19	0.02	0.46	-0.07	0.45	0.57	0.34	0.18	0.28	-0.30	0.14	0.21	0.07
E: Net Exports	-1.16	-0.41	0.50	-1.14	-1.65	-0.08	-0.52	-0.45	0.01	0.18	0.85	-1.70	-2.55
Consumer Spending	1.3	2.6	2.5	3.1	1.6	1.9	1.8	1.5	1.1	2.9	2.0	1.7	-0.33
Durable Goods	0.3	0.9	0.6	0.6	0.3	0.6	0.5	0.3	-0.1	0.7	0.8	0.8	-0.05
NonDurable Goods	0.2	0.6	0.4	0.5	0.3	0.4	0.5	0.2	0.3	0.8	-0.1	0.3	0.39
Services	0.7	1.1	1.5	1.9	1.0	1.0	0.9	1.1	0.9	1.4	1.3	0.6	-0.68
Residential Investment	0.0	0.4	0.1	0.4	0.4	0.5	0.4	0.4	0.3	-0.3	-0.2	0.4	0.53
Nonresidential Invesment	0.8	0.8	1.1	-0.1	0.2	0.2	0.5	-0.4	-0.4	0.1	0.2	0.3	0.12
Government	-0.2	0.0	0.5	-0.1	0.5	0.6	0.3	0.2	0.3	-0.3	0.1	0.2	0.07
State & Local Government	-0.2	0.2	0.2	0.4	0.3	0.6	0.3	-0.1	0.4	-0.3	0.0	0.3	0.30
Exports	-0.4	1.2	0.3	0.6	-0.8	0.4	-0.4	-0.3	-0.1	0.2	1.2	-0.5	-1.69
Imports	-0.8	-1.6	0.2	-1.7	-0.9	-0.4	-0.2	-0.1	0.1	0.0	-0.3	-1.2	-0.86
Net Exports	-1.2	-0.4	0.5	-1.1	-1.7	-0.1	-0.5	-0.5	0.0	0.2	0.9	-1.7	-2.55
Inventories	-1.9	0.7	0.3	0.2	1.0	-0.5	-0.6	-0.4	-0.4	-1.2	0.5	1.0	0.51

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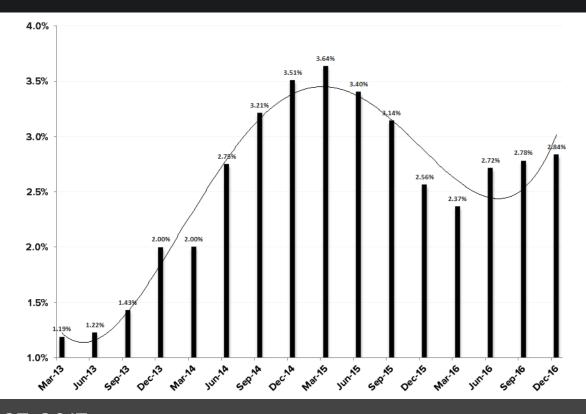
U.S. GDP SUMMARY

GDP by EXPENDITURE, Q/Q %													
C: Consumption	1.90	3.80	3.70	4.60	2.40	2.90	2.70	2.30	1.60	4.30	3.00	2.50	-0.50
I: Investment	-6.60	11.20	8.90	2.60	9.90	1.00	2.00	-2.30	-3.30	-7.90	3.00	10.70	7.70
G: Government	-1.00	0.10	2.50	-0.40	2.60	3.20	1.90	1.00	1.60	-1.70	0.80	1.20	0.40
E: Net Exports	-2.70	8.70	2.10	4.50	-5.80	2.90	-2.80	-2.70	-0.70	1.80	10.00	-4.30	-14.30
I: Imports	4.90	9.90	-1.20	11.20	5.60	2.90	1.10	0.70	-0.60	0.20	2.20	8.30	6.10
Real Final Sales	0.8	3.3	4.7	2.1	1.0	3.2	2.6	1.2	1.2	2.6	3.0	0.9	-2.10
Gross Domestic Purchases	0.0	4.3	4.3	3.4	3.6	2.6	2.4	1.3	0.8	1.2	2.6	3.5	0.90
Real Final Sales to Domestic Purchasers	1.9	3.6	4.0	3 .1	2.6	3.1	3.0	1.6	1.2	2.3	2.1	2.5	0.40
Consumer Spending	1.9	3.8	3.7	4.6	2.4	2.9	2.7	2.3	1.6	4.3	3.0	2.5	-0.50
Durable Goods	4.6	13.0	8.7	8.5	4.1	7.6	6.2	4.0	-0.6	9.8	11.6	10.9	-0.70
NonDurable Goods	1.4	3.8	2.3	3.5	1.9	2.7	3.2	1.2	2.1	5.7	-0.5	2.3	2.80
Services	1.7	2.3	3.4	4.3	2.3	2.2	2.0	2.3	1.9	3.0	2.7	1.3	-1.40
Residential Investment	-1.4	11.7	3.6	11.4	13.3	14.9	12.6	11.5	7.8	-7.7	-4.1	10.2	14.30
Nonresidential Invesment	7.0	6.1	8.3	-1.1	1.3	1.6	3.9	-3.3	-3.4	1.0	1.4	2.4	1.00
Government	-1.0	0.1	2.5	-0.4	2.6	3.2	1.9	1.0	1.6	-1.7	0.8	1.2	0.40
State & Local Government	-1.5	2.0	1.6	3.3	3.0	5.1	2.5	-0.6	3.5	-2.5	-0.2	2.6	2.80
Exports	-2.7	8.7	2.1	4.5	-5.8	2.9	-2.8	-2.7	-0.7	1.8	10.0	-4.3	-14.30
Imports	4.9	9.9	-1.2	11.2	5.6	2.9	1.1	0.7	-0.6	0.2	2.2	8.3	6.10
INFLATION													
GDP Price Index, %	1.7	2.1	1.7	0.5	-0.1	2.3	1.3	0.8	0.5	2.3	1.4	2.1	0.7
PCE - Core Price Index, %	1.6	2.0	1.5	1.1	1.1	1.8	1.4	1.2	2.1	1.8	1.7	1.3	-0.4

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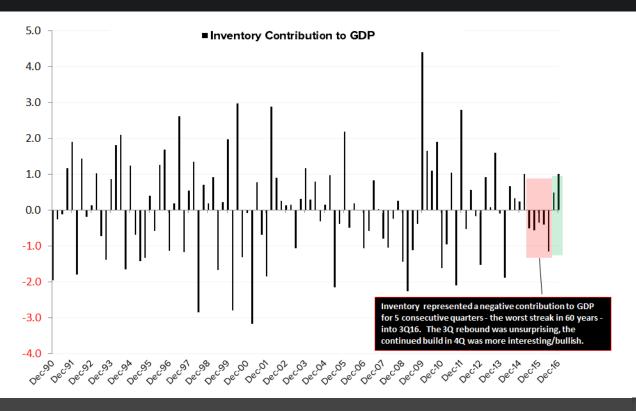
REAL CONSUMPTION GROWTH, YOY



January 27, 2017



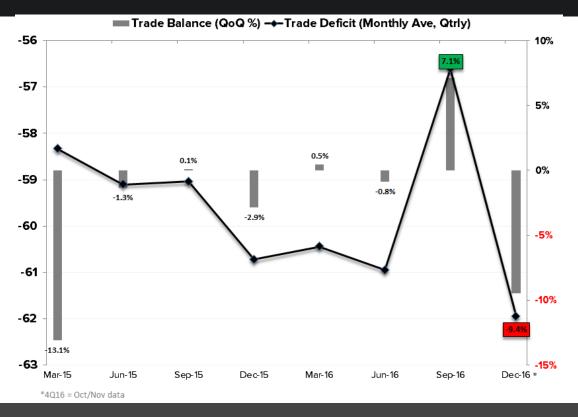
INVENTORY CONTRIBUTION TO GDP



January 27, 2017



TRADE BALANCE



January 27, 2017



DOMESTIC EQUITY FUND FLOWS

Biggest Losing Streaks

Time Period	Length (Weeks)	Cumulative Flow (\$M)	Average Weekly Flow (\$M)
Mar 2015 - Jan 2017	99	(428,442)	(4,328)
Mar 2011 - Jan 2013	97	(320,894)	(3,308)
Apr 2007 - Mar 2008	51	(130,487)	(2,559)
Jun 2008 - Mar 2009	39	(153,059)	(3,925)
Apr 2014 - Jan 2015	38	(81,947)	(2,157)
May 2010 - Jan 2011	36	(95,070)	(2,641)
Aug 2009 - Mar 2010	33	(44,515)	(1,349)
Feb 2013 - Oct 2013	33	(14,692)	(445)
Nov 2013 - Feb 2014	11	(781)	(71)

January 27, 2017

U.S. EARNINGS NEWS

SUPER MICRO COMPUTER INC	Q2 eps 2c beat & net sales better, sees Q3 eps forecast 34c-42c vs 32c ests	9.8%
WYNN RESORTS LTD	Q4 revenue beat on stronger than expected results from new Macau Palace	6.8%
SYNAPTICS INC	Q2 big eps beat on better revenues & Q3 rev outlook topped consensus	5.7%
MAXIM INTEGRATED PRODUCTS	Q2 net revs \$551M vs \$540.4M, expects March qtr to build on growth momentum	4.2%
VMWARE INC	solid Q4 #'s, Q1 revenue guidance ahead of ests & new \$1.2B buyback plan	3.8%
KLA-TENCOR CORP	Q2 eps beat by 13, revenues topped & Q3 adj eps forecast midpt exceeded	3.2%
GREENHILL & CO INC	Q4 10c eps beat & revenues ahead of ests \$101.6M vs \$100.7M	2.9%
MICROSOFT CORP	blew past estimates in every category on cloud gains & stabilizing PC market	1.4%
INTEL CORP	CEO said terrific finish to record setting year after Q4 earnings beat	0.1%
LIONS GATE ENTERTAINMENT	in talks to sell its Epix stake to MGM & Viacom's Paramount \$1B-\$2B (Reuters)	0.0%
PAYPAL HOLDINGS INC	outlook weak for revs/profit in current qtr (in talks with AMZN about payment partnership)	-0.6%
ALPHABET INC	Q4 revenues beat but adjusted eps missed ests due mostly to one-time tax payment	-2.1%
SWIFT TRANSPORTATION CO	Q4 core #'s lighter than expected & Q2 eps outlook lagged expectations	-2.7%
FLEX LTD	Q3 eps penny better but revenues declined & missed, outlook inline	-3.3%
STARBUCKS CORP	Q1 comp sales missed ests says mobile ordering caused congestion in stores	-3.9%
PROOFPOINT INC	boosted forecast for FY billings/revs/profit/fcf but current Q4 billings missed ests	-4.3%
JUNIPER NETWORKS INC	Q4 beat ests (eps 66c vs 63c) but Q1 profit outlook & eps view disappointed	-8.1%

January 27, 2017

VOLATILITY

		REALIZ	ZED VOL	ATILITY	IMPLIE	O VOLATIL	.TY*		IMPLIE	D** VS. RE	ALIZED V	/OLATILI	TY					
											30 Day			60 Day			3 Month	
		Duratio	on of Rea	lized (%)		At-The-M	loney %				Z-S	core		Z-S	core		Z-Sc	core
Index/Security	Ticker	30D	60D	90D	Current	v 1M Avg	v 3M Avg	v 6M Avg.	Ticker	Premium	ттм	3Yr	Premium	ттм	3Yr	Premium	TTM	3Yr
S&P 500	SPX	6.8%	8.6%	8.7%	9.7%	-3.4%	-15.6%	-16.7%	SPX	24.7%	0.30	0.58	16.5%	0.33	0.39	24.3%	0.87	0.71
Russell 2000	RTY	14.2%	16.4%	15.8%	15.2%	-7.9%	-12.3%	-9.6%	RTY	2.9%	0.05	-0.14	-4.9%	-0.33	-0.72	3.9%	0.16	-0.40
Nasdaq 100	NDX	7.8%	12.1%	11.5%	11.9%	-10.0%	-16.8%	-15.6%	NDX	37.1%	0.87	1.22	1.8%	-0.21	-0.18	15.0%	0.44	0.43
USD Index	UUP	9.1%	8.3%	7.3%	9.1%	-1.5%	2.2%	9.8%	UUP	-9.3%	-0.97	-0.90	10.3%	-0.13	-0.20	26.7%	0.94	0.58
Energy	XLE	11.7%	18.1%	18.3%	14.7%	-16.8%	-24.2%	-25.3%	XLE	18.6%	0.94	0.68	-16.6%	-0.82	-1.05	-11.4%	-0.27	-0.71
Energy	XOP	18.9%	33.0%	32.1%	24.7%	-11.9%	-22.3%	-23.9%	XOP	20.1%	0.92	0.90	-23.8%	-1.36	-1.53	-18.8%	-0.86	-1.06
Materials	XLB	12.4%	12.0%	12.1%	13.2%	-3.0%	-10.5%	-12.9%	XLB	0.9%	-0.32	-0.28	12.5%	0.50	0.28	15.2%	0.97	0.45
Industrials	XLI	9.6%	12.0%	11.4%	11.7%	-11.2%	-15.3%	-14.1%	XLI	17.0%	0.22	0.41	-0.1%	-0.21	-0.28	11.2%	0.61	0.33
Transports	IYT	13.5%	14.6%	13.2%	15.5%	-13.4%	-12.7%	-12.7%	IYT	9.6%	-0.06	0.08	7.6%	0.00	0.03	22.1%	0.92	0.96
WTI Crude Oil	USO	25.5%	34.9%	34.2%	29.6%	1.4%	-14.8%	-17.7%	USO	1.4%	0.46	0.15	-15.5%	-0.85	-1.16	-13.6%	-0.61	-0.95
Natural Gas	UNG	55.4%	53.1%	47.9%	41.8%	-11.6%	-15.3%	-5.8%	UNG	-23.3%	-1.74	-1.04	-21.8%	-1.54	-1.11	-15.1%	-1.23	-0.83
Gold	GLD	12.8%	13.6%	13.3%	13.6%	-2.2%	-9.9%	-8.8%	GLD	0.3%	-0.34	-0.35	-0.7%	-0.29	-0.36	1.6%	-0.08	-0.24
Silver	SLV	21.1%	23.9%	23.6%	21.5%	-8.5%	-12.6%	-12.9%	SLV	-5.8%	-0.85	-0.82	-10.5%	-1.75	-1.18	-5.7%	-1.37	-1.05
Copper	JJC	26.1%	26.9%	23.7%	22.9%	-13.1%	-17.4%	-10.7%	JJC	-5.9%	-0.37	-0.46	-11.2%	-0.65	-0.82	9.3%	-0.10	-0.10
Corn	CORN	13.9%	16.8%	17.6%	17.6%	1.2%	-0.9%	-11.6%	CORN	23.1%	0.35	0.14	6.8%	-0.34	-0.67	6.1%	-0.44	-0.70
Soybeans	SOYB	16.4%	16.1%	15.3%	22.2%	-5.8%	0.2%	-1.0%	SOYB	20.9%	-0.46	-0.40	32.6%	-0.18	-0.18	27.7%	-0.33	-0.29
Wheat	WEAT	18.5%	17.9%	19.0%	23.9%	-24.0%	-21.6%	-22.9%	WEAT	29.1%	-0.57	-0.34	35.5%	-0.57	-0.17	31.0%	-0.72	-0.16
Sugar	SGG	33.5%	32.7%	30.3%	28.7%	-6.6%	-8.3%	-14.7%	SGG	-14.5%	-0.82	-0.59	-12.7%	-1.02	-0.50	-6.6%	-0.29	0.01

^{*}implied volatility on at-the-money front month contracts

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^{**}implied volatility of at-the-money options expiring in the given duration vs. realized volatility over the given duration

HEDGEYE SECTOR PERFORMANCE

			1-Day %	MTD %	YTD %
SECTOR	<u>Ticker</u>	<u>Price</u>	<u>Chg</u>	<u>Chg</u>	<u>Chg</u>
Consumer Discretionary	XLY	\$85.34	0.16%	4.84%	4.84%
Financial Select Sector	XLF	\$23.74	0.25%	2.11%	2.11%
Health Care Select Sector	XLV	\$69.18	-0.77%	0.35%	0.35%
Technology Select Sector	XLK	\$50.54	-0.28%	4.51%	4.51%
Consumer Staples Select Sector	XLP	\$52.67	-0.43%	1.86%	1.86%
Industrial Select Sector	XLI	\$64.56	0.26%	3.76%	3.76%
Materials Select Sector	XLB	\$53.00	0.26%	6.64%	6.64%
The Energy Select Sector	XLE	\$75.01	0.08%	-0.41%	-0.41%
Utilities Select Sector	XLU	\$48.40	0.04%	-0.35%	-0.35%
S&P 500	SPX	2,296.68	-0.07%	2.58%	2.58%

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HEDGEYE SECTOR RELATIVE PERFORMANCE

			1-Day %	MTD %	YTD %
	<u>Ticker</u>	<u>Price</u>	<u>Chg</u>	Chg	Chg
Consumer Discretionary	XLY	\$85.34	0.24%	2.26%	2.26%
Financial Select Sector	XLF	\$23.74	0.33%	-0.48%	-0.48%
Health Care Select Sector	XLV	\$69.18	-0.70%	-2.24%	-2.24%
Technology Select Sector	XLK	\$50.54	-0.20%	1.92%	1.92%
Consumer Staples Select Sector	XLP	\$52.67	-0.36%	-0.73%	-0.73%
Industrial Select Sector	XLI	\$64.56	0.34%	1.18%	1.18%
Materials Select Sector	XLB	\$53.00	0.34%	4.06%	4.06%
The Energy Select Sector	XLE	\$75.01	0.15%	-3.00%	-3.00%
Utilities Select Sector	XLU	\$48.40	0.11%	-2.93%	-2.93%

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HEDGEYE STYLE FACTOR PERFORMANCE

		1D	1W	1M	3M	6M	YTD
	FACTOR	% Chg					
5	High Debt/EV	0.1%	1.8%	1.5%	10.2%	7.6%	2.7%
Debt	Low Debt/EV	-0.5%	1.3%	1.9%	5.8%	2.8%	3.1%
SI	High Short Interest	-0.6%	1.6%	1.3%	7.2%	5.2%	2.7%
	Low Short Interest	-0.1%	1.2%	1.2%	8.0%	6.2%	2.4%
BETA	High Beta	-0.3%	2.8%	2.6%	14.3%	17.3%	4.5%
- 8	Low Beta	-0.3%	0.3%	0.6%	2.0%	-4.7%	0.8%
YIELD	High Yield	-0.6%	0.7%	-0.1%	3.8%	-1.1%	0.5%
¥	Low Yield	-0.2%	1.1%	2.2%	7.5%	5.6%	3.6%
MKT	MCAP Bottom 25%	-0.6%	1.6%	1.2%	5.9%	1.3%	2.3%
Σ δ	MCAP Top 25%	0.0%	1.3%	1.8%	8.9%	9.2%	3.0%
Sales	Top 25% Sales Growth	-0.2%	1.8%	2.2%	7.5%	7.6%	3.6%
Sa	Bottom 25% Sales Growth	-0.5%	1.3%	1.4%	6.8%	2.5%	2.4%
EPS	Top 25% EPS Growth	0.0%	2.5%	2.9%	11.5%	12.2%	4.2%
<u> </u>	Bottom 25% EPS Growth	-0.3%	0.9%	0.4%	5.3%	0.9%	1.4%

^{*}Mean Performance of Top Quartile vs. Bottom Quartile, S&P500 Companies

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HEDGEYE RATES & SPREADS

		1D	5D	1M	3M	vs. 52-1	Wk, Bps	vs.	vs.
	Price	Bps Chg	Bps Chg	Bps Chg	Bps Chg	High	Low	3Y Ave	5Y Ave
3M T-Bill	0.50%	0.5	-0.5	-1	17	-6	34	36	39
3M LIBOR	1.04%	0.0	-0.4	4	15	-1	42	59	63
2Y T-Note	1.22%	-1.2	0.1	2	35	-8	73	55	71
5Y T-Note	1.96%	-1.4	-0.1	-6	66	-16	107	46	67
10Y T-Note	2.50%	-0.7	3.0	-3	71	-14	119	35	37
30Y T-Note	3.09%	-1.2	3.9	-3	54	-13	100	18	6
2Y-10Y Spread, Bps	128	0.5	3.0	-5.4	36	-6	46	-20	-33
IG SPREAD (AAABBB)	1.50%	0.0	-4.0	-1	-8	-80	3	-19	-27
HIGH YIELD	6.22%	0.0	-3.1	-20	-11	-311	17	-42	-37
5Y BREAKEVEN	2.01%	0.6	5.3	13.2	40.4	-1.4	115.3	45.3	28.6

THE MACRO SHOW

HEDGEYE

TV

CFTC NON-COMMERCIAL NET LONG POSITIONING

							Score
METRIC	Latest	W/W Chg	3M Ave	6M Ave	1Y Ave	1Y	3Y
SPX (Index + E-mini)	28,082	13,901	(19,159)	54,867	242	0.23X	0.60X
Russell 2000 (mini)	68,450	(14,843)	46,866	28,318	(9,242)	1.69X	2.84X
10Y Treasury	(346,184)	40,055	(191,985)	(46,780)	(26,399)	-2.20X	-2.81X
CRUDE OIL	508.702	24,827	431,572	393,263	365,885	2.00X	2.33X
GOLD	59,936	5,537	96,244	165,117	171,152	-1.44X	-0.53X
COPPER	46,335	(1,298)	41,104	16,430	(2,461)	1.63X	2.73X
\$USD	49,042	(4,018)	52,880	36,210	27,249	1.25X	0.59X
JPY	(82,899)	(1,531)	(28,997)	11,596	30,747	-2.57X	-0.86X
EUR	(62,359)	(1,928)	(99,289)	(99,666)	(78,671)	0.50X	0.58X
GBP	(65,725)	(3,083)	(69,854)	(77,629)	(59,839)	-0.27X	-1.17X

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MARKET SHARE VOLUME & TOTAL VALUE TRADED

INDEX/SECURITY	VOLUME: (1/26) vs.					
	Prior Day	1M Ave	3M ave	1Y Ave		
Total Market Volume*	-9%	19%	24%	48%		
Total Exchange Volume**	-5%	6%	-6%	-6%		

Source: Bloomberg, Hedgeye

^{*}Total Market Volume = Total US exchange volume plus OTC and OTCBB trading volume for all security types. Calculated by Bloomberg.

^{**}Tape A+B+C volume = total US exchange volume

^{***} Total Traded Value for Russell 3000 (total mkt proxy)

KEY \$USD CORRELATIONS

52-Wk Rolling 30D Correlation

METRIC	15D	30D	90D	120D	180D	High	Low	% Time Pos	% Time Neg
SPX	-0.33	-0.58	0.79	0.71	0.76	0.95	-0.91	45%	55%
BRENT Oil	-0.20	0.18	0.54	0.67	0.54	0 .77	-0.78	46%	54%
CRB Index	-0.57	-0.85	0.80	0.67	0.58	0.83	-0.89	24%	76%
GOLD	-0.80	-0.93	-0.95	-0.97	-0.82	0.90	-0.97	16%	84%

^{*}Days = Trading Days