LIVE: Wednesday, August 1st at 11:00AM ET

McCullough: The Market Is Getting Ready to Rotate

LEGAL

DISCLAIMER

Hedgeye Risk Management is a registered investment advisor, registered with the State of Connecticut. Hedgeye Risk Management is not a broker dealer and does not provide investment advice for individuals. This research does not constitute an offer to sell, or a solicitation of an offer to buy any security. This research is presented without regard to individual investment preferences or risk parameters; it is general information and does not constitute specific investment advice. This presentation is based on information from sources believed to be reliable. Hedgeye Risk Management is not responsible for errors, inaccuracies or omissions of information. The opinions and conclusions contained in this report are those of Hedgeye Risk Management, and are intended solely for the use of Hedgeye Risk Management's clients and subscribers. In reaching these opinions and conclusions, Hedgeye Risk Management and its employees have relied upon research conducted by Hedgeye Risk Management's employees, which is based upon sources considered credible and reliable within the industry. Hedgeye Risk Management is not responsible for the validity or authenticity of the information upon which it has relied.

TERMS OF USE

This report is intended solely for the use of its recipient.   Redistribution or republication of this report and its contents are prohibited. For more detail please refer to the appropriate sections of the Hedgeye Services Agreement and the Terms of Use at www.hedgeye.com.

PLEASE SUBMIT QUESTIONS TO

QA@HEDGEYE.COM

TO BE ANSWERED AT THE END OF THE CALL

PROCESS: RATE OF CHANGE CENTRIC
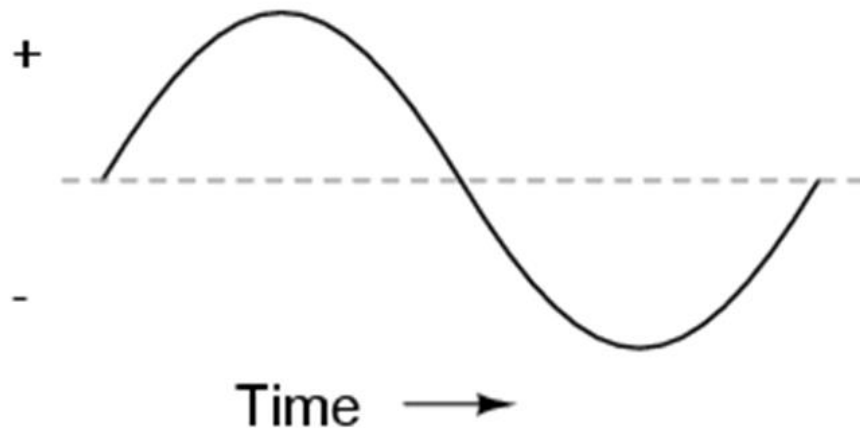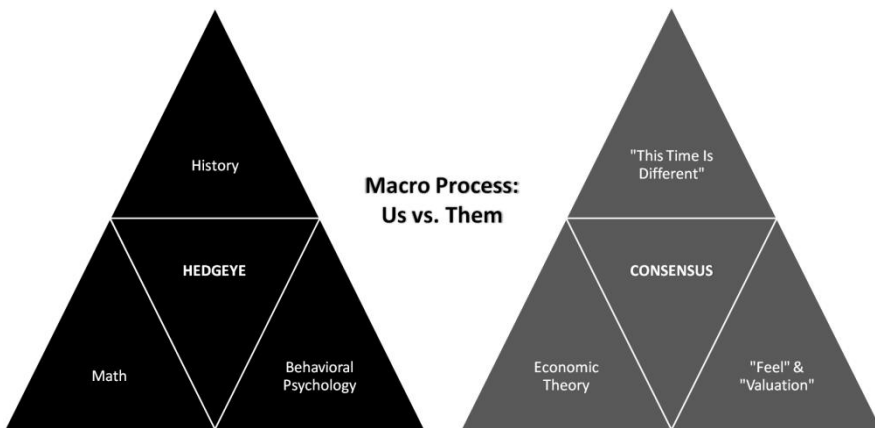
DIFFERENTIATED FROM THE HERD

Macroeconomics and Global Macro Risk Management are two very different fields. We specialize in the latter, incorporating key lessons of behavioral finance such as Prospect Theory and Bayesian Inference into our analysis.

WE FOCUS ON THE SLOPES

Everything that matters in Global Macro occurs on the margin. Our key differentiator is an ever-present focus on trending rates of change, which helps us front-run changes in sentiment among investor and policymakers – both of whom tend to overweight absolute states in their analysis.

MEASURING AND MAPPING THE CYCLE

SPECIFICALLY, OUR BACKTEST DATA SHOWS THAT A LARGE DEGREE OF INTER AND INTRA ASSET CLASS RETURNS CAN BE EXPLAINED BY CHANGES IN GROWTH, INFLATION AND POLICY RELATIVE TO IMPLIED EXPECTATIONS ACROSS MACRO MARKETS. REFER TO THE FOLLOWING SLIDE FOR MORE DETAILS.

United States	3Q15	4Q15	1Q16	2Q16	3Q16	4Q16	1Q17	2Q17	3Q17	4Q17	1Q18	2Q18		3Q18E	4Q18E	1Q19E	2Q19E	NTM
Real GDP QoQ SAAR	1.00%	0.40%	1.50%	2.30%	1.90%	1.80%	1.80%	3.00%	2.80%	2.30%	2.20%	4.10%	Hedgeye Estimates	2.44%	1.10%	2.00%	3.21%	-
Percentile (T10Y)	36%	21%	41%	59%	46%	46%	44%	69%	64%	59%	56%	90%	Bloomberg Consensus Estimates	2.80%	2.67%	2.30%	2.30%	-
Real GDP YoY	2.40%	2.00%	1.60%	1.30%	1.50%	1.90%	1.90%	2.10%	2.30%	2.50%	2.60%	2.80%	Hedgeye Estimates	2.76%	2.46%	2.41%	2.21%	2.46%
Percentile (T10Y)	59%	54%	33%	26%	31%	54%	51%	64%	67%	72%	74%	90%	Bloomberg Consensus Estimates	2.90%	2.90%	2.98%	2.60%	2.85%
Headline CPI YoY	0.11%	0.47%	1.08%	1.05%	1.12%	1.80%	2.54%	1.90%	1.97%	2.12%	2.21%	2.71%	Hedgeye Estimates	2.78%	2.36%	1.94%	2.01%	2.27%
Percentile (T10Y)	13%	15%	18%	18%	23%	59%	77%	67%	69%	74%	79%	87%	Bloomberg Consensus Estimates	2.70%	2.50%	2.25%	2.29%	2.44%

Data Source: Bloomberg

© Hedgeye Risk Management

SEQUENCE TIME SERIES, NOT CNBC HEADLINES

Data Source: Bloomberg, BIS, World Bank, IMF. Intellectual Property of Hedgeye Risk Management. *Denotes Manufacturing PMI if the economy is devoid of a Composite PMI data series.

WHY DOES THE 2ND DERIVATIVE MATTER?

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

Hedgeye Macro U.S. GIP Model Backtest	Expected Value, by Quadrant				Percentile of Expected Value, by Asset Class				Percentile of Expected Value, by Quadrant				Percent Positive Ratio (color-coding by Asset Class & Quadrant)				Total Quarterly Performance Observations			
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	5.4%	1.3%	0.3%	-1.5%	35%	55%	35%	35%	75%	65%	29%	24%	80%	71%	56%	56%	20	17	27	16
S&P 500 Consumer Discretionary Sector Index	6.6%	1.8%	0.4%	0.1%	80%	60%	50%	75%	92%	71%	37%	55%	75%	76%	48%	44%	20	17	27	16
S&P 500 Consumer Staples Sector Index	4.4%	0.1%	0.1%	0.7%	5%	25%	20%	85%	61%	22%	22%	61%	85%	59%	59%	56%	20	17	27	16
S&P 500 Energy Sector Index	4.8%	1.0%	1.8%	-1.9%	15%	40%	90%	25%	67%	55%	84%	18%	70%	71%	63%	50%	20	17	27	16
S&P 500 Financials Sector Index	5.3%	1.1%	-0.7%	-0.9%	30%	50%	0%	40%	73%	61%	2%	31%	75%	65%	56%	63%	20	17	27	16
S&P 500 Health Care Sector Index	5.0%	1.1%	0.1%	0.9%	20%	45%	25%	90%	69%	59%	24%	63%	80%	65%	52%	69%	20	17	27	16
S&P 500 Industrials Sector Index	6.1%	2.0%	0.3%	-1.7%	70%	70%	40%	30%	88%	75%	33%	20%	70%	71%	48%	44%	20	17	27	16
S&P 500 Information Technology Sector Index	6.9%	4.2%	1.6%	-2.9%	90%	95%	85%	15%	96%	90%	78%	12%	80%	82%	52%	56%	20	17	27	16
S&P 500 Materials Sector Index	5.9%	0.9%	-0.5%	0.6%	65%	35%	5%	80%	86%	51%	6%	59%	80%	71%	52%	50%	20	17	27	16
S&P 500 REITS Index	5.6%	-0.1%	0.7%	0.0%	50%	15%	65%	70%	80%	16%	55%	53%	67%	57%	64%	82%	18	14	22	11
S&P 500 Telecom Index	4.7%	-4.6%	0.0%	-0.4%	10%	0%	10%	60%	63%	2%	14%	49%	75%	41%	44%	44%	20	17	27	16
S&P 500 Utilities Sector Index	3.1%	-2.8%	2.9%	-0.8%	0%	5%	100%	45%	55%	4%	94%	33%	70%	29%	67%	50%	20	17	27	16
Russell 1000 Growth Index	5.7%	2.7%	0.5%	-2.6%	55%	85%	55%	20%	82%	80%	41%	16%	80%	76%	63%	56%	20	17	27	16
Russell 1000 Value Index	5.5%	0.0%	0.3%	-0.5%	40%	20%	30%	50%	76%	18%	27%	45%	70%	71%	56%	69%	20	17	27	16
S&P 500 Dividend Aristocrats Index	5.5%	0.2%	0.0%	1.8%	45%	30%	15%	100%	78%	24%	20%	75%	80%	59%	63%	56%	20	17	27	16
S&P 500 High Beta Index	7.9%	2.4%	0.8%	-3.0%	100%	80%	75%	5%	100%	78%	59%	8%	65%	71%	59%	56%	20	17	27	16
S&P 500 Low Beta Minimum Volatility Index	5.1%	-1.1%	0.7%	1.7%	25%	10%	70%	95%	71%	8%	57%	73%	70%	59%	52%	75%	20	17	27	16
S&P 500 Momentum Index	6.8%	3.0%	1.3%	-4.2%	85%	90%	80%	0%	94%	82%	73%	4%	90%	65%	48%	56%	20	17	27	16
S&P 500 Quality Index	6.2%	1.9%	0.6%	-0.2%	75%	65%	60%	65%	90%	73%	47%	51%	90%	76%	56%	56%	20	17	27	16
Russell 2000 Index	5.9%	2.4%	0.3%	-0.4%	60%	75%	45%	55%	84%	76%	35%	47%	75%	71%	59%	56%	20	17	27	16
NASDAQ 100 Index	7.4%	4.8%	2.6%	-3.0%	95%	100%	95%	10%	98%	94%	92%	10%	85%	76%	59%	56%	20	17	27	16
Bloomberg Barclays US Agg Total Return Index	1.1%	0.7%	0.9%	2.3%	31%	54%	46%	62%	29%	37%	65%	86%	75%	71%	63%	100%	20	17	27	16
Bloomberg Barclays US Corporate Total Return Value Index	1.7%	0.9%	0.5%	3.1%	69%	77%	8%	85%	47%	43%	45%	92%	70%	76%	59%	94%	20	17	27	16
Bloomberg Barclays US Corporate High Yield Total Return Index	3.1%	1.3%	0.7%	2.2%	92%	85%	31%	46%	53%	63%	53%	80%	75%	76%	70%	69%	20	17	27	16
Bloomberg Barclays US Convertibles Composite Total Return Index	4.8%	4.5%	-0.2%	1.0%	100%	100%	0%	8%	65%	92%	45%	73%	82%	100%	55%	73%	17	14	20	11
Bloomberg Barclays US Treasury 1-3 Year Total Return Index	0.6%	0.6%	0.7%	1.2%	15%	31%	15%	15%	22%	29%	49%	67%	80%	76%	85%	94%	20	17	27	16
Bloomberg Barclays US Treasury 5-10 Year Total Return Index	1.1%	0.6%	1.1%	2.6%	38%	38%	62%	77%	31%	31%	69%	90%	60%	53%	59%	75%	20	17	27	16
Bloomberg Barclays US Treasury 10-20 Year Total Return Index	1.3%	0.3%	1.5%	3.4%	46%	15%	77%	92%	37%	25%	75%	96%	60%	53%	59%	75%	20	17	27	16
Bloomberg Barclays US Treasury 25+ Year Total Return Index	1.6%	-0.4%	1.8%	4.7%	62%	0%	100%	100%	45%	12%	88%	98%	60%	41%	56%	75%	20	17	27	16
Bloomberg Barclays US TIPS 0-5 Years Total Return Index	0.3%	0.7%	1.1%	0.5%	0%	46%	69%	0%	12%	33%	71%	57%	53%	92%	77%	64%	17	12	22	11
Bloomberg Barclays US TIPS 5-10 Year Total Return Index	0.5%	1.4%	1.6%	1.7%	8%	92%	85%	23%	20%	67%	76%	71%	61%	79%	68%	64%	18	14	22	11
Bloomberg Barclays US MBS Index Total Return Index	0.9%	0.8%	1.1%	2.1%	23%	69%	54%	38%	25%	41%	67%	78%	75%	82%	74%	100%	20	17	27	16
Bloomberg Barclays US Municipal Bond Index Total Return Index	1.5%	0.5%	0.7%	2.2%	54%	23%	23%	54%	43%	27%	51%	82%	90%	53%	70%	94%	20	17	27	16
Bloomberg Barclays US Muni High Yield Total Return Index	2.6%	0.7%	0.9%	2.1%	85%	62%	38%	31%	51%	39%	63%	76%	81%	75%	55%	91%	16	12	20	11
Bloomberg Barclays US Municipal Taxable Bonds Total Return Index	1.9%	0.1%	1.8%	2.5%	77%	8%	92%	69%	49%	20%	80%	88%	92%	55%	75%	88%	13	11	16	8
US 2Y Treasury Yield	3.5%	7.0%	4.4%	-7.5%	100%	100%	67%	0%	59%	98%	98%	0%	55%	71%	52%	38%	20	17	27	16
US 10Y Treasury Yield	0.7%	5.1%	0.4%	-5.4%	67%	67%	33%	33%	24%	96%	39%	2%	50%	71%	48%	31%	20	17	27	16
US 10Y Real Treasury Yield (Deflated by the 10Y TIPS Breakeven Rate)	-14.8%	-12.5%	-12.4%	210.9%	0%	0%	0%	100%	0%	0%	0%	100%	50%	25%	41%	63%	20	16	27	16
Bloomberg Barclays US Corporate High Yield OAS Spread	-0.6%	-2.0%	6.0%	3.4%	33%	33%	100%	67%	4%	6%	100%	94%	30%	35%	48%	50%	20	17	27	16
Thomson Reuters/CoreCommodity CRB Commodity Index	0.4%	3.2%	1.8%	-3.8%	25%	50%	25%	0%	14%	86%	82%	6%	60%	76%	63%	31%	20	17	27	16
Commodity Research Bureau BLS/US Spot Raw Industrials Index	1.4%	3.3%	-0.1%	-0.7%	75%	75%	0%	75%	39%	88%	12%	37%	60%	82%	44%	50%	20	17	27	16
Commodity Research Bureau BLS/US Spot Foodstuff Index	-0.3%	1.1%	2.4%	-1.0%	0%	0%	75%	50%	6%	57%	90%	27%	40%	59%	56%	50%	20	17	27	16
Front-month Brent Crude Oil	3.2%	9.2%	4.3%	-2.9%	100%	100%	100%	25%	57%	100%	96%	14%	55%	76%	52%	56%	20	17	27	16
Gold Spot	1.2%	3.1%	1.8%	2.2%	50%	25%	50%	100%	33%	84%	86%	84%	50%	76%	56%	63%	20	17	27	16
US Dollar Index	-0.6%	-0.7%	0.0%	1.2%	0%	0%	29%	100%	2%	10%	16%	69%	40%	35%	52%	69%	20	17	27	16
AUD/USD	1.3%	0.9%	0.0%	-0.7%	86%	43%	43%	57%	35%	45%	18%	39%	60%	65%	67%	44%	20	17	27	16
CAD/USD	0.2%	1.0%	0.2%	-0.6%	14%	86%	57%	86%	8%	53%	25%	43%	40%	53%	52%	44%	20	17	27	16
CHF/USD	1.5%	0.9%	0.8%	-0.7%	100%	57%	100%	71%	41%	47%	61%	41%	70%	59%	59%	38%	20	17	27	16
EUR/USD	1.1%	0.7%	0.3%	-1.0%	71%	29%	71%	29%	27%	35%	31%	29%	65%	59%	56%	31%	20	17	27	16
GBP/USD	0.4%	0.9%	-0.4%	-1.4%	43%	71%	14%	14%	16%	49%	8%	25%	55%	71%	41%	31%	20	17	27	16
JPY/USD	0.5%	1.5%	0.5%	-0.7%	57%	100%	86%	43%	18%	69%	43%	35%	40%	53%	56%	44%	20	17	27	16
JPMorgan EM FX Index	0.3%	-0.1%	-0.5%	-1.6%	29%	14%	0%	0%	10%	14%	4%	22%	56%	60%	57%	44%	18	15	23	16

Data Source: Bloomberg. Trailing 20 years.

GIP MODEL RISK MANAGEMENT OVERLAY

#QUAD1

- Maximum gross exposure, tight net exposure. Hedge downside risk to market beta. Growth investing bias.
- **Asset Class Overweight(s):** Equities and Credit
- **Asset Class Underweight(s):** Fixed Income
- **Equity Sector Overweight(s):** Tech, Consumer Discretionary and Industrials
- **Equity Sector Underweight(s):** Utilities, Consumer Staples and Energy
- **Equity Style Factor Overweight(s):** Momentum,
- High Beta and Growth
- **Equity Style Factor Underweight(s):** Low Beta/Minimum Vol., High Dividend Yield and Value
- **Fixed Income Overweight(s):** Convertibles, HY Credit and HY Munis
- **Fixed Income Underweight(s):** Short Duration Treasuries, TIPS and MBS

#QUAD2

- Maximum gross exposure, wide net exposure. Hedge downside risk to market beta. Inflation-hedging bias.
- **Asset Class Overweight(s):** Equities and Credit
- **Asset Class Underweight(s):** Fixed Income
- **Equity Sector Overweight(s):** Tech, Industrials and Consumer Discretionary
- **Equity Sector Underweights(s):** Utilities, REITS and Consumer Staples
- **Equity Style Factor Overweight(s):** Momentum,
- High Beta and Growth
- **Equity Style Factor Underweight(s):** Low Beta/Minimum Vol., High Dividend Yield and Value
- **Fixed Income Overweight(s):** Convertibles, TIPS, HY Credit and IG Credit
- **Fixed Income Underweight(s):** Long Duration Treasuries and Munis

#QUAD3

- Low gross exposures, tight net exposure. Hedge upside risk to market beta. Defensive, yield-chasing bias.
- **Asset Class Overweight(s):** Fixed Income
- **Asset Class Underweight(s):** Equities and Credit
- **Equity Sector Overweight(s):** Utilities, REITS and Energy
- **Equity Sector Underweight(s):** Financials, Materials and Consumer Staples
- **Equity Style Factor Overweight(s):** Low Beta/Minimum Vol., Growth and Quality
- **Equity Style Factor Underweight(s):** Value, High Dividend Yield and Small Caps
- **Fixed Income Overweight(s):** Long Duration Treasuries, Taxable Munis and TIPS
- **Fixed Income Underweight(s):** HY Credit, IG Credit and Convertibles

#QUAD4

- Minimum gross exposure, net short exposure. Hedge upside risk to market beta. Deflation-hedging bias.
- **Asset Class Overweight(s):** Fixed Income
- **Asset Class Underweight(s):** Equities and Credit
- **Equity Sector Overweight(s):** Healthcare, Consumer Staples and REITS
- **Equity Sector Underweight(s):** Tech, Energy and Industrials
- **Equity Style Factor Overweight(s):** High Dividend Yield, Low Beta/Minimum Vol. and Quality
- **Equity Style Factor Underweight(s):** Momentum, High Beta and Growth
- **Fixed Income Overweight(s):** Long Duration Treasuries, MBS, IG Credit and Taxable Munis
- **Fixed Income Underweight(s):** TIPS, HY Credit and Convertibles

OUR MODEL WORKS ACROSS GEOGRAPHIES TOO

IN ADDITION TO THE DOMESTIC MACROECONOMY, WE'VE ALSO BACKTESTED EVERY MAJOR GLOBAL MACRO FACTOR EXPOSURE RELATIVE TO GLOBAL GIP REGIMES AND THE RESULTS MIRROR THE FINDINGS FROM OUR U.S. GIP MODEL.

Hedgeye Macro Global GIP Model Backtest	Expected Value, by Quadrant				Percentile of Expected Value, by Asset Class				Percentile of Expected Value, by Quadrant				Percent Positive Ratio (color-coding by Asset Class & Quadrant)				Total Quarterly Performance Observations			
Exposure	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
MSCI All-Country World Index	5.0%	0.3%	-0.2%	-0.6%	55%	45%	45%	60%	75%	29%	29%	41%	82%	59%	55%	48%	22	17	20	21
MSCI ACWI Consumer Discretionary Index	5.6%	0.3%	0.0%	0.4%	80%	50%	65%	85%	84%	31%	43%	65%	82%	59%	55%	48%	22	17	20	21
MSCI ACWI Consumer Staples Index	1.2%	1.7%	1.4%	1.2%	0%	80%	95%	90%	31%	69%	78%	78%	50%	88%	60%	52%	22	17	20	21
MSCI ACWI Energy Sector Index	3.4%	2.6%	1.3%	-1.6%	15%	85%	90%	15%	55%	84%	75%	18%	68%	65%	60%	52%	22	17	20	21
MSCI ACWI Financials Index	6.1%	-0.7%	-1.3%	-1.1%	85%	10%	10%	25%	86%	8%	10%	24%	77%	47%	60%	48%	22	17	20	21
MSCI ACWI Health Care Index	1.9%	-0.7%	2.2%	1.9%	5%	15%	100%	95%	45%	10%	86%	92%	68%	59%	65%	67%	22	17	20	21
MSCI ACWI Industrials Index	5.2%	1.6%	0.0%	-0.8%	60%	75%	55%	30%	76%	67%	37%	27%	77%	76%	50%	48%	22	17	20	21
MSCI ACWI Information Technology Index	9.1%	-0.7%	0.0%	0.3%	100%	20%	50%	80%	96%	12%	35%	63%	82%	47%	60%	67%	22	17	20	21
MSCI ACWI Materials Sector Index	5.4%	3.9%	0.2%	-2.1%	70%	100%	75%	5%	80%	96%	51%	12%	73%	76%	60%	48%	22	17	20	21
MSCI ACWI Telecom Services Sector Index	4.3%	-1.0%	-1.1%	-1.3%	35%	5%	15%	20%	65%	4%	12%	22%	73%	47%	55%	43%	22	17	20	21
MSCI ACWI Utilities Sector Index	1.9%	0.4%	0.5%	-0.5%	10%	55%	80%	65%	47%	35%	53%	49%	59%	53%	65%	52%	22	17	20	21
MSCI ACWI Equity Real Estate Investment Trusts Index	4.0%	1.3%	-0.6%	-2.1%	25%	65%	25%	0%	61%	51%	18%	10%	69%	78%	54%	58%	13	9	13	12
MSCI ACWI Growth Index	5.3%	0.6%	0.0%	-0.6%	65%	60%	60%	50%	78%	39%	39%	37%	82%	53%	65%	57%	22	17	20	21
MSCI ACWI Value Index	4.8%	0.0%	-0.4%	-0.6%	45%	30%	35%	55%	69%	20%	24%	39%	77%	71%	50%	43%	22	17	20	21
MSCI ACWI High Dividend Yield Index	3.7%	0.3%	0.2%	-0.8%	20%	40%	70%	40%	57%	27%	49%	33%	68%	65%	65%	48%	22	17	20	21
S&P 500 Index	4.4%	-0.1%	0.7%	0.2%	40%	25%	85%	75%	67%	18%	61%	59%	86%	59%	55%	57%	22	17	20	21
STOXX Europe 600 Price Index EUR	4.9%	-1.2%	-0.5%	-0.8%	50%	0%	30%	35%	71%	2%	20%	31%	73%	71%	55%	52%	22	17	20	21
Nikkei 225	5.6%	1.5%	-1.8%	-1.9%	75%	70%	5%	10%	82%	59%	8%	14%	82%	65%	45%	38%	22	17	20	21
Hong Kong Hang Seng Index	7.8%	0.1%	-0.3%	-0.7%	90%	35%	40%	45%	90%	22%	25%	35%	82%	41%	50%	57%	22	17	20	21
Shanghai Stock Exchange Composite Index	4.1%	3.5%	-0.8%	2.7%	30%	95%	20%	100%	63%	90%	16%	96%	59%	47%	45%	48%	22	17	20	21
MSCI Emerging Markets Index	7.8%	3.0%	-2.9%	0.1%	95%	90%	0%	70%	92%	86%	6%	55%	73%	76%	50%	52%	22	17	20	21
Bloomberg Barclays US Agg Total Return Index	0.7%	1.2%	1.7%	1.3%	54%	31%	69%	69%	24%	47%	82%	84%	64%	82%	80%	76%	22	17	20	21
Bloomberg Barclays US Corporate Total Return Value Index	1.4%	1.3%	1.7%	1.2%	69%	38%	62%	62%	39%	53%	80%	82%	68%	76%	80%	67%	22	17	20	21
Bloomberg Barclays US Corporate High Yield Total Return Index	3.3%	1.7%	0.6%	1.2%	85%	62%	8%	46%	53%	71%	57%	76%	82%	71%	70%	67%	22	17	20	21
Bloomberg Barclays US Convertibles Composite Total Return Index	5.0%	1.8%	1.3%	1.1%	100%	77%	54%	38%	73%	75%	76%	75%	94%	67%	64%	71%	17	12	14	17
Bloomberg Barclays US Treasury 1-3 Year Total Return Index	0.5%	0.7%	1.0%	0.8%	38%	8%	38%	23%	16%	41%	69%	67%	82%	76%	90%	86%	22	17	20	21
Bloomberg Barclays US Treasury 5-10 Year Total Return Index	0.0%	1.2%	2.3%	1.8%	23%	23%	77%	85%	12%	45%	88%	90%	50%	59%	70%	67%	22	17	20	21
Bloomberg Barclays US Treasury 10-20 Year Total Return Index	-0.1%	1.3%	2.8%	2.4%	15%	54%	92%	92%	10%	57%	94%	94%	50%	71%	60%	67%	22	17	20	21
Bloomberg Barclays US Treasury 25+ Year Total Return Index	-0.6%	1.3%	3.6%	3.2%	0%	46%	100%	100%	2%	55%	96%	98%	45%	59%	60%	67%	22	17	20	21
Bloomberg Barclays US TIPS 0-5 Years Total Return Index	0.5%	0.9%	1.3%	0.3%	46%	15%	46%	15%	20%	43%	73%	61%	65%	71%	86%	65%	17	14	14	17
Bloomberg Barclays US TIPS 5-10 Year Total Return Index	0.3%	1.7%	2.3%	0.9%	31%	69%	85%	31%	14%	73%	90%	69%	59%	71%	79%	65%	17	14	14	17
Bloomberg Barclays Pan-European Aggregate Total Return Index (Unhedged USD)	1.4%	2.5%	0.6%	1.2%	62%	92%	15%	54%	37%	82%	59%	80%	67%	59%	53%	43%	21	17	17	21
Bloomberg Barclays Japanese Aggregate Float Adjusted Total Return Index (Unhedged USD)	-0.2%	-0.4%	0.9%	0.2%	8%	0%	31%	8%	6%	16%	67%	57%	40%	40%	60%	67%	10	5	10	9
Bloomberg Barclays EM USD Aggregate Total Return Index (Unhedged USD)	3.8%	2.3%	0.8%	1.5%	92%	85%	23%	77%	59%	80%	63%	88%	86%	71%	70%	67%	22	17	20	21
Bloomberg Barclays EM Local Currency Government Total Return Index (Unhedged USD)	1.6%	4.6%	0.1%	-0.4%	77%	100%	0%	0%	43%	98%	45%	51%	67%	100%	60%	50%	12	5	10	12
US 2Y Treasury Yield	9.7%	2.2%	-4.7%	1.5%	67%	100%	33%	67%	98%	78%	2%	86%	73%	53%	35%	52%	22	17	20	21
US 10Y Treasury Yield	6.7%	0.2%	-3.4%	-2.8%	33%	33%	67%	33%	88%	25%	4%	6%	59%	59%	40%	43%	22	17	20	21
US 10Y Real Treasury Yield (Deflated by the 10Y TIPS Breakeven Rate)	144.8%	-9.4%	-15.1%	-9.1%	100%	0%	0%	0%	100%	0%	0%	0%	50%	41%	45%	40%	22	17	20	20
Bloomberg Barclays US Corporate High Yield OAS Spread	-5.2%	0.5%	10.4%	3.3%	0%	67%	100%	100%	0%	37%	100%	100%	32%	35%	45%	52%	22	17	20	21
Thomson Reuters/CoreCommodity CRB Commodity Index	3.0%	3.5%	0.6%	-4.1%	75%	25%	25%	25%	51%	88%	55%	4%	73%	65%	55%	43%	22	17	20	21
Commodity Research Bureau BLS/US Spot Raw Industrials Index	2.8%	3.9%	-0.2%	-2.4%	50%	75%	0%	50%	49%	94%	31%	8%	68%	76%	55%	38%	22	17	20	21
Commodity Research Bureau BLS/US Spot Foodstuff Index	1.2%	2.1%	0.8%	-0.8%	25%	50%	50%	75%	35%	76%	65%	29%	55%	59%	50%	43%	22	17	20	21
Front-month Brent Crude Oil	8.7%	8.6%	3.7%	-5.8%	100%	100%	100%	0%	94%	100%	98%	2%	59%	65%	55%	52%	22	17	20	21
Gold Spot	1.2%	3.7%	2.7%	1.0%	0%	50%	75%	100%	33%	92%	92%	71%	50%	71%	60%	62%	22	17	20	21
US Dollar Index	-0.5%	-0.9%	0.0%	1.0%	0%	0%	57%	100%	4%	6%	41%	73%	45%	41%	40%	67%	22	17	20	21
AUD/USD	1.0%	1.5%	-0.3%	-0.5%	71%	71%	29%	57%	27%	61%	27%	45%	68%	65%	65%	43%	22	17	20	21
CAD/USD	1.1%	1.2%	-0.4%	-1.0%	86%	57%	14%	29%	29%	49%	22%	25%	55%	53%	50%	33%	22	17	20	21
CHF/USD	-0.1%	1.6%	1.8%	-0.2%	14%	100%	100%	86%	8%	65%	84%	53%	55%	65%	65%	48%	22	17	20	21
EUR/USD	0.5%	1.5%	0.1%	-0.6%	29%	86%	71%	43%	18%	63%	47%	43%	64%	59%	55%	38%	22	17	20	21
GBP/USD	0.9%	0.1%	-0.1%	-1.4%	57%	29%	43%	14%	25%	24%	33%	20%	59%	53%	45%	38%	22	17	20	21
JPY/USD	1.4%	-0.5%	1.3%	1.0%	100%	14%	86%	71%	41%	14%	71%	47%	55%	35%	55%	48%	22	17	20	21
JPMorgan EM FX Index	0.6%	0.4%	-0.9%	-1.7%	43%	43%	0%	0%	22%	33%	14%	16%	71%	65%	47%	38%	17	17	17	21

Data Source: Bloomberg. Trailing 20 years.

U.S. REAL GDP FORECASTS

United States

■ Real GDP YoY   ■ Hedgeye Estimate - Nowcast Model

■ Hedgeye Estimates - Comparative Base Effect Model   ■ Bloomberg Consensus Estimates

Quarter	Value
3Q15	2.4%
4Q15	2.0%
1Q16	1.6%
2Q16	1.3%
3Q16	1.5%
4Q16	1.9%
1Q17	1.9%
2Q17	2.1%
3Q17	2.3%
4Q17	2.5%
1Q18	2.6%
2Q18	2.8%
3Q18E	2.76% / 2.90%
4Q18E	2.46% / 2.90%
1Q19E	2.41% / 2.98%
2Q19E	2.21% / 2.60%
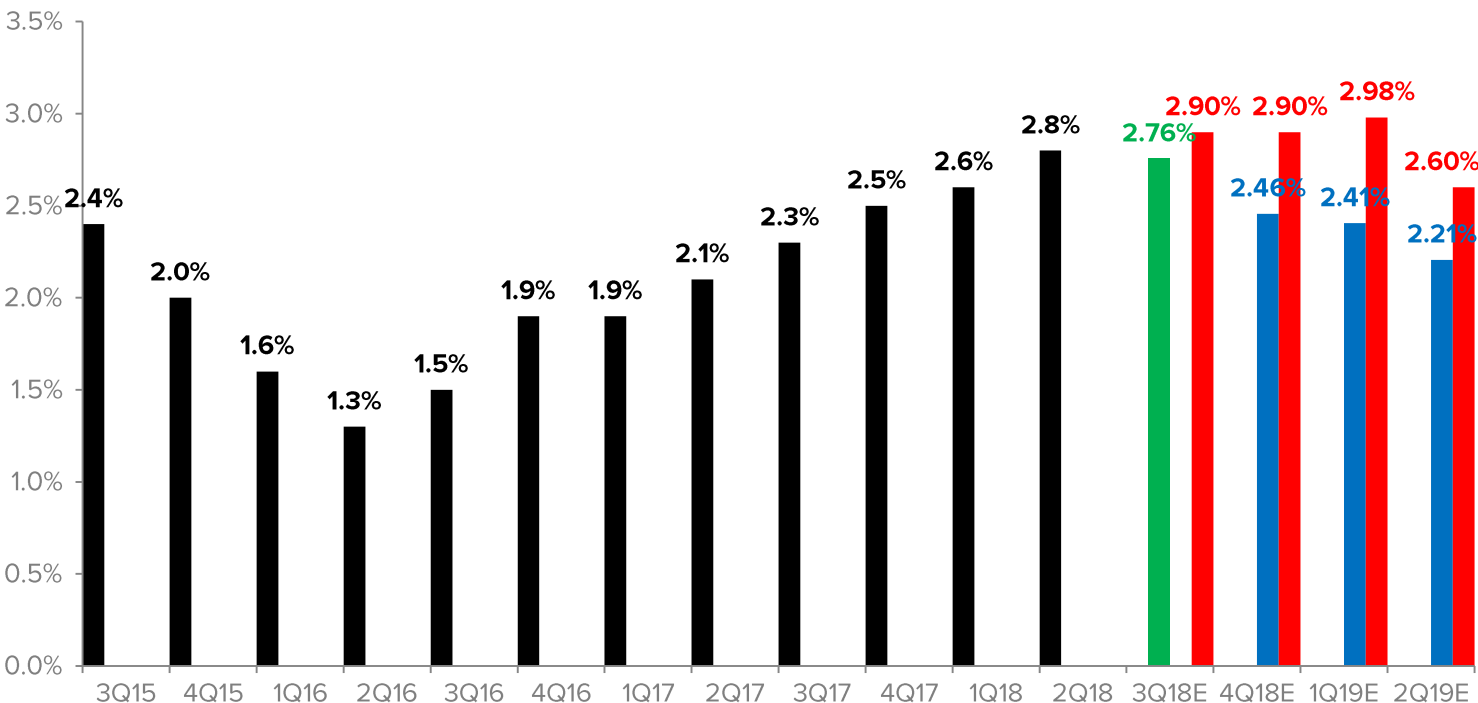
We use two distinct models to forecast the YoY growth rate of real GDP and the combination of the two allows us to develop both a highly accurate real-time view of near-term growth momentum, as well as a high-probability scenario for where growth is likely to trend over the intermediate term.

Intra-quarter, we employ a stochastic nowcasting framework that adjusts the base rate by the cumulative weighted marginal rate of change of the 30 factors embedded in our predictive tracking algorithm. In out-quarters where high-frequency data has yet to be reported, we employ a Bayesian inference process that adjusts each of the preceding forecasted base rates inversely and proportionally to the marginal rates of change in the base effects. The 2Y average growth rate in the comparative base period backtests as having the most forecasting validity.

All in, our U.S. GDP model has an intra-quarter tracking error of 28bps, an average absolute forecast error of 20bps and an r-squared of 0.94 with a success rate of 93% in terms of projecting the directional outcome.

U.S. HEADLINE CPI FORECASTS

United States

- ■ Headline CPI YoY
- ■ Hedgeye Estimate - Nowcast Model
- ■ Hedgeye Estimates - Comparative Base Effect Model
- ■ Bloomberg Consensus Estimates

Quarter	Value
3Q15	0.11%
4Q15	0.47%
1Q16	1.08%
2Q16	1.05%
3Q16	1.12%
4Q16	1.80%
1Q17	2.54%
2Q17	1.90%
3Q17	1.97%
4Q17	2.12%
1Q18	2.21%
2Q18	2.71%
3Q18E	2.78% / 2.70%
4Q18E	2.36% / 2.50%
1Q19E	1.94% / 2.25%
2Q19E	2.01% / 2.29%
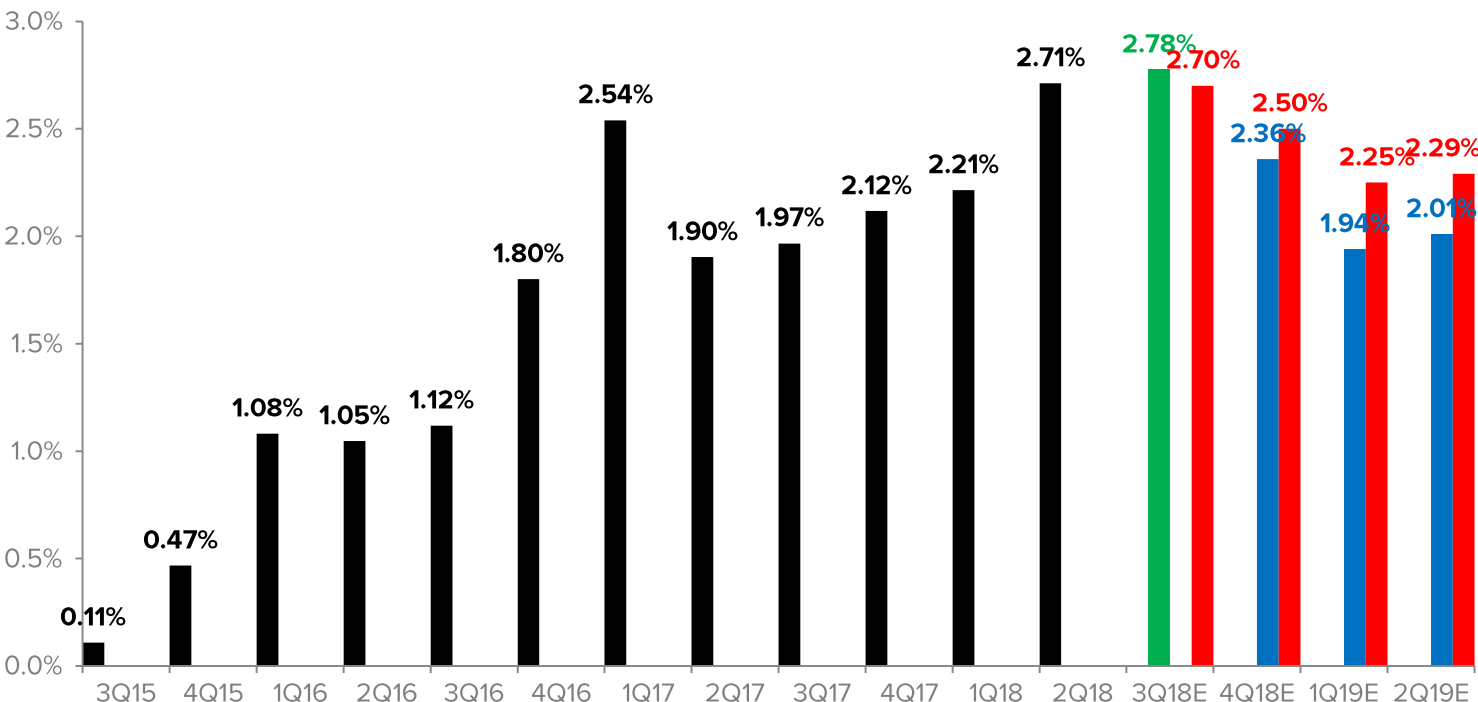
We use two distinct models to forecast the YoY rate of change in headline CPI and the combination of the two allows us to develop both a highly accurate real-time view of near-term inflation momentum, as well as a high-probability scenario for where inflation is likely to trend over the intermediate term.

Intra-quarter, we employ a stochastic nowcasting framework that adjusts the base rate by the cumulative weighted marginal rate of change of the various inflation-oriented factors embedded in our predictive tracking algorithm. In out-quarters where high-frequency data has yet to be reported, we employ a Bayesian inference process that adjusts each of the preceding forecasted base rates inversely and proportionally to the marginal rates of change in the base effects. The 2Y average growth rate in the comparative base period backtests as having the most forecasting validity.

All in, our U.S. CPI model has an intra-quarter tracking error of 34bps, an average absolute forecast error of 22bps and an r-squared of 0.80 with a success rate of 93% in terms of projecting the directional outcome.

A QUICK LESSON IN BASE EFFECTS

REAL GDP GROWTH Y/Y

x-axis: Marginal Rate of Change of the 2Y Average YoY
Real GDP Growth Rate in the Comparative Base Period;
y-axis: Marginal Rate of Change of the YoY Real GDP
Growth Rate in the Forecast Period (Trailing 10Y)
Directional Accuracy: 75% Raw; 74% w/ Momentum

$y = -0.8951x + 3.6574$
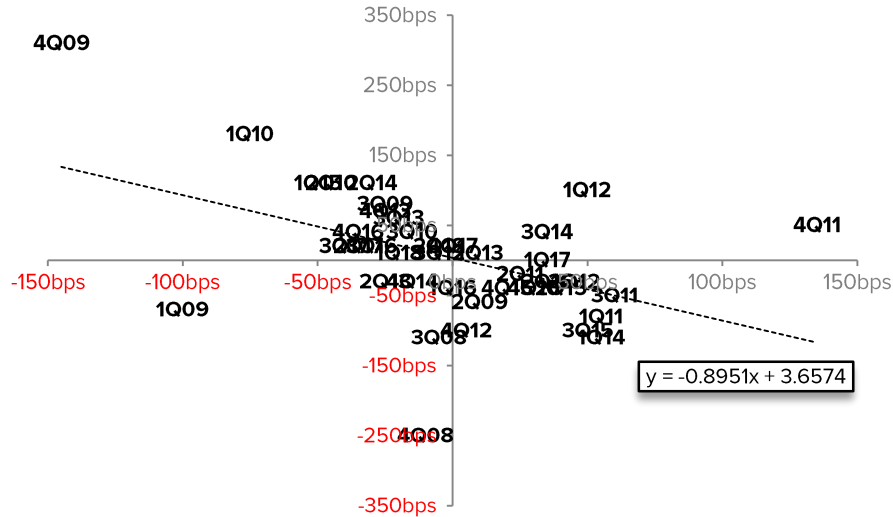
HEADLINE CPI Y/Y

x-axis: Marginal Rate of Change of the 2Y Average YoY
Headline CPI Rate in the Comparative Base Period;
y-axis: Marginal Rate of Change of the YoY Headline
CPI Rate in the Forecast Period (Trailing 10Y)
Directional Accuracy: 70% Raw; 79% w/ Momentum

$y = -1.0841x - 9.1943$
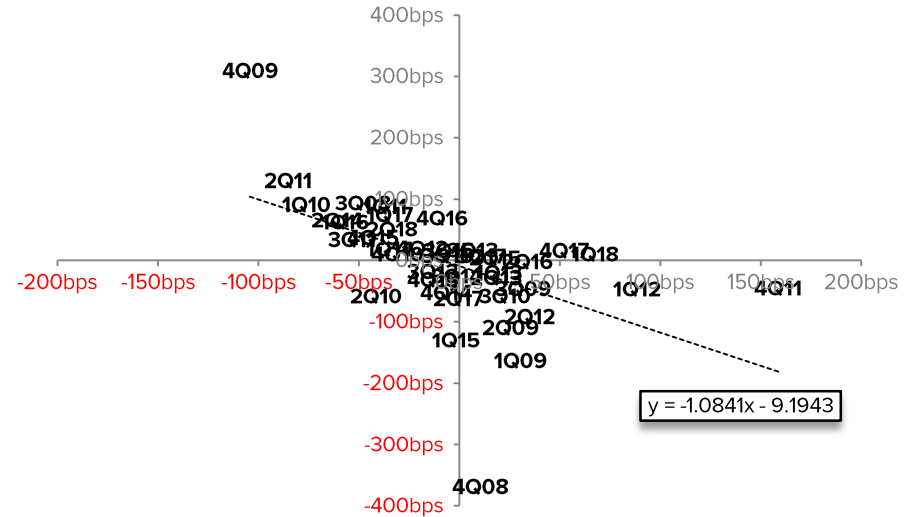
In the U.S. specifically, 75% of the time the marginal rate of change in the 2Y average Real GDP growth rate in the comparative base period carries the **opposite** sign of the marginal rate of change of the growth rate in the forecast period; that same figure is 70% of the time for Headline CPI.

TRADE/TREND/TAIL RISK MANAGEMENT PROCESS

Legend:
- Last Price
- Bullish Formation
- Bullish TRADE (3 weeks or less)
- Bullish TREND (3 months or more)
- Bullish TAIL (3 years or less)
- Bearish Formation
- Bearish TRADE (3 weeks or less)
- Bearish TREND (3 months or more)
- Bearish TAIL (3 years or less)

Core to the process of selecting our preferred macro factor exposures is whether or not the ticker screens well from the perspective of Keith's proprietary risk management process, which employs PRICE, VOLUME and VOLATILITY as discrete factors in the calculus of levels that backtest well as critical momentum thresholds.

Assets where last price is greater than all three (in ascending order) are said to be in a "Bullish Formation" and all dips should be bought, insomuch that assets in the converse "Bearish Formation" should be repeatedly shorted on strength.

STYLE & SENTIMENT FACTORING

MONITORING STYLE AND THEMATIC MACRO FACTOR PERFORMANCE ALLOWS US TO QUANTITATIVELY MAP THE EVOLUTION OF OUR CURRENT MACRO THEMES WHILE THE CFTC DATA PROVIDES AN IMPORTANT SENTIMENT BACKBOARD AGAINST WHICH WE CAN MEASURE AND FADE CONSENSUS.

SPX: STYLE FACTOR PERFORMANCE*

	FACTOR	1M % Chg	3M % Chg	YTD % Chg
DEBT	High Debt/EV	0.8%	0.9%	-2.0%
	Low Debt/EV	1.4%	7.3%	12.1%
SI	High Short Interest	0.4%	6.6%	6.1%
	Low Short Interest	1.9%	4.2%	6.6%
BETA	High Beta	-0.2%	4.1%	6.9%
	Low Beta	2.1%	3.6%	1.2%
YIELD	High Yield	0.8%	2.2%	-3.7%
	Low Yield	1.4%	8.4%	15.2%
MKT CAP	MCAP Bottom 25%	0.1%	2.7%	-0.5%
	MCAP Top 25%	1.9%	4.5%	6.8%
Sales Growth	Top 25% Sales Growth	1.5%	6.8%	13.1%
	Bottom 25% Sales Growth	1.1%	2.1%	-2.0%
EPS Growth	Top 25% EPS Growth	1.2%	6.9%	10.8%
	Bottom 25% EPS Growth	0.7%	2.0%	-0.6%

GREEN = Relative Outperformance Over Given Duration

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

SOURCE: Bloomberg, Goldman Sachs, Hedgeye Calculations

MACRO AND THEMATIC FACTOR PERFORMANCE

FACTOR	1M % Chg	3M % Chg	YTD % Chg
Global Cyclicals	2.81%	7.01%	7.0%
Global Defensives	0.60%	2.28%	4.4%
Domestic Cyclicals	1.12%	0.40%	0.2%
Domestic Defensives	2.50%	8.02%	10.4%
Domestic Sales	1.24%	6.11%	7.6%
International Sales	-0.12%	1.58%	3.9%
Western Europe Sales	0.39%	0.47%	2.7%
Overseas Earnings	1.89%	2.46%	2.2%
SPX Buyback Index	0.85%	4.12%	4.4%
Capex Growth	1.98%	8.33%	11.4%
Rate Sensitive	-0.03%	5.85%	8.7%
High Tax	-0.07%	8.22%	11.4%
Low Tax	0.89%	1.88%	2.7%
M&A Candidates	1.42%	11.99%	18.1%

GREEN = Outperforming SPX over given duration

RED = Underperforming SPX over given duration

CFTC NON-COMMERCIAL NET LONG POSITIONING

	METRIC	Latest	W/W Chg	3Y Max	3Y Min	Z-Score 1Y	Z-Score 3Y
EQUITIES	SPX (Index + E-mini)	155,441	(4,253)	249,638	(269,239)	0.25X	0.93X
	VIX	(52,829)	(19,610)	92,913	(174,665)	0.09X	0.14X
	Russell 2000 (mini)	46,178	(5,989)	93,772	(119,312)	0.83X	1.25X
	Dow Jones (mini)	15,544	4,383	95,976	(15,451)	-1.10X	-0.86X
	Nasdaq (mini)	21,764	4,965	163,838	(24,647)	0.20X	-0.68X
	Nikkei Index	(6,513)	1,563	14,253	(8,076)	-2.29X	-2.86X
RATES	10Y UST	(346,291)	53,980	372,991	(429,387)	-1.09X	-1.62X
	2Y UST	5,264	10,088	164,996	(310,549)	1.47X	0.66X
	5Y UST	(588,513)	(47,813)	(33,993)	(630,199)	-1.27X	-2.24X
	UST Bonds	(2,097)	23,075	122,839	(51,125)	-1.20X	-0.67X
	30D Fed Funds	128,447	(4,756)	219,071	(286,025)	1.12X	1.78X
	Eurodollar	(2,835,314)	(136,569)	504,188	(3,110,209)	-0.92X	-1.38X
CURRENCIES	$USD	18,774	4	65,493	(10,666)	3.02X	-0.18X
	JPY	(41,928)	(986)	70,342	(140,151)	0.65X	-0.19X
	EUR	27,193	(2,696)	147,318	(172,030)	-2.29X	0.41X
	GBP	(37,854)	(6,083)	49,216	(113,271)	-1.60X	-0.17X
	AUD	(40,634)	(2,792)	77,969	(66,531)	-1.71X	-1.47X
	CAD	(53,713)	(1,926)	78,001	(99,736)	-2.02X	-1.13X
	MXN	28,198	22,323	117,131	(89,524)	-1.13X	0.43X
	NZD	(26,574)	(170)	35,981	(26,574)	-1.83X	-2.24X
	CHF	(40,426)	590	10,064	(43,736)	-1.68X	-2.44X
COMMODITIES	CRUDE OIL	693,179	(9,177)	784,290	195,086	0.52X	1.49X
	GOLD	3,230	(1,061)	286,921	(24,263)	-1.96X	-1.43X
	COPPER	14,000	(10,866)	67,602	(44,710)	-2.15X	0.06X
	Natural Gas	(100,660)	(9,626)	57,455	(226,472)	-0.41X	0.05X
	RBOB Gasoline	102,466	4,433	110,651	29,519	1.66X	2.10X
	ULSD Heating Oil	50,485	1,847	67,696	(23,640)	0.54X	1.25X
	Silver	23,399	(1,159)	107,003	(18,442)	-0.17X	-0.81X
	Platinum	(6,314)	126	56,853	(6,440)	-2.01X	-2.69X
	Aluminum	163,475	(2,043)	168,292	122,356	0.48X	1.31X
	Nickel	42,230	(365)	47,708	13,508	0.55X	1.21X
	Corn	(7,648)	(48,665)	373,443	(166,835)	-0.40X	-0.44X
	Soybeans	(31,398)	7,510	255,950	(113,144)	-1.06X	-1.04X
	Wheat	7,566	(2,372)	36,480	(143,292)	1.09X	1.63X
	Live Cattle	52,779	19,348	164,117	(11,972)	-0.92X	-0.36X
	Lean Hogs	(3,531)	(1,907)	90,653	(11,151)	-1.31X	-1.76X
	Sugar	(14,162)	(9,015)	351,383	(117,423)	0.74X	-0.81X
	Cotton	95,351	(1,245)	132,318	(28,816)	0.29X	0.55X
	Coffee	(71,592)	(1,091)	67,942	(71,592)	-2.13X	-2.07X
	Cocoa	41,355	(396)	70,034	(43,846)	0.83X	0.75X
	Orange Juice	4,740	596	10,123	(5,263)	1.52X	0.68X

RISK MANAGEMENT: THE VOLATILITY FACTOR

3-FACTOR MODEL: PRICE, VOLUME, VOLATILITY

Price, Volume, VOLATILITY

IMPLIED Volatility (Forward Looking Expectations & Hedging Activity)

REALIZED Volatility (Rearview Market Trends)

Volatility Factors

VOLATILITY SKEW: Directional Bias and Hedging Activity

IMPLIED VOLATILITY PREMIUM: Future Expectations vs. Rearview Market Trends

DISPERSION: Relative Volatility Across Sectors & Factor Exposures

TERM STRUCTURE: Multi-Duration View of Volatility Expectations & Hedging Costs.

KEY GLOBAL MACRO VOLATILITY TRENDS

TIME WINDOW SETTING: VOLATILITY_30D PUT_IMP_VOL_30D	TICKER	TOTAL RETURN PERFORMANCE YTD %	IVOL PREMIUM/DISCOUNT IVOL PREM % IVOL / RVOL	TTM Z-Score	3Yr Z-Score	REALIZED VOLATILITY TRENDS RVOL CURRENT	MM %	PERCENTILE 10YR	IMPLIED VOLATILITY TRENDS IVOL CURRENT	MM %	PERCENTILE 10YR
US EQUITIES											
Power Shares QQQ Trust ETF	QQQ US EQUITY	13.71%	8%	0.0	-0.1	16.3	31%	57%	17.6	-10%	59
I-Shares Russell 2000 ETF	IWM US EQUITY	9.45%	12%	0.0	0.2	13.3	15%	21%	14.9	-4%	19
SPDR S&P 500 ETF Trust	SPY US EQUITY	6.32%	7%	0.0	-0.1	9.4	-4%	22%	10.0	-19%	16
Consumer Discretionary Sector SPDR ETF	XLY US EQUITY	13.38%	21%	0.1	0.2	11.3	-5%	25%	13.6	-14%	32
Financials Sector SPDR ETF	XLF US EQUITY	0.94%	11%	0.0	0.2	14.1	-11%	27%	15.6	-17%	30
Health Care Sector SPDR ETF	XLV US EQUITY	8.34%	14%	0.4	0.3	10.8	4%	27%	12.3	-15%	26
Technology Sector SPDR ETF	XLK US EQUITY	11.64%	105%	2.8	2.9	16.2	28%	60%	33.1	63%	93
Consumer Staples Sector SPDR ETF	XLP US EQUITY	-4.58%	29%	0.8	0.7	8.8	-16%	26%	11.4	-7%	43
Industrials Sector SPDR ETF	XLI US EQUITY	2.47%	-1%	-0.4	-0.4	14.4	0%	45%	14.3	-17%	34
Materials Sector SPDR ETF	XLB US EQUITY	-0.48%	120%	3.8	4.5	13.4	-13%	25%	29.4	70%	81
Energy Sector SPDR ETF	XLE US EQUITY	8.22%	-11%	-0.8	-0.7	17.2	-21%	39%	15.3	-22%	15
Utilities Sector SPDR ETF	XLU US EQUITY	1.88%	-2%	-0.5	-0.4	13.8	4%	50%	13.5	1%	43
Vanguard Real Estate REIT ETF	VNQ US EQUITY	0.62%	-9%	-0.6	-0.5	11.6	4%	22%	10.6	-18%	8
INTERNATIONAL EQUITIES											
Euro Stoxx 50 Index	SX5E INDEX	3.17%	-19%	-1.0	-0.9	12.5	-13%	17%	10.2	-29%	2
I-Shares MSCI Emerging Markets ETF	EEM US EQUITY	-4.17%	-12%	-0.7	-0.7	18.0	4%	37%	15.9	-15%	18
I-Shares MSCI Japan ETF	EWJ US EQUITY	-1.57%	-5%	-0.6	-0.5	11.4	18%	17%	10.8	-7%	9
I-Shares China Large-Cap ETF	FXI US EQUITY	-4.25%	-23%	-1.3	-1.4	25.0	21%	58%	19.3	-13%	19
CURRENCIES											
PowerShares US Dollar Index ETF	UUP US EQUITY	3.95%	-2%	-1.1	-0.7	6.4	-6%	27%	6.2	-12%	8
Currency Shares Euro Trust ETF	FXE US EQUITY	-3.04%	-9%	-0.6	-0.7	6.8	-27%	18%	6.2	-14%	5
Currency Shares Japanese Yen ETF	FXY US EQUITY	0.52%	18%	0.4	0.5	5.6	-10%	6%	6.5	-4%	4
Currency Shares British Pound ETF	FXB US EQUITY	-2.95%	-4%	-0.6	-0.3	7.5	15%	30%	7.2	-7%	21
COMMODITIES											
United States Oil Fund ETF	USO US EQUITY	18.90%	-21%	-1.6	-1.4	31.6	-4%	60%	24.9	0%	25
United States Natural Gas Fund ETF	UNG US EQUITY	-2.19%	17%	0.3	0.3	17.9	-13%	0%	20.9	2%	1
SPDR Gold Shares ETF	GLD US EQUITY	-6.19%	15%	0.5	0.4	8.4	18%	3%	9.6	1%	3
PowerShares DB Base Metals Fund ETF	DBB US EQUITY	-13.50%	15%	-0.5	-0.3	17.3	7%	38%	19.9	-79%	32
PowerShares DB Agriculture Fund ETF	DBA US EQUITY	-6.56%	8%	-0.8	-0.8	14.1	-3%	61%	15.2	14%	56
FIXED INCOME											
I-Shares 20+ Year Treasury Bond ETF	TLT US EQUITY	-4.19%	-5%	-0.4	-0.5	8.5	-21%	1%	8.0	-5%	0
I-Shares 7-10 Year Treasury Bond ETF	IEF US EQUITY	-2.37%	44%	1.4	1.6	3.3	-38%	1%	4.8	8%	9
I-Shares IBOXX IG Corporate Bond ETF	LQD US EQUITY	-2.81%	14%	-0.1	-0.3	3.8	-16%	8%	4.3	-4%	5
I-Shares IBOXX HY Corporate Bond ETF	HYG US EQUITY	1.68%	-4%	-0.6	-0.6	2.9	-2%	3%	2.8	-42%	0
I-Shares J.P. Morgan USD EM Bond ETF	EMB US EQUITY	-3.67%	25%	-0.3	-0.3	5.8	8%	49%	7.2	7%	46

Data Source: CBOE, CME, Bloomberg

1

USA: #PEAK CYCLE?

After 6 consecutive quarters of accelerating growth and bullish quantitative signaling, our model is mapping a peak and prospective negative inflection in domestic economic growth as we move into 2H18. We'll review and contextualize the recent shift in market and macro dynamics and detail the fundamental, base effect and risk management dynamics driving our expectation for a downshift to Quads 3 and 4 in the back half of the year. We'll specify the risks to the consensus outlook and how to optimize positioning for the chop associated with emergent phase transitions in growth and volatility.

2

GLOBAL #DIVERGENCES, REITERATED

Cross-asset volatility has conspicuously emerged amid consensus calls for an ongoing "globally synchronized recovery" and an extrapolation of cycle-peak GDP growth rates in the U.S. through year-end. As such, we feel compelled to reiterate our non-consensus view that global growth momentum has broadly dissipated. The only strategist that seems to agree with our view is *Mr. Market* himself.

3

DOLLAR #BOTTOMING?

We have recently asked the rhetorical question, "Is the [U.S.] dollar the new VIX?" Peak dollar bearishness came midway through Q1 which was driven by carry trades and fund flows associated with the low-volatility, global growth accelerating backdrop of 2017. We'll outline reasons and provide specific set-ups to exemplify why a reversal in the U.S. dollar continues to be a major risk to aging consensus fund flow narratives.

Q3 2018 MACRO THEMES

1

#STRONGDOLLAR

A U.S. Dollar Index +7% off its YTD lows has already inflicted some major pain in consensus macro views that were observably long of things like commodities and emerging market financial assets heading into Q2. Moreover, our proprietary GIP-modeling process for all of the world's major economies signals that the global trend of decelerating growth is just getting started – an outcome that is likely to increasingly drive inflows into dollar-denominated assets. We will dig into the wide-reaching implications of further USD strength that investors can't afford to miss, from emerging market USD-denominated credit risk to corporate profit deterioration.

2

#HAVERATESPEAKED?

With a peak in domestic headline inflation pending in Q3, 4 hikes out of the FOMC now priced in for 2018, DM sovereign yields retreating alongside the more discrete manifestation of #GlobalDivergences (i.e. broad slowing across Europe, China and EM) and both 10Y Yields and Ag all signaling lower-highs, the consensus "bond bear market" thesis is likely to find itself under increasing scrutiny as we progress throughout 2H18. We'll review prevailing conditions, detail emerging dynamics and discuss how we'll be risk managing rates and rate-sensitive equity exposure in the upcoming months.

3

#SHORTEM

The first half of 2018 saw a tremendous pickup in cross-asset volatility – albeit from at/near all-time lows – throughout the emerging market investment universe. With explanations of what caused this market event as numerous as the number of strategists who didn't see it coming *and* as bountiful as those that are calling for it to end purely as a function of "attractive valuations", we don't believe our bearish bias on EM is fully priced in. As such, we will anchor on the findings of our proprietary, repeatable and robust processes to detail to investors why EM assets are likely to continue to be a drag on fund performance with respect to the intermediate term.

GLOBAL GIP MODEL SUMMARY

3Q17 WAS THE LAST QUARTER WHERE GLOBAL GROWTH MOMENTUM WAS BROADLY POSITIVE. FURTHERMORE, OUR MODELS SUGGEST THE "GLOBALLY SYNCHRONIZED RECOVERY" NARRATIVE IS SQUARELY IN THE REAR-VIEW MIRROR.

| | Hedgeye Macro GIP Model Signals | | | | | | | | | | | | | High-Frequency Economic Data Signals | | | | | | | | | |
| | Actuals | | | | | | | | | Hedgeye Forecasts | | | | Consumption | | Manufacturing | | Composite PMI | | Headline CPI | | Core CPI | |
7/27/2018	2Q16	3Q16	4Q16	1Q17	2Q17	3Q17	4Q17	1Q18	2Q18	3Q18E	4Q18E	1Q19E	2Q19E	6MMA Trend	Percentile of Latest Reading (T10Y)	6MMA Trend	Percentile of Latest Reading (T10Y)	6MMA Trend	Percentile of Latest Reading (T10Y)	6MMA Trend	Percentile of Latest Reading (T10Y)	6MMA Trend	Percentile of Latest Reading (T10Y)
Argentina	-	-	-	-	-	-	-	3	3	4	4	4	-	⬆	65%	-	-	-	-	⬆	100%	-	-
Australia	1	3	2	3	1	1	3	2	3	1	1	4	-	➡	22%	⬆	91%	⬆	91%	⬆	40%	⬆	19%
Brazil	1	1	1	1	1	1	2	4	3	3	3	3	-	⬇	37%	⬇	60%	⬇	57%	⬇	16%	⬇	4%
Canada	3	1	2	2	1	3	3	3	3	2	4	1	-	⬇	38%	⬆	100%	⬆	100%	⬆	87%	⬆	71%
China	-	1	2	1	4	3	-	3	4	3	4	3	2	⬇	1%	➡	66%	➡	59%	⬆	39%	⬇	75%
Eurozone	-	2	2	2	1	1	1	1	3	3	4	1	-	⬇	66%	⬇	49%	⬇	57%	⬆	73%	⬇	23%
France	3	3	2	2	1	1	2	3	3	4	4	4	4	⬇	47%	⬇	51%	⬇	57%	⬆	85%	⬇	34%
Germany	4	3	2	2	1	2	1	4	3	4	4	1	-	⬇	41%	⬇	51%	⬇	40%	⬆	80%	⬇	29%
India	3	4	4	4	4	2	2	2	2	3	1	2	-	-	-	⬇	94%	➡	89%	⬇	35%	-	-
Indonesia	1	4	3	2	2	1	1	4	4	2	3	1	-	⬆	25%	⬆	51%	⬆	51%	⬇	8%	⬇	3%
Italy	4	2	2	2	2	1	4	4	3	3	4	4	-	⬇	68%	⬇	34%	⬇	51%	⬆	58%	⬇	23%
Japan	1	1	2	3	2	2	3	3	1	3	4	1	-	⬇	13%	⬇	77%	➡	49%	⬇	72%	⬇	75%
Mexico	1	3	2	3	3	3	3	4	1	2	4	1	-	⬆	56%	➡	51%	➡	51%	⬇	71%	⬇	62%
Russia	1	1	1	1	1	4	4	1	3	2	2	3	-	➡	49%	⬇	20%	⬇	31%	⬇	2%	⬇	5%
South Africa	1	1	2	1	4	1	1	4	3	2	4	2	-	⬇	39%	-	-	⬆	89%	⬇	18%	⬇	19%
South Korea	1	4	3	2	4	2	4	1	2	4	2	4	1	⬇	70%	➡	63%	➡	63%	⬇	36%	⬇	2%
Spain	4	3	3	2	1	4	4	4	2	2	1	1	-	➡	61%	⬇	34%	⬇	17%	⬆	71%	⬇	55%
Turkey	1	3	1	2	2	1	3	1	3	3	4	4	-	⬆	70%	⬇	3%	⬇	3%	⬆	100%	⬆	100%
United Kingdom	3	-	2	2	3	3	3	1	1	1	1	1	-	⬆	71%	⬇	54%	➡	74%	⬇	43%	⬇	41%
United States	4	2	2	2	1	2	2	2	2	3	4	3	3	⬇	49%	⬆	96%	⬆	97%	⬆	87%	⬆	92%
MODE/MEAN	1	3	1	2	1	1	3	4	3	3	4	1	-	⬇	47%	⬇	58%	⬇	59%	⬆	56%	⬆	41%

Data Source: Bloomberg, BIS, World Bank, IMF. Intellectual Property of Hedgeye Risk Management.

#QUAD4 IS DOLLAR BULLISH

GLOBAL GIP MODEL BACKTEST

US Dollar Index

- Expected Value, by Hedgeye Macro GIP Quadrant
- Percentile of Expected Value, by Quadrant, within Respective Asset Class (rhs)
- Percentile of Expected Value, by Quadrant, across Asset Classes (rhs)
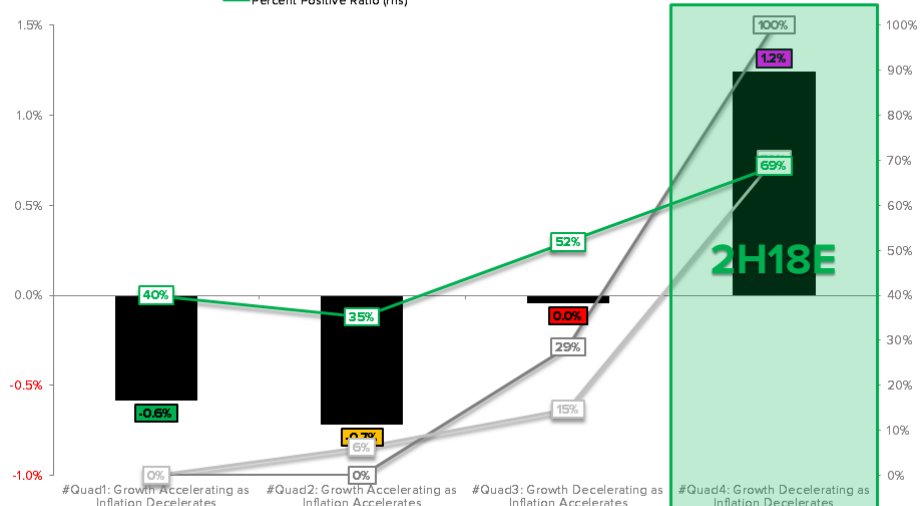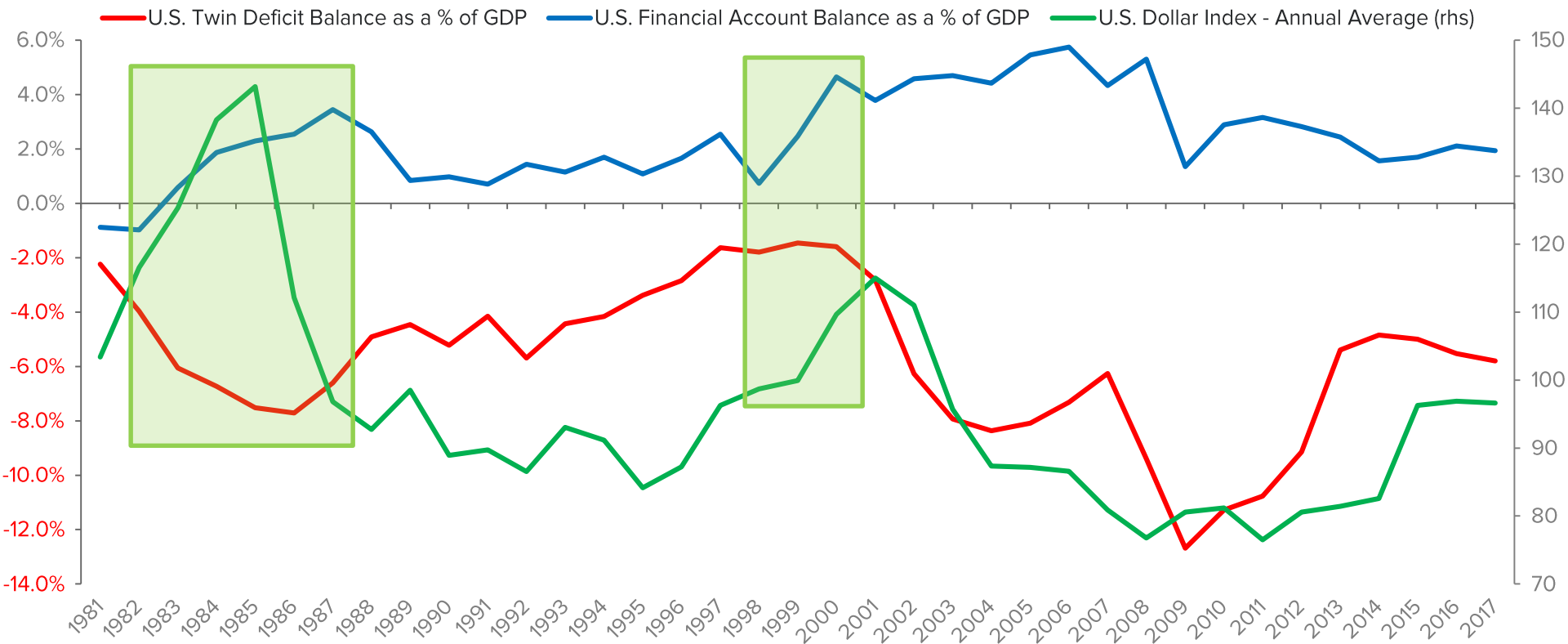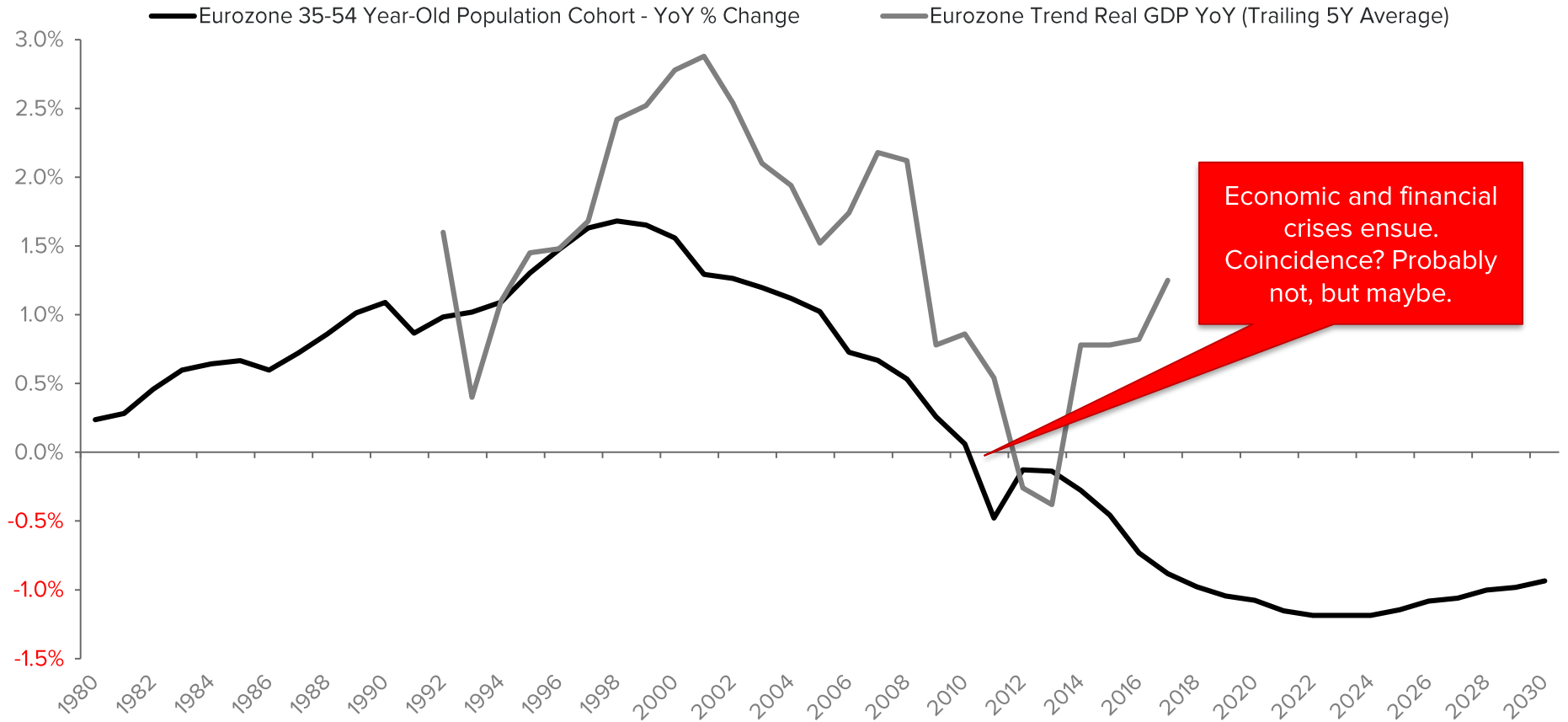- Percent Positive Ratio (rhs)
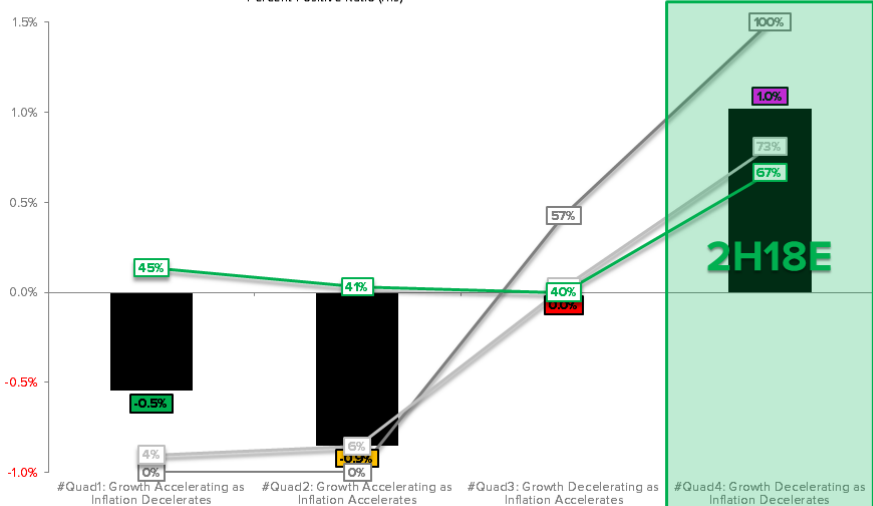
Data Source: Bloomberg. Asset classes include equities, fixed income, currencies and commodities. Trailing 20Y.

U.S. GIP MODEL BACKTEST

U.S. Dollar Index

- Expected Value, by Hedgeye Macro GIP Quadrant
- Percentile of Expected Value, by Quadrant, within Respective Asset Class (rhs)
- Percentile of Expected Value, by Quadrant, across Asset Classes (rhs)
- Percent Positive Ratio (rhs)

Data Source: Bloomberg. Asset classes include equities, fixed income, currencies and commodities. Trailing 20Y.

EXERCISING EXORBITANT PRIVILEGE

THE U.S. DOLLAR REMAINS THE WORLD'S PRIMARY RESERVE CURRENCY AND U.S. TREASURIES REMAIN THE WORLD'S PRIMARY RESERVE ASSET, WHICH MEANS IF THE U.S. NEEDS CAPITAL, IT GETS CAPITAL. THE DOLLAR HAS HISTORICALLY LED MEANINGFUL CHANGES IN THE CAPITAL ACCOUNT AS A RESULT.

— U.S. Twin Deficit Balance as a % of GDP — U.S. Financial Account Balance as a % of GDP — U.S. Dollar Index - Annual Average (rhs)

ECONOMIC GRAVITY IN THE EUROZONE

Legend:
- Eurozone 35-54 Year-Old Population Cohort - YoY % Change
- Eurozone Trend Real GDP YoY (Trailing 5Y Average)

Economic and financial crises ensue. Coincidence? Probably not, but maybe.

WAGE PRESSURES ARE NON-LINEAR

WAGE GROWTH IS NON-LINEAR AND ALL OF THE HISTORICAL OBSERVATIONS NORTH OF +3.0% Y/Y ARE AT/BEYOND A CRITICAL THRESHOLD FOR TAUTNESS IN THE LABOR MARKET AT THIS STAGE OF THE BUSINESS CYCLE.

■ x-axis: U6 Underemployment Rate SA less U3 Unemployment Rate SA, bps Spread;
y-axis: Average Hourly Earnings of Production and Nonsupervisory Workers YoY % Change

- - - Poly. (x-axis: U6 Underemployment Rate SA less U3 Unemployment Rate SA, bps Spread;
y-axis: Average Hourly Earnings of Production and Nonsupervisory Workers YoY % Change)

How long 'til HERE?

You are HERE (JUN '18)

$$y = 2E\text{-}05x^2 - 0.0235x + 9.4487$$
$$R^2 = 0.5063$$
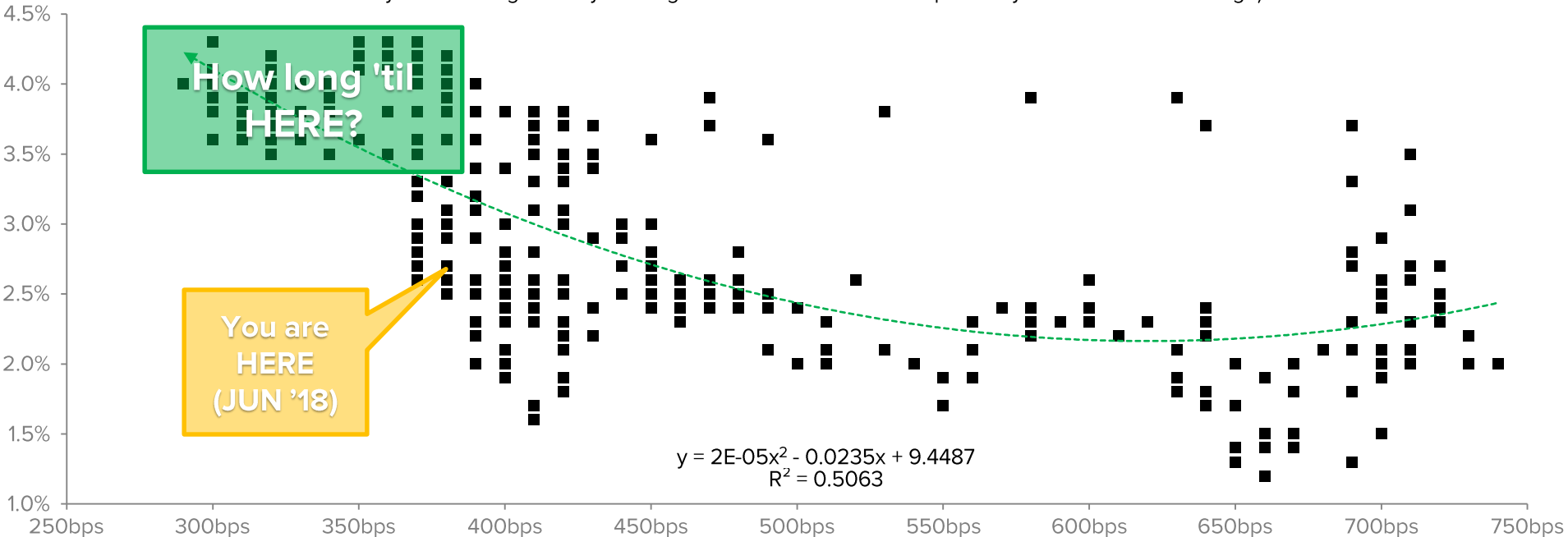
MANUFACTURING WAGES = 14Y HIGHS

THE EMPLOYEE WAGES SERIES FOR THOSE REPORTING IN THE FED REGIONAL SURVEYS CONTINUE TO MAKE HIGHER CYCLE HIGHS

Employee Wages
Fed Regional Survey Composite (Dallas & Richmond Composite)

Legend:
— Employee Wage Composite (Dallas & Richmond Fed, equal weighted)
- - - 6 per. Mov. Avg. (Employee Wage Composite (Dallas & Richmond Fed, equal weighted))

14Y High
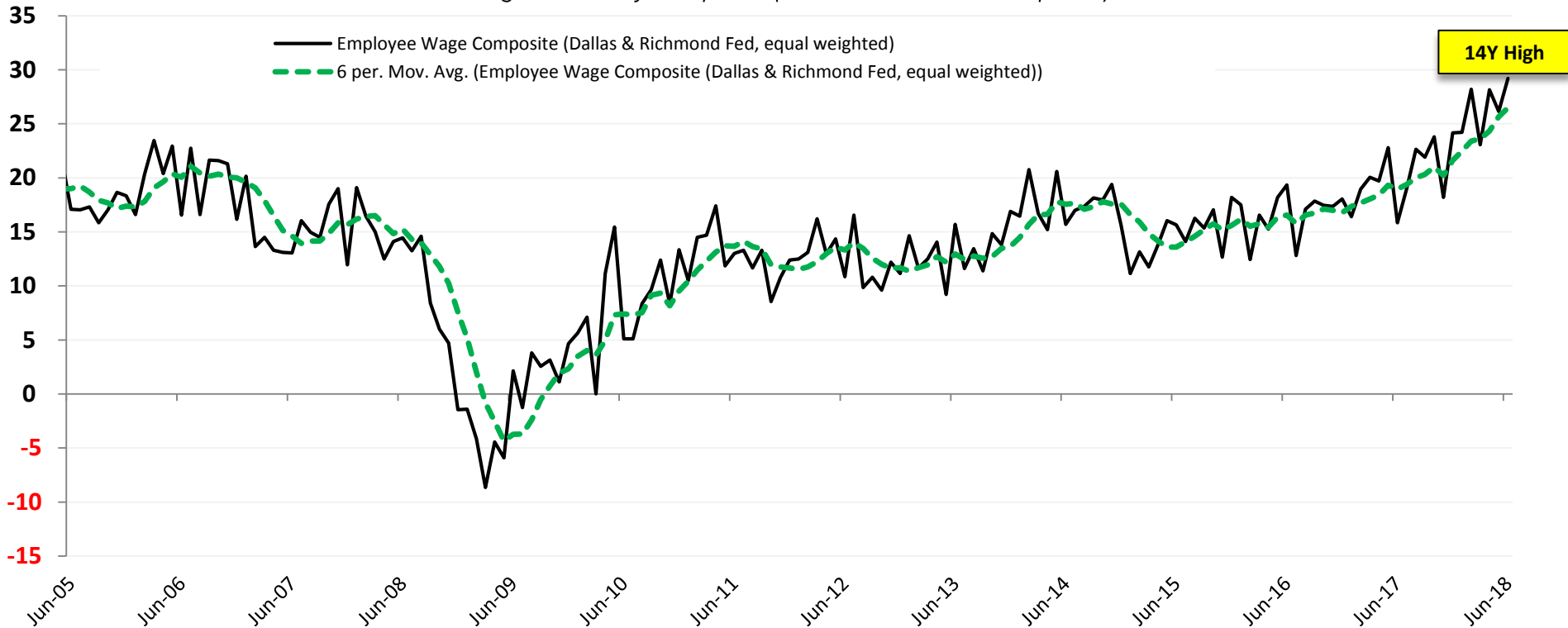
ECI = CYCLE HIGH ... AND ACCELERATING

BOTH THE TOTAL COMPENSATION AND WAGES AND SALARIES SERIES IN THE ECI CONTINUE TO ACCELERATE TO NEW HIGHS

Employment Cost Index: Wages & Salaries

— ECI: Wages & Salaries, YoY %   ••••▶ 6 per. Mov. Avg. (ECI: Wages & Salaries, YoY %)

10Y High

2.74%
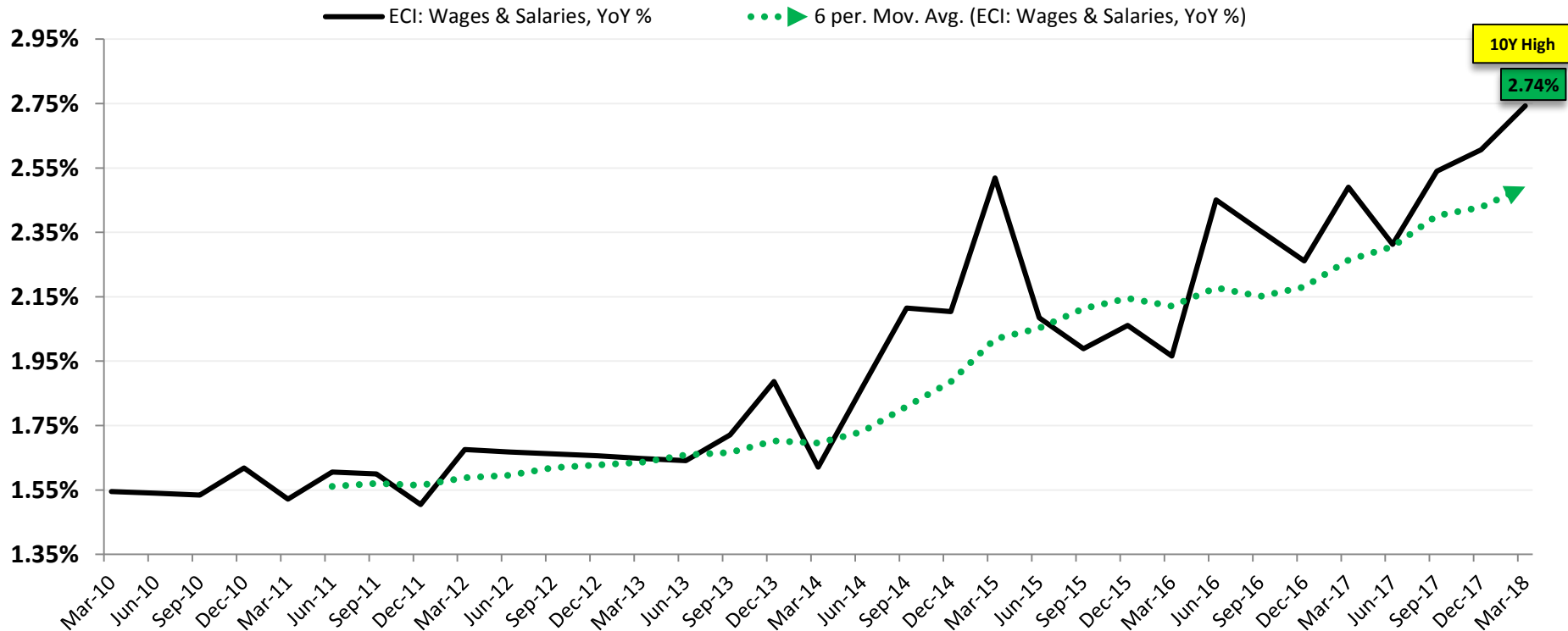
WAGE PRESSURES END EVERY BUSINESS CYCLE

PEAK CORPORATE PROFITABILITY IN THE U.S. IS LIKELY TO COME TO AN END AS UNIT LABOR COSTS RECOVER FROM STRUCTURAL LOWS. ANY IMPAIRMENT IN CORPORATE AMERICA'S ABILITY TO SERVICE DEBT WOULD LIKELY PERPETUATE A REDUCTION IN UNIT LABOR COSTS.

U.S. Recession

U.S. Corporate Profits w/ IVA & CCA as a % of Nominal GDP

Pre-Crisis Historical Average

Employee Compensation as a % of Gross Value Added of Domestic Corporate Business

Pre-Crisis Historical Average
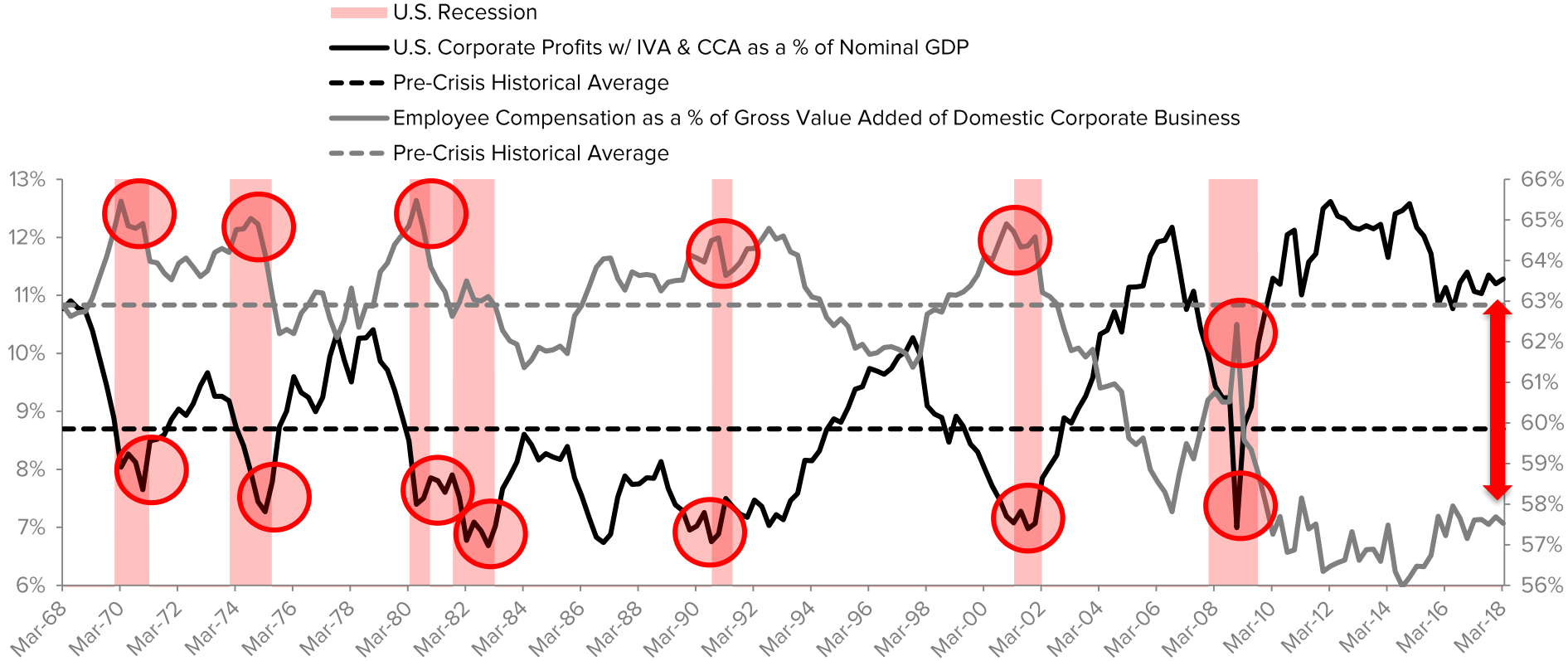
INFLATION: BACK TO SUB-2% BY Q1 2019?

United States
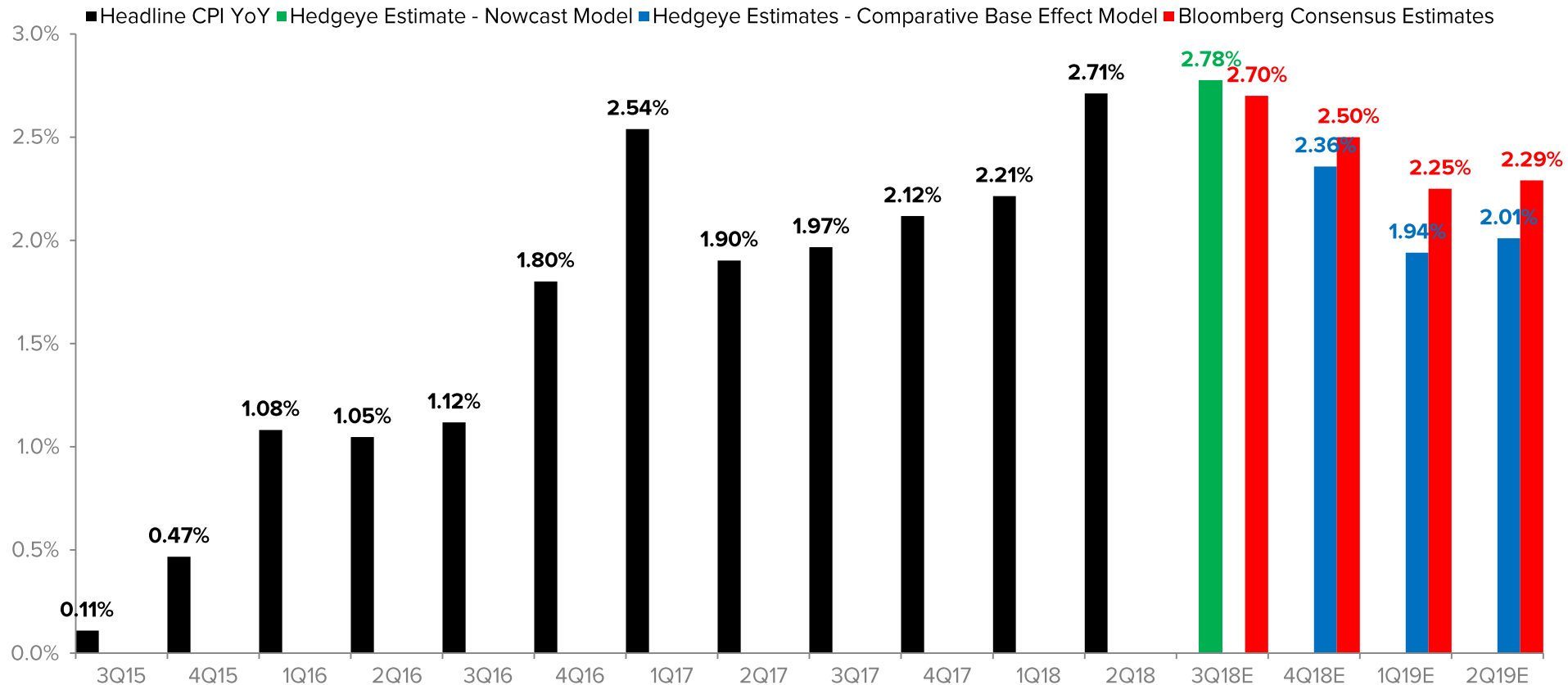
■ Headline CPI YoY ■ Hedgeye Estimate - Nowcast Model ■ Hedgeye Estimates - Comparative Base Effect Model ■ Bloomberg Consensus Estimates

Quarter	Value
3Q15	0.11%
4Q15	0.47%
1Q16	1.08%
2Q16	1.05%
3Q16	1.12%
4Q16	1.80%
1Q17	2.54%
2Q17	1.90%
3Q17	1.97%
4Q17	2.12%
1Q18	2.21%
2Q18	2.71%
3Q18E	2.78% / 2.70%
4Q18E	2.36% / 2.50%
1Q19E	1.94% / 2.25%
2Q19E	2.01% / 2.29%
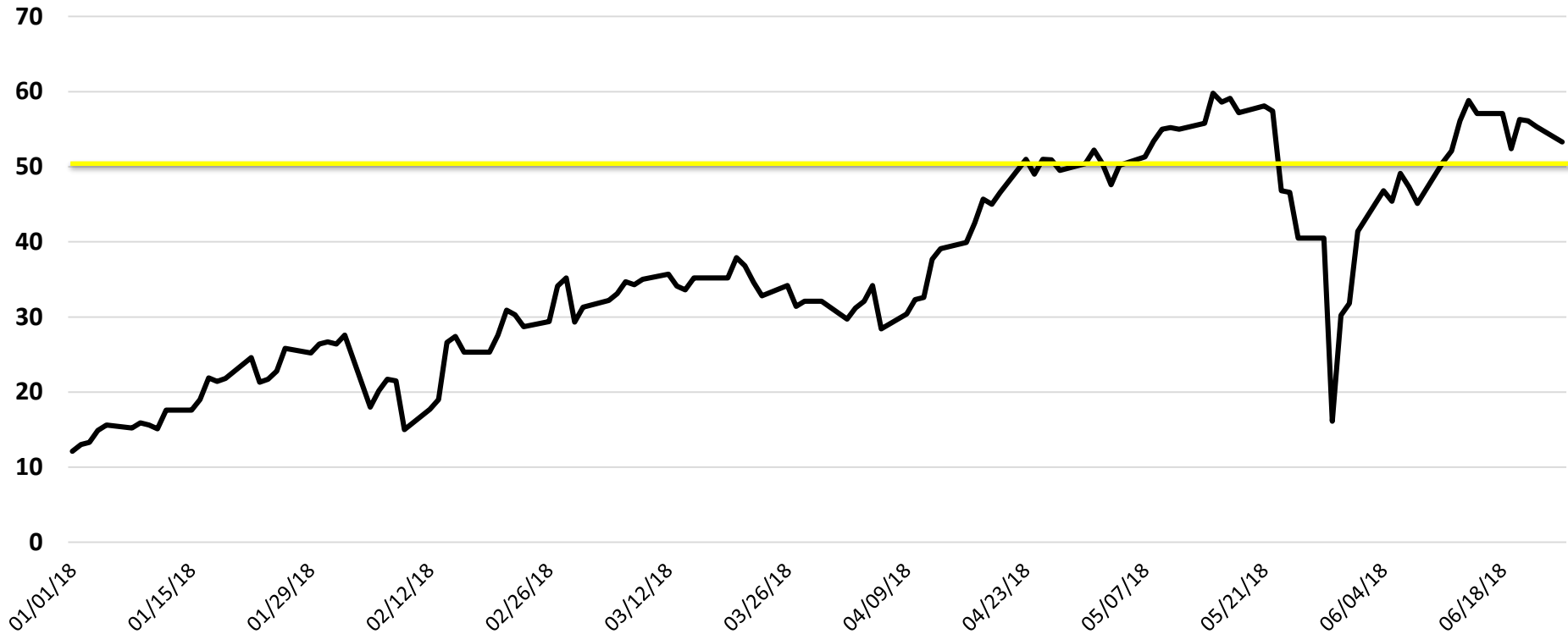
INFLATION EXPECTATIONS ↓ + POLICY TIGHTENING + QUAD 4 = CURVE FLATTENING

IF INFLATION EXPECTATIONS ARE COMING IN ON THE LONG END, REALIZED INFLATION IS SET TO SLOW AND THE FED IS HIKING INTO A PENDING QUAD 4 ENVIRONMENT, DOMESTICALLY & GLOBALLY, CURVE FLATTENING SHOULD REMAIN INTERMINABLE

Legend: Recession Dates | Yield Spread (10-2)

Final value label: 0.28
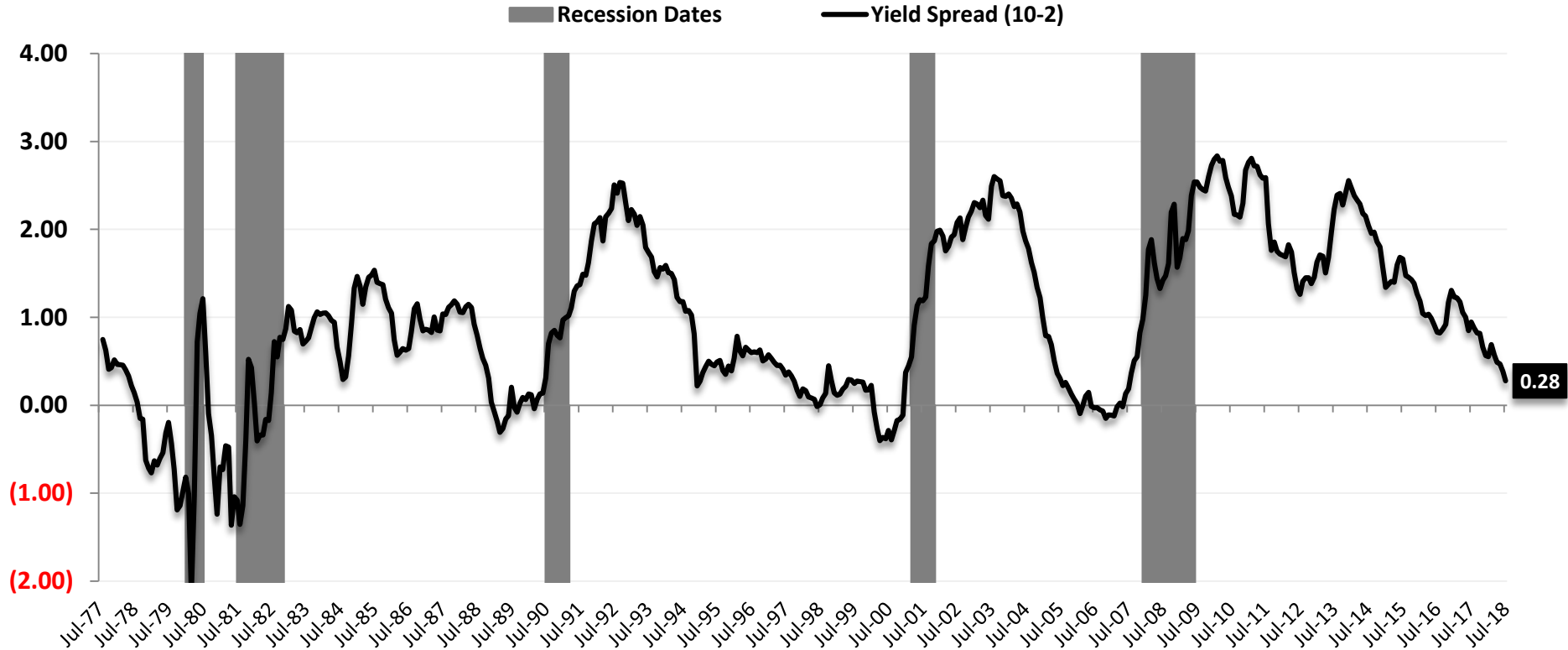
WE KNOW HOW TIGHTENING ENDS .....

HISTORICALLY, THE FED HAS ALWAYS TIGHTENED UNTIL SOMETHING BLOWS UP (RECESSION, EM, FINANCIAL MARKETS, ETC.)

Legend: Recession Dates | Yield Spread (10-2) | Fed Funds Target Rate
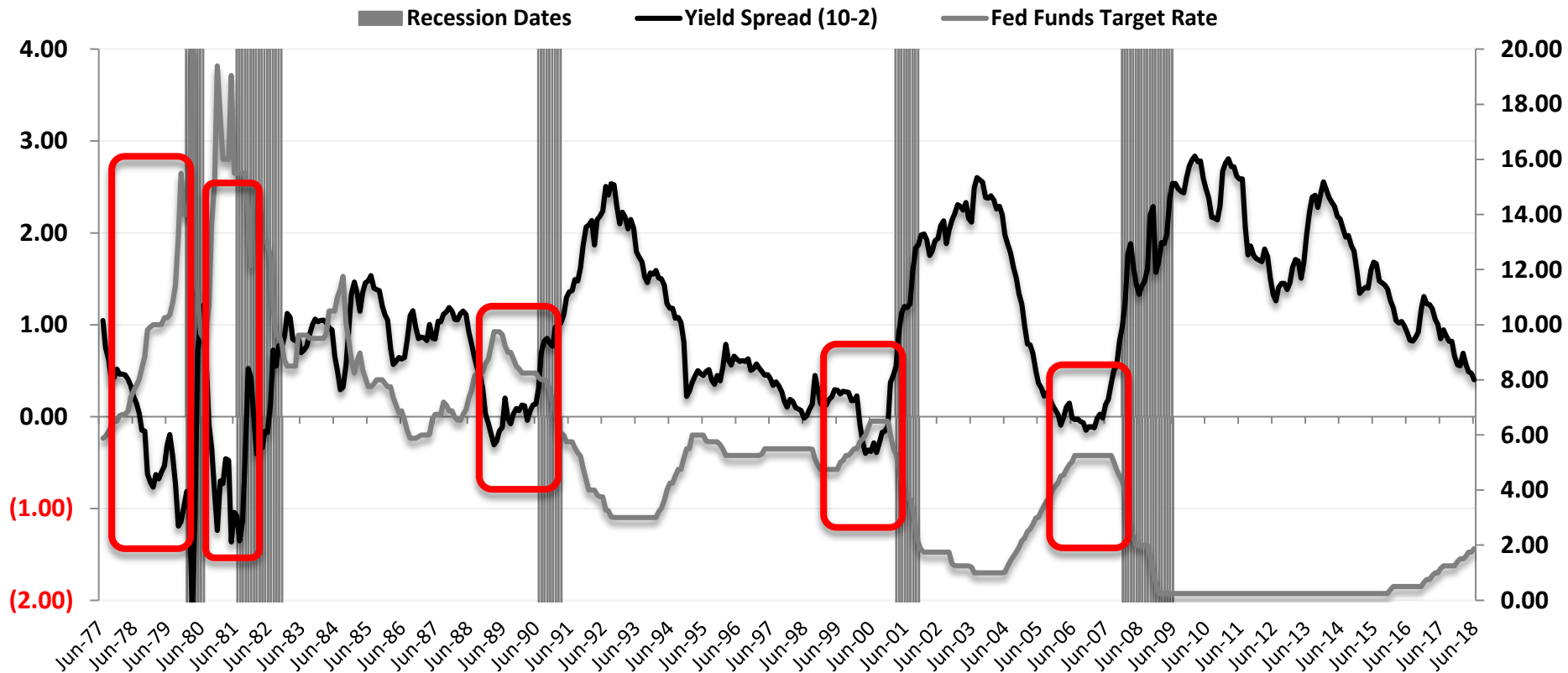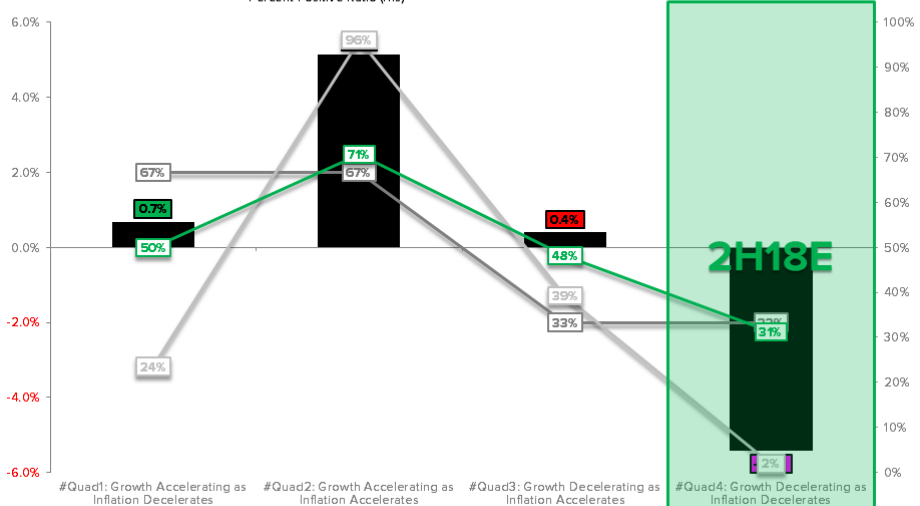
CONCLUSION: #QUAD4 ≠ RISING RATES

U.S. GIP MODEL BACKTEST: 10Y TREASURY YIELD

U.S. 10Y Treasury Yield

- ■ Expected Value, by Hedgeye Macro GIP Quadrant
- Percentile of Expected Value, by Quadrant, within Respective Asset Class (rhs)
- Percentile of Expected Value, by Quadrant, across Asset Classes (rhs)
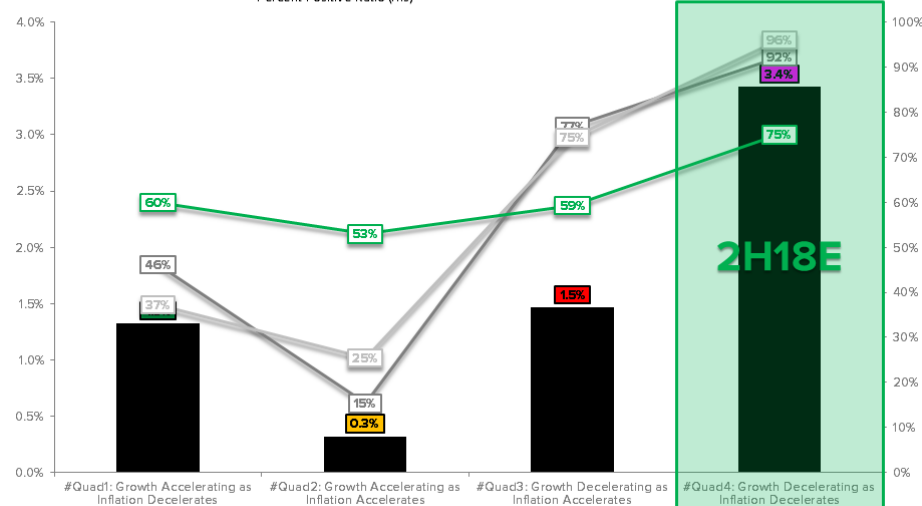- Percent Positive Ratio (rhs)

U.S. GIP MODEL BACKTEST: LONG BOND TOTAL RETURN INDEX

Bloomberg Barclays U.S. Treasury 10-20 Year Total Return Index

- ■ Expected Value, by Hedgeye Macro GIP Quadrant
- Percentile of Expected Value, by Quadrant, within Respective Asset Class (rhs)
- Percentile of Expected Value, by Quadrant, across Asset Classes (rhs)
- Percent Positive Ratio (rhs)

Data Source: Bloomberg. Asset classes include equities, fixed income, currencies and commodities. Trailing 20Y.

GLOBAL ECONOMY: #QUAD3 NOW THEN #QUAD4 IN 2H18E

	Hedgeye Macro GIP Model Signals													High-Frequency Economic Data Signals									
	Actuals									Hedgeye Forecasts				Consumption		Manufacturing		Composite PMI		Headline CPI		Core CPI	
7/27/2018	2Q16	3Q16	4Q16	1Q17	2Q17	3Q17	4Q17	1Q18	2Q18	3Q18E	4Q18E	1Q19E	2Q19E	6MMA Trend	Percentile of Latest Reading (T10Y)	6MMA Trend	Percentile of Latest Reading (T10Y)	6MMA Trend	Percentile of Latest Reading (T10Y)	6MMA Trend	Percentile of Latest Reading (T10Y)	6MMA Trend	Percentile of Latest Reading (T10Y)
Argentina	-	-	-	-	-	-	-	3	3	4	4	4	-	⬆	65%	-	-	-	-	⬆	100%	-	-
Australia	1	3	2	3	1	1	3	2	3	1	1	4	-	➡	22%	⬆	91%	⬆	91%	⬆	40%	⬆	19%
Brazil	1	1	1	1	1	1	2	4	3	3	3	3	-	⬇	37%	⬇	60%	⬇	57%	⬆	16%	⬇	4%
Canada	3	1	2	2	1	3	3	3	3	2	4	1	-	⬇	38%	⬆	100%	⬆	100%	⬆	87%	⬆	71%
China	-	1	2	1	4	3	1	3	4	3	4	2	2	⬇	1%	➡	66%	➡	59%	⬆	39%	⬇	75%
Eurozone	-	2	2	1	1	1	3	3	3	3	4	1	-	⬇	66%	⬇	49%	⬇	57%	⬆	73%	⬇	23%
France	3	3	2	2	1	1	2	1	3	4	4	1	4	⬇	47%	⬇	51%	⬇	57%	⬆	85%	⬇	34%
Germany	4	3	3	2	1	2	1	4	3	4	4	1	-	⬇	41%	⬇	51%	⬇	40%	⬆	80%	⬇	29%
India	3	4	4	4	4	2	2	2	2	3	1	2	-	-	-	⬇	94%	➡	89%	⬇	35%	-	-
Indonesia	1	4	3	2	2	1	1	4	4	2	3	1	-	⬆	25%	⬆	51%	⬆	51%	⬇	8%	⬇	3%
Italy	4	2	2	2	2	1	4	4	3	3	4	4	-	⬇	68%	⬇	34%	⬇	51%	⬆	58%	⬆	23%
Japan	1	1	2	3	2	2	3	3	1	3	4	1	-	⬇	13%	⬇	77%	➡	49%	⬆	72%	⬇	75%
Mexico	1	3	2	3	3	3	3	4	1	2	4	1	-	⬆	56%	➡	51%	➡	51%	⬇	71%	⬇	62%
Russia	1	1	1	1	4	4	1	3	3	2	2	3	-	➡	49%	⬇	20%	⬇	31%	⬇	2%	⬆	5%
South Africa	1	1	2	1	1	4	1	4	3	2	4	2	-	⬇	39%	-	-	⬆	89%	⬇	18%	⬆	19%
South Korea	1	4	3	2	4	2	4	1	2	4	2	4	1	⬇	70%	➡	63%	➡	63%	⬆	36%	⬇	2%
Spain	4	3	3	2	1	4	4	2	2	2	1	-	-	➡	61%	⬇	34%	⬇	17%	⬆	71%	⬆	55%
Turkey	1	3	1	2	2	1	3	1	3	3	4	1	-	⬆	70%	⬇	3%	⬇	3%	⬆	100%	⬆	100%
United Kingdom	3	-	2	2	3	3	3	4	1	1	1	1	-	⬆	71%	⬇	54%	➡	74%	⬇	43%	⬇	41%
United States	4	2	2	2	1	2	2	2	2	3	4	4	3	⬇	49%	⬆	96%	⬆	97%	⬆	87%	⬆	92%
MODE/MEAN	1	3	1	2	1	1	3	4	3	3	4	1	-	⬇	47%	⬇	58%	⬇	59%	⬆	56%	⬆	41%

Data Source: Bloomberg, BIS, World Bank, IMF. Intellectual Property of Hedgeye Risk Management.