

HEDGEYE



Risk(s) Rising:

Where To Invest Right Now



MACRO

Keith McCullough

Darius Dale

Christian Drake

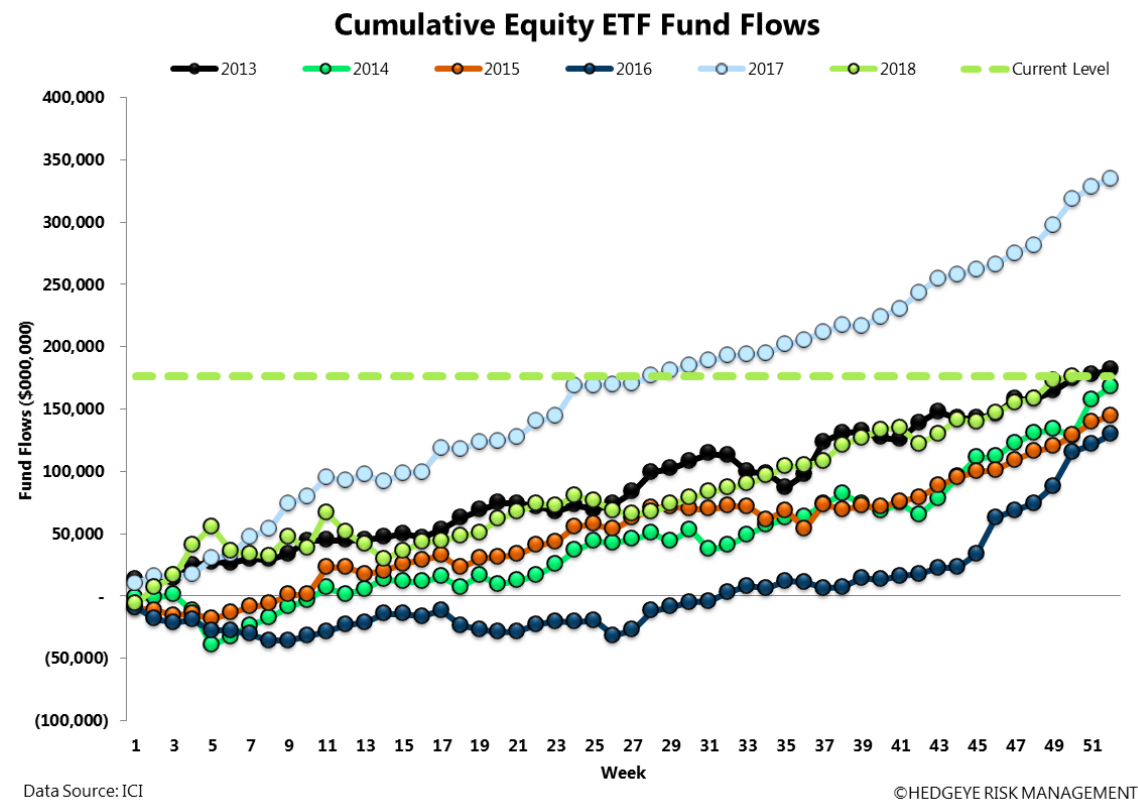
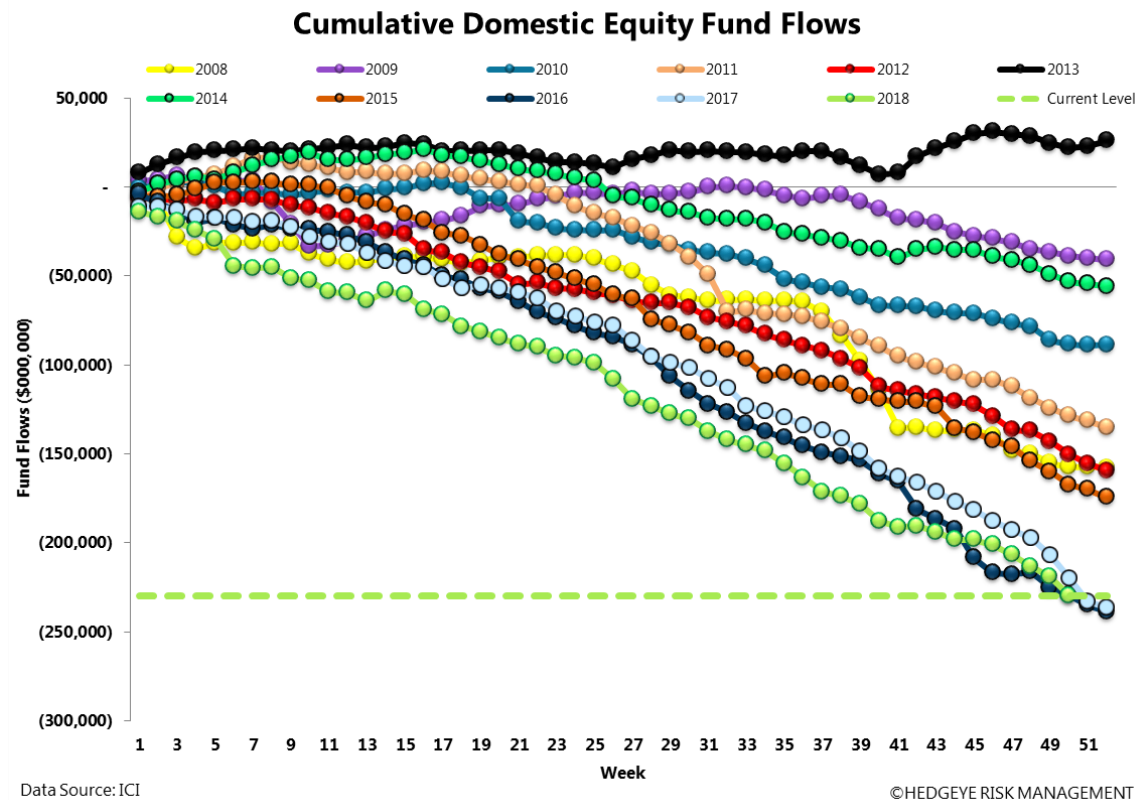
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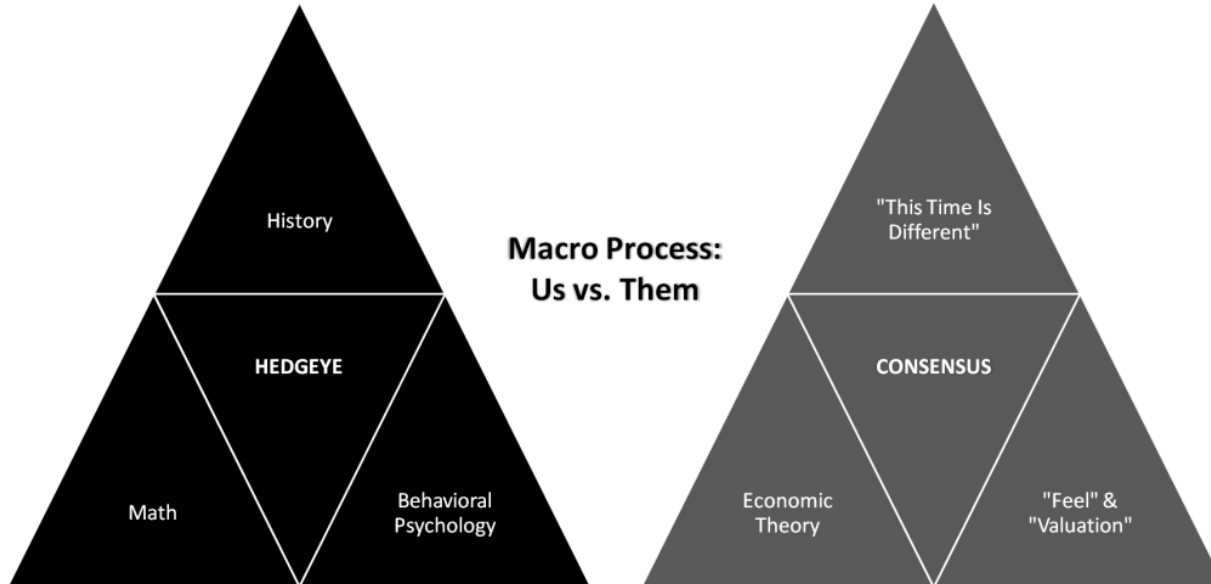
The Investment Landscape Has Evolved Tremendously



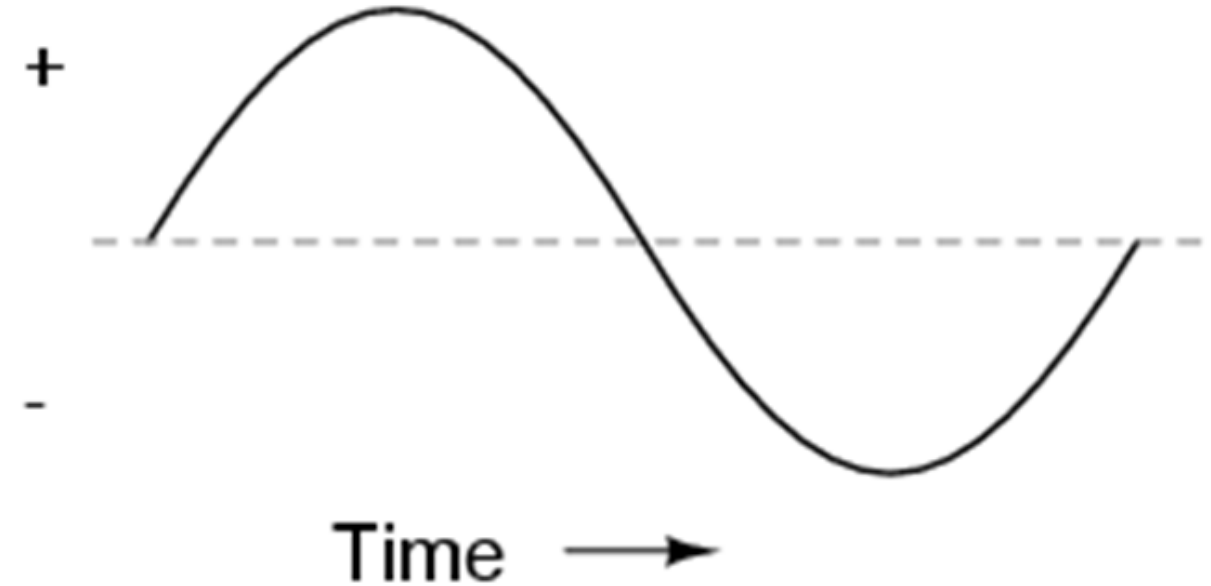
Skate To Where The Puck Is Going Within Asset Management

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 US equity trading volume. Are your investment processes equipped to compete for alpha in this new regime?

...So We Evolved Alongside It



IT'S ALL ABOUT THE SLOPE: EVERYTHING THAT MATTERS IN MACRO OCCURS ON THE MARGIN



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

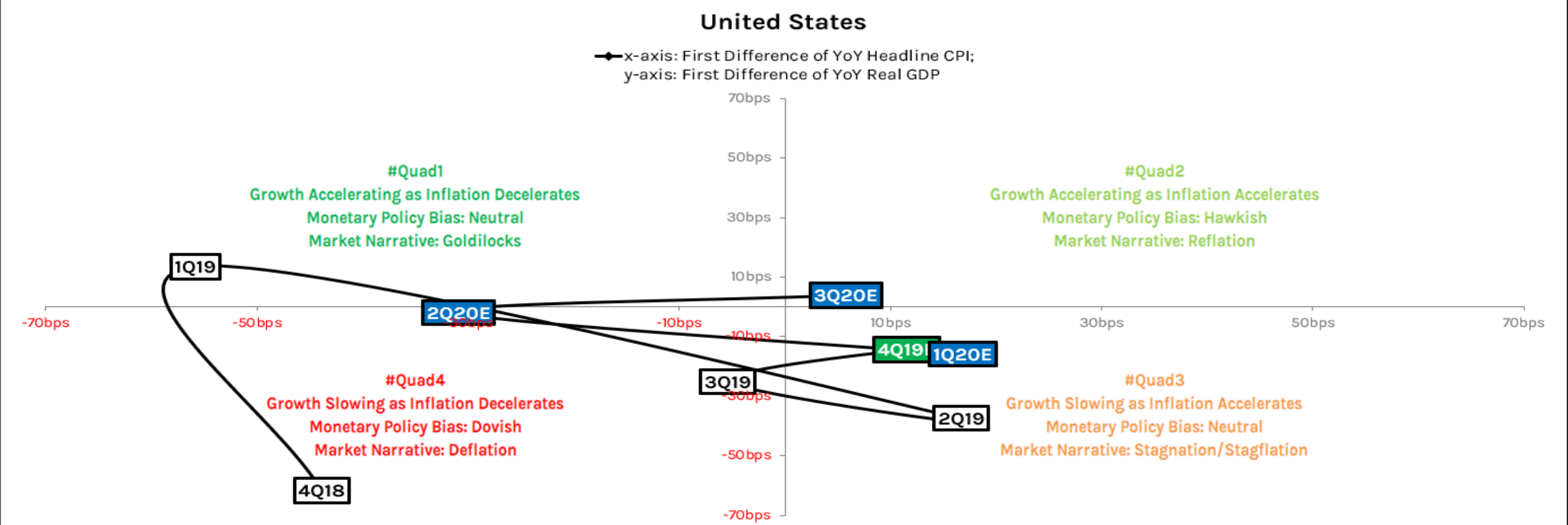
Rate of change accelerations and decelerations are facts, not opinions, and our process is focused on contextualizing these facts, rather opining on the validity of **absolute levels** of growth, inflation, and/or policy. **This focus helps us consistently spot inflections in the performance of key factor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

Our Research Process is REPEATABLE

HEDGEYE

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. #TheMachine is aware of this too.

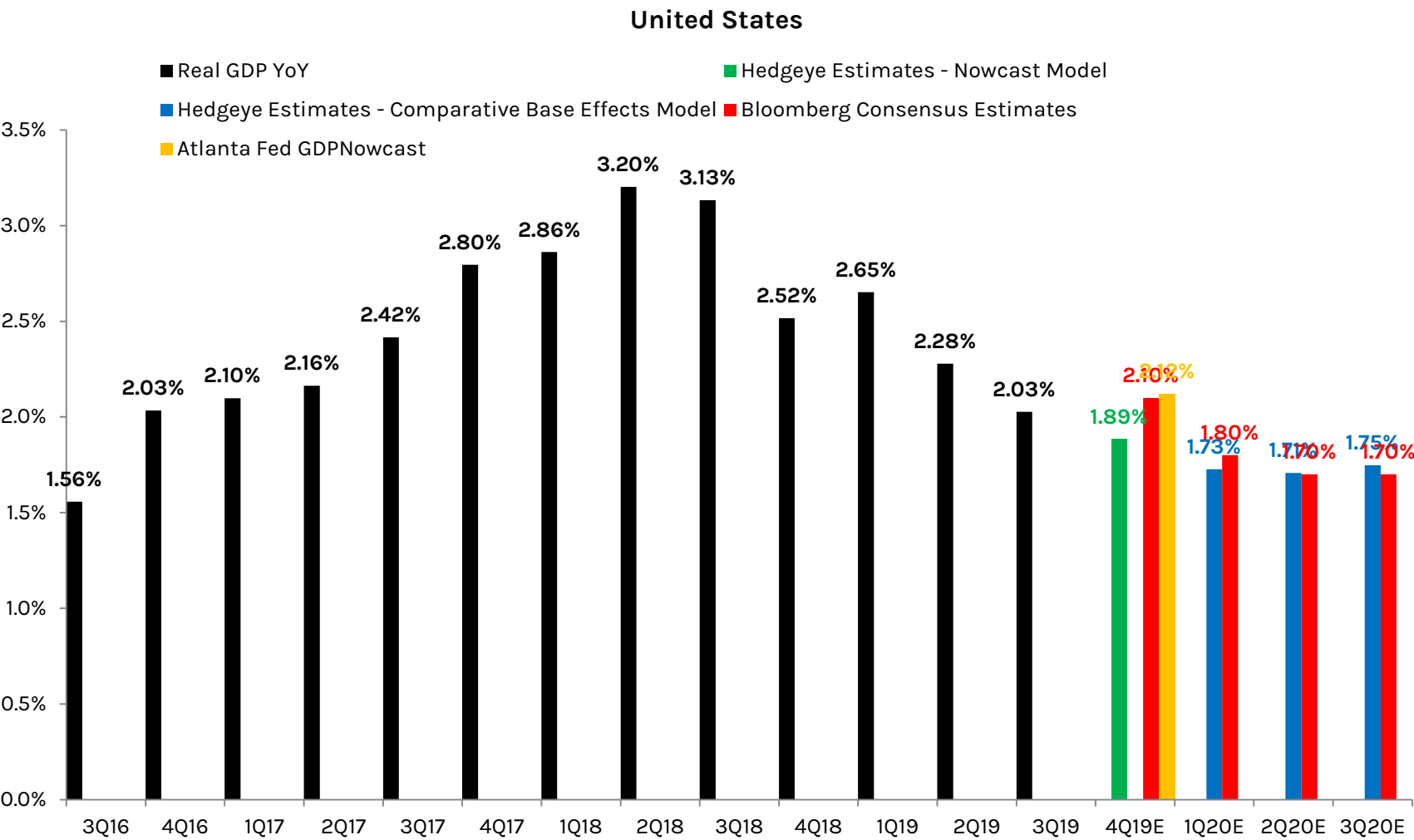
United States	4Q16	1Q17	2Q17	3Q17	4Q17	1Q18	2Q18	3Q18	4Q18	1Q19	2Q19	3Q19	← Actuals Estimates →	4Q19E	1Q20E	2Q20E	3Q20E
Real GDP QoQ SAAR	2.00%	2.30%	2.20%	3.20%	3.50%	2.50%	3.50%	2.90%	1.10%	3.10%	2.00%	1.90%	Hedgeye Estimates	0.52%	2.43%	1.92%	2.06%
Sequential Hurdle Rate	0.03%	0.50%	0.48%	0.55%	0.50%	0.58%	0.55%	0.80%	0.88%	0.63%	0.88%	0.73%	Sequential Hurdle Rate	0.28%	0.78%	0.50%	0.48%
Real GDP YoY	2.03%	2.10%	2.16%	2.42%	2.80%	2.86%	3.20%	3.13%	2.52%	2.65%	2.28%	2.03%	Hedgeye Estimates	1.89%	1.73%	1.71%	1.75%
2Y Comparative Base Effects	2.39%	2.80%	2.35%	2.00%	1.97%	1.86%	1.75%	1.99%	2.41%	2.48%	2.68%	2.77%	2Y Comparative Base Effects	2.66%	2.76%	2.74%	2.58%
Headline CPI YoY	1.80%	2.54%	1.90%	1.97%	2.12%	2.21%	2.71%	2.64%	2.20%	1.64%	1.81%	1.76%	Headline CPI YoY	1.87%	2.04%	1.73%	1.79%
2Y Comparative Base Effects	0.86%	0.51%	0.50%	0.61%	1.13%	1.81%	1.48%	1.54%	1.96%	2.38%	2.31%	2.30%	2Y Comparative Base Effects	2.16%	1.93%	2.26%	2.20%



Data Source: Bloomberg. Green box = Hedgeye Predictive Tracking Algorithm nowcast. Blue boxes = Hedgeye β-Adjusted Comparative Base Effect Model estimates.

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US Real GDP YoY Forecasts

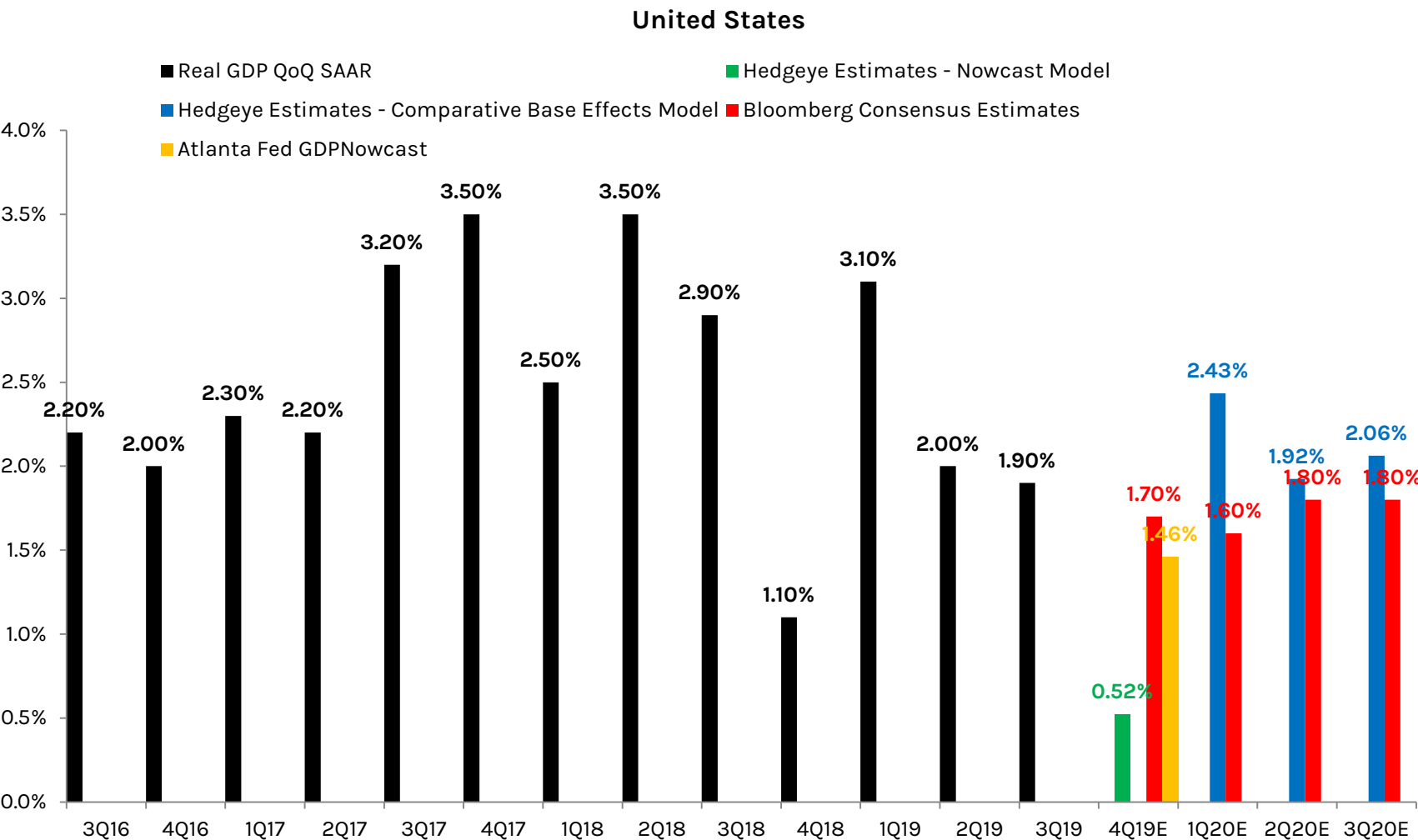


We use two distinct models to forecast the YoY growth rate of real GDP and the combination of the two allows us to develop both a highly accurate real-time view of near-term growth momentum, as well as a high-probability scenario for where growth is likely to trend over the NTM.

Intra-quarter, we employ a stochastic nowcasting framework employs nonlinear techniques to interpolate the implied marginal rate of change of the weighted factors embedded in our predictive tracking algorithm back to GDP. 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 told, our US GDP model has an average absolute forecast error of 27bps and an 88% success rate in terms of accurately projecting marginal the rate of change.

US Real GDP QoQ SAAR Forecasts

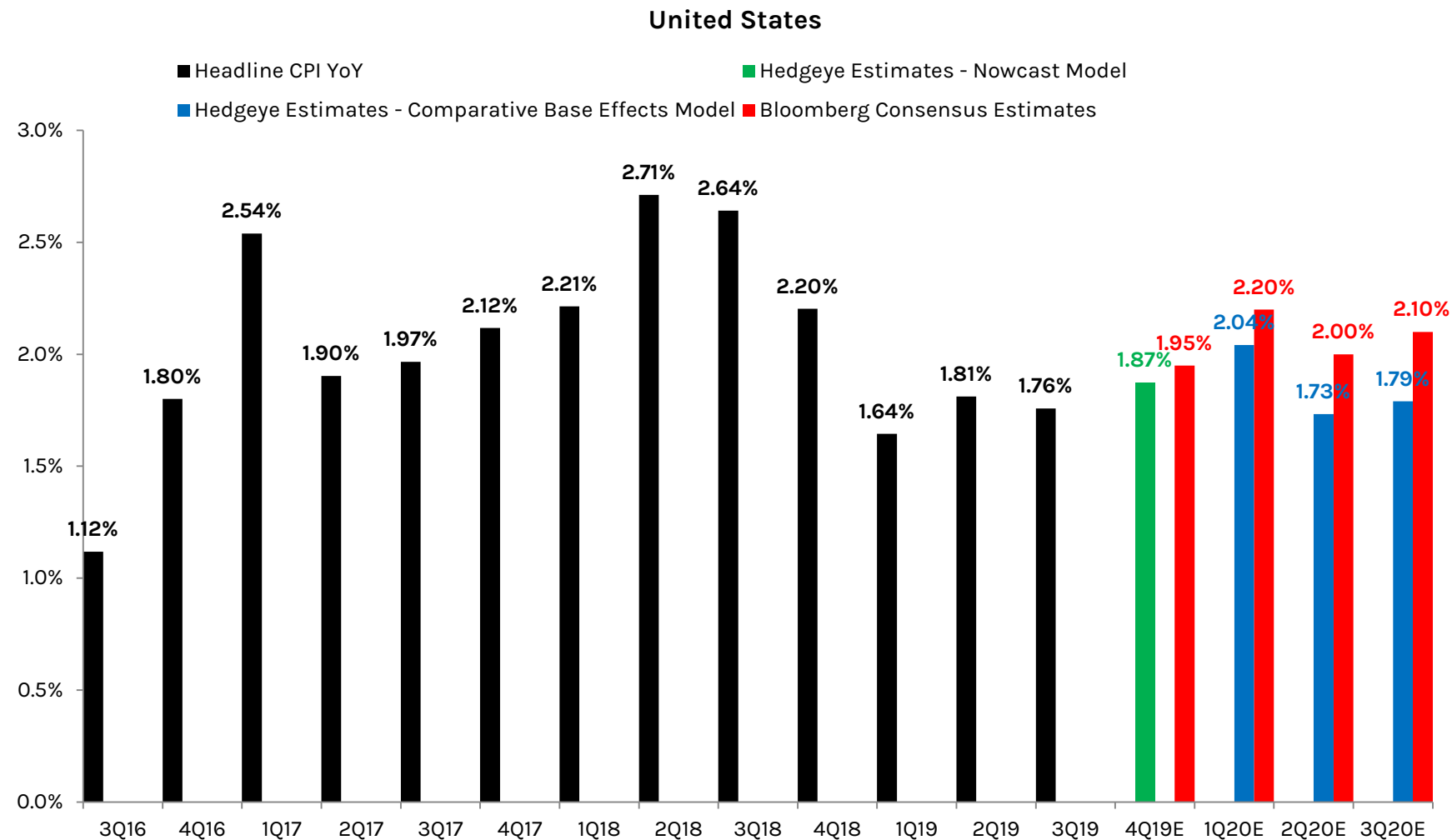


One differentiating factor of our forecasting process is that we aim to solve for cycle (i.e. where growth is trending to on a YoY basis), rather than trying to identify super short-term economic momentum. A rigorous study of financial market history suggests the latter growth rate to be little more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

US Headline CPI YoY Forecasts

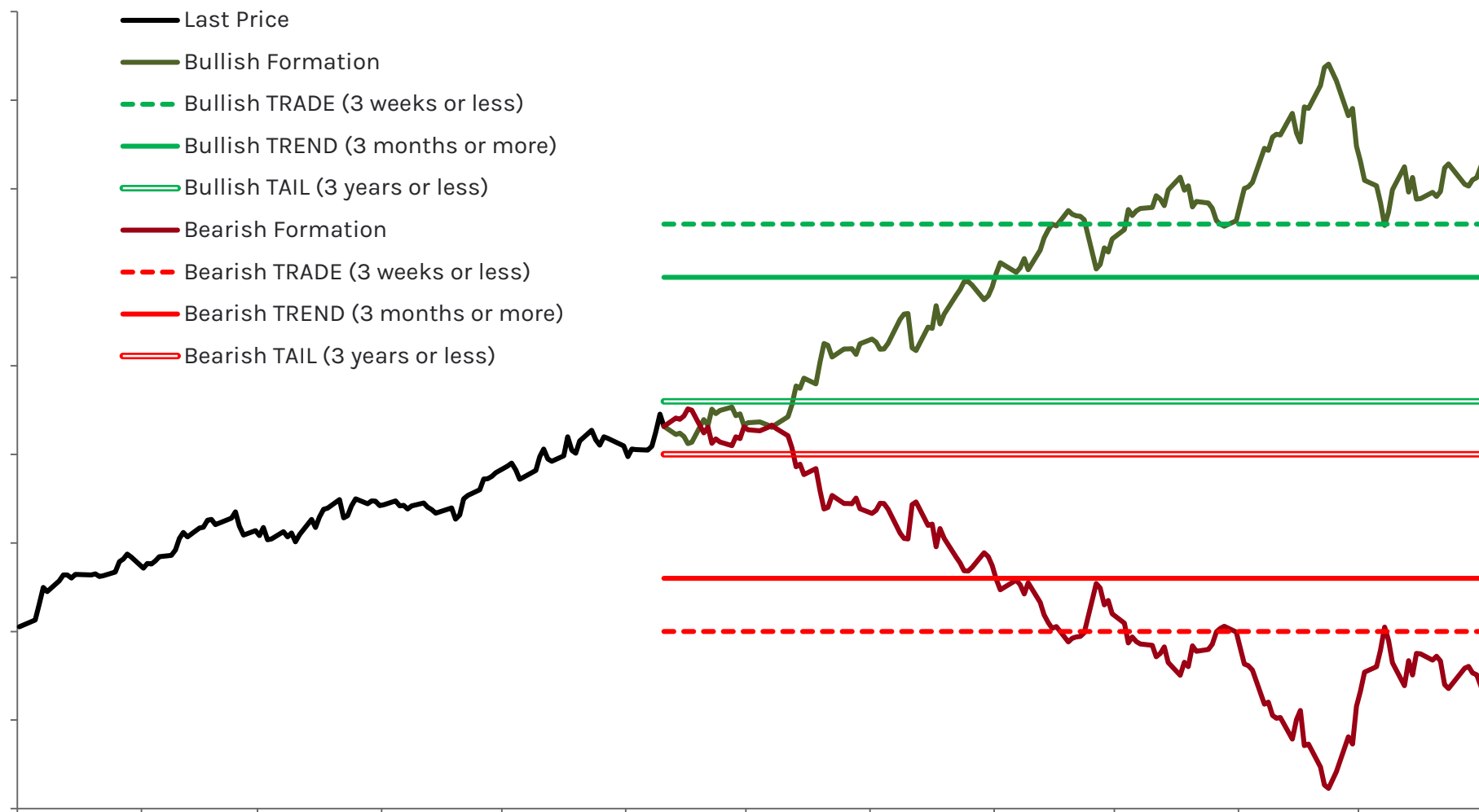


We use two distinct models to forecast the YoY rate of change in headline CPI and the combination of the two allows us to develop both a highly accurate real-time view of near-term inflation momentum, as well as a high-probability scenario for where inflation is likely to trend over the NTM.

Intra-quarter, we employ a stochastic nowcasting framework employs nonlinear techniques to interpolate the implied marginal rate of change of the weighted factors embedded in our predictive tracking algorithm back to CPI. 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 told, our US CPI model has an average absolute forecast error of 17bps and an 83% success rate in terms of accurately projecting the marginal rate of change.

A | B Testing Process: TRADE/TREND/TAIL Risk Management Overlay



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, inasmuch that assets in the converse "Bearish Formation" should be repeatedly shorted on strength.

A | B Testing Process: Quantify Investor Consensus

Monitoring Sector and Style 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.

STYLE FACTOR PERFORMANCE*

	FACTOR	1D % Chg	1W % Chg	1M % Chg	3M % Chg	6M % Chg	YTD % Chg
Debt	High Debt/EV	1.7%	1.1%	5.7%	4.1%	2.5%	19.4%
	Low Debt/EV	1.0%	1.3%	6.5%	3.5%	2.0%	22.2%
SI	High Short Interest	1.8%	1.2%	7.5%	4.1%	-2.0%	14.1%
	Low Short Interest	0.9%	1.4%	5.2%	2.7%	5.4%	25.5%
BETA	High Beta	2.4%	1.6%	9.9%	5.2%	-3.1%	16.5%
	Low Beta	0.1%	0.3%	1.4%	4.1%	8.5%	23.6%
YIELD	High Yield	1.5%	0.7%	5.0%	2.6%	-0.3%	11.7%
	Low Yield	1.2%	1.9%	7.9%	4.2%	3.1%	26.4%
MKT CAP	MCAP Bottom 25%	2.1%	1.3%	6.8%	3.1%	-2.8%	11.4%
	MCAP Top 25%	0.9%	1.7%	6.9%	5.5%	7.8%	24.5%
Sales	Top 25% Sales Growth	1.2%	1.8%	7.0%	4.1%	4.3%	27.5%
	Bottom 25% Sales Growth	1.6%	0.9%	7.6%	4.3%	0.0%	14.4%
EPS	Top 25% EPS Growth	1.7%	1.6%	7.0%	4.7%	4.2%	26.5%
	Bottom 25% EPS Growth	1.4%	0.7%	5.2%	2.0%	-1.2%	10.8%

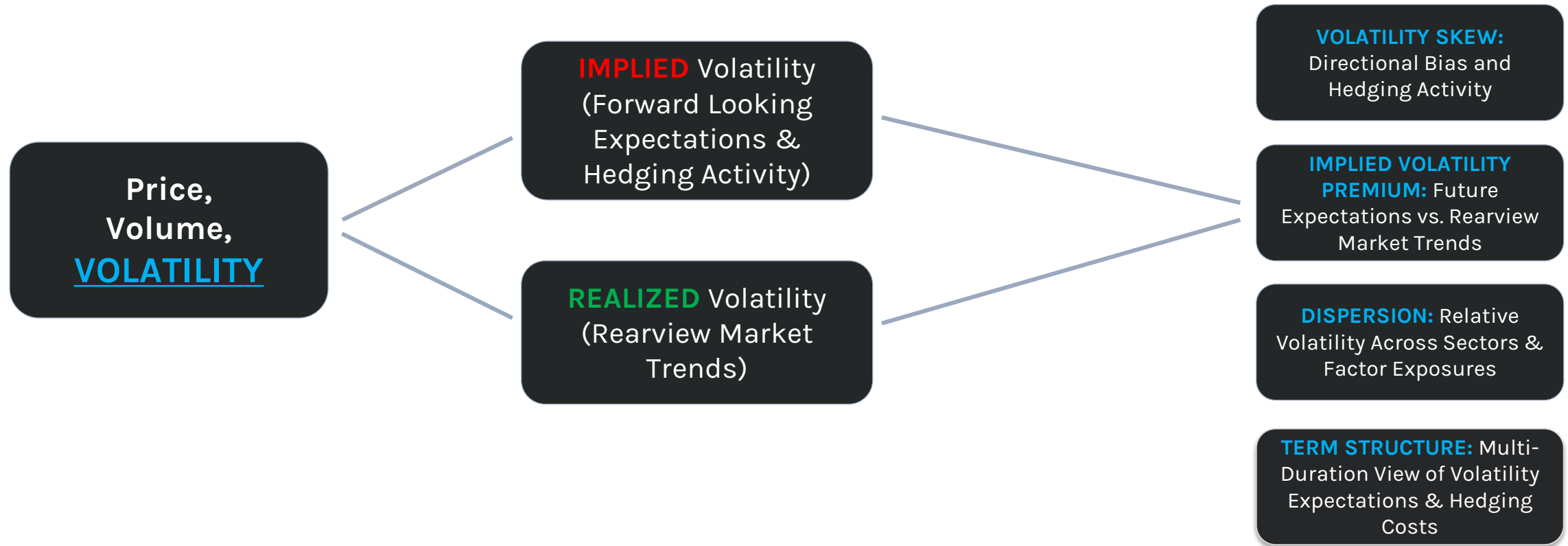
*Mean Performance of Top Quartile vs. Bottom Quartile, S&P500 Companies

CFTC NON-COMMERCIAL NET LONG POSITIONING

	METRIC	Latest	W/W Chg	3M Ave	6M Ave	1Y Ave	3Y		Z-Score	
							Max	Min	1Y	3Y
EQUITIES	SPX (Index + E-mini)	42,019	8,441	31,416	51,179	44,323	249,638	(128,189)	-0.03X	-0.59X
	VIX	(187,948)	(16,712)	(116,273)	(116,904)	(83,354)	92,913	(187,948)	-1.52X	-1.55X
	Russell 2000 (mini)	(13,872)	11,356	(42,957)	(46,177)	(45,966)	166,521	(153,844)	0.93X	-0.13X
	Dow Jones (mini)	40,355	572	41,245	34,038	27,979	95,976	(282)	1.04X	-0.13X
	Nasdaq (mini)	41,240	9,715	28,703	23,120	8,808	113,412	(24,815)	1.80X	0.31X
	Nikkei Index	(10,590)	(504)	(8,344)	(9,265)	(10,032)	14,214	(16,298)	-0.16X	-1.17X
RATES	10Y UST	(122,915)	697	(256,876)	(307,333)	(257,755)	372,991	(758,490)	1.28X	0.25X
	2Y UST	(211,327)	38,908	(222,699)	(200,540)	(225,289)	86,881	(421,551)	0.13X	-0.51X
	5Y UST	(156,342)	35,438	(106,689)	(96,986)	(158,650)	6,400	(866,140)	0.02X	0.71X
	UST Bonds	(46,309)	9,620	(56,046)	(42,085)	(42,793)	122,839	(142,810)	-0.19X	-0.76X
	30D Fed Funds	191,911	(28,777)	83,046	(10,534)	(62,037)	220,688	(286,025)	2.12X	2.04X
	Eurodollar	1,503,625	26,871	1,304,790	950,758	(35,276)	1,503,625	(3,110,209)	1.34X	2.31X
CURRENCIES	USD	29,505	(1,705)	34,545	30,582	31,900	56,635	(10,666)	-0.46X	0.32X
	JPY	(19,736)	(1,244)	12,831	(10,175)	(41,878)	32,039	(140,151)	0.51X	0.89X
	EUR	(53,150)	(728)	(62,013)	(66,416)	(66,850)	147,318	(134,647)	0.59X	-0.73X
	GBP	(35,453)	19,520	(81,130)	(66,039)	(49,723)	49,216	(113,271)	0.49X	0.02X
	AUD	(42,985)	3,566	(52,364)	(55,604)	(50,568)	77,969	(74,181)	0.76X	-0.74X
	CAD	43,931	10,641	15,732	(308)	(18,545)	78,001	(99,736)	2.08X	1.32X
	MXN	129,931	16,171	107,766	117,553	93,601	156,013	(73,499)	0.76X	1.24X
	NZD	(40,449)	(191)	(31,324)	(24,299)	(14,911)	35,981	(42,544)	-1.86X	-1.92X
COMMODITIES	CHF	(12,900)	(1,271)	(9,625)	(16,577)	(20,236)	6,572	(47,216)	0.74X	0.50X
	CRUDE OIL	406,669	13,917	421,248	439,424	427,576	784,290	327,706	-0.35X	-0.90X
	GOLD	233,101	7,171	260,920	206,007	118,257	292,066	(103,009)	1.03X	1.36X
	COPPER	(23,642)	16,890	(46,516)	(36,372)	(17,404)	67,602	(60,135)	-0.26X	-1.27X
	Natural Gas	(185,792)	26,056	(171,533)	(152,346)	(82,340)	57,455	(216,003)	-1.29X	-1.95X
	RBOB Gasoline	82,011	18,932	60,143	71,056	78,425	114,862	29,519	0.27X	0.26X
	ULSD Heating Oil	2,040	4,014	(2,496)	(7,686)	(7,034)	67,696	(25,442)	0.94X	-0.79X
	Silver	57,979	8,202	57,057	36,120	30,063	107,003	(30,158)	0.99X	0.72X
	Platinum	42,314	7,137	30,375	21,881	19,775	45,610	(11,540)	2.00X	1.63X
	Aluminum	163,475	(2,043)	159,128	161,735	157,727	168,292	122,356	0.55X	1.31X
	Nickel	42,230	(365)	42,658	44,005	37,006	47,708	13,508	0.60X	1.21X
	Corn	(66,392)	(8,264)	(21,418)	57,061	20,928	372,754	(270,560)	-0.54X	-0.70X
	Soybeans	96,467	13,360	1,528	(28,424)	(28,161)	210,365	(148,817)	2.45X	0.82X
	Wheat	14,393	(5,004)	6,848	7,329	(10,710)	63,219	(143,292)	0.81X	0.97X
	Live Cattle	60,305	8,044	37,612	58,889	96,167	183,134	19,421	-0.74X	-0.95X
	Lean Hogs	46,445	(5,204)	57,615	67,957	53,419	97,769	(11,151)	-0.25X	0.09X
	Sugar	(205,161)	(1,518)	(159,976)	(119,271)	(65,707)	282,519	(205,161)	-1.93X	-1.84X
	Cotton	4,375	(1,020)	(18,885)	(20,451)	1,278	132,318	(37,827)	0.11X	-1.13X
	Coffee	(45,692)	4,929	(37,203)	(32,957)	(42,711)	67,942	(106,651)	-0.16X	-0.41X
	Cocoa	32,349	999	9,111	21,880	11,248	61,244	(43,846)	0.95X	1.04X
	Orange Juice	(6,705)	(708)	(6,365)	(6,657)	(7,071)	9,001	(9,416)	0.33X	-1.02X

A | B Testing Process: The Volatility Factor

3-factor model: PRICE, VOLUME, and VOLATILITY



A | B Testing Process: Measure & Map The Volatility of Volatility

TIME WINDOW SETTING:		TICKER	TOTAL RETURN	IVOL PREMIUM/DISCOUNT						REALIZED VOLATILITY TRENDS			IMPLIED VOLATILITY TRENDS		
VOLATILITY_30D	PERFORMANCE		IVOL PREM %						RVOL	PERCENTILE		IVOL	PERCENTILE		
PUT_IMP_VOL_30D	YTD %		IVOL / RVOL	Yesterday	1W Ago	1M Ago	TTM Z-Score	3Yr Z-Score	CURRENT	MM %	10YR	CURRENT	MM %	10YR	
US EQUITIES															
CURRENT															
Technology Sector SPDR ETF	XLK US EQUITY	37.97%	-17%	-17%	-17%	25%	-0.5	-0.8	17.9	-7%	71%	14.9	-38%	44%	
Power Shares QQQ Trust ETF	QQQ US EQUITY	29.70%	-14%	-14%	-9%	35%	-0.5	-0.8	15.5	-12%	57%	13.3	-44%	24%	
Vanguard Real Estate REIT ETF	VNQ US EQUITY	29.57%	23%	32%	26%	17%	1.0	1.1	8.8	-23%	5%	11.2	-25%	15%	
Industrials Sector SPDR ETF	XLI US EQUITY	26.48%	-14%	-14%	-9%	25%	-0.5	-0.8	16.3	-8%	61%	13.9	-37%	34%	
Communication Services SPDR ETF	XLC US EQUITY	24.23%	2%	4%	18%	17%	-0.1		16.0	-5%	31%	15.2	-32%	7%	
SPDR S&P 500 ETF Trust	SPY US EQUITY	24.20%	-19%	-19%	-14%	43%	-0.6	-0.9	12.5	-11%	53%	10.2	-49%	19%	
Financials Sector SPDR ETF	XLF US EQUITY	24.13%	-15%	-15%	-9%	22%	-0.8	-1.0	16.4	-7%	53%	13.9	-36%	15%	
Consumer Discretionary Sector SPDR ETF	XLV US EQUITY	24.13%	-4%	-4%	-6%	30%	-0.2	-0.6	11.9	-28%	34%	11.4	-47%	11%	
Utilities Sector SPDR ETF	XLU US EQUITY	23.92%	-5%	-5%	12%	46%	-0.4	-0.5	10.7	-5%	28%	10.2	-38%	9%	
Consumer Staples Sector SPDR ETF	XLP US EQUITY	22.73%	24%	24%	33%	30%	0.2	0.3	10.5	-13%	45%	13.0	-17%	71%	
I-Shares Russell 2000 ETF	IWM US EQUITY	19.23%	-10%	-10%	-3%	11%	-0.4	-0.8	15.6	-22%	44%	14.1	-37%	14%	
Materials Sector SPDR ETF	XLB US EQUITY	18.61%	-17%	-17%	-8%	-14%	-0.7	-1.0	15.8	-5%	46%	13.1	-9%	16%	
Health Care Sector SPDR ETF	XLV US EQUITY	10.99%	-12%	-12%	0%	38%	-0.4	-0.8	14.2	12%	58%	12.5	-29%	31%	
Energy Sector SPDR ETF	XLE US EQUITY	6.08%	-13%	-13%	-6%	9%	-0.7	-0.9	20.3	-12%	59%	17.7	-29%	34%	
INTERNATIONAL EQUITIES															
Euro Stoxx 50 Index	SX5E INDEX	25.00%	-24%	-24%	-24%	30%	-1.3	-1.2	14.8	4%	36%	11.2	-39%	7%	
I-Shares MSCI Japan ETF	EWJ US EQUITY	17.97%	-10%	-10%	-2%	33%	-0.4	-0.7	10.9	0%	18%	9.8	-32%	5%	
I-Shares MSCI Emerging Markets ETF	EEM US EQUITY	11.49%	13%	13%	22%	54%	0.4	0.4	12.7	0%	13%	14.3	-27%	10%	
I-Shares China Large-Cap ETF	FXI US EQUITY	8.55%	22%	23%	23%	31%	1.1	0.9	15.0	1%	9%	16.9	-20%	10%	
CURRENCIES															
PowerShares US Dollar Index ETF	UUP US EQUITY	4.44%	31%	29%	26%	30%	0.0	0.3	4.5	-18%	8%	5.7	-20%	6%	
Currency Shares British Pound ETF	FXB US EQUITY	1.49%	-8%	-8%	-12%	30%	-1.5	-1.0	11.2	21%	91%	10.4	-14%	74%	
Currency Shares Japanese Yen ETF	FXJ US EQUITY	0.90%	-6%	-6%	11%	12%	-0.8	-0.8	5.1	-21%	6%	4.8	-33%	1%	
Currency Shares Euro Trust ETF	FXE US EQUITY	-3.15%	10%	10%	8%	9%	0.3	0.3	4.1	-25%	4%	4.6	-24%	1%	
COMMODITIES															
United States Oil Fund ETF	USO US EQUITY	21.01%	40%	40%	-26%	-23%	1.9	1.9	25.1	-47%	41%	31.1	-16%	60%	
SPDR Gold Shares ETF	GLD US EQUITY	17.58%	-3%	-7%	2%	-11%	-0.2	-0.6	11.8	-26%	35%	11.1	-23%	19%	
PowerShares DB Agriculture Fund ETF	DBA US EQUITY	-5.14%	47%	34%	36%	14%	0.8	0.7	8.2	-30%	11%	12.3	-12%	15%	
United States Natural Gas Fund ETF	UNG US EQUITY	-13.60%	48%	40%	82%	33%	1.4	1.7	33.5	2%	46%	51.9	2%	89%	
FIXED INCOME															
I-Shares 20+ Year Treasury Bond ETF	TLT US EQUITY	18.01%	-14%	-15%	-6%	-15%	-0.8	-1.1	13.2	-20%	57%	10.9	-25%	29%	
I-Shares IBOX IG Corporate Bond ETF	LQD US EQUITY	16.31%	5%	6%	3%	-11%	-0.2	-0.4	5.0	-28%	51%	4.8	-28%	28%	
I-Shares J.P. Morgan USD EM Bond ETF	EMB US EQUITY	13.65%	4%	-8%	-1%	9%	0.1	-0.5	5.5	-23%	48%	5.5	-34%	18%	
I-Shares IBOX HY Corporate Bond ETF	HYG US EQUITY	11.79%	23%	24%	4%	18%	0.4	0.2	3.8	-17%	18%	4.5	-31%	13%	
I-Shares 7-10 Year Treasury Bond ETF	IEF US EQUITY	9.59%	-11%	21%	-6%	6%	-0.5	-0.6	5.9	-11%	59%	5.5	-21%	32%	

Data Source: CBOE, CME, Bloomberg

[1] #Quad4, Then #Quad2 Or #Quad3?

Was the TTM lesson in Full-Cycle Investing just another mid-cycle slowdown or was it a harbinger of recessionary quarters ahead? In the presentation, we'll detail the myriad of downside risks associated with our baseline projection of a narrow inflection into #Quad2 in 4Q19E for both the US and global economies. We'll also provide investors with a playbook for how to risk manage the uncertainty associated with these divergent-but-not-disparate regimes.

[2] EPS #Slowing

After a decade of waiting for Godot on wage growth, we're finally at a point in the domestic business cycle where the relationship between labor and profits starts to matter, big time. In the presentation, we'll detail the downside risks to the consensus 4Q19E/2020E EPS recovery narrative.

[3] #InflationAccelerating

As you can probably tell by now, our confidence in stochastically driven projections for recoveries in both the US and global economies is low – as is our faith that Wall St. is going to be right on corporate profits meaningfully recovering in short order. Where we do have conviction, however, is in the return of inflation over both the intermediate and long terms. After a year in which it has paid to take on duration risk in every asset class, we now think the consensus portfolio is under-positioned for a phase transition in inflation expectations.

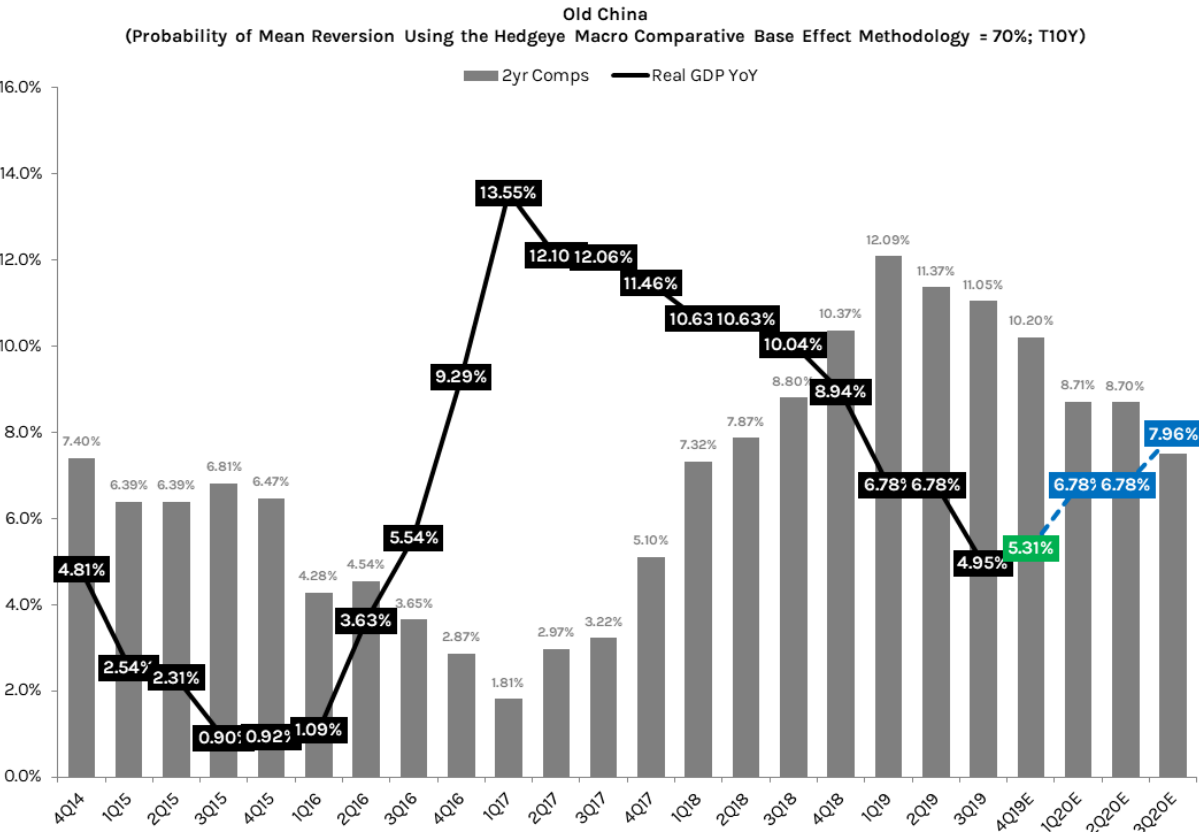
This Is What 3yr Comps Looks Like

10/31/2019	Hedgeye Macro GIP Model Signals													High-Frequency Economic Data Signals													
	Actuals									Hedgeye Forecasts				Consumption		Business Confidence		Manufacturing		Exports		Manufacturing PMI		Headline CPI		Core CPI	
	3Q17	4Q17	1Q18	2Q18	3Q18	4Q18	1Q19	2Q19	3Q19	4Q19E	1Q20E	2Q20E	3Q20E	6-12M Trend	Percentile of Latest Reading (T10Y)	6-12M Trend	Percentile of Latest Reading (T10Y)	6-12M Trend	Percentile of Latest Reading (T10Y)	6-12M Trend	Percentile of Latest Reading (T10Y)	6-12M Trend	Percentile of Latest Reading (T10Y)	6-12M Trend	Percentile of Latest Reading (T10Y)	6-12M Trend	Percentile of Latest Reading (T10Y)
Argentina	-	-	3	3	2	3	2	2	1	2	4	4	4	⬆️	95%	-	-	⬇️	0%	⬆️	76%	-	-	⬆️	71%	-	-
Australia	1	4	1	4	3	4	4	4	1	3	2	2	4	⬇️	23%	⬇️	9%	⬆️	33%	⬇️	58%	⬇️	0%	➡️	7%	⬇️	5%
Brazil	1	2	4	3	2	4	4	2	1	3	3	4	3	⬇️	34%	⬇️	80%	⬇️	40%	⬇️	39%	⬇️	91%	⬇️	8%	➡️	7%
Canada	3	3	3	3	2	4	4	2	4	2	2	4	4	➡️	7%	⬇️	63%	⬇️	26%	⬇️	28%	⬇️	17%	⬆️	58%	⬆️	89%
China	3	3	3	4	3	4	4	3	3	3	3	1	1	⬇️	3%	➡️	3%	⬇️	45%	⬇️	22%	⬇️	3%	⬆️	76%	⬇️	25%
Eurozone	1	1	4	3	3	4	1	4	4	4	2	1	2	⬆️	75%	⬇️	6%	⬇️	8%	⬇️	9%	⬇️	0%	⬇️	28%	➡️	55%
France	1	2	3	3	3	4	1	1	4	4	2	4	4	⬆️	45%	⬆️	79%	⬆️	18%	⬆️	63%	➡️	14%	⬇️	35%	➡️	44%
Germany	2	1	4	3	3	4	1	3	1	1	2	1	3	➡️	87%	⬇️	9%	⬇️	6%	⬇️	10%	⬇️	3%	⬇️	24%	⬇️	36%
India	2	2	2	3	4	4	4	3	3	2	2	1	3	-	-	-	-	⬇️	3%	⬇️	9%	⬇️	29%	⬆️	30%	-	-
Indonesia	1	1	4	1	4	2	4	3	2	3	2	4	4	⬇️	9%	-	-	⬆️	100%	⬇️	35%	⬇️	0%	⬆️	24%	➡️	29%
Italy	4	1	4	3	3	4	1	1	1	1	2	1	1	⬆️	66%	⬇️	33%	⬇️	29%	⬆️	9%	⬆️	6%	⬇️	17%	➡️	42%
Japan	2	2	3	1	3	1	1	2	1	3	2	3	1	⬆️	98%	⬇️	3%	⬇️	53%	⬇️	21%	⬇️	0%	➡️	39%	⬇️	56%
Mexico	3	3	4	1	3	4	4	3	1	3	2	2	2	➡️	62%	⬇️	34%	⬇️	15%	⬇️	17%	⬇️	3%	⬇️	14%	➡️	76%
Russia	4	4	1	2	2	2	3	1	4	2	2	3	3	⬇️	27%	⬆️	43%	⬆️	53%	⬇️	23%	⬇️	0%	➡️	18%	⬆️	17%
South Africa	4	4	4	3	2	4	4	2	4	2	2	4	4	⬆️	14%	⬇️	7%	⬇️	18%	⬇️	10%	-	-	⬇️	12%	⬇️	15%
South Korea	2	4	1	2	3	2	4	2	1	2	2	4	3	➡️	52%	⬆️	23%	⬇️	34%	⬇️	6%	⬇️	20%	⬇️	1%	⬇️	1%
Spain	4	1	4	3	3	4	1	4	4	4	2	1	2	⬆️	85%	⬇️	46%	⬆️	64%	⬆️	2%	⬇️	0%	⬇️	26%	⬆️	72%
Turkey	1	3	1	3	3	3	1	1	1	1	3	1	4	⬆️	6%	⬆️	22%	⬆️	14%	⬇️	26%	⬆️	63%	⬇️	62%	⬇️	43%
United Kingdom	3	3	4	1	2	4	1	3	4	2	3	2	3	⬇️	64%	⬇️	6%	⬆️	15%	⬇️	47%	⬇️	9%	➡️	28%	➡️	28%
United States	2	2	2	2	4	4	1	3	4	3	3	4	2	⬆️	83%	➡️	74%	⬇️	18%	⬇️	23%	⬇️	0%	➡️	42%	➡️	63%
MODE/MEAN	1	2	4	3	3	4	4	3	1	2	2	4	4	⬆️	49%	⬇️	32%	⬇️	30%	⬇️	27%	⬇️	14%	⬇️	31%	➡️	39%

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

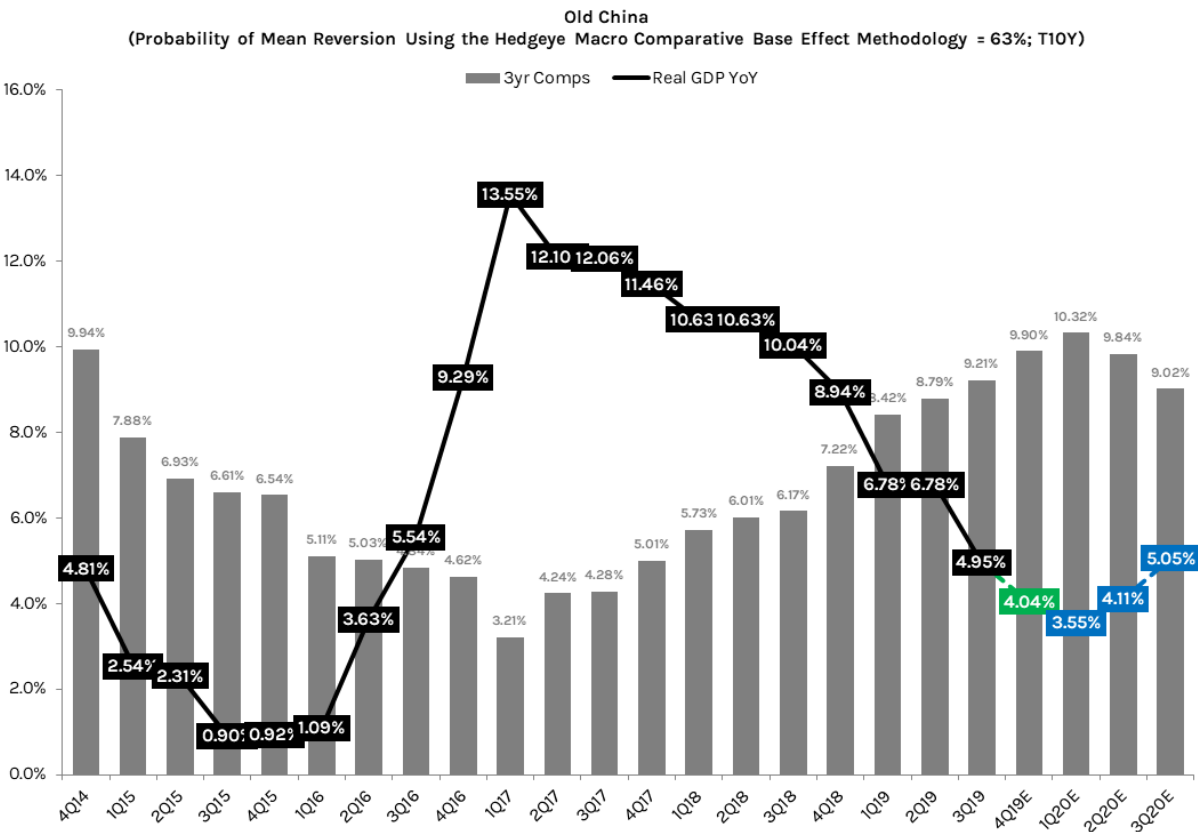
If It Was, Then We're Still Lapping Those Distortions

2yr comps call for an rebound in the mainland Chinese economy



Data Source: Bloomberg. Green box = Hedgeye Nowcast estimates. Blue boxes = Hedgeye β-Adjusted Comparative Base Effect Model estimates.

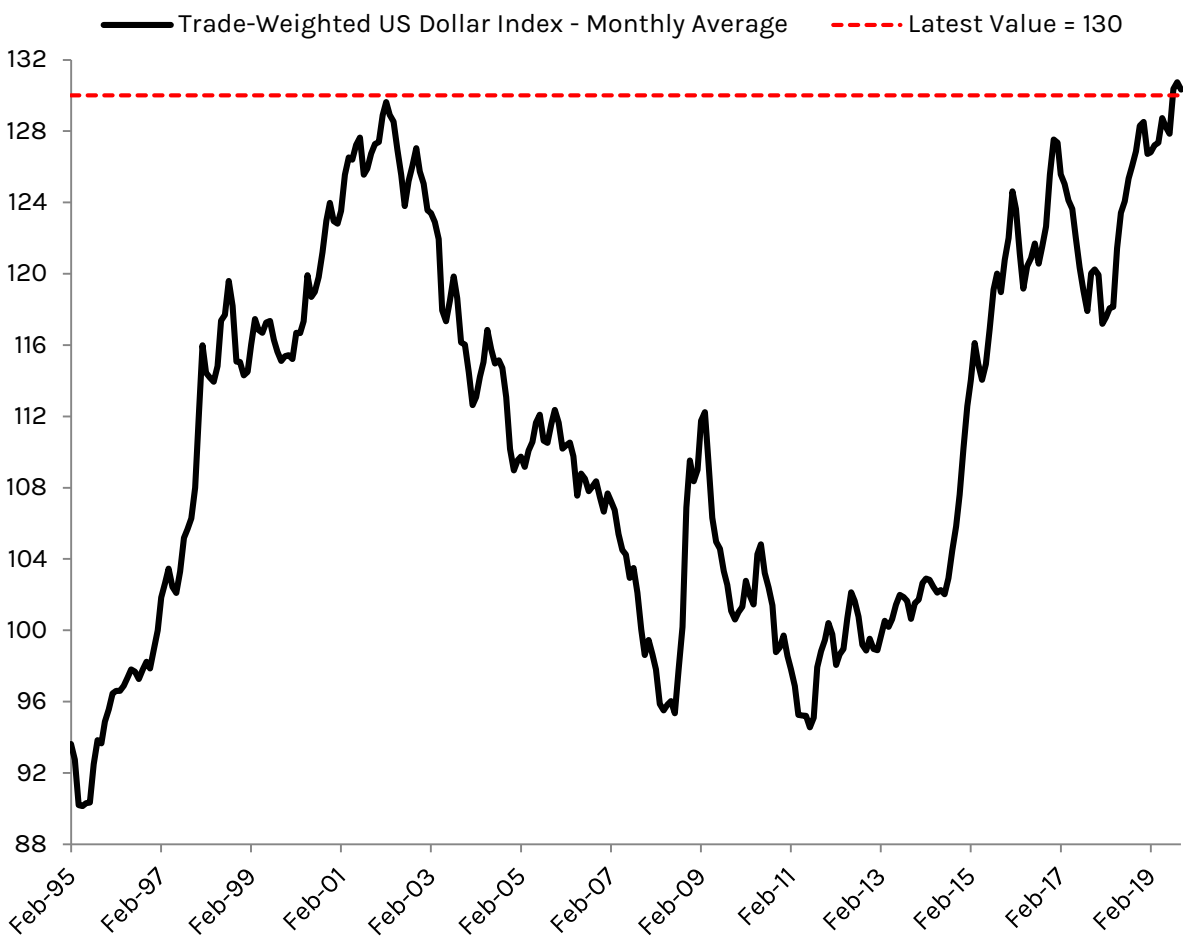
... while 3yr comps call for persistent deceleration through 1Q20E



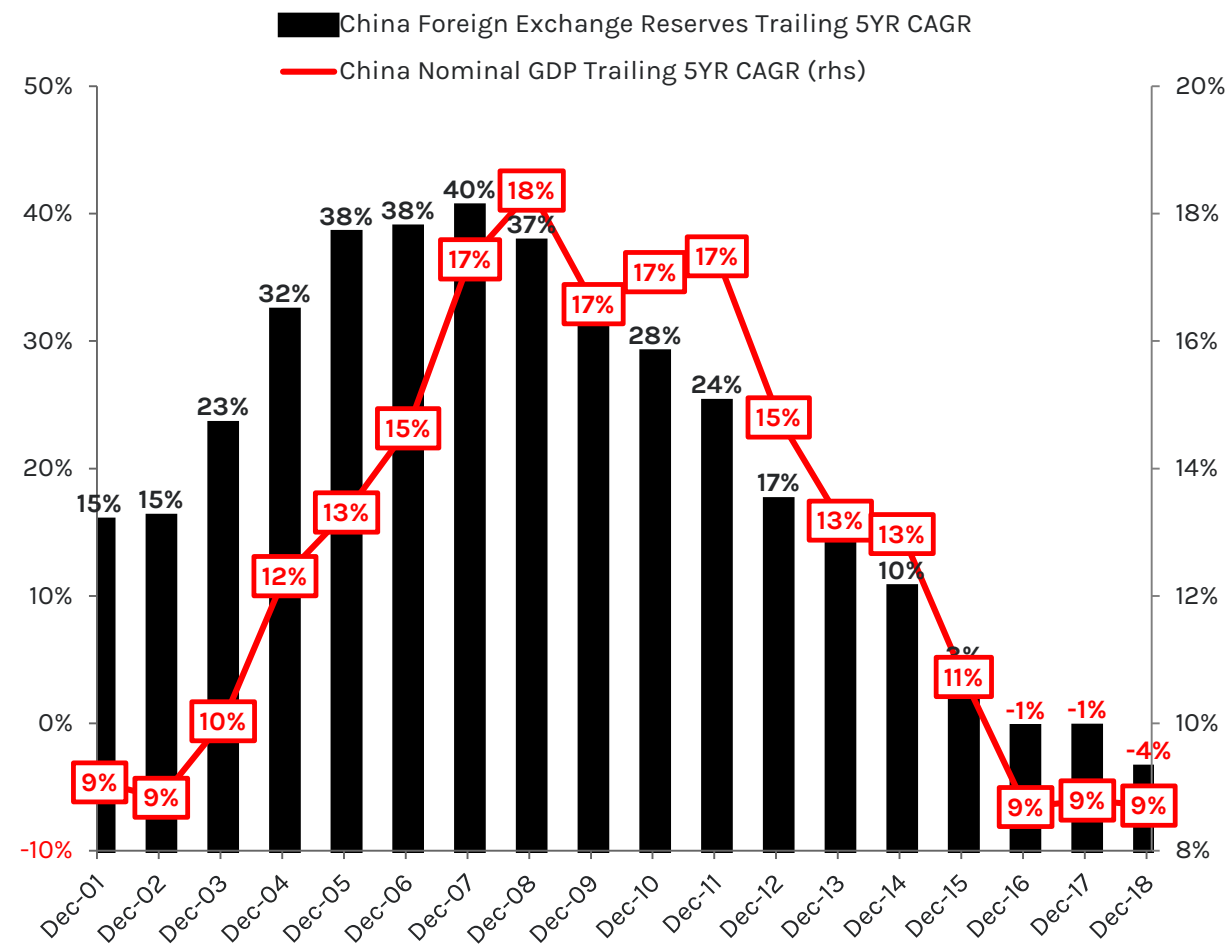
Data Source: Bloomberg. Green box = Hedgeye Nowcast estimates. Blue boxes = Hedgeye β-Adjusted Comparative Base Effect Model estimates.

China Can't Come To The Rescue This Time – At Least Not Yet HEDGEYE

In broad, trade-weighted terms, the USD recently surpassed the highs seen throughout the late-90s/early-00s EM crises



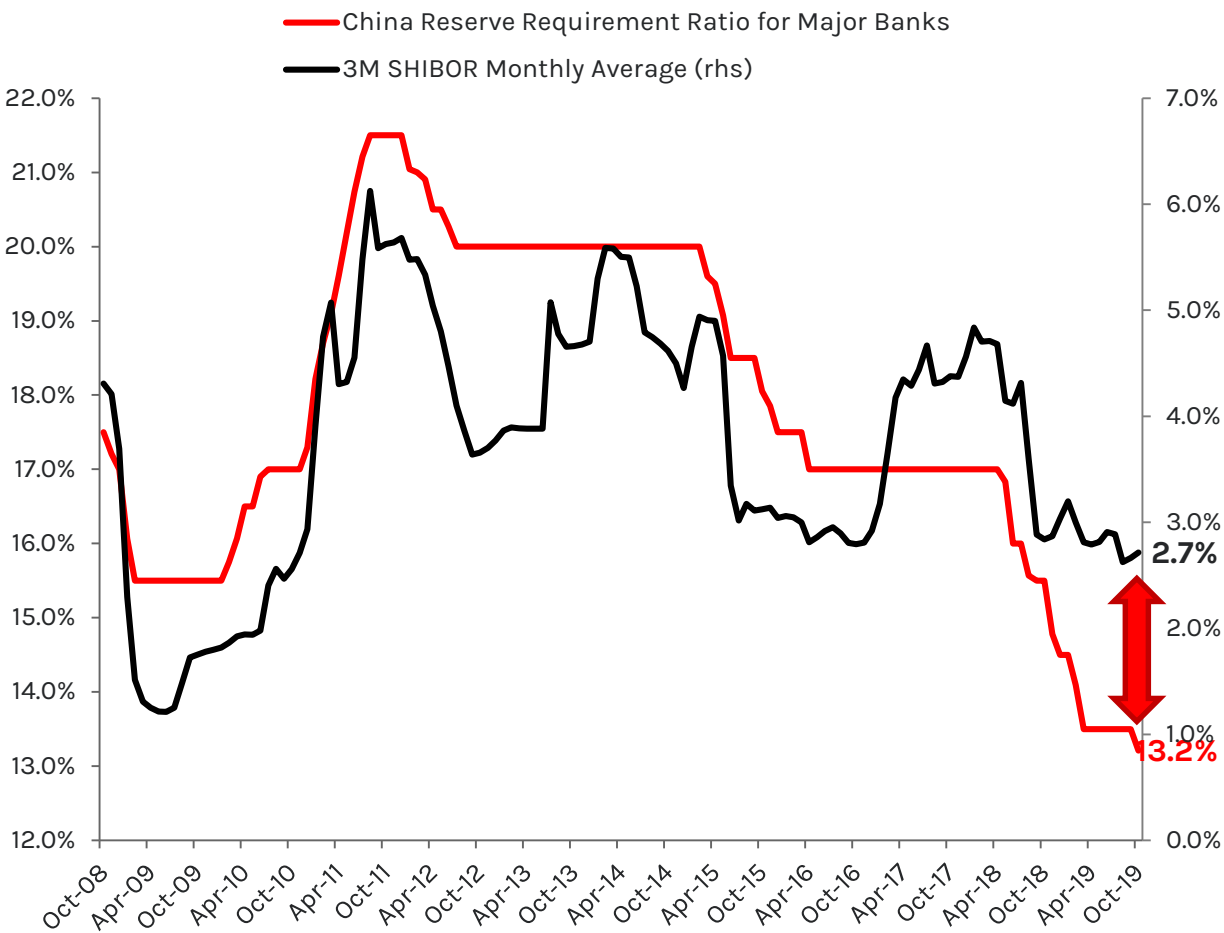
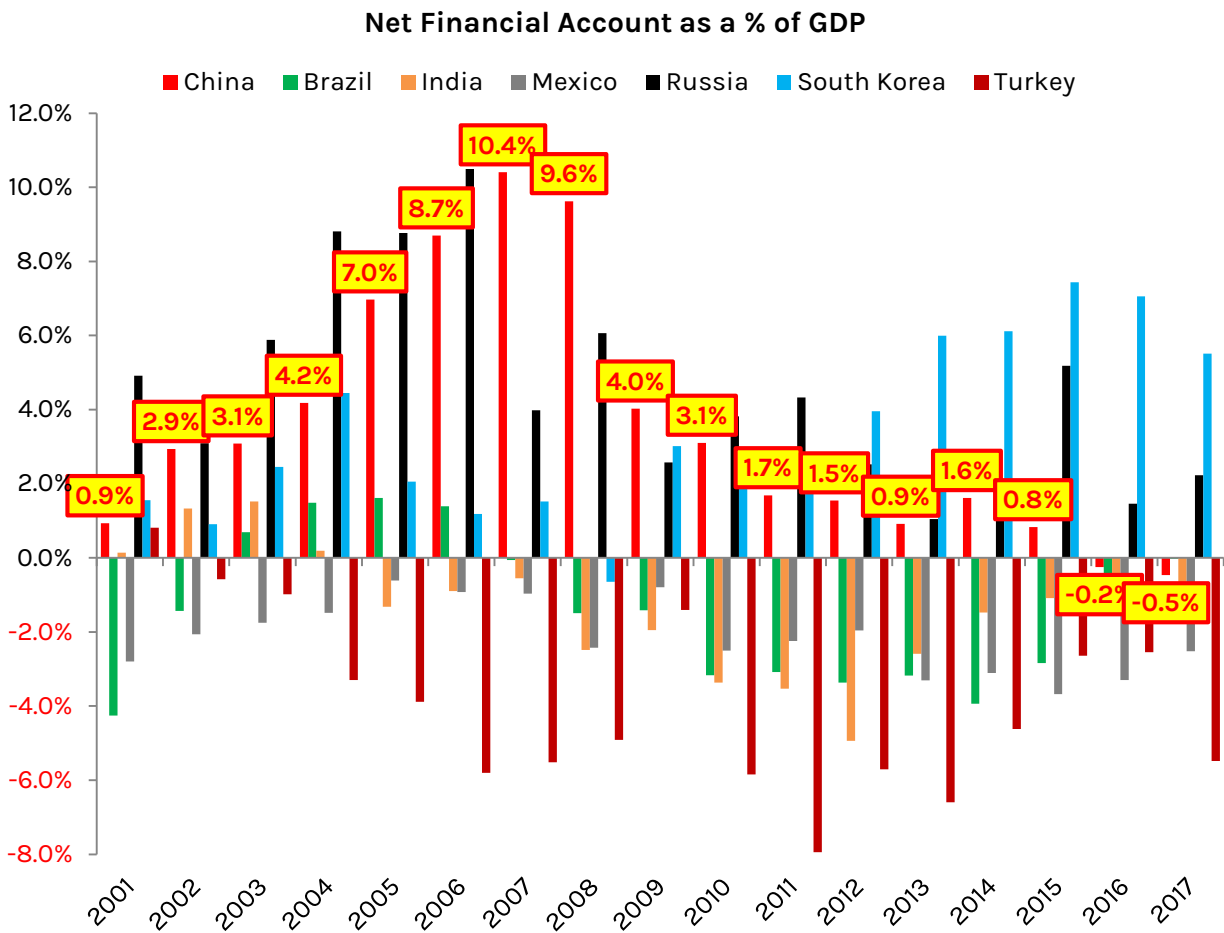
... and a strengthening US dollar indirectly perpetuates Quantitative Tightening vis-à-vis the PBoC's balance sheet



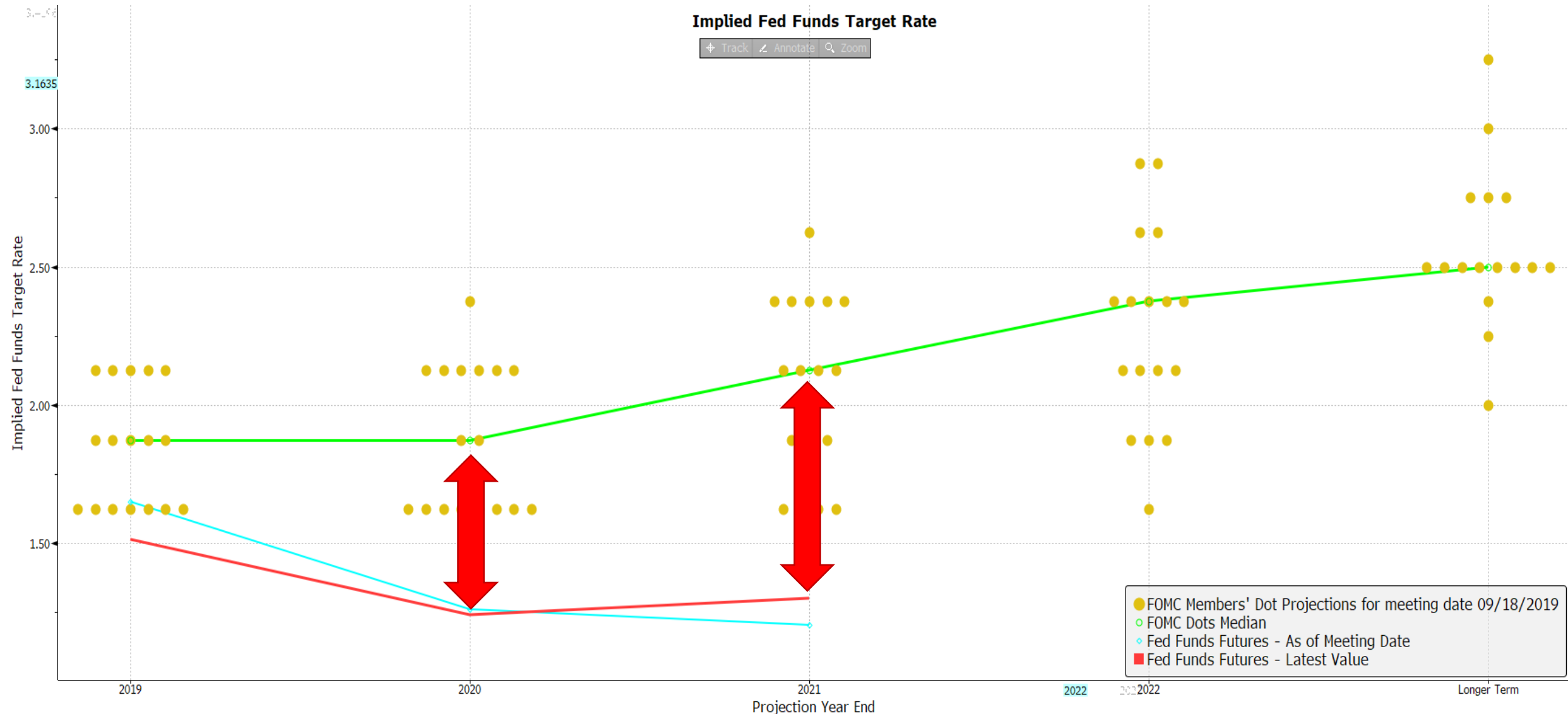
China Can't Come To The Rescue This Time – At Least Not Yet

The Chinese financial sector has become increasingly short of US dollars in recent years

... and that shortage is causing liquidity conditions to dry up on the mainland

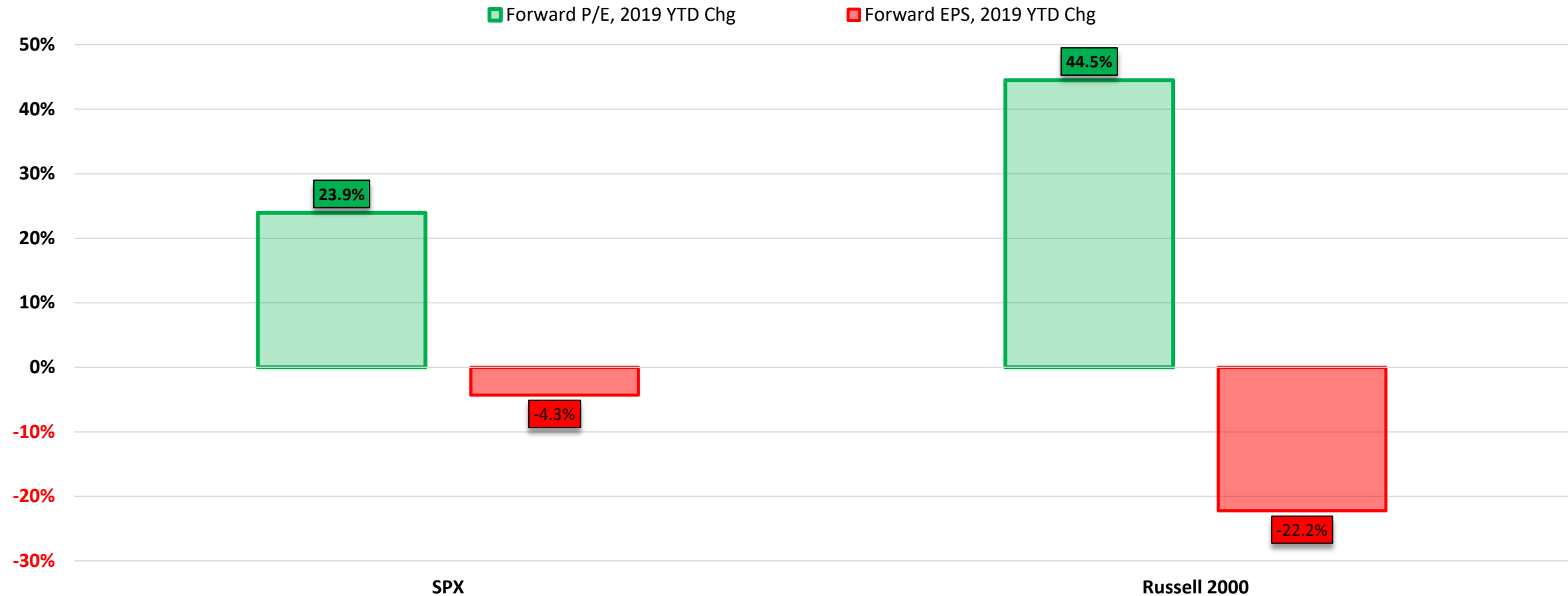


In Order For Beijing To Bail Us Out, The Fed Has To Capitulate



Remember: Equities = A 2019 FOMO Story

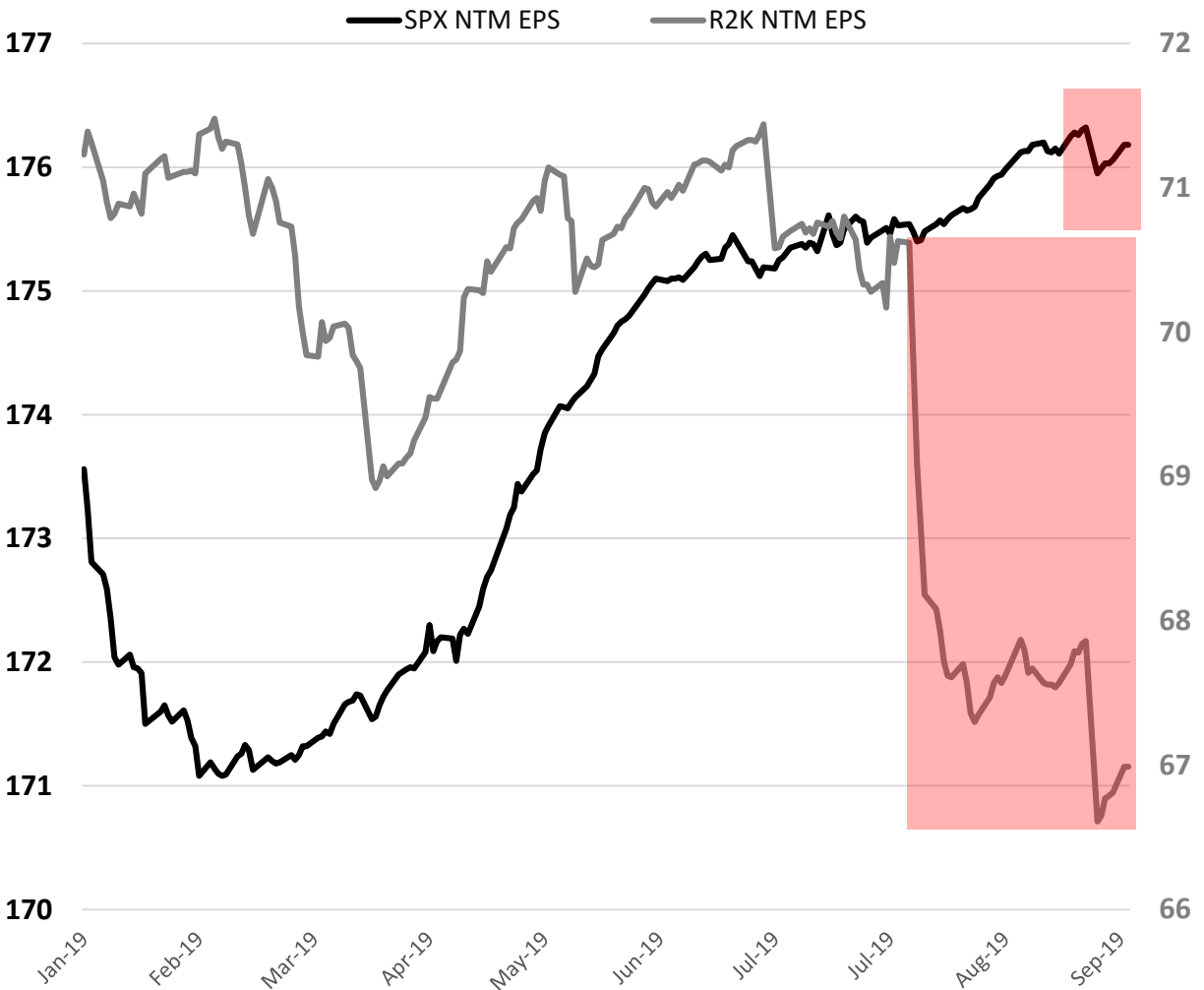
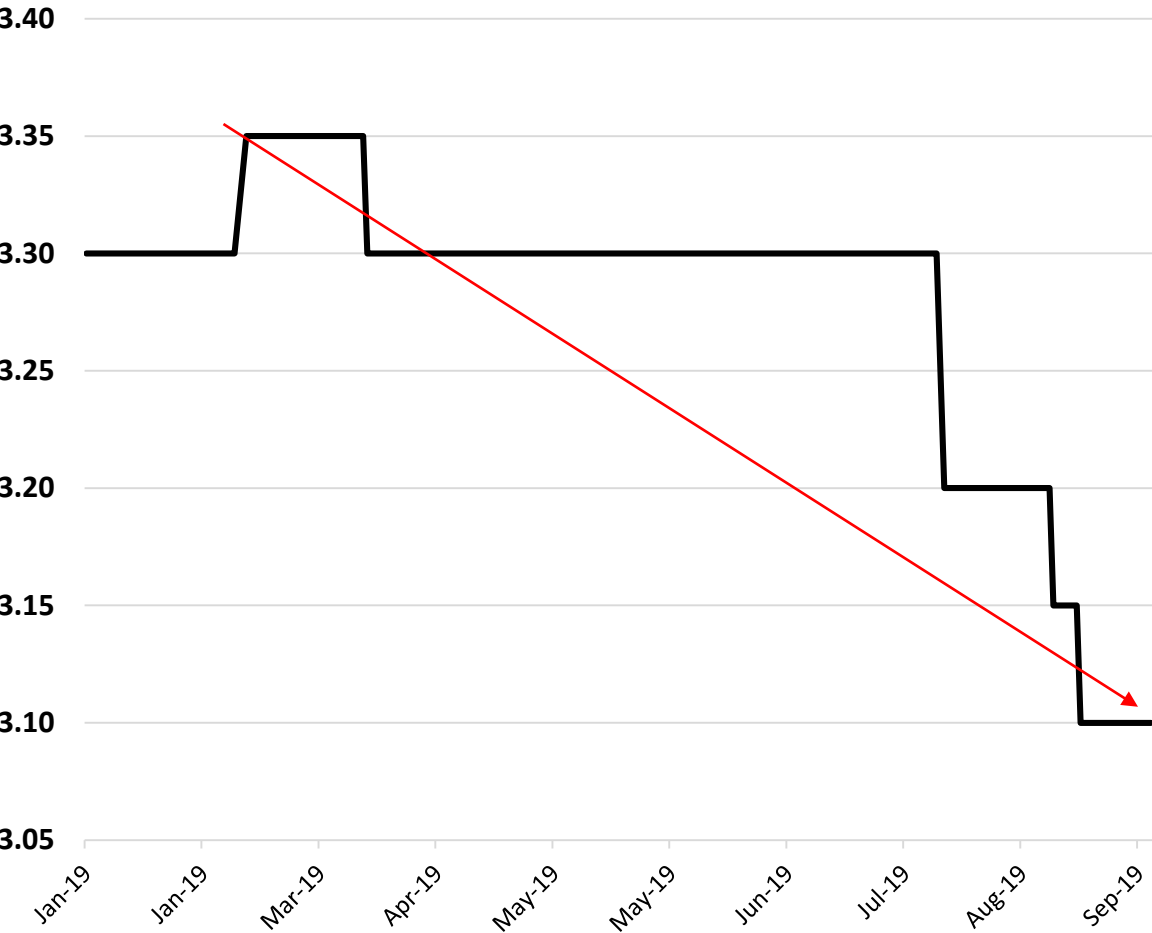
Multiple Expansion supported by the effervescent hope for CB intervention and the ubiquitous “back half recovery” has singularly propped domestic equities YTD as EPS revision trends have tumbled.



... But the 2H19/2020 Hope Thesis is cracking

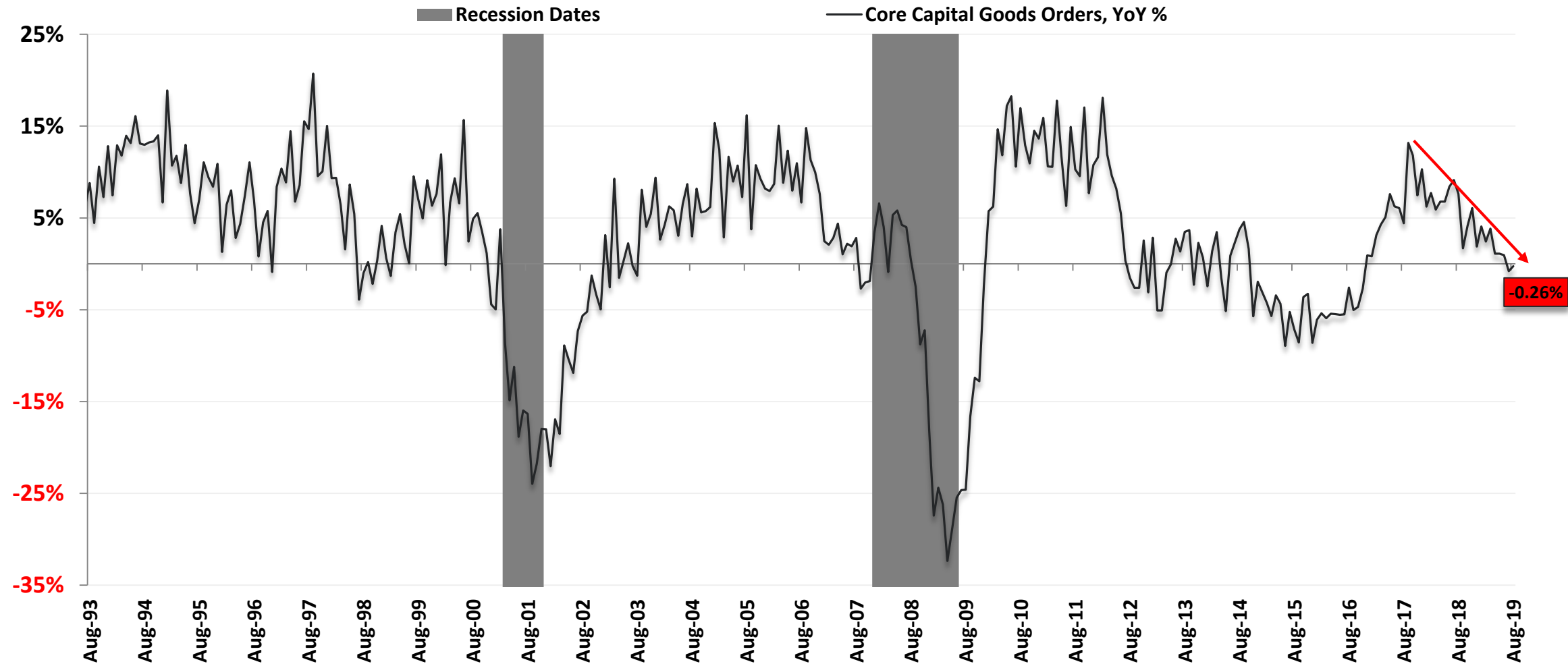
2020 growth revisions remain negative and NTM earnings estimates for small caps continue to crater while SPX FOMO is beginning to flirt with a breakdown

2020 GLOBAL GDP REVISION TREND



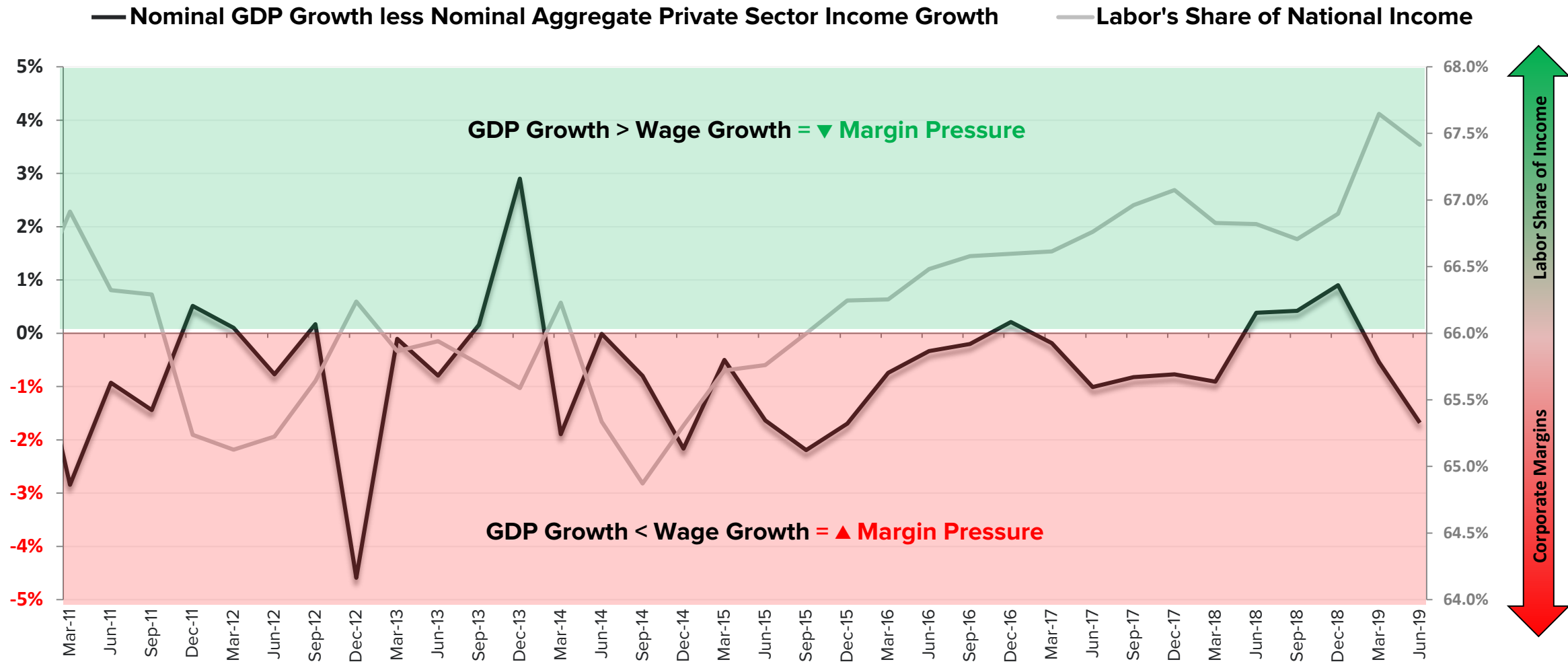
And ...Drumroll, CAPEX Is Already in Contraction

CAPITAL GOODS ORDERS



Labor Share of Income \uparrow = Corporate Margins \downarrow

With Aggregate Nominal Wages growing faster than Nominal GDP, Labor's share of national income will continue to increase. Of course, the other side of a rising share of income to labor is a falling share to Business (i.e. margins \downarrow).



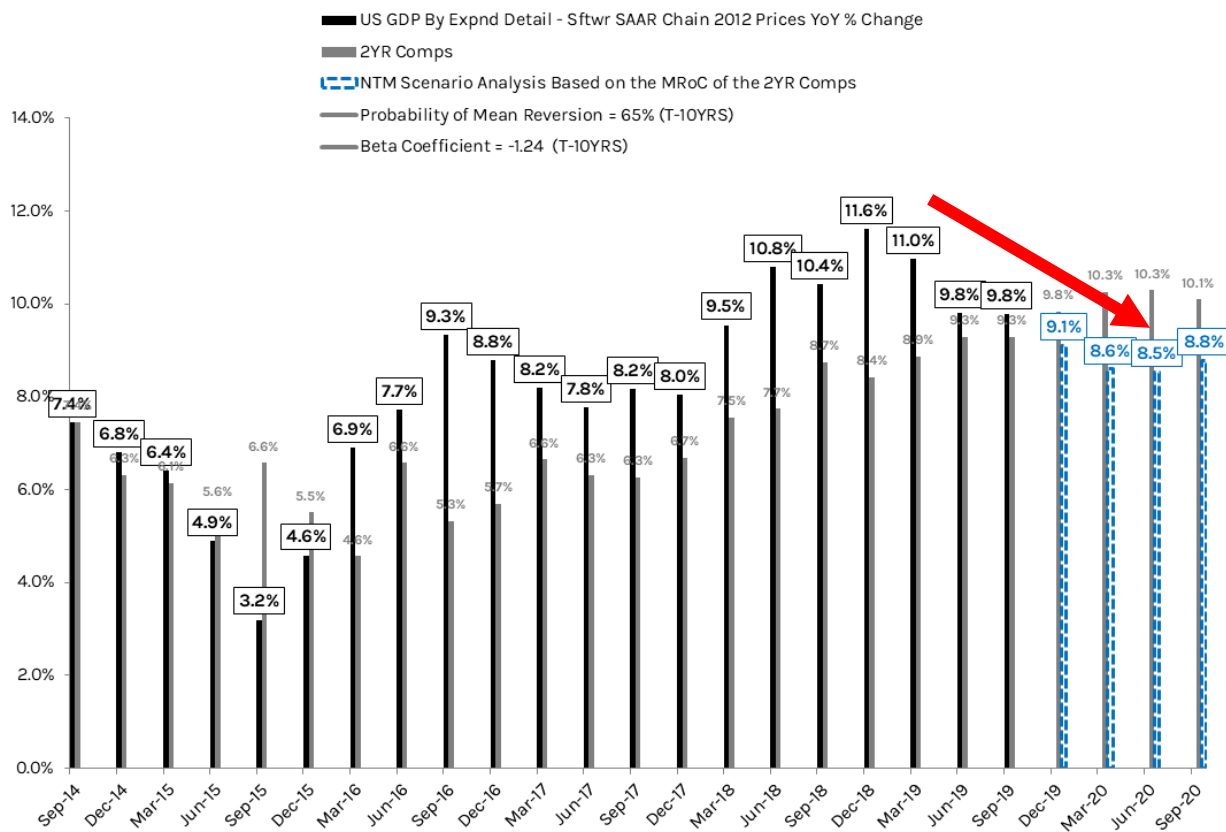
USD ↑ + Demand ↓ + Labor Costs ↑ + Peak Comps = #EPS Slowing

HEDGEYE

S&P 500 Index																			BBG Estimates			
SALES GROWTH (%)	CQ1 15	CQ2 15	CQ3 15	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*	CQ4 19	CQ1 20	CQ2 20
S&P 500 Aggregate	-2.6%	-3.2%	-3.7%	-4.0%	-1.9%	-0.3%	2.4%	4.9%	7.8%	5.3%	5.3%	8.3%	8.2%	9.5%	8.0%	6.0%	4.3%	3.6%	4.2%	3.0%	4.5%	4.7%
Energy	-34.6%	-32.0%	-34.4%	-34.4%	-29.3%	-24.2%	-14.2%	4.2%	34.1%	15.8%	17.9%	22.5%	12.8%	21.7%	19.6%	11.2%	-0.7%	-2.1%	-1.8%	-6.2%	7.9%	5.2%
Materials	-9.5%	-10.5%	-14.0%	-15.5%	-8.8%	-7.3%	-2.4%	2.7%	9.1%	7.2%	8.6%	13.6%	11.7%	16.3%	10.7%	2.7%	-4.1%	-20.1%	-25.8%	-16.6%	-12.5%	3.0%
Industrials	-2.3%	-3.1%	-6.1%	-7.2%	-2.0%	-1.3%	2.2%	2.6%	4.2%	4.8%	6.6%	8.4%	10.4%	9.5%	6.8%	6.7%	3.4%	1.4%	-0.2%	-0.2%	3.4%	4.5%
Consumer Discretionary	1.8%	3.1%	3.7%	4.4%	6.3%	8.5%	8.2%	7.8%	8.4%	3.8%	3.0%	7.7%	7.3%	9.0%	8.1%	5.5%	3.8%	5.0%	8.7%	2.5%	5.3%	4.3%
Consumer Staples	0.9%	-0.4%	0.5%	-0.4%	1.2%	0.7%	1.7%	2.7%	2.1%	2.5%	4.5%	5.1%	5.4%	5.4%	2.6%	1.8%	1.6%	2.2%	4.4%	3.4%	2.9%	3.4%
Health Care	11.5%	9.4%	9.5%	9.6%	9.2%	8.8%	7.0%	5.4%	5.7%	4.0%	4.5%	6.8%	7.7%	7.7%	7.2%	9.0%	13.7%	13.8%	15.9%	10.6%	6.0%	5.4%
Financials	2.2%	1.2%	0.1%	1.0%	-1.7%	0.7%	5.6%	5.5%	9.3%	4.5%	1.7%	3.3%	3.4%	5.9%	4.6%	3.9%	2.7%	2.6%	4.0%	3.4%	3.2%	2.1%
Information Technology	4.8%	1.9%	1.1%	-5.3%	-6.8%	-5.9%	-2.2%	0.6%	7.7%	8.2%	6.9%	11.6%	13.2%	12.4%	10.6%	1.3%	-0.8%	-0.3%	1.7%	3.9%	6.9%	7.8%
Communication Services	4.3%	5.1%	11.8%	12.0%	11.2%	15.0%	10.1%	4.5%	8.2%	4.6%	4.3%	7.5%	9.8%	9.8%	12.1%	13.7%	11.5%	13.2%	9.1%	7.5%	8.4%	6.5%
Utilities	-3.2%	-5.5%	-2.1%	-12.6%	-10.5%	-2.4%	3.5%	8.1%	7.2%	6.4%	-2.7%	3.4%	3.4%	0.4%	1.7%	2.1%	1.0%	0.0%	-1.3%	5.0%	2.7%	4.9%
Real Estate	4.8%	6.5%	7.5%	10.8%	11.4%	7.4%	7.5%	3.7%	4.5%	7.3%	5.2%	8.2%	14.6%	13.5%	13.1%	12.8%	4.4%	4.2%	3.6%	3.0%	4.9%	5.7%
EPS GROWTH (%)	CQ1 15	CQ2 15	CQ3 15	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*	CQ4 19	CQ1 20	CQ2 20
S&P 500 Aggregate	3.5%	-1.3%	-3.8%	-6.8%	-8.0%	-3.9%	3.2%	6.4%	14.6%	10.0%	7.1%	12.5%	22.6%	24.5%	24.2%	12.6%	1.2%	1.7%	0.2%	-1.4%	4.4%	5.3%
Energy	-40.2%	-53.4%	-57.5%	-72.6%	-109.6%	-81.6%	-63.7%	-1.5%	690.1%	210.0%	138.0%	53.9%	61.2%	98.8%	98.6%	99.9%	-24.9%	-4.8%	-13.0%	-33.1%	23.2%	4.1%
Materials	20.1%	2.2%	-15.6%	-17.9%	-16.0%	-9.1%	3.2%	-1.1%	19.6%	7.4%	10.7%	41.9%	31.9%	43.8%	28.3%	1.4%	-20.4%	-8.2%	-26.0%	-17.6%	-5.3%	11.4%
Industrials	5.7%	-3.5%	-0.7%	-5.4%	-7.3%	-1.9%	-1.5%	-5.3%	1.5%	6.6%	0.3%	5.4%	24.9%	17.5%	17.1%	18.6%	3.3%	2.7%	2.5%	-3.9%	5.0%	8.4%
Consumer Discretionary	9.4%	10.8%	13.9%	9.4%	17.8%	10.3%	6.5%	4.7%	7.0%	1.9%	1.8%	9.6%	14.1%	20.0%	22.7%	15.3%	5.4%	-1.3%	-1.0%	-10.4%	4.1%	10.0%
Consumer Staples	0.9%	-1.1%	-2.1%	-0.7%	1.2%	0.0%	4.4%	4.0%	2.9%	4.1%	3.1%	7.3%	10.1%	10.8%	9.1%	3.6%	-0.4%	-0.4%	2.8%	0.6%	3.9%	5.1%
Health Care	16.7%	14.4%	14.5%	11.0%	8.1%	4.8%	5.9%	4.8%	5.4%	6.6%	7.1%	8.9%	14.2%	13.1%	14.5%	11.1%	9.1%	10.8%	8.3%	6.2%	4.6%	1.7%
Financials	6.6%	2.0%	-8.6%	-5.3%	-14.2%	-7.0%	12.8%	6.6%	17.9%	9.5%	-8.9%	1.0%	26.6%	22.7%	30.6%	4.2%	2.1%	2.9%	-1.0%	7.1%	1.2%	1.0%
Information Technology	7.1%	4.7%	4.5%	-3.8%	-7.4%	-7.3%	3.9%	4.2%	20.8%	19.2%	19.8%	20.8%	28.4%	32.1%	24.8%	5.8%	-5.6%	-6.7%	-5.6%	-2.0%	5.4%	8.0%
Communication Services	6.2%	5.2%	23.7%	27.8%	16.1%	19.7%	14.3%	11.2%	16.7%	3.5%	16.8%	19.8%	23.3%	37.6%	27.5%	22.5%	13.3%	10.1%	5.5%	2.0%	5.4%	7.2%
Utilities	3.9%	2.9%	0.8%	-49.6%	-1.9%	8.9%	12.6%	110.6%	3.5%	5.1%	-3.5%	18.9%	15.6%	11.7%	14.8%	-0.1%	5.4%	3.5%	6.2%	17.2%	2.5%	3.4%
Real Estate	8.5%	9.8%	12.5%	14.5%	8.3%	7.1%	8.7%	3.1%	6.5%	7.1%	7.6%	10.2%	8.2%	6.7%	8.8%	10.1%	7.0%	4.6%	7.4%	0.7%	4.3%	6.4%
Data Source: BBG	*Start of Tech/ComServ Breakout (all previous periods represent legacy Telecom)																		*347/498 reported			

... But “Secular Growers” Are Not Immune To #TheCycle

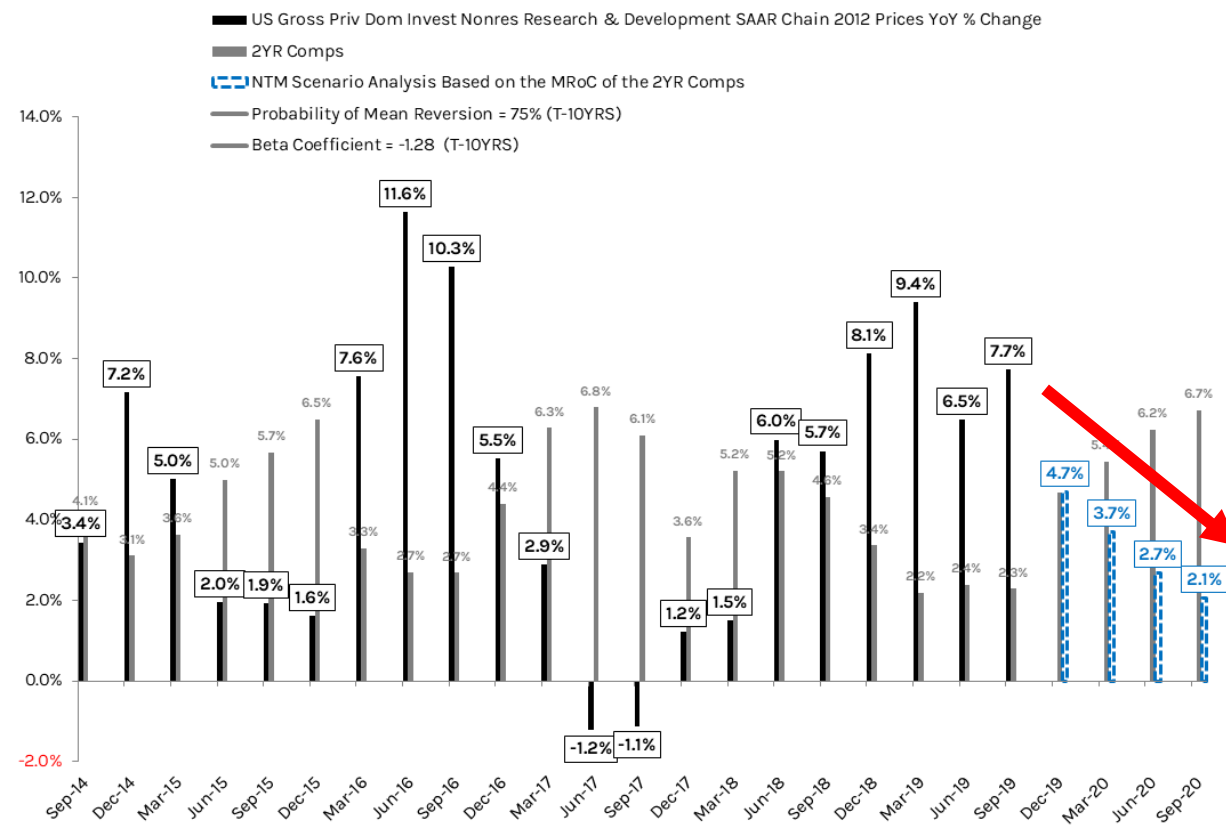
Software investment likely to continue slowing...



Data Source: Bloomberg

© Hedgeye Risk Management

... same goes for spending on R&D



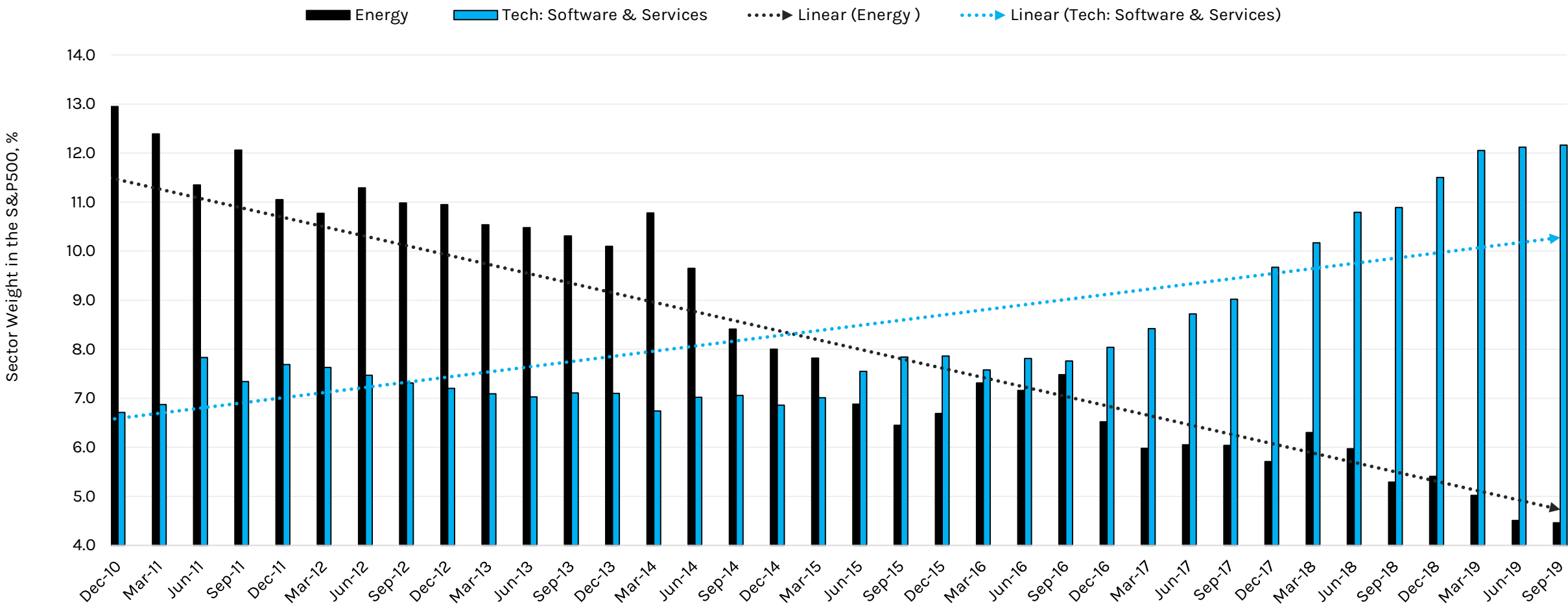
Data Source: Bloomberg

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This Probably Won't Ever Fully Mean Revert... But It Doesn't Have To

Alongside secular evolution in the economy, Energy and Software have effectively traded weights in the SPX. This can result in outsized price effects when rotations occur as long-term, one-way flows reverse, reflexively (“secular growers”) or if large-scale rotational flows start to chase a smaller amount of total cap (energy).

Software vs Energy: SPX Index Weight Evolution



For more information, contact:

mmoran@hedgeye.com