THE MACRO SHOW

DECEMBER 23, 2016

LEGAL

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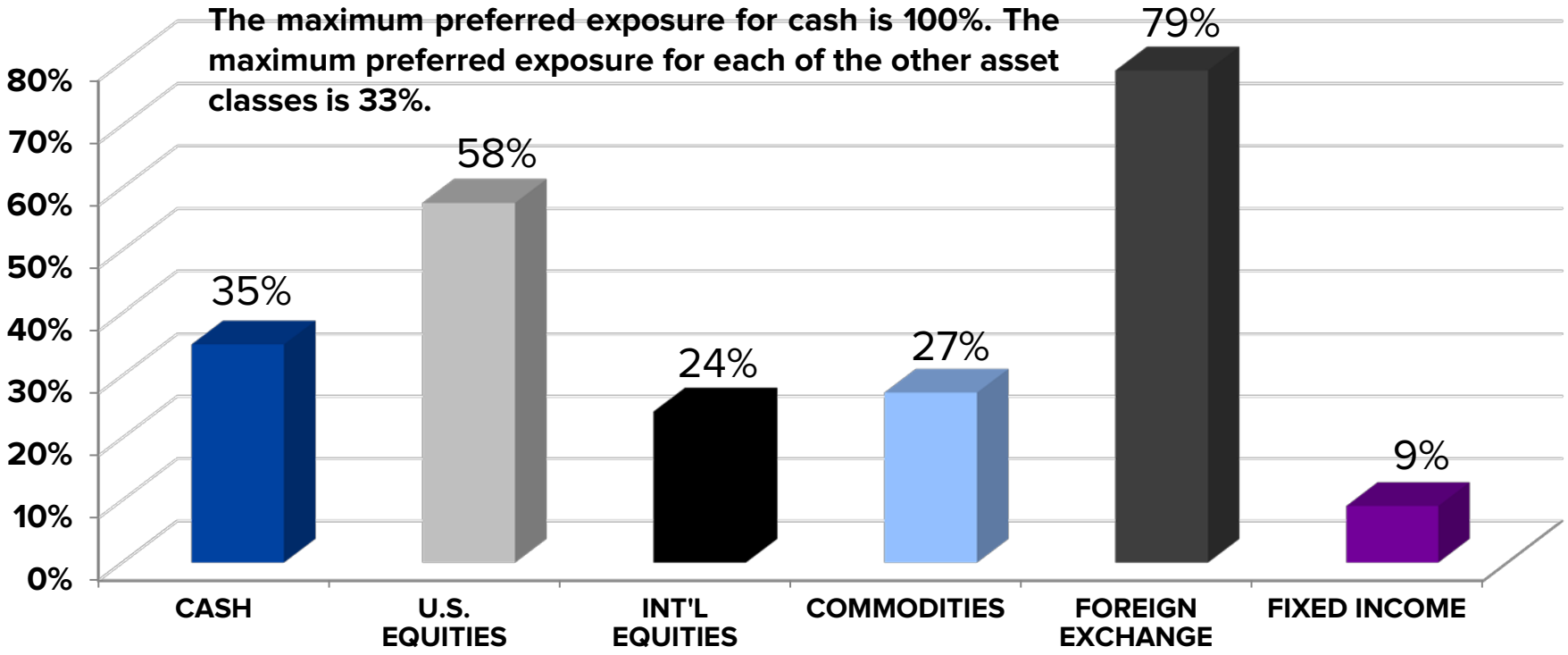
HEDGEYE ASSET ALLOCATION

	CASH	U.S. EQUITIES	INT'L EQUITIES	COMMODITIES	FOREIGN EXCHANGE	FIXED INCOME
12/22/2016	36	18	8	9	26	3
12/23/2016	35	19	8	9	26	3

	CASH	U.S. EQUITIES	INT'L EQUITIES	COMMODITIES	FOREIGN EXCHANGE	FIXED INCOME
12/22/2016	36%	55%	24%	27%	79%	9%
12/23/2016	35%	58%	24%	27%	79%	9%

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

HEDGEYE ASSET ALLOCATION



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HEDGEYE TV

1 U.S. GDP

2 ITALY

3 CHINA

U.S. GDP

After 5 consecutive quarterly rate of change slow-downs from the Q1 2015 peak of +3.3% y/y U.S. GDP growth, Q316's +3.5% headline implies +1.7% y/y vs. the 5 quarter low of +1.3% in Q216. Post yesterday's economic data, our predictive tracking algo has GDP accelerating again in Q4 to +1.94% y/y = Quad2 = Bullish for USD, Rates, and Stocks.

ITALY

The Chinese are floating a rhetorical balloon via their SAFE (State Administration for Forex) that they “may adjust UST holdings” and while we’re bullish on U.S. Bond Yields here in Quad2, we wouldn’t freak out about that. Meanwhile the Hang Seng just made another post #TrumpTrade low overnight = China #GrowthSlowing (again).

CHINA

Not a lot of love for Chinese stocks since A) Chinese growth is slowing again (talk that they're cutting their made up GDP expectation for 2017 to 6.5%) and B) King Trump is giving them no love = Shanghai Comp down another -0.9% overnight and -4.0% in the last month.

MACRO GRIND

10-YEAR U.S. TREASURY YIELD

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10-YEAR GOVERNMENT BOND YIELDS

COUNTRY	YIELD	1 DAY	1 M
Germany »	0.24%	-1	
United Kingdom »	1.35%	-2	
France	0.70%	-2	
Italy	1.80%	-5	
Spain	1.38%	-1	
Netherlands	0.38%	-1	
Portugal	3.71%	-5	
Greece	7.04%	-2	
Switzerland	-0.18%	-1	

FTSE MIB (MILAN) INDEX

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SHANGHAI STOCK EXCHANGE COMP

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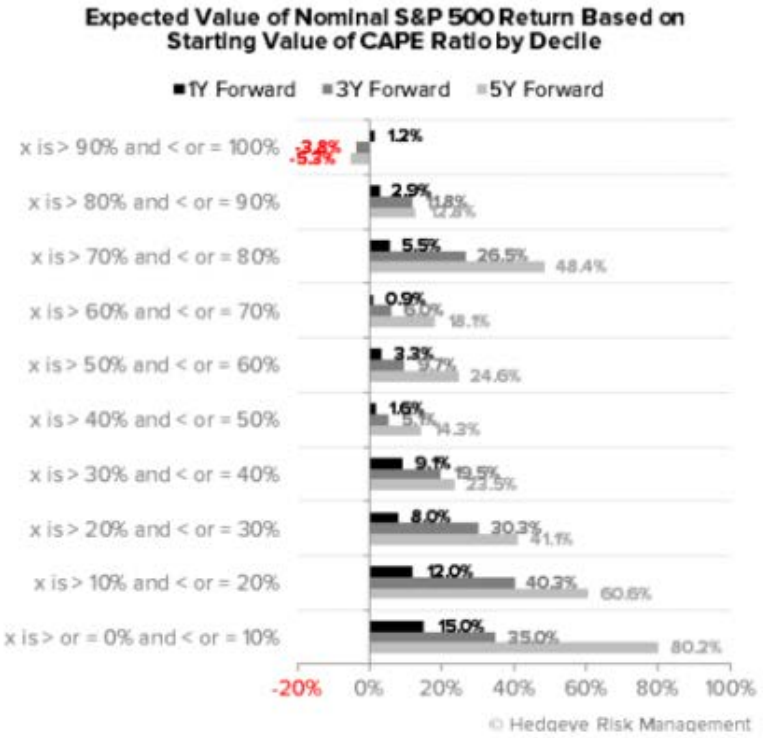
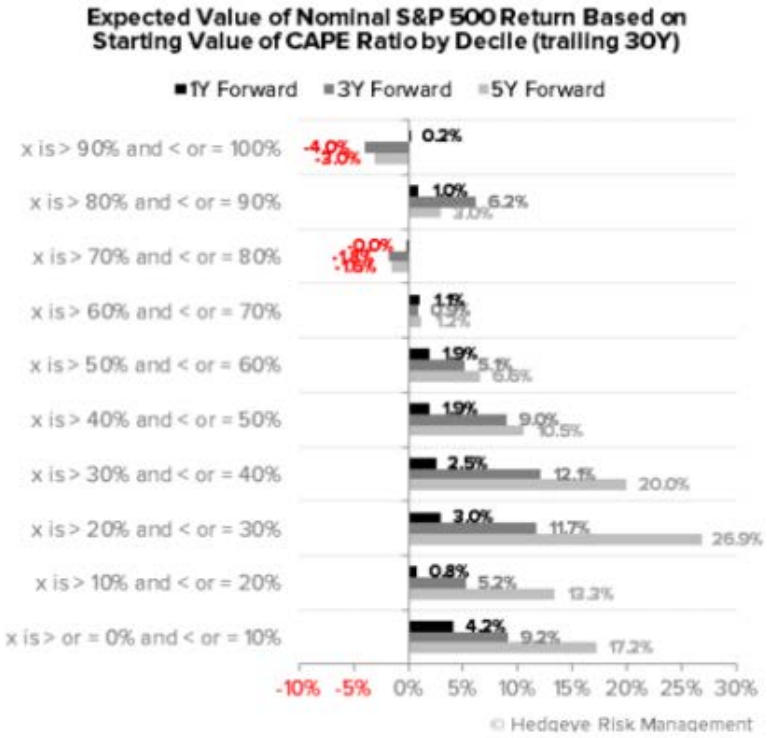
WHAT IS THE EXPECTED VALUE OF YOUR VALUATION OPINION?





HEDGEYE SECTOR PERFORMANCE

SECTOR	Ticker	Price	1-Day % Chg	MTD % Chg	YTD % Chg
Consumer Discretionary	XLY	$82.63	-1.08%	0.95%	5.72%
Financial Select Sector	XLF	$23.54	-0.25%	4.58%	21.65%
Health Care Select Sector	XLV	$68.94	0.13%	0.28%	-4.29%
Technology Select Sector	XLK	$48.92	-0.20%	2.99%	14.22%
Consumer Staples Select Sector	XLP	$51.96	-0.15%	2.73%	2.91%
Industrial Select Sector	XLI	$62.93	-0.19%	0.83%	18.71%
Materials Select Sector	XLB	$50.17	-0.42%	0.46%	15.55%
The Energy Select Sector	XLE	$76.42	0.41%	2.67%	26.69%
Utilities Select Sector	XLU	$48.62	0.35%	4.00%	12.34%
S&P 500	SPX	2,260.96	-0.19%	2.83%	10.62%

HEDGEYE SECTOR RELATIVE PERFORMANCE

	Ticker	Price	1-Day % Chg	MTD % Chg	YTD % Chg
Consumer Discretionary	XLY	$82.63	-0.89%	-1.87%	-4.90%
Financial Select Sector	XLF	$23.54	-0.07%	1.75%	11.03%
Health Care Select Sector	XLV	$68.94	0.32%	-2.55%	-14.91%
Technology Select Sector	XLK	$48.92	-0.02%	0.16%	3.60%
Consumer Staples Select Sector	XLP	$51.96	0.03%	-0.10%	-7.71%
Industrial Select Sector	XLI	$62.93	0.00%	-1.99%	8.10%
Materials Select Sector	XLB	$50.17	-0.23%	-2.37%	4.93%
The Energy Select Sector	XLE	$76.42	0.59%	-0.15%	16.07%
Utilities Select Sector	XLU	$48.62	0.54%	1.17%	1.72%

HEDGEYE STYLE FACTOR PERFORMANCE

	FACTOR	1D % Chg	1W % Chg	1M % Chg	3M % Chg	6M % Chg	YTD % Chg
Debt	High Debt/EV	-0.3%	0.1%	3.3%	5.8%	12.0%	19.4%
	Low Debt/EV	-0.6%	-0.6%	0.3%	1.4%	5.6%	8.9%
SI	High Short Interest	-0.7%	-1.0%	1.0%	4.4%	9.2%	12.1%
	Low Short Interest	-0.1%	-0.2%	2.6%	5.3%	10.0%	13.7%
BETA	High Beta	-0.4%	-0.8%	2.7%	11.3%	21.5%	20.6%
	Low Beta	0.1%	0.7%	2.1%	-2.4%	-1.2%	9.3%
YIELD	High Yield	-0.3%	-0.1%	2.1%	0.7%	4.7%	12.4%
	Low Yield	-0.5%	-0.7%	0.5%	1.4%	7.5%	11.5%
MKT CAP	MCAP Bottom 25%	-0.8%	-1.1%	0.1%	1.5%	4.5%	8.2%
	MCAP Top 25%	-0.2%	0.0%	2.5%	6.0%	11.0%	14.3%
Sales	Top 25% Sales Growth	-0.3%	-0.3%	1.4%	2.8%	6.6%	14.1%
	Bottom 25% Sales Growth	-0.5%	-0.7%	1.8%	4.6%	8.5%	10.8%
EPS	Top 25% EPS Growth	-0.4%	-0.2%	1.5%	4.4%	10.8%	13.9%
	Bottom 25% EPS Growth	-0.3%	-0.2%	2.9%	3.7%	6.4%	12.6%

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

HEDGEYE RATES & SPREADS

	Price	1D Bps Chg	5D Bps Chg	1M Bps Chg	3M Bps Chg	vs. 52-Wk, Bps High	vs. 52-Wk, Bps Low	vs. 3Y Ave	vs. 5Y Ave
3M T-Bill	0.50%	0.0	0.5	2	34	-5	38	38	41
3M LIBOR	1.00%	0.0	0.4	7	14	0	40	57	60
2Y T-Note	1.19%	0.4	-8.2	11	42	-11	70	55	69
5Y T-Note	2.03%	1.5	-5.4	26	87	-9	114	54	76
10Y T-Note	2.55%	1.5	-4.7	24	93	-9	123	38	43
30Y T-Note	3.13%	1.8	-3.6	13	79	-9	104	19	10
2Y-10Y Spread, Bps	136	1.0	3.4	13.3	51	2	53	-17	-26
IG SPREAD (AAABBB)	1.54%	0.0	-4.0	-6	-13	-76	1	-15	-25
HIGH YIELD	6.50%	0.0	-2.8	-7	28	-283	34	-13	-13
5Y BREAKEVEN	1.87%	5.4	8.9	10.3	44.3	-2.1	101.4	31.6	15.2

CFTC NON-COMMERCIAL NET LONG POSITIONING

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METRIC	Latest	W/W Chg	3M Ave	6M Ave	1Y Ave	Z-Score 1Y	Z-Score 3Y
SPX (Index + E-mini)	(127,358)	(5,983)	329	66,715	(13,452)	-0.89X	-0.92X
Russell 2000 (mini)	56,946	7,652	18,066	6,362	(22,483)	2.28X	3.20X
10Y Treasury	(317,185)	(67,870)	(14,839)	38,668	7,817	-3.33X	-3.04X
CRUDE OIL	480,689	42,117	390,777	364,190	339,099	2.06X	2.17X
GOLD	68,905	(11,909)	152,643	207,770	165,499	-1.10X	-0.41X
COPPER	61,021	4,700	21,292	4,113	(10,402)	2.69X	3.91X
$USD	56,635	2,147	41,812	28,564	25,930	1.93X	0.96X
JPY	(62,581)	(25,632)	23,884	36,482	38,75	-3.57X	-0.47X
EUR	(86,386)	30,221	(110,917)	(103,152)	(86,637)	0.01X	0.16X
GBP	(71,115)	3,968	(78,927)	(76,606)	(57,050)	-0.60X	-1.38X

MARKET SHARE VOLUME & TOTAL VALUE TRADED

INDEX/SECURITY	VOLUME: (12/22) vs.			
	Prior Day	1M Ave	3M ave	1Y Ave
Total Market Volume*	5%	-20%	-18%	-7%
Total Exchange Volume**	1%	-23%	-22%	-24%

*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)

Source: Bloomberg, Hedgeye

KEY $USD CORRELATIONS

METRIC	15D	30D	90D	120D	180D	52-Wk Rolling 30D Correlation			
						High	Low	% Time Pos	% Time Neg
SPX	0.68	0.72	0.63	0.58	0.70	*0.95*	*-0.91*	*47%*	*53%*
BRENT Oil	0.37	0.56	0.51	0.55	0.38	*0.77*	*-0.78*	*44%*	*56%*
CRB Index	0.48	0.57	0.77	0.55	0.25	*0.83*	*-0.89*	*19%*	*81%*
GOLD	-0.95	-0.79	-0.96	-0.94	-0.64	*0.90*	*-0.97*	*17%*	*83%*

**Days = Trading Days*

U.S. GDP SUMMARY

	Mar-13	Jun-13	Sep-13	Dec-13	Mar-14	Jul-14	Sep-14	Dec-14	Mar-15	Jun-15	Sep-15	Dec-15	Mar-16	Jun-16	Sep-16	Q/Q Chg	1st Revision	2nd Revision
Real GDP, Q/Q	2.80	0.80	3.10	4.00	-1.20	4.00	5.00	2.30	2.00	2.60	2.00	0.90	0.80	1.40	3.50	2.10	0.30	0.30
Real GDP, Y/Y	1.30	1.00	1.70	2.70	1.60	2.40	2.90	2.50	3.30	3.00	2.20	1.90	1.60	1.30	1.70	0.40	0.10	0.10
GDP Nominal Dollars	16,475	16,541	16,749	17,000	17,025	17,286	17,569	17,692	17,784	17,998	18,142	18,223	18,282	18,450	18,675			
GDP Chained Dollars	15,492	15,522	15,641	15,794	15,747	15,901	16,095	16,187	16,269	16,374	16,455	16,491	16,525	16,583	16,727			
CONTRIBUTION TO % CHANGE IN GDP																		
Real GDP, Q/Q	2.8	0.8	3.1	4.0	-1.2	4.0	5.0	2.3	2.0	2.6	2.0	0.9	0.8	1.4	3.5	2.10	0.30	0.30
C: Consumption	1.32	0.58	1.28	2.29	1.26	2.56	2.52	3.07	1.63	1.94	1.81	1.53	1.11	2.88	2.03	-0.85	0.42	0.14
I: Investment	2.04	0.78	2.08	0.91	-1.10	1.79	1.49	0.45	1.62	0.18	0.35	-0.39	-0.56	-1.34	0.50	1.84	-0.18	0.16
G: Government	-0.83	-0.37	-0.37	-0.53	-0.19	0.02	0.46	-0.07	0.45	0.57	0.34	0.18	0.28	-0.30	0.14	0.44	-0.04	0.09
E: Net Exports	0.30	-0.21	0.13	1.29	-1.16	-0.41	0.50	-1.14	-1.65	-0.08	-0.52	-0.45	0.01	0.18	0.85	0.67	0.04	-0.02
Consumer Spending	1.3	0.6	1.3	2.3	1.3	2.6	2.5	3.1	1.6	1.9	1.8	1.5	1.1	2.9	2.0	-0.85	0.42	0.14
Durable Goods	*0.7*	*0.2*	*0.3*	*0.4*	0.3	0.9	0.6	0.6	0.3	0.6	0.5	0.3	-0.1	0.7	0.8	0.14	0.14	0.01
NonDurable Goods	*0.6*	*0.1*	*0.4*	*0.5*	0.2	0.6	0.4	0.5	0.3	0.4	0.5	0.2	0.3	0.8	-0.1	-0.87	0.12	0.02
Services	*0.0*	*0.3*	*0.6*	*1.4*	0.7	1.1	1.5	1.9	1.0	1.0	0.9	1.1	0.9	1.4	1.3	-0.11	0.16	0.11
Residential Investment	0.4	0.4	0.2	-0.2	0.0	0.4	0.1	0.4	0.4	0.5	0.4	0.4	0.3	-0.3	-0.2	0.15	0.07	0.01
Nonresidential Invesment	0.7	0.4	0.3	1.2	0.8	0.8	1.1	-0.1	0.2	0.2	0.5	-0.4	-0.4	0.1	0.2	0.06	-0.13	0.16
Government	-0.8	-0.4	-0.4	-0.5	-0.2	0.0	0.5	-0.1	0.5	0.6	0.3	0.2	0.3	-0.3	0.1	0.44	-0.04	0.09
State & Local Government	*0.0*	*0.0*	*0.0*	*-0.1*	-0.2	0.2	0.2	0.4	0.3	0.6	0.3	-0.1	0.4	-0.3	0.0	0.26	-0.04	0.10
Exports	0.5	0.7	0.4	1.5	-0.4	1.2	0.3	0.6	-0.8	0.4	-0.4	-0.3	-0.1	0.2	1.2	0.95	0.01	-0.02
Imports	-0.2	-0.9	-0.3	-0.2	-0.8	-1.6	0.2	-1.7	-0.9	-0.4	-0.2	-0.1	0.1	0.0	-0.3	-0.28	0.03	0.00
Net Exports	0.3	-0.2	0.1	1.3	-1.2	-0.4	0.5	-1.1	-1.7	-0.1	-0.5	-0.5	0.0	0.2	0.9	0.67	0.04	-0.02
Inventories	0.9	0.1	1.6	-0.1	-1.9	0.7	0.3	0.2	1.0	-0.5	-0.6	-0.4	-0.4	-1.2	0.5	1.65	-0.12	0.00

U.S. GDP SUMMARY

GDP by EXPENDITURE, Q/Q %																		
C: Consumption	1.90	0.80	1.90	3.40	1.90	3.80	3.70	4.60	2.40	2.90	2.70	2.30	1.60	4.30	3.00	-1.30	0.70	0.20
I: Investment	13.80	5.00	13.40	5.40	-6.60	11.20	8.90	2.60	9.90	1.00	2.00	-2.30	-3.30	-7.90	3.00	10.90	-1.00	0.90
G: Government	-4.30	-2.00	-2.00	-2.80	-1.00	0.10	2.50	-0.40	2.60	3.20	1.90	1.00	1.60	-1.70	0.80	2.50	-0.30	0.60
E: Net Exports	4.00	5.00	3.10	11.80	-2.70	8.70	2.10	4.50	-5.80	2.90	-2.80	-2.70	-0.70	1.80	10.00	8.20	0.10	-0.10
I: Imports	1.30	5.30	1.70	1.60	4.90	9.90	-1.20	11.20	5.60	2.90	1.10	0.70	-0.60	0.20	2.20	2.00	-0.20	0.10
Real Final Sales	*1.8*	*0.6*	*1.5*	*4.1*	*0.8*	*3.3*	*4.7*	*2.1*	*1.0*	*3.2*	*2.6*	*1.2*	*1.2*	*2.6*	*3.0*	*0.40*	*0.40*	*0.30*
Gross Domestic Purchases	*2.4*	*0.9*	*2.9*	*2.6*	*0.0*	*4.3*	*4.3*	*3.4*	*3.6*	*2.6*	*2.4*	*1.3*	*0.8*	*1.2*	*2.6*	*1.40*	*0.20*	*0.40*
Real Final Sales to Domestic Purchasers	***1.5***	***0.8***	***1.3***	***2.7***	***1.9***	***3.6***	***4.0***	***3.1***	***2.6***	***3.1***	***3.0***	***1.6***	***1.2***	***2.3***	***2.1***	***-0.23***	***0.32***	***0.37***
Consumer Spending	1.9	0.8	1.9	3.4	1.9	3.8	3.7	4.6	2.4	2.9	2.7	2.3	1.6	4.3	3.0	-1.30	0.70	0.20
Durable Goods	*10.0*	*2.1*	*4.1*	*4.9*	*4.6*	*13.0*	*8.7*	*8.5*	*4.1*	*7.6*	*6.2*	*4.0*	*-0.6*	*9.8*	*11.6*	*1.80*	*2.10*	*0.00*
NonDurable Goods	*3.7*	*0.9*	*2.4*	*3.6*	*1.4*	*3.8*	*2.3*	*3.5*	*1.9*	*2.7*	*3.2*	*1.2*	*2.1*	*5.7*	*-0.5*	*-6.20*	*0.80*	*0.10*
Services	*0.0*	*0.6*	*1.3*	*3.1*	*1.7*	*2.3*	*3.4*	*4.3*	*2.3*	*2.2*	*2.0*	*2.3*	*1.9*	*3.0*	*2.7*	*-0.30*	*0.40*	*0.20*
Residential Investment	14.7	12.0	6.0	-4.5	-1.4	11.7	3.6	11.4	13.3	14.9	12.6	11.5	7.8	-7.7	-4.1	3.60	1.80	0.30
Nonresidential Invesment	5.2	2.5	2.1	9.5	7.0	6.1	8.3	-1.1	1.3	1.6	3.9	-3.3	-3.4	1.0	1.4	0.40	-1.10	1.30
Government	-4.3	-2.0	-2.0	-2.8	-1.0	0.1	2.5	-0.4	2.6	3.2	1.9	1.0	1.6	-1.7	0.8	2.50	-0.30	0.60
State & Local Government	*0.2*	*0.3*	*0.1*	*-1.0*	*-1.5*	*2.0*	*1.6*	*3.3*	*3.0*	*5.1*	*2.5*	*-0.6*	*3.5*	*-2.5*	*-0.2*	*2.30*	*-0.40*	*0.90*
Exports	4.0	5.0	3.1	11.8	-2.7	8.7	2.1	4.5	-5.8	2.9	-2.8	-2.7	-0.7	1.8	10.0	8.20	0.10	-0.10
Imports	1.3	5.3	1.7	1.6	4.9	9.9	-1.2	11.2	5.6	2.9	1.1	0.7	-0.6	0.2	2.2	2.00	-0.20	0.10
INFLATION																		
GDP Price Index, %	1.4	0.9	2.1	2.1	1.7	2.1	1.7	0.5	-0.1	2.3	1.3	0.8	0.5	2.3	1.4	-0.9	-0.1	0.0
PCE - Core Price Index, %	1.7	1.1	1.4	1.8	1.6	2.0	1.5	1.1	1.1	1.8	1.4	1.2	2.1	1.8	1.7	-0.1	0.0	0.0

Source: Bloomberg, BEA, HRM

U.S. GDP SUMMARY

HEDGEYE

U.S. GDP SUMMARY

	Mar-13	Jun-13	Sep-13	Dec-13	Mar-14	Jul-14	Sep-14	Dec-14	Mar-15	Jun-15	Sep-15	Dec-15	Mar-16	Jun-16	Sep-16	Q/Q Chg	1st Revision	2nd Revision
Real GDP, Q/Q	2.80	0.80	3.10	4.00	-1.20	4.00	5.00	2.3	2.00	2.60	2.00	0.90	0.80	1.40	3.50	2.10	0.30	0.30
Real GDP, Y/Y	1.30	1.00	1.70	2.70	1.60	2.40	2.90	2.5	3.30	3.00	2.20	1.90	1.60	1.30	1.70	0.40	0.10	0.10
GDP Nominal Dollars	16,475	16,541	16,749	17,000	17,025	17,286	17,569	17,69	17,784	[illegible]	18,142	18,223	[illegible]	[illegible]	[illegible]			
GDP Chained Dollars	15,492	15,522	15,641	15,794	15,747	15,901	16,095	16,187	16,269	16,374	16,455	16,491	16,525	16,583	16,727			
CONTRIBUTION TO % CHANGE IN GDP																		
Real GDP, Q/Q	2.8	0.8	3.1	4.0	-1.2	4.0	5.0	2.3	2.0	2.6	2.0	0.9	0.8	1.4	3.5	2.10	0.30	0.30
C: Consumption	1.32	0.58	1.28	2.29	1.26	2.56	2.52	3.07	1.63	1.94	1.81	1.53	1.11	2.88	2.03	-0.85	0.42	0.14
I: Investment	2.04	0.78	2.08	0.91	-1.10	1.79	1.49	0.45	1.62	0.18	0.35	-0.39	-0.56	-1.34	0.50	1.84	-0.18	0.16
G: Government	-0.83	-0.37	-0.37	-0.53	-0.19	0.02	0.46	-0.07	0.45	0.57	0.34	0.18	0.28	-0.30	0.14	0.44	-0.04	0.09
E: Net Exports	0.30	-0.21	0.13	1.29	-1.16	-0.41	0.50	-1.14	-1.65	-0.08	-0.52	-0.45	0.01	0.18	0.85	0.67	0.04	-0.02

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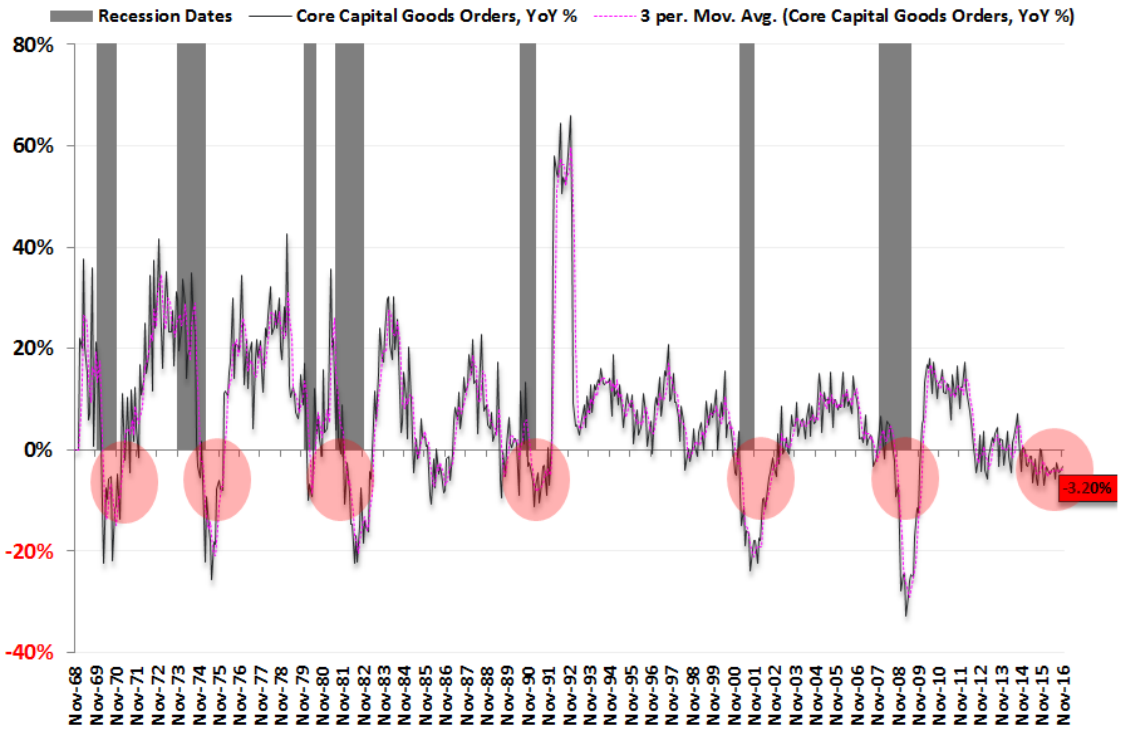
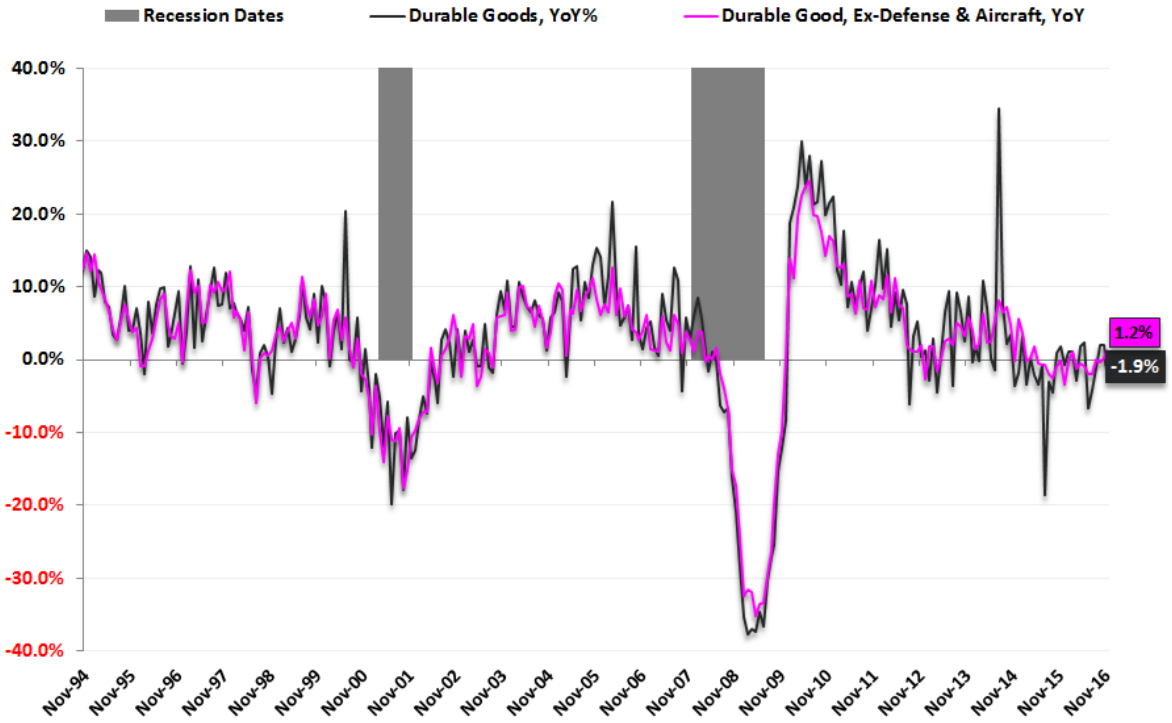
Here are the rate of change facts: US GDP growth peaked in Q115, slowed for 5 quarters, and just accelerated to +1.7% y/y

CAPITAL GOODS ORDERS



DATA SOURCE: BLOOMBERG, CENSUS BUREAU, HRM

U.S. DURABLE GOODS



DATA SOURCE: BLOOMBERG, NBER, CENSUS BUREAU, HRM

PROCESS POINT: WHERE ARE FORWARD LOOKING EXPECTATIONS?

PRICE, VOLUME, & VOLATILITY: AN IMPORTANT MULTI-DURATION APPROACH

VOLATILITY

		REALIZED VOLATILITY			IMPLIED VOLATILTY*				IMPLIED** VS. REALIZED VOLATILITY										
		Duration of Realized (%)			At-The-Money %						30 Day			60 Day			3 Month		
											Z-Score			Z-Score			Z-Score		
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%	9.1%	10.2%	9.7%	-11.3%	-22.8%	-20.3%	SPX	25.8%	0.42	0.64	21.0%	0.58	0.61	18.9%	0.67	0.44
Russell 2000	RTY	16.3%	16.3%	16.1%	15.3%	-9.2%	-13.2%	-9.6%	RTY	-6.0%	-0.31	-0.56	5.6%	0.25	-0.12	11.8%	0.75	0.09
Nasdaq	NDX	12.8%	12.4%	12.6%	12.3%	-10.5%	-17.2%	-15.2%	NDX	-4.5%	-0.41	-0.36	14.1%	0.36	0.44	18.3%	0.70	0.61
USD Index	UUP	7.9%	6.8%	6.9%	9.3%	4.9%	11.2%	13.2%	UUP	18.0%	0.26	0.05	45.3%	1.72	1.30	46.4%	2.73	1.55
Energy	XLE	22.5%	20.5%	20.7%	16.5%	-13.8%	-19.5%	-18.2%	XLE	-26.5%	-1.25	-1.45	-8.6%	-0.25	-0.63	-8.4%	-0.06	-0.59
Materials	XLB	12.2%	12.3%	13.2%	13.4%	-5.0%	-15.4%	-15.7%	XLB	9.3%	0.13	0.04	22.4%	1.08	0.75	17.4%	1.21	0.58
Industrials	XLI	12.8%	12.2%	12.6%	12.8%	-5.0%	-10.3%	-8.5%	XLI	0.1%	-0.29	-0.25	16.4%	0.58	0.56	15.5%	0.93	0.57
Transports	IYT	14.2%	13.3%	14.0%	16.3%	-4.0%	-8.6%	-8.9%	IYT	14.4%	0.19	0.31	48.1%	1.96	2.35	38.3%	2.18	2.18
WTI Crude Oil	USO	42.7%	37.0%	36.4%	27.6%	-24.3%	-26.5%	-26.8%	USO	-24.3%	-1.92	-2.32	-19.6%	-1.22	-1.46	-19.5%	-1.07	-1.29
Natural Gas	UNG	45.5%	45.1%	41.4%	47.3%	-5.7%	2.1%	10.2%	UNG	4.0%	0.07	-0.20	6.2%	0.20	-0.13	8.6%	0.34	-0.02
Gold	GLD	13.6%	13.7%	12.8%	14.5%	-4.7%	-4.4%	-7.3%	GLD	6.9%	0.16	0.01	13.3%	0.75	0.48	24.2%	1.66	1.24
Silver	SLV	28.9%	25.7%	25.2%	24.5%	1.0%	-1.0%	-4.6%	SLV	-15.1%	-1.60	-1.15	0.1%	-0.69	-0.66	2.7%	-0.58	-0.52
Copper	JJC	28.0%	23.7%	21.0%	25.4%	-17.0%	-3.4%	0.7%	JJC	-9.2%	-0.41	-0.54	150.8%	3.17	4.71	29.0%	0.55	0.74
Corn	CORN	19.4%	19.3%	19.2%	12.8%	-25.1%	-33.3%	-42.9%	CORN	-34.1%	-2.04	-2.33	-9.2%	-1.19	-1.57	-7.7%	-1.10	-1.42
Soybeans	SOYB	16.1%	14.8%	15.2%	16.8%	-22.5%	-20.4%	-26.0%	SOYB	4.1%	-0.87	-0.71	21.3%	-0.42	-0.39	16.1%	-0.49	-0.49
Wheat	WEAT	18.6%	19.6%	19.0%	25.2%	0.3%	-8.4%	-24.5%	WEAT	35.7%	-0.53	-0.23	53.7%	-0.23	0.14	68.2%	0.29	0.58

*implied volatility on at-the-money front month contracts

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