

HEDGEYE MACRO PROCESS



November 14th, 2018

LEGAL

DISCLAIMER

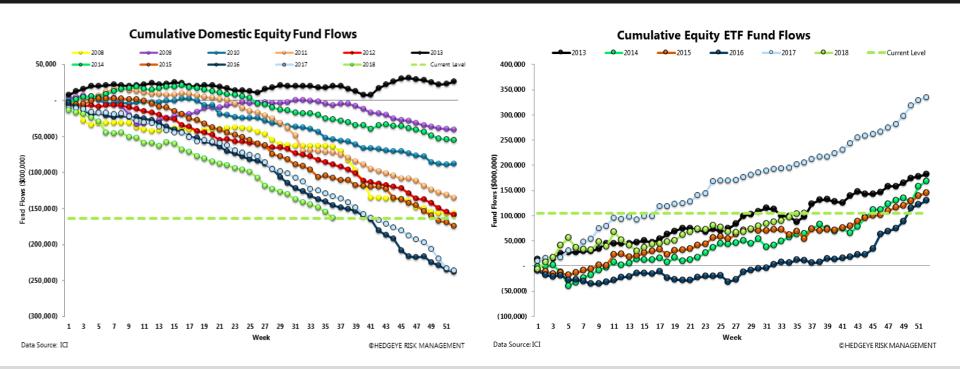
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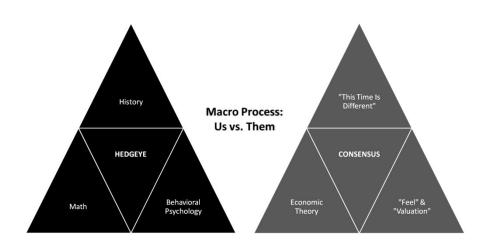
THE INVESTMENT LANDSCAPE HAS EVOLVED TREMENDOUSLY

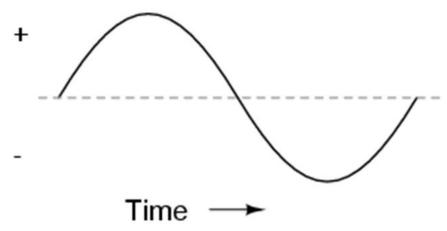


SKATE TO WHERE THE PUCK IS GOING IN ASSET MANAGEMENT

Assets invested in ETFs and ETPs listed globally surpassed \$5 trillion by mid-2018. Moreover, BlackRock anticipates ETF/ETP AUM to more than double to \$12 trillion over the next 5 years. Regardless of whether or not you agree with this projection, you have to agree that **the proliferation of factor-based index investing and the growth of platform-oriented, market-neutral hedge fund strategies has made financial markets more sensitive to Macro risks than ever before.** For example, JPM estimates systematic trading accounts for over 90% of U.S. equity trading volume. Are your investment processes equipped to compete for alpha in this new regime?

...SO WE EVOLVED ALONGSIDE IT





WE ARE DIFFERENTIATED FROM THE HERD

Macroeconomic Research and Global Macro Risk Management are two very different fields. We specialize in the latter, incorporating key lessons from behavioral finance such as Prospect Theory and Bayesian Inference into our analysis. We don't "feel" anything with regards to the markets or the economy; if we can't contextualize it with math, we don't have a view on it.

... BECAUSE WE FOCUS ON THE FACTS

Rate of change accelerations and decelerations are facts, not opinions, and our process is focused on contextualizing these facts, rather opining on the validity of absolute levels of growth, inflation, and/or policy. This focus helps us consistently spot inflections in the performance of key factor exposures, across asset classes, 3-6 months ahead of investor consensus.

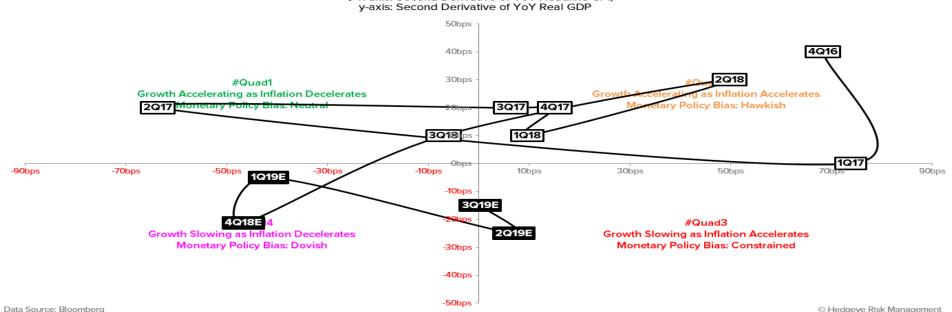
OUR RESEARCH PROCESS IS REPEATABLE

BOTH DALIO'S RESEARCH AND OUR OWN FINDINGS HAVE PROVEN THAT THE TWO MOST IMPORTANT FACTORS FOR INVESTORS TO SOLVE FOR ARE THE MARGINAL RATES OF CHANGE IN GROWTH AND INFLATION, AS POLICYMAKERS TYPICALLY RESPOND TO SUBSEQUENT LEVELS ON A LAG.

United States	4Q15	1Q16	2Q16	3Q16	4Q16	1Q17	2Q17	3Q17	4Q17	1Q18	2Q18	3Q18		4Q18E	1Q19E	2Q19E	3Q19E	NTM
Real GDP QoQ SAAR	0.40%	1.50%	2.30%	1.90%	1.80%	1.80%	3.00%	2.80%	2.30%	2.20%	4.20%	3.50%	Hedgeye Estimates	1.29%	2.00%	3.11%	2.86%	4
Percentile (T10Y)	21%	41%	59%	46%	46%	44%	69%	64%	59%	56%	90%	82%	Bloomberg Consensus Estimates	2.64%	2.40%	2.50%	2.27%	1 -
Real GDP YoY	2.00%	1.60%	1.30%	1.50%	1.90%	1.90%	2.10%	2.30%	2.50%	2.60%	2.90%	3.00%	Hedgeye Estimates	2.79%	2.74%	2.49%	2.34%	2.59%
Percentile (T10Y)	51%	33%	23%	28%	54%	51%	64%	67%	72%	74%	90%	90%	Bloomberg Consensus Estimates	3.10%	3.10%	2.76%	2.50%	2.87%
Headline CPI YoY	0.47%	1.08%	1.05%	1.12%	1.80%	2.54%	1.90%	1.97%	2.12%	2.21%	2.71%	2.64%	Hedgeye Estimates	2.17%	1.76%	1.83%	1.83%	1.90%
Percentile (T10Y)	15%	18%	18%	23%	59%	77%	67%	69%	74%	79%	87%	87%	Bloomberg Consensus Estimates	2.40%	2.29%	2.35%	2.40%	2.36%

United States

x-axis: Second Derivative of YoY Headline CPI:



OUR RESEARCH PROCESS IS ROBUST

CAREFUL BACKTESTING OF FINANCIAL MARKETS THROUGH THE LENS OF OUR GIP MODEL FRAMEWORK HAS PROVIDED US WITH A UNIQUELY ROBUST VIEW ON HOW MARGINAL INVESTORS ARE LIKELY TO BEHAVE WITHIN OR ACROSS THE VARIOUS REGIMES.

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Hedgeye Macro U.S. GIP Model Backtest		Expected Value	ue, by Quadrant		Perce	entile of Expecte	d Value, by Asse	et Class	Perc	entile of Expecte	ed Value, by Qua	drant	Percent Position	ve Ratio (color-co	oding by Asset Cl	ass & Quadrant)	Total	Quarterly Perfo	rmance Observa	tions
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	5.5%	1.2%	0.2%	-2.0%	50%	50%	40%	25%	81%	60%	25%	19%	82%	71%	54%	53%	22	17	26	15
S&P 500 Consumer Discretionary Sector Index	6.7%	1.8%	0.0%	-0.3%	90%	65%	25%	65%	96%	72%	19%	53%	77%	76%	46%	40%	22	17	26	15
S&P 500 Consumer Staples Sector Index	4.4%	-0.3%	0.0%	0.5%	10%	15%	20%	85%	64%	15%	13%	62%	86%	53%	58%	53%	22	17	26	15
S&P 500 Energy Sector Index	4.5%	2.1%	1.9%	-2.6%	15%	70%	95%	20%	66%	74%	83%	17%	68%	76%	65%	47%	22	17	26	15
S&P 500 Financials Sector Index	5.2%	0.8%	-0.8%	-1.3%	35%	45%	O%	35%	75%	53%	O%	28%	77%	59%	54%	60%	22	17	26	15
S&P 500 Health Care Sector Index	5.2%	0.7%	-0.2%	0.5%	25%	35%	15%	90%	72%	49%	9%	64%	82%	65%	50%	67%	22	17	26	15
S&P 500 Industrials Sector Index	5.8%	1.5%	0.5%	-2.0%	60%	55%	55%	30%	85%	68%	36%	21%	73%	65%	50%	40%	22	17	26	15
S&P 500 Information Technology Sector Index	7.2%	3.8%	1.3%	-3.6%	95%	100%	90%	10%	98%	91%	74%	13%	82%	82%	50%	53%	22	17	26	15
S&P 500 Materials Sector Index	5.8%	0.8%	-0.3%	0.3%	65%	40%	5%	80%	87%	51%	6%	58%	82%	71%	54%	47%	22	17	26	15
S&P 500 REITS Index	5.2%	0.1%	0.7%	-0.1%	30%	30%	70%	70%	74%	25%	53%	55%	70%	57%	64%	80%	20	14	22	10
S&P 500 Telecom Index	4.3%	-4.4%	0.1%	-0.9%	5%	0%	35%	45%	62%	O%	23%	42%	73%	41%	46%	40%	22	17	26	15
S&P 500 Utilities Sector Index	3.0%	-3.0%	3.0%	-0.8%	O%	5%	100%	50%	57%	2%	91%	45%	68%	29%	69%	53%	22	17	26	15
Russell 1000 Growth Index	5.8%	2.5%	0.4%	-3.2%	70%	85%	50%	15%	89%	81%	32%	15%	82%	76%	62%	53%	22	17	26	15
Russell 1000 Value Index	5.3%	-0.1%	0.3%	-1.0%	40%	20%	45%	40%	77%	19%	30%	36%	73%	71%	58%	67%	22	17	26	15
S&P 500 Dividend Aristocrats Index	5.4%	0.0%	0.1%	1.6%	45%	25%	30%	95%	79%	23%	21%	74%	82%	59%	65%	53%	22	17	26	15
S&P 500 High Beta Index	7.6%	2.3%	0.8%	-3.8%	100%	75%	80%	5%	100%	77%	57%	11%	68%	71%	58%	47%	22	17	26	15
S&P 500 Low Beta Minimum Volatility Index	4.9%	-1.1%	0.8%	1.8%	20%	10%	75%	100%	68%	8%	55%	77%	73%	59%	54%	73%	22	17	26	15
S&P 500 Momentum Index	6.6%	3.0%	0.9%	-4.8%	80%	95%	85%	0%	92%	87%	64%	6%	91%	65%	46%	53%	22	17	26	15
S&P 500 Quality Index	6.0%	1.7%	0.5%	-0.4%	75%	60%	60%	60%	91%	70%	38%	51%	91%	76%	54%	53%	22	17	26	15
Russell 2000 Index	5.7%	2.7%	0.5%	-0.8%	55%	90%	65%	55%	83%	83%	40%	49%	77%	71%	62%	53%	22	17	26	15
MSCI Emerging Markets Index	6.6%	2.5%	-0.2%	0.0%	85%	80%	10%	75%	94%	79%	8%	57%	77%	65%	54%	53%	22	17	26	15
Bloomberg Barclays US Agg Total Return Index	1.1%	0.7%	0.8%	2.4%	38%	69%	31%	62%	34%	47%	60%	87%	77%	65%	62%	100%	22	17	26	15
Bloomberg Barclays US Agg Total Return Index Bloomberg Barclays US Corporate Investment Grade Total Return Index	1.1%	0.1%	1.0%	3.0%	69%	15%	46%	85%	47%	26%	66%	92%	73%	63%	70%	100%	11	8	10	3
Bloomberg Barclays US Corporate High Yield Total Return Index	3.1%	1.2%	0.7%	2.0%	92%	85%	23%	38%	58%	62%	49%	81%	77%	76%	69%	67%	22	17	26	15
Bloomberg Barclays US Corporate right field Total Return Index Bloomberg Barclays US Convertibles Composite Total Return Index	4.9%	4.3%	-0.2%	0.6%	100%	100%	0%	8%	70%	94%	11%	66%	84%	100%	55%	70%	19	12	20	10
Bloomberg Barclays US Treasury 1-3 Year Total Return Index	0.6%	0.6%	0.6%	1.3%	8%	46%	8%	15%	19%	40%	43%	68%	82%	76%	85%	93%	22	17	26	15
Bloomberg Barclays US Treasury 5-10 Year Total Return Index	1.1%	0.6%	1.0%	2.7%	31%	38%	54%	77%	32%	38%	68%	91%	64%	47%	58%	73%	22	17	26	15
Bloomberg Barclays US Treasury 10-20 Year Total Return Index	1.3%	0.6%	1.4%	3.6%	46%	23%	77%	92%	36%	28%	75%	94%	64%	47%	58%	73%	22	17	26	15
Bloomberg Barclays US Treasury 10-20 Year Total Return Index Bloomberg Barclays US Treasury 25+ Year Total Return Index	1.5%	-0.4%	1.4%	5.0%	54%	23%	92%	100%	42%	13%	75%	94%	64%	41%	54%	73%	22	17	26	15
Bloomberg Barclays US TIPS 0-5 Years Total Return Index	0.4%	0.7%	1.1%	0.5%	0%	62%	69%	0%	13%	45%	72%	60%	58%	92%	77%	60%	19	12	22	10
Bloomberg Barclays US TIPS 0-5 Years Total Return Index Bloomberg Barclays US TIPS 5-10 Year Total Return Index	0.4%	1.4%	1.1%	1.6%	15%	92%	85%	23%	25%	45%	72%	72%	65%	79%	68%	60%	20	14	22	10
Bloomberg Bardays US TIPS 5-10 Year Total Return Index Bloomberg Bardays US MBS Index Total Return Index	0.7%	0.8%	1.0%	2.1%	23%	77%	62%	23% 46%	25%	57%	77%	72% 83%	77%	79% 82%	73%	100%	20	17	26	15
Bloomberg Barclays US MBS Index Total Return Index Bloomberg Barclays US Municipal Bond Index Total Return Index	1.6%	0.8%	0.7%	2.1%	62%	31%	15%	54%	43%	34%	45%	85%	91%	53%	69%	93%	22	17	26	15
Bloomberg Barclays US Municipal Bond Index Total Return Index Bloomberg Barclays US Muni High Yield Total Return Index	2.8%	0.5%	0.9%	1.9%	85%	54%	38%	31%	55%	43%	62%	79%	83%	75%	55%	90%	18	12	20	10
Bloomberg Barclays US Municipal Taxable Bonds Total Return Index Bloomberg Barclays US Municipal Taxable Bonds Total Return Index	2.8%		1.8%	2.5%	77%	8%	100%	69%	55%	21%	81%	79% 89%	93%	75% 55%	75%	86%	15			7
	2.4%	-0.1% 7.4%	4.6%	-6.4%			60%		53%	98%	94%		93% 55%	71%	54%	40%		11	16	,
US 2Y Treasury Yield	0.5%	7.4%	4.6% 0.6%	-6.4%	100%	100%		0%		98%	94%	0%	55% 45%	71%	50%	33%	22		26	15
US 10Y Treasury Yield Bloomberg Barclays US Corporate Investment Grade Yield To Worst	-2.3%	3.9%	0.6%	-5.7% -5.0%	80% 40%	80% 60%	0% 20%	20%	15% 4%	96%	42%	2% 4%	45% 27%	76% 50%	50% 40%	33%	22	17 8	26 10	15 3
Bloomberg Barclays US Corporate Investment Grade Yield To Worst Bloomberg Barclays US Corporate Investment Grade OAS Spread	-2.5% -7.8%	-2.1%	6.0%	9.0%		0%	100%	100%	4%	92%	100%	100%	27%	25%	40%	67%	11	8	10	3
	-7.8% -2.5%	-2.1%	3.5%	9.0%	20%	40%	40%	60%			92%	26%	27% 32%	25% 53%	40% 58%	67% 47%		17		-
Bloomberg Barclays US Corporate High Yield Yield To Worst Bloomberg Barclays US Corporate High Yield OAS Spread	-2.5%	-0.5%	5.5%	-1.5% 4.3%	60%	20%	40% 80%	80%	2% 6%	11%	92%	26% 96%	27%	41%	46%	53%	22	17	26 26	15 15
Bloomberg Barclays US Corporate High Yield OAS Spread Thomson Reuters/CoreCommodity CRB Commodity Index	-1.3%	3.5%	2.2%	4.3%	25%	20% 75%	50%	80%	23%	89%	98% 87%	96%	27% 59%	41% 82%	46% 65%	53% 27%	22	17	26 26	15
Thomson Reuters/CoreCommodity CRB Commodity Index Commodity Research Bureau BLS/US Spot Raw Industrials Index	1.8%	2.9%	0.0%	-4.6% -1.1%	25% 50%	75% 50%	50%	75%	23% 45%	89% 85%	17%	34%	64%	76%	46%	27% 47%	22	17	26	15
	-0.2%	2.9%	2.4%	-1.1% -1.3%	50%	50%	75%	75% 50%	45% 9%	85% 64%	17%	34%	64% 41%	76% 65%	46% 54%	47% 47%		17	26 26	15
Commodity Research Bureau BLS/US Spot Foodstuff Index Front-month Brent Crude Oil	-0.2%	1.4%	4.7%	-1.3% -4.0%	100%	100%	75% 100%	25%	9% 60%	100%	96%	30% 9%	41% 55%	82%	54%	47%	22	17	26 26	15
	3.3%	2.3%	2.0%	-4.0% 1.7%	100% 75%			25%	60%	100% 75%	96% 85%	9% 75%	55%		54%	47% 60%	22	17	26 26	15
Gold Spot		-0.3%	0.0%	1.7%		25%	25%	100%	4576				22.0	71%	5010			17	26 26	15
US Dollar Index	-0.7% 1.5%	-0.3%	0.0%	1.5%	0% 86%	14% 29%	29% 57%		8% 38%	17% 30%	15% 28%	70% 43%	36% 64%	41% 59%	54% 69%	73% 40%	22	17		
AUD/USD								71%					0.170				22		26	15
CAD/USD	0.4%	0.8%	0.4%	-0.9%	14%	86%	71%	57%	11%	55%	34%	40%	45%	47%	54%	40%	22	17	26	15
CHF/USD	1.5%	0.6%	0.8%	-0.8%	100%	71%	100%	86%	40%	42%	58%	47%	73%	53%	58%	33%	22	17	26	15
EUR/USD	1.1%	0.3%	0.2%	-1.2%	71%	43%	43%	29%	30%	32%	26%	32%	68%	53%	54%	27%	22	17	26	15
GBP/USD	0.6%	0.5%	-0.4%	-1.7%	43%	57%	14%	14%	21%	36%	4%	25%	59%	65%	42%	27%	22	17	26	15
JPY/USD	0.8%	0.9%	0.7%	-0.9%	57%	100%	86%	43%	26%	58%	51%	38%	45%	47%	58%	40%	22	17	26	15
JPMorgan EM FX Index	0.5%	-0.9%	-0.5%	-2.0%	29%	0%	0%	0%	17%	9%	2%	23%	60%	53%	57%	40%	20	15	23	15
							Data So	urce: Bloomberg.	Trailing 20 years.											

OUR RISK MANAGEMENT OVERLAY IS RULES-BASED

#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,
 Growth and High Beta
- 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. Inflationhedging 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,
 Growth and High Beta
- 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, yieldchasing 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. Deflationhedging 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 RESEARCH PROCESS IS GLOBAL TOO

WHILE MANY INVESTORS PREFER TO ALLOCATE A LARGE CHUNK OF THEIR MOST PRECIOUS RESOURCE (I.E. TIME) TO NAVIGATING HEADLINES AND POLITICAL CATALYSTS, OUR EDGE COMES FROM ANALYZING EVERY ECONOMY IN THE SAME REPEATABLE, DATA-DRIVEN MANNER.

Al	ΝD	PO	LIT	ICA	LC	CAT	ΓΑΙ	LYS	STS	5, C	U	R EC)GE	E CC	MC	ES F	RC	M A	\N	ALY:	ZIN	G E	VE	RY I	ECC	ONO	MY IN	THE S	AME RE	EPEATA	ABLE, D	ATA-D	RIVEN	MANN	ER.	
for force						GIP M	lodel Sig	nals									High-	Frequency Ec	onomic	Data Signals							to store			Structural Econ	omic Risk Factors			Finan	cial Market Valuation	Signals
11/12/2018			А	ctuals				Hedgeye	e Forecast	sts	Consu	umption	Manu	afacturing		xports	Manuf	acturing PMI	Ser	vices PMI	Comp	oosite PMI	Н	eadline CPI	Co	ire CPI	11/12/2018		Economic Cycle Risk	k		Global Capital Cycle R	isk	Stock Market	Bond Market	Currency
Hedgeye Global Macro Risk Monitor	4Q16 1	217 201	17 3Q1	7 4017	IQ18 20	Q18 3Q1	18 4Q18	8E 1Q19E	E 2Q19E	3Q19E	6MMA Trend	Percentile of Latest Reading (T10Y)		Percentile of Latest Reading (T10Y)		Percentile of Latest Reading (T10Y)		Percentile of Latest Reading (T3Y)		Percentile of Latest Reading (T3Y)				Percentil A of Lates d Reading (T10Y)		Percentile of Latest Reading (T10Y)	Hedgeye Global Macro Risk Monitor	Private Nonfinanci Sector Leverage (Z-Score; TSY)	Private Nonfinancia Sector Debt Service Ratio (Z-Score; TSY)	35-54 Year-Old Population Cohort (SY-Forward CAGR)	Sovereign Budget Balance as a % of Nominal GDP	Current Account Balance as a % of Nominal GDP	Twin Surplus (+)/Deficit (-) Balance as a % of Nominal GDP	MSCI Index Price- to-NTM-Earnings Ratio Spread vs. MSCI ACWI (Z-Score; T3Y)	10Y Yield Spread vs. Barclays Global Agg. YTW (Z-Score; T3Y)	Broad Real Effective Exchange Rate (Z-Score; T3Y)
Argentina			-	-	3	3 3	4	4	1	-	•	39%	•	0%	-	42%	-	-		-	-	-	4	100%		-	Argentina	2.5x	-	1.9%	-1.0%	-5.3%	-6.2%	0.6x	-	-3.1x
Australia	2	3 1	1	3	2	2 4	4	4	3	-	4	53%	1	85%	•	77%	=>	94%	-	68%	=>	94%	=>	30%	-	7%	Australia	0.3x	0.3x	1.6%	-0.5%	-2.9%	-3.4%	-0.2x	-2.2x	-1.2x
Austria	2	2 1	2	3	1	3 3	4	4	4	·	•	13%	-	29%	-	-	•	29%	-	-	-	29%	•	60%	-	24%	Austria	-1.5x	-	-1.3%	0.1%	2.2%	2.3%	-0.5x	-2.7x	2.0x
Belgium	3	2 4	1	2	4	3 2	4	4	2	4	•	13%	1	58%	1	68%	<u>:</u>	-	<u> </u>	-	-	-	1	80%	1	14%	Belgium	0.5x	0.2x	-0.6%	-0.3%	0.0%	-	-1.6x	-2.4x	1.7x
Brazil	1	1 1	1	2	4	3 3	2	3	3		Ŷ	48%		45%	1	76%		74%	-	94%	9	86%	1	21%	1	6%	Brazil	-1.4x	-0.4x	1.7%	-7.2%	-0.7%	-7.9%	1.4x	-0.9x	-0.6x
Canada	2	2 1	3	3	3	3 2	4	1	3		9	39%	7	91%	P	94%		43%				43%	- *	77%	-	69%	Canada	1.2x	0.8x	0.3%	-0.9%	-3.1%	-4.0%	-1.2x	0.7x	0.5x
Chile	4	4 1	1	2	1	2 3	3	4	3		Ψ.	11%		9%	#	61%	-	-	-	-	-	57%	T	50%	T	20%	Chile	0.4x	-	1.0%	4.6%	-1.2%		0.5x		0.6x
China	2	1 4	3	3	3	4 3	- 4	3	2	-	~	0%	-	1%	T	77% 64%	-	23%	-	21%	-	5%	T	D076	1	60%	China Colombia	1.0x 0.7x	0.7x	0.1%	-3.7% -3.7%	0.4%		0.3x -0.3x	-1.4x -0.7x	-0.3x
Colombia Czech Republic	2	2 1	2	3	4	3 3	2	3	3	-	<u>J</u>	17%	T	24%	T	24%	-	14%	i i	-	1	14%	T	60%	1	7/49/	Czech Republic	-0.9x	-0.9x	0.3%	1.6%	0.6%	-6.9% 2.2%	1.2x	-0.7X	1.6x 1.4x
Denmark	2	2 4	2	1	4	2 1	2	2	1	-	4	92%	T	24/0	T -	24%	- ×	92%	H	 	- ×	98%	T	2.4%	1	4%	Denmark	-1.8x	-1.1x	-1.5%	0.5%	5.5%	6.0%	0.1x	-2.5x	1.4x
Emerging Markets	1	1 1	1	3	2	2 A	3	3	3		4	39%	4	2%	A	2470	1	34%	4	60%	1	29%	-	83%	-	56%	Emerging Market		-4-40	0.2%	-3.5%	0.4%	0.070	0.5x	1.3x	-2.1x
Eurozone	2	2 1	Ť	4	4	3 3	4	1	4	1	Ť	50%	i	45%	-	55%	Ť	14%	Ť	29%	Ť	11%	-	79%	-	52%	Eurozone	-1.9x	-0.5x	-1.4%	-0.5%	3.5%		0.1x	-2.6x	2.1x
Finland	3		4	1	2	3 3	3	3	1		i	64%	i	68%	-	56%		-	Ť	-	-	-	•	61%	-	4%	Finland	-0.6x	-1.7x	-0.5%	-1.1%	-0.9%	-1.9%	0.8x	-2.2x	2.0x
France	2	2 1	- 1	2	3	3 3	4	1	4	4	i	8%	j.	30%	i i	35%	- ₩	29%	4	54%	4	43%	1	92%	i i	34%	France	1.5x	1.3x	-0.4%	-2.7%	-0.6%	-3.3%	0.5x	-2.3x	1.8x
Germany	3	2 1	2	1	4	3 3	3	2	1		9	27%	į.	34%	4	23%	į.	11%	1	51%	i i	6%	1	92%	•	90%	Germany	-0.4x	-0.5x	-1.9%	1.9%	8.1%	10.0%	1.0x	-2.6x	2.0x
Greece	3	2 1	- 1	2	1	3 3	3	3	1	-	4	91%	•	72%	4	95%	-	74%	1	-	4	74%	•	76%	4	66%	Greece	-2.5x		-1.1%	0.9%	-1.3%	-	-0.7x	-1.2x	2.4x
Hong Kong	1	1 3	- 4	4	2	4 3	2	- 4	1	-	•	39%	4	83%	-	51%	-	-		-	9	43%	1	45%	-	-	Hong Kong	1.7x	1.8x	-0.8%	4.8%	3.9%	8.7%	-0.4x	1.0x	0.2x
Hungary	3	2 4	2	1	1	2 3	1	3	1		•	75%	4	36%	4	22%	-	-		-	4	92%	•	67%	•	48%	Hungary	-1.7x	-1.3x	0.1%	-2.7%	2.5%		0.0x	-0.1x	-0.2x
India	4	4 4	2	2	2	2 1	. 1	4	2	-	-	-	₩	59%	•	50%	•	91%	1	71%	4	80%	- ₩	10%	-	-	India	-1.8x	-1.8x	2.6%	-3.4%	-1.9%	-5.2%	1.3x	-0.1x	-1.8x
Indonesia	3	2 2	- 1	1	4	1 4	3	1	4	2	4	16%	→	90%	-	52%	₩	54%	-	-	-	54%	- ₩	9%	1	8%	Indonesia	0.3x	-0.4x	1.3%	-2.9%	-2.8%	-5.7%	0.5x	0.4x	-2.1x
Ireland	1	3 1	2	3	1	4 3	4	1	3		Ŷ	100%	1	71%	1	91%	=>	49%		14%	-	14%	1	79%		53%	Ireland	-1.6x	-	0.5%	-0.5%	13.8%		-1.5x	-2.0x	0.8x
Italy	2	2 2	4	4	4	3 3	3	1	1	1	•	20%		60%	1	56%		0%	-	0%	•	0%	1	69%	1	32%	Italy	-1.7x	-1.5x	-2.3%	-1.8%	2.8%	-	-1.3x	2.1x	1.9x
Japan	2	3 2	2	-	3	1 3	1	1	3		Ŷ	74%		28%		39%	•	71%	->>	83%	•	74%	1	82%	1	83%	Japan	0.8x	0.8x	-1.0%	-3.5%	4.0%	-	-0.4x	-2.2x	-0.2x
Malaysia	2	2 1	1	4	4	4 4	4	4	2					15%	P	60%	-		<u> </u>		1	60%	₩	7%	-	-	Malaysia	0.2x	0.4x	0.0%	-3.0%	3.3%		1.6x	-2.4x	0.5x
Mexico	2	3 3	3	3	4	1 2	4	2	1	1	Ŧ	58%	1	59%	P	75%		11%	-	24%	₩.	11%	1	78%	1	70%	Mexico	1.3x	2.2x	2.1%	-2.6%	-1.6%	-4.2%	-0.6x	2.1x	0.9x
Netherlands	3	2 4	3	4	1	2 2	4	4	3	•	Ŧ	87%	- A	30%	T	77%	-	-	-	-	Ψ.	40%	T	61%	9	19%	Netherlands	-2.4x	-2.5x	-1.7%	1.9%	10.5%	12.4%	0.8x	-2.6x	1.9x
New Zealand	3	3 1	2	4	1	2 3	1	1	3	·	J.	- 00/	3	49%	T	94%	₩	28% 87%	-	36%		40%	T	67%	· ·	- rot	New Zealand	0.1x	-	-0.5%	0.9%	-3.3%	40.00/	0.5x	-2.1x	-1.3x
Norway Peru	1	1 4	1	4	3	2 2	2	3	2	<u> </u>	W	9%	7	28%	T	46%	7	8/%	<u> </u>	-	7	87%	T	18%	T	59%	Norway Peru	0.5x	-0.8x	0.4% 2.4%	5.4% -0.8%	6.6%	12.0%	0.5x	-1.6x -0.7x	0.9x
Philippines	2	2 1	1	2	2	2 2	3	2	3	-	-		1	2876	1	35%	+:	+	+:	+:	+:	+ -	T	0694	-	100%	Philippines	+ -	+ :	2.1%	-3.0%	-1.4%	-2.2%	-0.6x	-0.7x	-0.8x
Poland	2	2 4	2	3	1	2 2		Δ	1		4	53%	-	36%	T A	23%	4	6%	+÷	+ :	1	6%	T	43%	1	34%	Poland	-0.4x	-2.0x	1.7%	-0.7%	0.5%	-4.3%	1.7x	-2.0x	0.7x
Portugal	2	2 2	4	3	4	2 3	4	4	4		Ť	53%	1	46%	-	34%	· ·	- 3/0	+		T.	- 070	-	52%	-	81%	Portugal	-1.4x	-1.5x	-1.4%	-0.9%	0.0%		0.3x	-1.5x	2.2x
Russia	1	1 1	4	4	1	2 3	3	3	3	- 1		44%	Ť	43%	4	75%	3	57%	•	94%	•	80%		12%	4	12%	Russia	0.1x	-0.2x	1.6%	-1.0%	3.8%		0.4x	-0.1x	-0.6x
Singapore	2	3 2	- 1	4	1	3 3	1	1	1		-	56%	i i	33%	4	80%	ı i	81%		-	4	60%	-	45%	1	-	Singapore	1.4x	-	-0.5%	1.0%	19.0%	20.0%	0.3x	-2.3x	-0.5x
South Africa	2	1 1	1	4	4	3 3	1	2	2	- 1	Ů.	48%	•	39%	1	60%	1	-		-	Ť	0%	-	30%	•	19%	South Africa	-0.1x	1.3x	3.3%	-4.2%	-3.2%	-7.3%	-1.0x	-1.4x	-0.3x
South Korea	3	2 4	2	4		3 3	2	3	1	4	ů.	18%	4	4%	4	87%	•	94%		-	•	94%	•	57%	ı i	1%	South Korea	1.1x	-0.6x	-1.3%	2.8%	4.5%	7.4%	-0.6x	-2.3x	1.5x
Spain	3	2 1	4	1	4	3 3	1	1	1	1	•	36%	Ų.	45%	4	61%	-	9%	-	9%	-	9%	4	71%	Ú.	48%	Spain	-1.6x	-1.4x	-1.7%	-2.7%	1.5%		-0.8x	-1.7x	2.1x
Sweden	3	2 2	3	1	1	3 2	3	4	4	-	₩	48%	4	59%	1	73%	3	55%	-	-	9	55%	•	96%	-	62%	Sweden	0.2x	-0.6x	-0.1%	1.3%	2.4%	3.7%	0.6x	-2.2x	-1.5x
Switzerland	3	2 4	2	2	1	2 3	4	4	4	-	4	3%	1	99%	-	24%	-	70%	-	-	-	70%	1	94%	4	72%	Switzerland	1.6x	1.2x	-0.6%	1.3%	10.2%	11.5%	1.7x	-2.6x	0.0x
Taiwan	2	4 4	2	1	3	2 4	4	1	2	1	₩	45%	₩	45%	₩	59%	•	3%	-	-	-	3%	₩	52%	-	-	Taiwan	-	-	0.0%	-0.1%	14.3%		0.4x	-2.4x	0.6x
Thailand	3	2 1	2	3	1	3 2	4	3	3		Ŷ	87%		20%	-	20%	-	-		-	9	44%	1	42%	1	29%	Thailand	-0.4x	-1.6x	-0.9%	-3.2%	10.0%		1.3x	-0.9x	2.1x
Turkey	1	2 2	1	3	4	3 3	3	3	1	٠	•	8%		6%	1	93%		3%	<u> </u>		₩	3%	1	100%	1	100%	Turkey	1.1x	1.4x	1.8%	-2.0%	-6.5%	-8.5%	0.1x	1.6x	-2.7x
United Kingdom	2	2 2	3	3	4	1 2	4	1	4	4	Ŷ	73%	₩	40%	-	46%		11%	₩.	6%	₩	3%	. ↓	43%	1	41%	United Kingdom		-0.3x	-0.3%	-1.4%	-3.5%	-4.9%	-1.0x	-1.6x	-0.3x
United States	2	2 1	2	2	2	2 1	4	4	3	3	9	84%	1	92%	₩.	72%	-	83%	1	99%	n n	99%	•	77%	1 1	94%	United States	1.9x	0.4x	0.3%	-3.8%	-2.2%	-6.0%	0.4x	1.2x	1.5x
MODE/MEAN	2	2 1	1	3	1	3 3	4	4	1	1	₩	45%	₩	45%	1 1	58%	₩	37%	-	43%	₩	37%	1 1	60%	1 1	46%	MODE/MEAN	0.0x	-0.3x	0.2%	-3.8%	-0.2%	-4.0%	0.2x	-1.0x	0.4x
															Data So	urce: Bloom	berg, BIS	. World Bank	, IMF. In	tellectual Pr	operty of	Hedgeye F	isk Mana	gement, *De	notes Mar	nufacturing	PMI if the economy	r is devoid of a Compo	site PMI data series.							

...AS IS OUR RISK MANAGEMENT OVERLAY

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

KLLATIVL TO GLOBAL GROWT	1 1/1111	LAII	OI4/F	OLIC	IKLG	IIVILS	ANDI	IIL KL	JULI) IAIILU	OK II	IF 1 114	DINGS) I KON	/I OOK	. U.S. (JII 141	ODL	. 310	ן יוטי
Hedgeye Macro Global GIP Model Backtest		Expected Valu	ie, by Quadran	nt	Pero	entile of Expecte	d Value, by Asset	Class	Per	centile of Expecte	ed Value, by Qua	drant	Percent Positiv	ve Ratio (color-co	ding by Asset Cl	lass & Quadrant)	Total C	uarterly Perfo	rmance Obse	rvations
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	4.0%	1.7%	0.6%	-1.6%	52%	52%	38%	43%	77%	66%	40%	32%	74%	73%	55%	40%	23	15	22	20
MSCI ACWI Consumer Discretionary Index	4.3%	1.9%	0.8%	-0.5%	62%	57%	57%	81%	81%	68%	53%	57%	70%	73%	59%	45%	23	15	22	20
MSCI ACWI Consumer Staples Index	1.8%	1.0%	1.6%	0.6%	5%	29%	86%	95%	28%	47%	81%	79%	65%	73%	59%	45%	23	15	22	20
MSCI ACWI Energy Sector Index	3.9%	2.0%	1.8%	-1.7%	48%	62%	95%	24%	75%	70%	87%	25%	70%	67%	64%	50%	23	15	22	20
MSCI ACWI Financials Index	4.6%	1.1%	-0.3%	-2.3%	71%	33%	14%	14%	87%	49%	9%	19%	65%	60%	64%	45%	23	15	22	20
MSCI ACWI Health Care Index	0.9%	0.7%	2.2%	1.8%	O%	19%	100%	100%	11%	34%	92%	96%	61%	67%	64%	70%	23	15	22	20
MSCI ACWI Industrials Index	4.5%	2.6%	0.6%	-1.6%	67%	81%	48%	38%	85%	83%	47%	30%	78%	80%	55%	40%	23	15	22	20
MSCI ACWI Information Technology Index	6.4%	2.9%	1.1%	-1.2%	90%	86%	71%	67%	94%	85%	70%	45%	78%	53%	59%	65%	23	15	22	20
MSCI ACWI Materials Sector Index	5.5%	4.0%	0.1%	-1.9%	81%	95%	29%	19%	91%	91%	21%	21%	78%	73%	64%	40%	23	15	22	20
MSCI ACWI Telecom Services Sector Index	2.6%	1.0%	0.1%	-2.8%	19%	24%	24%	5%	47%	45%	19%	11%	65%	53%	59%	35%	23	15	22	20
MSCI ACWI Utilities Sector Index	2.2%	0.2%	0.9%	-1.1%	10%	5%	62%	76%	38%	13%	55%	51%	65%	47%	68%	50%	23	15	22	20
MSCI ACWI Equity Real Estate Investment Trusts Index	7.3%	-0.1%	-0.5%	-2.4%	95%	0%	5%	10%	96%	9%	4%	13%	90%	64%	57%	54%	10	11	14	13
MSCI ACWI Growth Index	4.1%	2.1%	0.9%	-1.7%	57%	67%	67%	29%	79%	72%	57%	26%	70%	67%	68%	55%	23	15	22	20
MSCI ACWI Value Index	3.8%	1.3%	0.3%	-1.5%	43%	38%	33%	52%	74%	53%	26%	38%	74%	80%	55%	35%	23	15	22	20
MSCI ACWI High Dividend Yield Index	3.6%	0.4%	0.6%	-1.4%	29%	10%	43%	62%	62%	19%	43%	43%	70%	67%	68%	40%	23	15	22	20
MSCI Developed Markets Index	3.8%	1.5%	0.8%	-1.5%	38%	43%	52%	48%	72%	57%	51%	36%	74%	80%	55%	45%	23	15	22	20
S&P 500 Index	3.1%	1.6%	1.3%	-0.5%	24%	48%	76%	86%	55%	62%	74%	58%	78%	73%	55%	55%	23	15	22	20
STOXX Europe 600 Price Index EUR	3.6%	0.6%	-0.3%	-1.2%	33%	14%	10%	71%	66%	28%	8%	47%	70%	80%	55%	50%	23	15	22	20
Nikkei 225	4.6%	2.4%	-0.2%	-3.0%	76%	71%	19%	O%	89%	79%	13%	9%	78%	67%	55%	35%	23	15	22	20
Hong Kong Hang Seng Index	5.6%	2.5%	1.8%	-1.6%	86%	76%	90%	33%	92%	81%	85%	28%	65%	60%	64%	45%	23	15	22	20
Shanghai Stock Exchange Composite Index	2.2%	5.7%	1.6%	0.2%	14%	100%	81%	90%	40%	94%	79%	70%	48%	60%	50%	40%	23	15	22	20
MSCI Emerging Markets Index	7.5%	3.3%	-0.6%	-1.4%	100%	90%	O%	57%	98%	89%	2%	42%	78%	73%	55%	45%	23	15	22	20
Bloomberg Barclays Global Agg Total Return Index	1.5%	0.5%	1.3%	0.9%	O%	31%	85%	46%	21%	26%	72%	81%	65%	60%	55%	55%	23	15	22	20
Bloomberg Barclays Global Agg 1-3 Year Total Return Index	1.8%	0.5%	0.9%	0.1%	15%	23%	38%	15%	26%	25%	58%	68%	72%	67%	58%	42%	18	15	19	19
Bloomberg Barclays Global Agg 3-5 Year Total Return Index	1.9%	0.6%	1.1%	0.4%	23%	38%	77%	31%	30%	30%	68%	74%	78%	60%	53%	47%	18	15	19	19
Bloomberg Barclays Global Agg 5-7 Year Total Return Index	2.0%	0.8%	1.0%	0.9%	31%	62%	62%	54%	32%	40%	64%	83%	72%	73%	47%	58%	18	15	19	19
Bloomberg Barclays Global Agg 7-10 Year Total Return Index	2.4%	0.6%	1.1%	1.4%	54%	46%	69%	85%	45%	32%	66%	91%	72%	73%	53%	63%	18	15	19	19
Bloomberg Barclays Global Agg 10+ Total Return Index	2.8%	0.7%	1.4%	2.1%	62%	54%	92%	100%	49%	38%	75%	98%	72%	60%	63%	58%	18	15	19	19
Bloomberg Barclays Global Agg Aaa Total Return Index	1.7%	0.9%	1.0%	1.3%	8%	69%	54%	77%	25%	42%	62%	89%	78%	67%	53%	63%	18	15	19	19
Bloomberg Barclays Global Agg Aa Total Return Index	2.2%	0.3%	1.4%	0.3%	38%	8%	100%	23%	42%	15%	77%	72%	72%	60%	53%	53%	18	15	19	19
Bloomberg Barclays Global Agg A Total Return Index	3.4%	0.3%	0.5%	0.6%	92%	15%	15%	38%	60%	17%	36%	77%	78%	80%	58%	42%	18	15	19	19
Bloomberg Barclays Global Agg Baa Total Return Index	3.3%	1.5%	0.5%	1.1%	85%	85%	8%	69%	58%	60%	34%	87%	72%	80%	53%	63%	18	15	19	19
Bloomberg Barclays Pan-European Aggregate Total Return Index (Unhedged USD)	2.2%	1.4%	0.6%	0.9%	46%	77%	23%	62%	43%	55%	42%	85%	64%	67%	45%	45%	22	15	20	20
Bloomberg Barclays Japanese Aggregate Float Adjusted Total Return Index (Unhedged USD)	3.2%	-3.5%	0.6%	-0.1%	77%	O%	31%	8%	57%	2%	49%	64%	57%	29%	60%	55%	7	7	10	11
Bloomberg Barclays EM USD Aggregate Total Return Index (Unhedged USD)	3.7%	2.4%	0.9%	1.5%	100%	100%	46%	92%	68%	77%	60%	94%	83%	73%	68%	65%	23	15	22	20
Bloomberg Barclays EM Local Currency Government Total Return Index (Unhedged USD)	3.0%	2.4%	-0.1%	-0.8%	69%	92%	0%	O%	51%	75%	15%	55%	78%	86%	64%	38%	9	7	11	13
US 2Y Treasury Yield	4.4%	9.0%	1.8%	-3.7%	100%	67%	33%	67%	83%	98%	89%	6%	65%	60%	50%	45%	23	15	22	20
US 10Y Treasury Yield	2.0%	5.5%	0.2%	-5.0%	67%	33%	0%	33%	34%	92%	23%	2%	57%	60%	55%	35%	23	15	22	20
US 10Y TIPS Yield	1.3%	128.8%	3.8%	-18.2%	33%	100%	67%	O%	19%	100%	96%	O%	57%	47%	45%	30%	23	15	22	20
Bloomberg Barclays US Corporate High Yield OAS Spread	-2.1%	-4.1%	7.9%	4.2%	0%	0%	100%	100%	0%	0%	100%	100%	39%	20%	45%	55%	23	15	22	20
Thomson Reuters/CoreCommodity CRB Commodity Index	3.8%	2.1%	0.5%	-3.3%	75%	50%	25%	25%	70%	74%	32%	8%	74%	60%	59%	45%	23	15	22	20
Commodity Research Bureau BLS/US Spot Raw Industrials Index	3.6%	3.0%	-0.4%	-2.3%	50%	75%	0%	50%	64%	87%	6%	17%	74%	73%	50%	35%	23	15	22	20
Commodity Research Bureau BLS/US Spot Foodstuff Index	1.3%	1.6%	0.6%	-0.2%	0%	25%	50%	75%	17%	64%	38%	62%	52%	60%	45%	50%	23	15	22	20
Front-month Brent Crude Oil	10.0%	6.0%	3.8%	-4.8%	100%	100%	100%	O%	100%	96%	98%	4%	61%	60%	59%	55%	23	15	22	20
Gold Spot	3.0%	1.5%	2.7%	0.5%	25%	O%	75%	100%	53%	58%	94%	75%	61%	60%	64%	55%	23	15	22	20
US Dollar Index	-0.9%	-0.2%	-0.2%	1.5%	O%	25%	13%	100%	2%	8%	11%	92%	52%	33%	45%	65%	23	15	22	20
AUD/USD	1.2%	1.1%	0.4%	-1.1%	75%	100%	50%	50%	15%	51%	28%	49%	65%	67%	73%	35%	23	15	22	20
CAD/USD	1.6%	0.5%	0.5%	-1.9%	88%	63%	63%	13%	23%	23%	30%	23%	57%	47%	59%	25%	23	15	22	20
CHF/USD	0.3%	0.9%	1.7%	-0.3%	25%	88%	88%	75%	6%	43%	83%	60%	48%	73%	59%	50%	23	15	22	20
EUR/USD	0.9%	0.7%	0.2%	-0.9%	63%	75%	38%	63%	13%	36%	25%	53%	57%	67%	50%	40%	23	15	22	20
GBP/USD	0.8%	-0.2%	0.0%	-1.5%	50%	13%	25%	25%	9%	6%	17%	34%	52%	60%	45%	40%	23	15	22	20
JPY/USD	2.1%	-1.7%	1.9%	-1.5%	100%	0%	100%	38%	36%	4%	91%	40%	52%	40%	59%	40%	23	15	22	20
CNY/USD	0.1%	0.1%	0.6%	-0.1%	13%	38%	75%	88%	4%	11%	45%	66%	65%	60%	73%	50%	23	15	22	20
JPM Emerging Markets Currency Index	0.6%	0.5%	-0.7%	-2.4%	38%	50%	O%	0%	8%	21%	O%	15%	72%	67%	50%	30%	18	15	20	20
						Da	rta Source: Bloom	berg. Trailing 20	years.											

WHY RATE OF CHANGE?: S&P 500 CASE STUDY

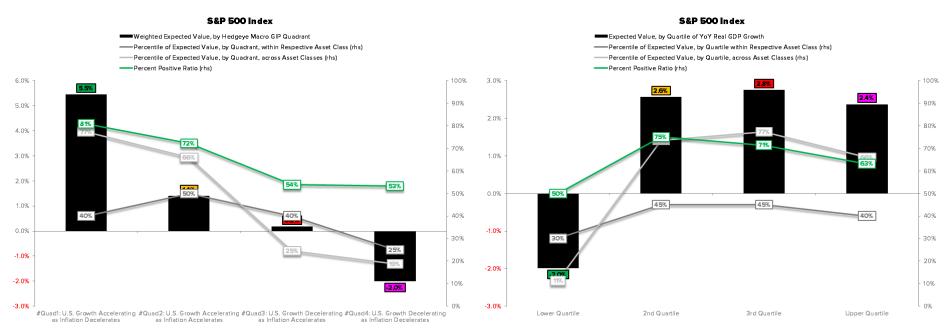
RATE OF CHANGE:

INTUITIVE, INVESTABLE DISPERSION IN THE RETURN PROFILES OF KEY MACRO FACTOR EXPOSURES ACROSS HEDGEYE GIP MODEL REGIMES

N IN THE RETURN PROFILES OF KEY LIMITED, UN-INVESTABLE DISPERSION IN THE RETURN PROFILES OF KEY

MACRO FACTOR EXPOSURES ACROSS QUARTILES OF REAL GDP GROWTH

ABSOLUTE LEVELS:



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

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

WHY RATE OF CHANGE?: 10Y UST YIELD CASE STUDY

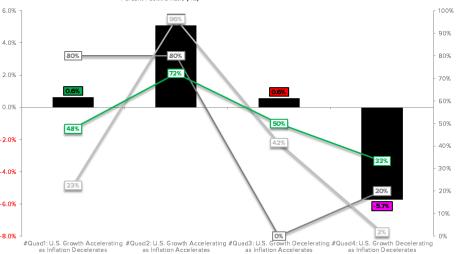
RATE OF CHANGE:

INTUITIVE, INVESTABLE DISPERSION IN THE RETURN PROFILES OF KEY MACRO FACTOR EXPOSURES ACROSS HEDGEYE GIP MODEL REGIMES



-----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,

ABSOLUTE LEVELS:

INCOHERENT, UN-INVESTABLE DISPERSION IN THE RETURN PROFILES OF KEY MACRO FACTOR EXPOSURES ACROSS QUARTILES OF HEADLINE INFLATION

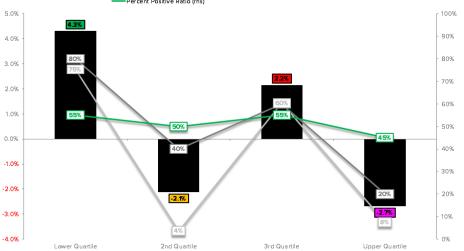
US 10Y Treasury Yield

Expected Value, by Quartile of YoY Headline Consumer Price Inflation

----Percentile of Expected Value, by Quartile within Respective Asset Class (rhs)

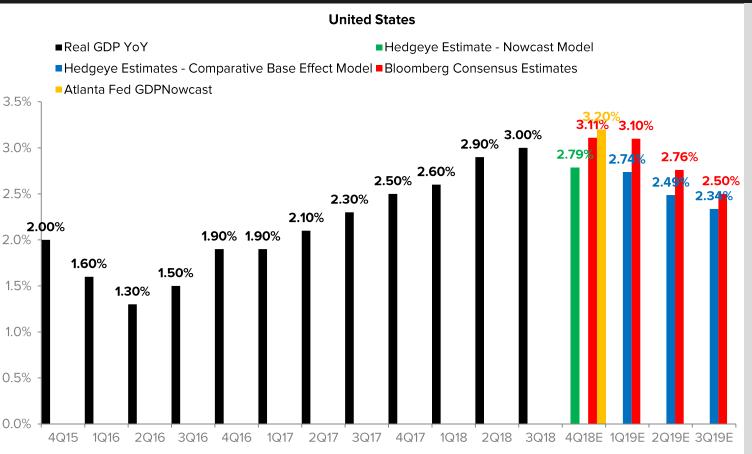
-----Percentile of Expected Value, by Quartile, across Asset Classes (rhs)

——Percent Positive Ratio (rhs)



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

U.S. REAL GDP FORECASTS

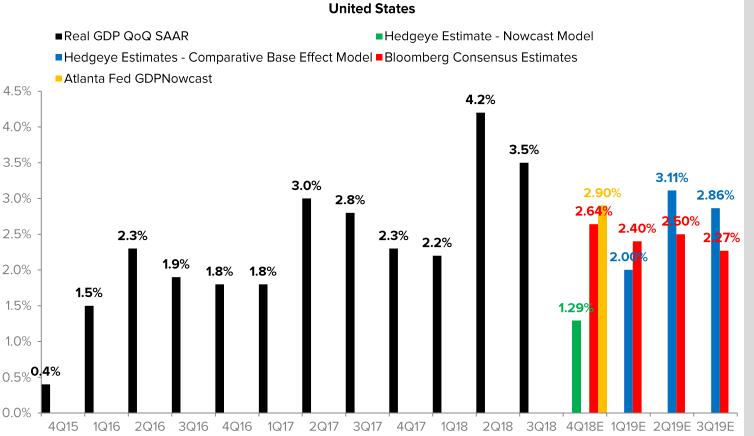


We use two distinct models to forecast the YoY growth rate of real GDP and the combination of the two allows us to develop both a highly accurate realtime view of near-term growth momentum, as well as a highprobability scenario for where growth is likely to trend over the intermediate term.

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 intraquarter tracking error of 33bps, an average absolute forecast error of 23bps and an r-squared of 0.89 with a success rate of 95% in terms of projecting the directional outcome.

U.S. HEADLINE GDP FORECASTS

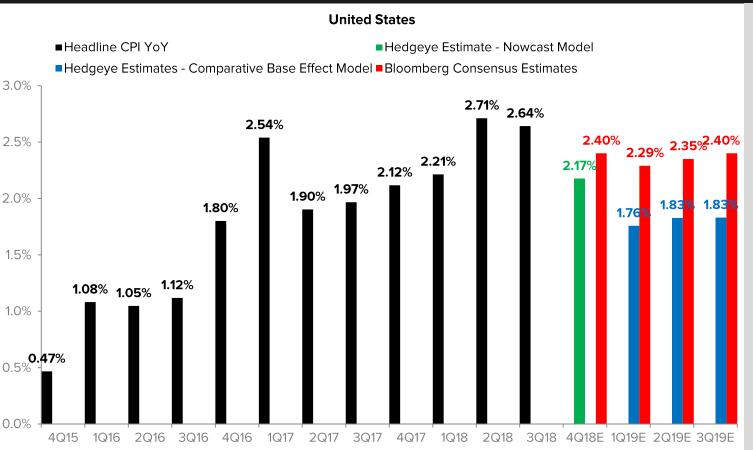


One differentiating factor of our forecasting process is that we aim to solve for cycle (i.e. where growth is trending to on a YoY basis), rather than trying to identify super short-term economic momentum. A rigorous study of financial market history suggests the latter growth rate to be little more than noise in the context of making accurate intermediate-to-long-term investment decisions.

As such, we interpolate our QoQ SAAR forecasts from what is being implied by our forecasted YoY growth rate.

For discussion's sake, we typically backfill a supporting narrative on why our model suggests growth is likely to come in higher or lower than consensus estimates by highlighting recent economic developments that we view as having a high probability of continuing based on our analysis of the distinct cycles throughout the various sectors of the economy, keeping in mind that we're discussing a residual value, not the underlying driver of cross-asset returns.

U.S. HEADLINE CPI FORECASTS



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 highprobability 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 intraquarter tracking error of 33bps, an average absolute forecast error of 23bps and an r-squared of 0.80 with a success rate of 88% in terms of projecting the directional outcome.

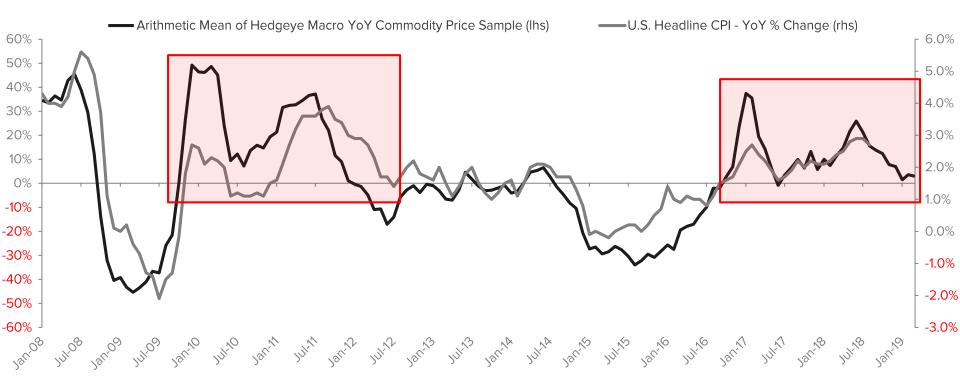
U.S. GDP PREDICTIVE TRACKING ALGORITHM

EACH OF THE FOLLOWING 30 FACTORS BACKTESTS AS STATISTICALLY SIGNIFICANT WITH RESPECT TO FORECASTING REAL GDP GROWTH AND ARE DYNAMICALLY RE-WEIGHTED ACCORDING TO THEIR RESPECTIVE CORRELATIONS TO THE MARCINAL RATE OF CHANGE OF CRR CROWTH. WHICH ARE INHERENTLY MONSTATIONARY

WEIGHTED ACCORDING TO THEIR RESPECTIVE CORRELA	ATIONS TO	I TE WARGINAL	RATE OF CH	ANGE OF GDP GR	CWIH – W	INICH AKE INHERE	INILT NUNSTATIONARY.
HIGH-FREQUENCY INDICATOR		RLY AVERAGE DELTA		ENDING DELTA		QUENTIAL DELTA	PERCENTILE BASIS (T3Y)
US Personal Consumption Expenditure Chained 2012 Dollars YoY SA	3Q18	4Q18	Prior 6MMA	6MMA (SEP)	Prior	Latest (SEP)	Latest Reading
	3.05 3Q18	4018	2.70 Prior 6MMA	2.83 6MMA (SEP)	3.20 Prior	3.00 Latest (SEP)	83% Latest Reading
Adjusted Retail & Food Services Sales Total Yearly % Change SA	5.94	4016	5.92	5.85	6.50	4.70	63%
Data Maria de la Carta de la Carta de Data de Data de Data de Carta de Cart	3Q18	4Q18	Prior 6MMA	6MMA (SEP)	Prior	Latest (SEP)	Latest Reading
Retail Sales Less Food Services Auto Dealers & Building Mat& Gas Station SA YoY	5.09	-	4.95	5.02	4.90	4.90	80%
US Auto Sales Total Annualized SAAR YoY % Change	3Q18	4Q18	Prior 6MMA	6MMA (OCT)	Prior	Latest (OCT)	Latest Reading
	-0.77 3Q18	-2.67 4Q18	0.62 Prior 6MMA	0.08 6MMA (SEP)	-5.79 Prior	-2.67 Latest (SEP)	20% Latest Reading
US Disposable Personal Income Chained 2012 Dollars YoY	2.91	4016	2.83	2.88	3.00	2.90	66%
US Personal Saving as a % of Disposable Personal Income	3Q18	4Q18	Prior 6MMA	6MMA (SEP)	Prior	Latest (SEP)	Latest Reading
US Personal Saving as a % of Disposable Personal Income	6.37	-	6.75	6.58	6.40	6.20	0%
US Employees on Nonfarm Payrolls Total SA Year Over Year Percent Change	3Q18	4Q18	Prior 6MMA	6MMA (OCT)	Prior	Latest (OCT)	Latest Reading
	1.67 3Q18	1.71 4Q18	1.65 Prior 6MMA	1.67 6MMA (OCT)	1.73 Prior	1.71 Latest (OCT)	63% Latest Reading
US Average Hourly Earnings All Employees Total Private Yearly Percent Change SA	2.84	3.14	2.80	2.88	2.80	3.10	100%
us a live in the second	3Q18	4Q18	Prior 6MMA	6MMA (OCT)	Prior	Latest (OCT)	Latest Reading
US Average Weekly Hours YoY SA	0.29	0.29	0.35	0.35	0.30	0.30	69%
US Real Average Weekly Earnings 1982-1984 USD YoY SA	3Q18	4Q18	Prior 6MMA	6MMA (SEP)	Prior	Latest (SEP)	Latest Reading
	0.51	-	0.53	0.52	0.60	0.80	57%
US Initial Jobless Claim YoY SA	3Q18 -15,25	4Q18 -9.00	Prior 6MMA -11.85	6MMA (OCT) -11.79	-19.89	Latest (OCT) -8.82	Latest Reading
	3Q18	4Q18	Prior 6MMA	6MMA (OCT)	Prior	Latest (OCT)	Latest Reading
Conference Board Consumer Confidence SA 1985=100 YoY % Change	10.22	9.27	8.95	9.63	12.19	9.27	49%
US Industrial Production YOY SA	3Q18	4Q18	Prior 6MMA	6MMA (SEP)	Prior	Latest (SEP)	Latest Reading
OS industrial Production FOT SA	4.69	-	3.81	4.06	4.86	5.14	100%
US Durable Goods New Orders Industries SA YoY % Change	3Q18	4Q18	Prior 6MMA	6MMA (SEP)	Prior	Latest (SEP)	Latest Reading
	9.97 3Q18	4Q18	9.06 Prior 6MMA	8.50 6MMA (SEP)	12.10 Prior	7.82 Latest (SEP)	71% Latest Reading
Capital Goods New Orders Nondefense Excluding Aircraft SA YoY % Change	6.21	4016	7.39	6.77	7.89	1.99	46%
	3Q18	4Q18	Prior 6MMA	6MMA (SEP)	Prior	Latest (SEP)	Latest Reading
US Manufacturers New Orders YoY SA	9.14	-	8.63	8.43	10.30	7.90	71%
MERCHANT WHOLESALER INVENTRY YOY %	3Q18	4Q18	Prior 6MMA	6MMA (SEP)	Prior	Latest (SEP)	Latest Reading
	5.14		5.33	5.32	5.20	5.20	86%
Census Bureau US Construction Nonresidential SA YoY	3Q18 8.16	4Q18	Prior 6MMA 5.30	6MMA (SEP) 6.47	Prior 9.30	Latest (SEP) 8.90	Latest Reading 97%
	3Q18	4Q18	Prior 6MMA	6MMA (SEP)	Prior	Latest (SEP)	Latest Reading
Census Bureau US Construction Residential SA YoY	5.15	-	6.02	6.13	4.80	4.90	6%
ISM Manufacturing PMI SA	3Q18	4Q18	Prior 6MMA	6MMA (OCT)	Prior	Latest (OCT)	Latest Reading
isia manaacaniig run sa	59.73	57.70	59.23	59.30	59.80	57.70	63%
ISM Non-Manufacturing NMI	3Q18 58.60	4Q18 60.30	Prior 6MMA 58.38	6MMA (OCT) 58.97	Prior 61.60	Latest (OCT) 60.30	Latest Reading 97%
	3Q18	4Q18	Prior 6MMA	58.97 6MMA (OCT)	Prior	Latest (OCT)	Latest Reading
NFIB Small Business Optimism Index YoY % Change	3.55	3.47	2.93	3.46	4.76	3.47	57%
US Trade Balance of Exports YOY SA	3Q18	4Q18	Prior 6MMA	6MMA (SEP)	Prior	Latest (SEP)	Latest Reading
03 Trade Balance of Exports 101 3A	7.48	-	9.13	8.82	7.10	7.20	80%
US Trade Balance of Imports YoY SA	3Q18 9,49	4Q18	Prior 6MMA	6MMA (SEP) 8.65	Prior	Latest (SEP)	Latest Reading
	9.49 3Q18	4Q18	8.45 Prior 6MMA	8.65 6MMA (SEP)	9.60 Prior	9.80 Latest (SEP)	97% Latest Reading
US Trade Balance of Goods and Services YoY	-4.09	-4216	-5.67	-1.02	-20.70	21.60	97%
NO COLUMN CONTRACTOR AND	3Q18	4Q18	Prior 6MMA	6MMA (SEP)	Prior	Latest (SEP)	Latest Reading
US CPI Urban Consumers YoY NSA	2.64	-	2.70	2.68	2.70	2.30	74%
US CPI Urban Consumers Less Food & Energy YoY NSA	3Q18	4Q18	Prior 6MMA	6MMA (SEP)	Prior	Latest (SEP)	Latest Reading
	2.24 3Q18	4Q18	2.22 Prior 6MMA	2.23	2.20 Prior	2.20	57%
US Personal Consumption Expenditures Chain Type Price Index YoY SA	3Q18 2.19	4018	2.20	6MMA (SEP) 2.18	2,20	Latest (SEP) 2.00	Latest Reading
	3Q18	4Q18	Prior 6MMA	6MMA (SEP)	Prior	Latest (SEP)	Latest Reading
US Personal Consumption Expenditure Core Price Index YoY SA	1.98		1.96	1.96	1.96	1.97	94%
US PPI Final Demand YoY NSA	3Q18	4Q18	Prior 6MMA	6MMA (OCT)	Prior	Latest (OCT)	Latest Reading
O3 FFF Final Demand for NSA	2.91	2.89	2.97	3.00	2.60	2.90	86%

U.S. HEADLINE CPI LEADING INDICATOR

STRUCTURAL SHIFTS IN THE ECONOMY HAVE INCREASINGLY MITIGATED THE RISK OF A WAGE/PRICE SPIRAL. LEADING TO AN INCREASED SENSITIVITY OF HEADLINE CPI TO ANNUAL FLUCTUATIONS IN TRADEABLE GOODS PRICES - A DYNAMIC OUR MODEL HAS ASTUTELY CAPITALIZED ON.

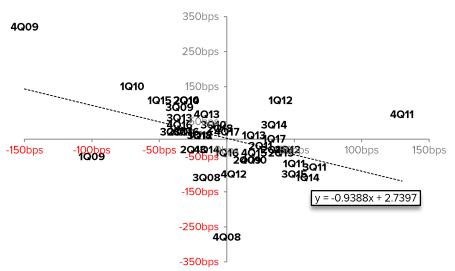


Data Source: Bloomberg. The Hedgeye Macro commodity price sample includes the CRB Index, CRB Raw Industrials Index, Brent Crude OI and the UN Food and Agriculture Price Index. YoY deltas are calculated from monthly averages. Forward estimates assume no change to current monthly averages.

A QUICK LESSON IN BASE EFFECTS

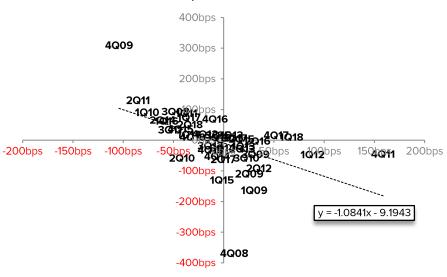
REAL GDP GROWTH Y/Y

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: 78% Raw; 82% w/ Momentum



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

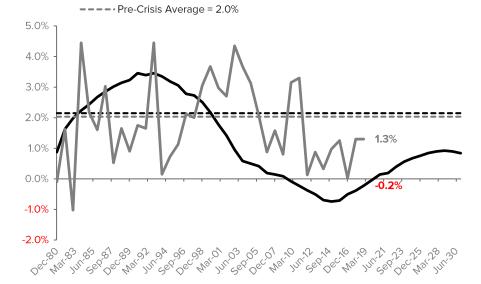


In the U.S. specifically, 78% of the time the marginal rate of change in the 2Y average Real GDP growth rate in the comparative base period carries the **opposite** sign of the marginal rate of change of the growth rate in the forecast period; that same figure is 70% of the time for Headline CPI.

BASE EFFECTS MATTER MORE NOW THAN EVER

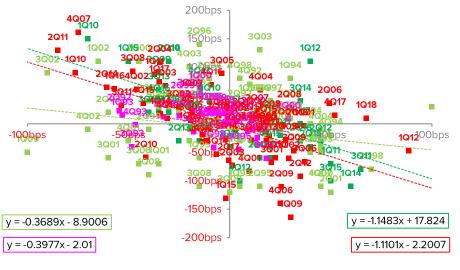
AS THE ECONOMY HAS GOTTEN INCREASINGLY MORE RELIANT UPON FINANCIAL LEVERAGE TO REPLACE A LOST "300 BASIS POINTS OF ORGANIC GROWTH POTENTIAL...

United States 35-54 Year-Old Population Cohort - YoY % Change
 Pre-Crisis Average = 2.1%
 U.S. Nonfarm Productivity - YoY % Change

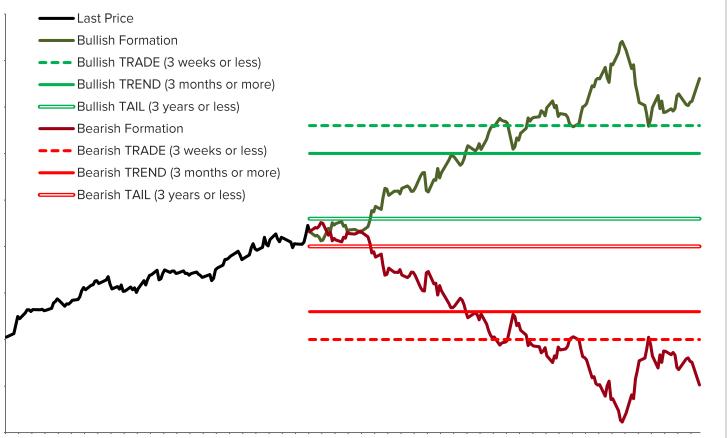


... BOTH GROWTH AND INFLATION HAVE BECOME DECIDEDLY MORE CYCLICAL THROUGHOUT THE POST-CRISIS ERA AND SINCE COMMODITIES TOOK OFF IN THE EARLY-2000'S, RESPECTIVELY

- Directional Accuracy of Base Effects for Pre-Crisis Growth: 60%
- Directional Accuracy of Base Effects for Post-Crisis Growth: 81%
- Directional Accuracy of Base Effects for Pre-Commodity Boom Inflation: 63%
- Directional Accuracy of Base Effects for Post-Commodity Boom Inflation: 71%



TRADE/TREND/TAIL RISK MANAGEMENT PROCESS



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.

MACRO AND THEMATIC FACTOR PERFORMANCE

SPX: STYLE FACTOR PERFORMANCE*

		1M	3M	YTD
	FACTOR	% Chg	% Chg	% Chg
DEBT	High Debt/EV	-1.9%	-1.7%	-3.3%
DE	Low Debt/EV	-1.7%	-2.5%	10.6%
<u></u>	High Short Interest	-0.5%	-1.7%	2.7%
	Low Short Interest	-2.8%	-1.4%	6.7%
BETA	High Beta	-4.1%	-6.2%	-0.1%
BE	Low Beta	1.0%	2.1%	4.4%
YIELD	High Yield	-1.9%	-2.4%	-5.6%
- XIE	Low Yield	-1.6%	-1.6%	15.3%
MKT	MCAP Bottom 25%	-2.8%	-4.8%	-4.7%
SAI S	MCAP Top 25%	-2.3%	0.2%	8.7%
Sales	Top 25% Sales Growth	-3.4%	-3.1%	10.5%
Sa Gro	Bottom 25% Sales Growth	-1.3%	-2.5%	-4.2%
EPS owth	Top 25% EPS Growth	-4.0%	-2.7%	6.7%
E O	Bottom 25% EPS Growth	-2.2%	-3.8%	-3.7%

GREEN = Relative Outperformance Over Given Duration

SOURCE: Bloomberg, Goldman Sachs, Hedgeye Calculations

% Chg 8.8% 1.8%
1.8%
0.00/
0.3%
15.3%
11.3%
-1.1%
-4.0%
5.8%
4.1%
9.3%
7.0%
12.5%
-0.5%

GREEN = Outperforming SPX over given duration	
RED = Underperforming SPX over given duration	

-2.33%

M&A Candidates

CFTC N	ON-COMMERCIAL N	T LONG POS	SITIONING	3	3Y	Z-S	core
	METRIC	Latest	W/W Chg	Max	Min	1Y	3Y
	SPX (Index + E-mini)	248,269	26,857	249,638	(248,441)	1.99X	1.56X
S	VIX	1,998	12,301	92,913	(174,665)	0.61X	1.15X
EQUITIES	Russell 2000 (mini)	(30,491)	48,804	93,772	(87,847)	-0.94X	-0.60X
1 8	Dow Jones (mini)	18,317	(5,728)	95,976	(999)	-0.67X	-0.99X
⊆	Nasdaq (mini)	9,627	(830)	163,838	(24,647)	-0.29X	-0.97X
	Nikkei Index	(6,968)	859	14,253	(9,128)	-1.14X	-2.19X
	10Y UST	(464,216)	125,128	372,991	(758,490)	-0.56X	-1.43X
×	2Y UST	(323,310)	(4,740)	104,027	(323,310)	-1.74X	-2.26X
RATES	5Y UST	(553,061)	251,920	(33,993)	(866,140)	0.09X	-1.07X
≸	UST Bonds	(70,193)	25,231	122,839	(142,810)	-1.20X	-1.80X
1	30D Fed Funds	(69,823)	(13,063)	219,071	(286,025)	-1.00X	-0.17X
	Eurodollar	(1,958,725)	111,219	251,098	(3,110,209)	2.00X	-0.38X
	\$USD	39,597	1,525	56,635	(10,666)	1.71X	0.93X
50	JPY	(95,876)	(312)	70,342	(140,151)	-0.58X	-0.99X
Ħ	EUR	(35,169)	(3,825)	147,318	(172,030)		-0.36X
Ď	GBP	(48,395)	(6,729)	49,216	(113,271)	-1.08X	-0.31X
CURRENCIES	AUD	(71,424)	897	77,969	(74,181)	-1.50X	-2.17X
₩	CAD	(8,633)	(3,466)	78,001	(99,736)	-0.13X	-0.08X
1 8	MXN	34,066	(24,024)	117,131	(89,524)	-0.56X	0.40X
"	NZD	(35,031)	(1,983)	35,981	(35,412)	-1.44X	-2.23X
	CHF	(13,769)	2,650	10,064	(47,216)	0.95X	-0.07X
	CRUDE OIL	463,180	(19,526)	784,290	195,086	-2.55X	-0.13X
	GOLD	(45,622)	(18,723)	286,921	(103,009)	-1.07X	-1.62X
	COPPER	357	(8,291)	67,602	(44,710)	-1.40X	-0.47X
	Natural Gas	(5,693)	9,108		(218,444)	1.95X	1.30X
	RBOB Gasoline	89,086	(4,587)	114,862	29,519	-0.33X	0.84X
	ULSD Heating Oil	33,094	(4,841)		(23,640)	-0.52X	0.27X
70	Silver	(8,744)	(3,093)	107,003	(30,158)	-0.65X	-1.52X
Ĕ	Platinum	16,018	3,178	56,853	(11,540)	0.13X	-0.53X
COMMODITIES	Aluminum	163,475	(2,043)	168,292	122,356	0.48X	1.31X
8	Nickel	42,230	(365)		13,508	0.55X	1.21X
Ĭ	Corn	75,573	(11,722)	373,443	(166,835)	0.02X	0.26X
ĮΣ	Soybeans	(68,748)	(35,395)	255,950	(113,144)	-1.03X	-1.26X
1 8	Wheat	(30,779)	(15,361)	63,219	(143,292)	-0.18X	0.54X
1	Live Cattle	91,457		164,117	(695)	0.28X	0.25X
1	Lean Hogs	35,381	8,543		(11,151)	0.45X	-0.19X
1	Sugar	82,914	15,013		(131,628)	2.30X	-0.04X
	Cotton	53,345	(2,771)	132,318	(28,816)	-1.98X	-0.65X
	Coffee	(30,358)	7,983		(106,651)	1.14X	-0.46X
	Cocoa	(19,235)	3,444	70,034	(43,846)	-1.53X	-1.05X
1	Orange Juice	(6,248)	(730)	10,123	(6,248)	-1.98X	-2.13X

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

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:		TOTAL DETLIEN	IVOL PREMIUM	DISCOUNT					REALIZED VOL	ΔΤΙΙ ΙΤΥ ΤΟΙ	ENDS	IMPLIED VOL	ΔΤΙΙ ITY TDEN	DS
VOLATILITY_30D			IVOL PREM %	DISCOUNT					RVOL	A.I.E.I. I III.	PERCENTILE		ATTENT TREN	PERCENTILE
PUT IMP VOL 30D	TICKER	YTD%	IVOL / RVOL	V t d	4W A	414 4	FT14.7.6	27.7.0		MM %	10YR	CURRENT	MM %	10YR
	TICKER	YID%	•	Yesterday	1W Ago	1M Ago	I I M Z-Score	3Yr Z-Score	CURRENT	IVIIVI %	1011	CURRENT	191191 %	10 T R
US EQUITIES		2.22%	CURRENT	40/	400/	50 0/				40 50/	2.40/	010	200/	070/
Health Care Sector SPDR ETF	XLV US EQUITY	8.33%	4%	4%	16%	59%	-0.2	-0.3	20.2	195%	84%	21.0	93%	87%
Power Shares QQQ Trust ETF	QQQ US EQUITY	7.12%	-9%	-9%	15%	30%	-0.6	-0.7	30.0	172%	92%	27.3	90%	89%
Technology Sector SPDR ETF	XLK US EQUITY	6.92%	10%	10%	30%	34%	0.0	-0.1	30.5	185%	93%	33.5	134%	94%
Consumer Discretionary Sector SPDR ETF	XLY US EQUITY	6.33%	11%	11%	25%	25%	-0.3	-0.2	23.8	144%	84%	26.4	116%	85%
Utilities Sector SPDR ETF	XLU US EQUITY	5.79%	-7%	-7 %	0%	-2%	-0.7	-0.7	18.2	36%	79%	17.0	29%	77%
SPDR S&P 500 ETF Trust	SPY US EQUITY	1.65%	2%	2%	18%	43%	-0.2	-0.3	20.0	229%	80%	20.4	135%	79%
Consumer Staples Sector SPDR ETF	XLP US EQUITY	-0.39%	-3%	-3%	10%	20%	-0.3	-0.4	17.5	89%	85%	17.0	54%	87%
I-Shares Russell 2000 ETF	IWM US EQUITY	-0.94%	14%	14%	23%	42%	0.0	0.2	22.7	176%	78%	25.9	122%	77%
Vanguard Real Estate REIT ETF	VNQ US EQUITY	-1.29%	-18%	-18%	-9%	-17%	-0.9	-1.1	21.4	46%	72%	17.5	43%	58%
Energy Sector SPDR ETF	XLE US EQUITY	-5.69%	14%	14%	21%	36%	0.4	0.4	24.1	118%	68%	27.4	82%	77%
Financials Sector SPDR ETF	XLF US EQUITY	-5.97%	10%	10%	27%	36%	-0.1	0.0	21.6	92%	69%	23.7	55%	71%
Industrials Sector SPDR ETF	XLI US EQUITY	-7.17%	18%	18%	112%	44%	0.3	0.2	21.2	123%	76%	25.0	83%	83%
Materials Sector SPDR ETF	XLB US EQUITY	-13.11%	26%	26%	42%	23%	0.8	0.7	20.3	67%	62%	25.7	71%	77%
Communication Services	XLC US EQUITY		15%	15%	38%	38%			28.7	141%	99%	33.0	100%	95%
INTERNATIONAL EQUITIES														
Euro Stoxx 50 Index	SX5E INDEX	-5.79%	29%	34%	40%	20%	0.7	0.3	14.9	43%	30%	19.2	53%	49%
I-Shares MSCI Japan ETF	EWJ US EQUITY	-8.67%	2%	2%	8%	0%	0.1	-0.3	18.7	60%	66%	19.1	64%	59%
I-Shares China Large-Cap ETF	FXI US EQUITY	-14.81%	5%	5%	13%	-4%	0.6	0.0	27.2	34%	68%	28.5	47%	74%
I-Shares MSCI Emerging Markets ETF	EEM US EQUITY	-17.24%	4%	4%	19%	-3%	0.3	0.0	25.4	42%	74%	26.4	51%	73 %
CURRENCIES														
PowerShares US Dollar Index ETF	UUP US EQUITY	7.49%	41%	41%	33%	14%	1.7	1.6	5.2	- 12 %	11%	7.2	9%	29%
Currency Shares Japanese Yen ETF	FXY US EQUITY	-0.67%	17%	17 %	31%	13%	0.3	0.5	6.2	15 %	13%	7.3	19%	12%
Currency Shares British Pound ETF	FXB US EQUITY	-6.04%	15%	15 %	14%	-2 %	0.4	0.3	8.9	-6%	58%	10.3	10%	68%
Currency Shares Euro Trust ETF	FXE US EQUITY	-6.07%	22%	22%	21%	-4%	1.5	8.0	6.0	-17 %	9%	7.3	6%	20%
COMMODITIES														
United States Oil Fund ETF	USO US EQUITY	16.82%	-1%	-1%	-1%	29%	-0.2	-0.3	27.3	40%	46%	27.2	7 %	36%
United States Natural Gas Fund ETF	UNG US EQUITY	11.75%	30%	30%	24%	12%	0.8	1.1	32.7	30%	38%	42.5	51 %	59%
SPDR Gold Shares ETF	GLD US EQUITY	-6.35%	-2%	-2 %	2%	-3%	-0.5	-0.6	11.0	15 %	21%	10.8	16%	11%
PowerShares DB Agriculture Fund ETF	DBA US EQUITY	-6.98%	31%	31%	29%	39%	0.2	0.1	11.9	13%	43%	15.6	6%	61%
PowerShares DB Base Metals Fund ETF	DBB US EQUITY	-17.10%	31%	31%	15%	14%	-0.2	-0.2	18.2	-3%	45%	23.9	12%	59%
FIXED INCOME														
I-Shares IBOXX HY Corporate Bond ETF	HYG US EQUITY	0.47%	41%	41%	75%	19%	0.8	0.6	4.5	67%	24%	6.3	98%	32%
I-Shares 7-10 Year Treasury Bond ETF	IEF US EQUITY	-2.81%	27%	27%	32%	30%	0.4	0.6	4.4	34%	17%	5.6	31%	30%
I-Shares IBOXX IG Corporate Bond ETF	LQD US EQUITY	-4.93%	21%	21%	18%	11%	0.6	0.2	4.2	11%	21%	5.1	21%	32%
I-Shares J.P. Morgan USD EM Bond ETF	EMB US EQUITY	-6.39%	43%	43%	48%	-12 %	0.7	0.4	5.1	-17 %	36%	7.3	35%	50%
I-Shares 20+ Year Treasury Bond ETF	TLT US EQUITY	-8.21%	5%	5%	6%	12%	0.4	0.1	10.1	34%	17%	10.7	26%	20%
Data Source: CBOE, CME, Bloomberg														

Q3 2018 MACRO THEMES



#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.



#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.



#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.

Q4 2018 MACRO THEMES



#QUAD4

After a likely nine consecutive quarters of accelerating economic growth domestically, investor consensus is positioned for the so called "fiscal impulse" to perpetuate further upside. Unfortunately for new-wave U.S. equity and credit bulls, our proprietary GIP Model is suggesting the now-record acceleration in U.S. growth (and inflation) that we prospectively and accurately identified two years ago is coming to an abrupt end. In the presentation we shall detail the catalysts for the aforementioned inflections and the associated investment implications of the U.S. economy joining the "globally synchronized slowdown" we prospectively identified back in January – not the least of which is an anticipated upside capitulation in the U.S. Dollar.



#CYCLICALPEAKS

Two of the most underappreciated risks heading into Q4 of 2018 among investor consensus are the cyclical peaks in corporate profit growth and corporate profit margins – both of which have important sector and style factor implications. We'll detail why investors would do well to adopt a defensive posture with respect to their respective portfolios as the associated rotation out of the domestic Momentum, High Beta, and Growth style factors could be guite violent given current positioning.



#LONGHOUSING

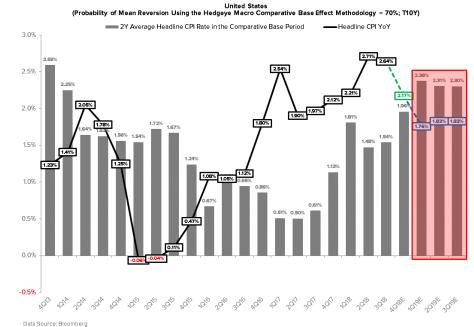
#Quad4 represents a macro environment typically characterized by falling rates, a more dovish policy lean and outperformance in defensive yield and select interest rate sensitive equities, including Housing. Unprecedented late-cycle fiscal stimulus has cultivated an interesting, somewhat anomalous macro condition set as it elevates the prospects for further acceleration in wage inflation and the potential for households to see improved consumption capacity at the same that both headline growth and inflation are slowing and yields are making lower highs. It's within this broader setup and against a backdrop of significant 2018 underperformance that we'll explore a contrarian long position in Housing.

WHY #QUAD4? IT STARTS WITH THE COMPS

U.S. REAL GDP COMPARATIVE BASE EFFECTS

United States (Probability of Mean Reversion Using the Hedgeye Macro Comparative Base Effect Methodology = 78%; T10Y) 2Y Average YoY Real GDP Growth Rate in the Comparative Base Period 3.5% 3.0% 2.0%

U.S. HEADLINE CPI COMPARATIVE BASE EFFECTS



Data Source: Bloomberg

A CLOSER LOOK AT THE UNDERLYING DRIVERS

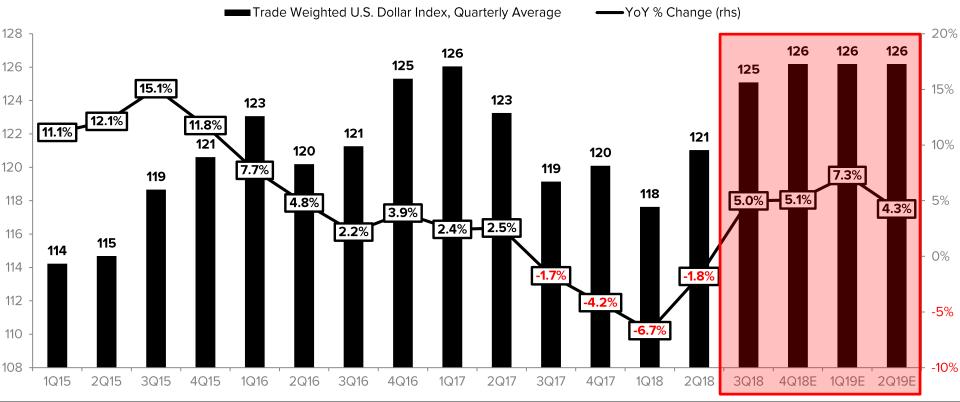
INDICATOR	1Q16	2Q16	3Q16	4Q16	1Q17	2Q17	3Q17	4Q17	1Q18	2Q18	3Q18	4Q18E	1Q19E	2Q19E	3Q19E
Real GDP YoY	1.56%	1.30%	1.54%	1.88%	1.94%	2.11%	2.34%	2.47%	2.58%	2.87%	3.04%	2.79%	2.74%	2.49%	2.34%
1. Retail Sales Control Group YoY	2.82%	3.30%	2.51%	2.50%	3.12%	3.03%	3.72%	5.17%	4.49%	4.94%	5.09%	4.40%	4.74%	4.52%	4.45%
2. Headline Retail Sales YoY	2.92%	2.52%	2.45%	3.54%	4.93%	4.07%	4.19%	5.58%	4.52%	5.75%	5.95%	4.51%	5.04%	4.43%	4.34%
3. Industrial Production YoY	-2.99%	-2.25%	-1.91%	-0.54%	0.17%	1.93%	1.26%	2.99%	3.38%	3.41%	4.69%	4.24%	4.05%	4.02%	3.40%
4. Exports YoY	-5.72%	-4.29%	-0.45%	1.69%	6.68%	5.35%	4.63%	7.76%	7.13%	10.12%	8.16%	6.68%	7.01%	5.56%	6.51%
5. Factory Orders YoY	-5.27%	-4.31%	-2.97%	1.09%	4.66%	5.59%	5.90%	6.84%	7.96%	7.72%	8.97%	7.73%	7.18%	7.31%	6.71%
6. Real PCE YoY	2.74%	2.75%	2.69%	2.77%	2.61%	2.47%	2.36%	2.70%	2.38%	2.61%	2.99%	2.84%	3.00%	2.89%	2.69%
7. Imports YoY	-4.67%	-3.45%	-1.21%	2.72%	6.91%	6.57%	5.42%	8.42%	8.46%	7.78%	9.10%	7.53%	7.53%	7.87%	7.22%
8. Core Capital Goods New Orders YoY	-5.88%	-5.52%	-4.22%	-2.23%	2.72%	6.38%	7.93%	9.88%	6.46%	7.34%	6.14%	3.46%	5.14%	4.71%	5.35%
9. Average Weekly Hours YoY	-0.10%	-0.29%	-0.58%	-0.48%	-0.39%	0.00%	0.00%	0.29%	0.29%	0.39%	0.29%	0.29%	0.29%	0.24%	0.29%
10. Durable Goods New Orders YoY	-2.27%	-2.47%	-2.60%	0.48%	2.00%	7.01%	6.35%	6.73%	9.38%	7.03%	9.96%	10.09%	8.80%	10.03%	8.63%
Headline CPI YoY	1.06%	1.07%	1.15%	1.80%	2.57%	1.90%	1.97%	2.12%	2.25%	2.71%	2.65%	2.25%	1.90%	1.86%	1.86%
1. Energy CPI YoY	-10.36%	-9.29%	-7.57%	1.99%	12.59%	5.65%	6.72%	7.46%	6.99%	10.09%	9.03%	6.21%	6.46%	4.96%	5.51%
2. Wireless CPI YoY	0.20%	0.75%	-0.99%	-3.81%	-6.68%	-12.74%	-12.63%	-10.33%	-7.34%	-0.31%	0.15%	-0.75%	-1.83%	-4.41%	-4.74%
3. Transportation Services CPI YoY	2.67%	3.21%	2.98%	2.70%	3.45%	3.05%	3.55%	3.94%	4.30%	3.82%	3.95%	4.09%	3.60%	4.06%	3.80%
Core CPI YoY	2.23%	2.20%	2.24%	2.18%	2.15%	1.78%	1.70%	1.75%	1.94%	2.19%	2.24%	2.14%	2.05%	1.91%	1.90%
Core PCE Inflation YoY	1.50%	1.58%	1.73%	1.83%	1.81%	1.62%	1.46%	1.61%	1.75%	1.94%	1.98%	1.86%	1.78%	1.73%	1.72%

THE BOTTOM-UP VIEW CONFIRMS 3Q18 AS A MULTI-YEAR PEAK

The primary drivers in our predictive tracking algorithms for both Real GDP growth and reported inflation have each accelerated to multi-year highs during mid-2018. Even if we assume the same degree of above-trend sequential momentum seen throughout this record run of accelerating growth in each subsequent month for each factor, the most probable outcome is that both GDP and CPI trend lower, from here, over the NTM.

...BUT WHAT ABOUT TARIFFS?"

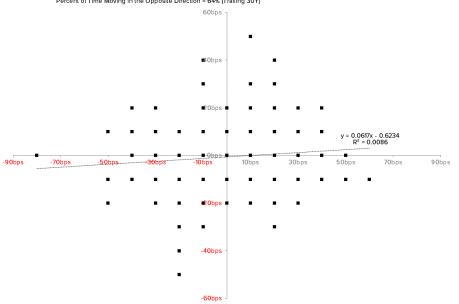
WHILE TARIFF PASS-THROUGH HAS THE ABILITY TO SURPRISE OUR CURRENT CPI PROJECTIONS TO THE UPSIDE. WE HAVE SEEN LIMITED EVIDENCE OF THAT ACTUALLY OCCURRING IN A BROAD-BASED MANNER. MOREOVER, ANNUALIZED DOLLAR STRENGTH REMAINS A DISINFLATIONARY IMPULSE ABOVE AND BEYOND WHAT HAS ALREADY BEEN IMPLEMENTED ON THE TARIFF FRONT GIVEN THAT CHINA REPRESENTS ONLY 22% OF U.S. IMPORTS.



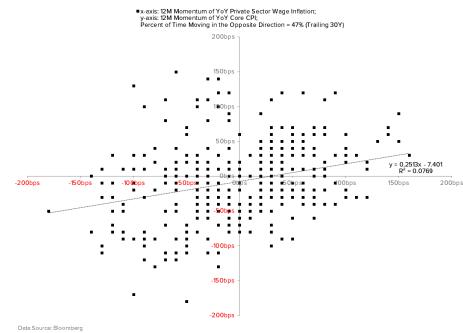
◆ WAGE GROWTH ≠ ↑ REPORTED INFLATION

HISTORICALLY SPEAKING, PRIVATE SECTOR WAGE GROWTH HAS ALMOST NO CORRELATION TO REPORTED INFLATION IN THE IMMEDIATE TERM





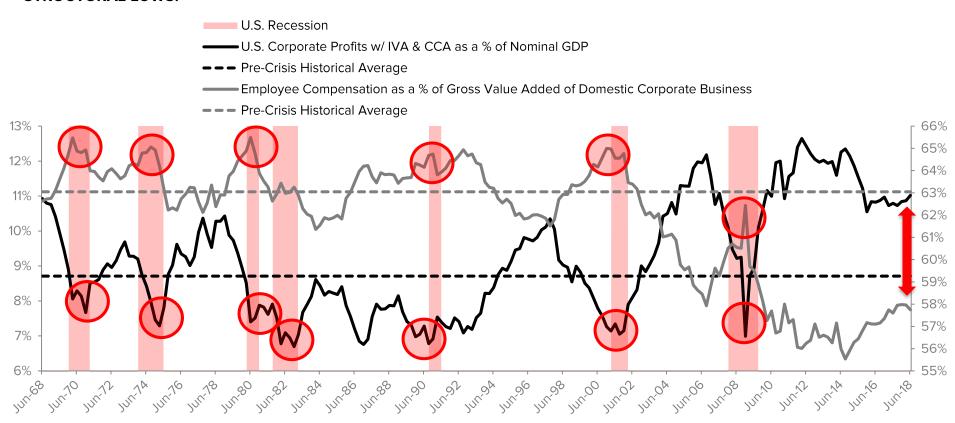
EVEN IF YOU SMOOTH OUT MONTH-TO-MONTH NOISE AND ANALYZE THE RESPECTIVE IMPULSES ON A TRENDING BASIS. WAGE GROWTH HAS TRENDED IN THE OPPOSITE DIRECTION OF CORE CPI ROUGHLY HALF THE TIME



Data Source: Bloomberg

CPI + + USD + + WAGE GROWTH + = MARGIN SQUEEZE

PEAK CORPORATE PROFITABILITY IN THE U.S. IS LIKELY TO COME TO AN END AS UNIT LABOR COSTS RECOVER FROM STRUCTURAL LOWS.

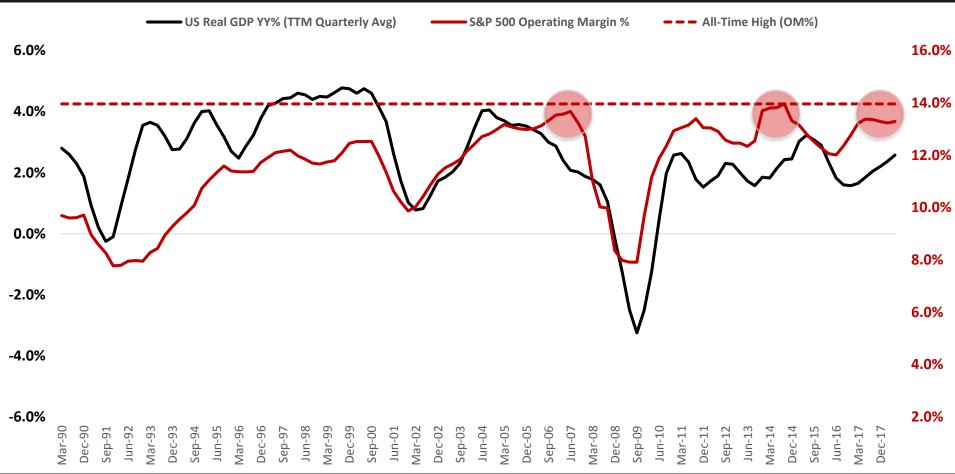


CORPORATE PROFITS: AN EPIC STREAK OF SINE CURVE ACCELERATION

LIKE GDP, CORPORATE PROFITS FOR S&P 500 CONSTITUENTS ARE RUNNING AT PEAK GROWTH RATES AS OF Q2 REPORTING SEASON.

S&P 500 Index													BBG Esti	mates		
SALES GROWTH (%)	CQ4 15	CQ1 16	CQ2 16*	CQ3 16	CQ4 16	CQ1 17	CQ2 17	CQ3 17	CQ4 17	CQ1 18	CQ2 18	CQ3 18*	CQ4 18	CQ1 19	CQ2 19	CQ3 19
S&P 500 Aggregate	-4.0%	-1.9%	-0.3%	2.4%	4.9%	7.8%	5.3%	5.3%	7.8%	8.2%	9.4%	8.1%	6.4%	6.5%	5.5%	5.3%
Energy	-34.4%	-29.3%	-24.2%	-14.2%	4.2%	34.1%	15.8%	17.9%	19.9%	13.8%	23.1%	19.2%	20.8%	20.6%	14.3%	6.6%
Materials	-15.5%	-8.8%	-7.3%	-2.4%	2.7%	9.1%	7.2%	8.6%	12.9%	11.4%	15.9%	10.3%	5.6%	5.0%	2.2%	2.8%
Industrials	-7.2%	-2.0%	-1.3%	2.2%	2.6%	4.2%	4.8%	6.6%	8.5%	10.5%	9.4%	6.2%	6.1%	5.0%	4.7%	4.6%
Consumer Discretionary	4.4%	6.3%	8.5%	8.2%	7.8%	8.4%	3.8%	3.0%	7.1%	7.4%	8.9%	11.1%	4.8%	5.1%	5.4%	7.3%
Consumer Staples	-0.4%	1.2%	0.7%	1.7%	2.7%	2.1%	2.5%	4.5%	5.1%	5.3%	5.0%	3.7%	2.4%	3.4%	2.8%	4.1%
Health Care	9.6%	9.2%	8.8%	7.0%	5.4%	5.7%	4.0%	4.5%	6.1%	7.3%	7.2%	7.3%	5.7%	5.9%	4.9%	4.9%
Financials	1.0%	-1.7%	0.7%	5.6%	5.5%	9.3%	4.5%	1.7%	3.2%	3.3%	5.9%	4.5%	4.1%	4.5%	3.0%	5.1%
Information Technology	-5.3%	-6.8%	-5.9%	-2.2%	0.6%	7.7%	8.2%	6.9%	10.2%	13.2%	12.3%	9.5%	5.2%	4.8%	4.6%	4.9%
Communication Services	12.0%	11.2%	15.0%	10.1%	4.5%	8.2%	4.6%	4.3%	7.5%	9.8%	9.8%	12.4%	11.6%	10.9%	10.3%	5.6%
Utilities	-12.6%	-10.5%	-2.4%	3.5%	8.1%	7.2%	6.4%	-2.7%	2.5%	3.0%	0.1%	0.0%	-5.1%	2.0%	1.9%	8.1%
Real Estate	10.8%	11.4%	7.4%	7.5%	3.7%	4.5%	7.3%	5.2%	7.1%	12.9%	13.5%	7.2%	10.3%	4.1%	3.5%	4.9%
EPS GROWTH (%)	CQ4 15	CQ1 16	CQ2 16*	CQ3 16	CQ4 16	CQ1 17	CQ2 17	CQ3 17	CQ4 17	CQ1 18	CQ2 18	CQ3 18*	CQ4 18	CQ1 19	CQ2 19	CQ3 19
S&P 500 Aggregate	-6.8%	-8.0%	-3.9%	3.2%	6.4%	14.6%	10.0%	7.1%	14.4%	23.7%	25.3%	22.9%	17.7%	7.8%	7.2%	9.6%
Energy	-72.6%	-109.6%	-81.6%	-63.7%	-1.5%	690.1%	210.0%	138.0%	111.3%	95.0%	129.9%	136.8%	92.2%	39.9%	34.4%	27.9%
Materials	-17.9%	-16.0%	-9.1%	3.2%	-1.1%	19.6%	7.4%	10.7%	41.0%	30.7%	42.0%	25.7%	10.2%	6.3%	-0.1%	5.8%
Industrials	-5.4%	-7.3%	-1.9%	-1.5%	-5.3%	1.5%	6.6%	0.3%	6.0%	25.6%	17.9%	16.3%	19.4%	7.2%	9.9%	10.2%
Consumer Discretionary	9.4%	17.8%	10.3%	6.5%	4.7%	7.0%	1.9%	1.8%	9.2%	11.8%	21.8%	29.6%	15.5%	3.9%	7.6%	15.1%
Consumer Staples	-0.7%	1.2%	0.0%	4.4%	4.0%	2.9%	4.1%	3.1%	8.0%	10.5%	11.0%	9.0%	3.7%	2.6%	3.5%	6.3%
Health Care	11.0%	8.1%	4.8%	5.9%	4.8%	5.4%	6.6%	7.1%	7.9%	14.4%	15.3%	11.9%	11.6%	7.7%	3.7%	7.8%
Financials	-5.3%	-14.2%	-7.0%	12.8%	6.6%	17.9%	9.5%	-8.9%	7.7%	27.9%	22.7%	29.1%	27.7%	6.2%	8.7%	9.7%
Information Technology	-3.8%	-7.4%	-7.3%	3.9%	4.2%	20.8%	19.2%	19.8%	19.9%	29.1%	32.0%	26.6%	12.5%	5.3%	3.7%	6.1%
Communication Services	27.8%	16.1%	19.7%	14.3%	11.2%	16.7%	3.5%	16.8%	19.8%	23.3%	37.6%	27.5%	15.5%	9.7%	8.7%	9.3%
Utilities	-49.6%	-1.9%	8.9%	12.6%	110.6%	3.5%	5.1%	-3.5%	11.6%	17.2%	12.6%	15.2%	3.1%	7.9%	-3.8%	5.5%
Real Estate	14.5%	8.3%	7.1%	8.7%	3.1%	6.5%	7.1%	7.6%	10.7%	8.0%	6.7%	8.3%	7.6%	5.7%	5.4%	6.7%
Data Source: BBG			*Beg of Ted	h/ComServ	Breakout (al	l previous p	eriods repre	esent legacy	/ Telecom)			*313/500 F	Reported			

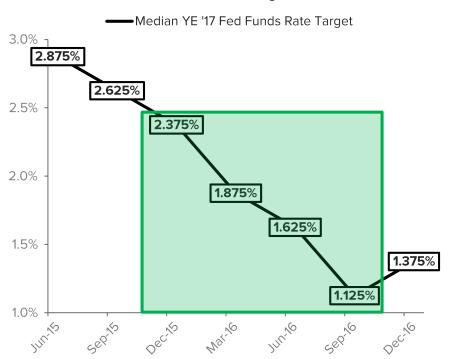
DON'T BUY PEAK MARGINS



REMEMBER THE "SHANGHAI ACCORD"?

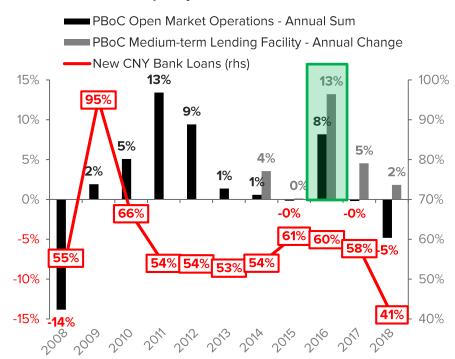
THE FED RHETORICALLY EASED SIGNIFICANTLY DURING THE 2015-16 GLOBAL INDUSTRIAL RECESSION...

FOMC "Dot Plot" Progression



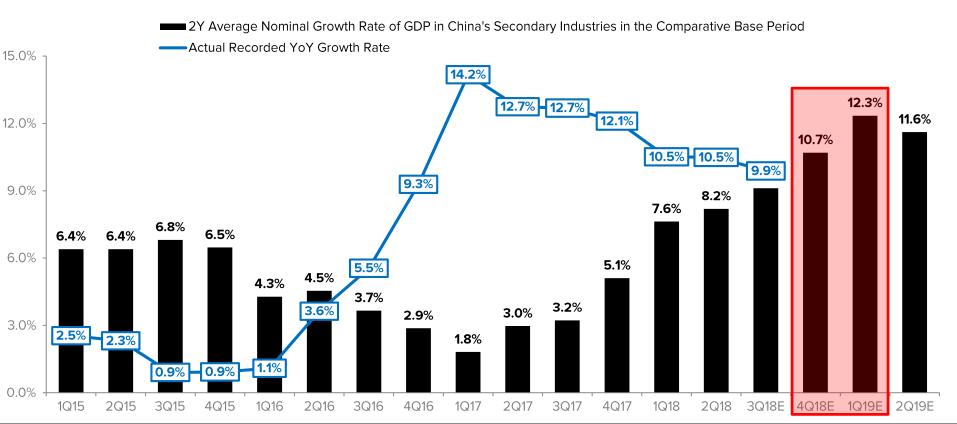
...WHICH ALLOWED THE PBOC TO UNLEASH AN UNPRECEDENTED WAVE OF LIQUIDITY

Net Liquidity Provided as a % of GDP



BEIJING IS GOING TO NEED A "BIGGER BOAT" TO RESCUE #OLDCHINA

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