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# Legal

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1

ASIA



2

RUSSELL



3

VIX





# 1

## ASIA

The Nikkei got tagged for another -1.6% loss, taking out its year-end-performance chasing gains from December (after breaking immediate-term @Hedgeye TRADE support last week) and the KOSPI broke its immediate-term TRADE support line of 2187 too on a -1.1% decline, contrasting sharply with Russian stocks, up another +0.5% this morning and +8.8% in the last month.

## 2 RUSSELL

The Russell 2000 was down (again) yesterday taking “year-to-date” to down -0.6% and cycle-to-date (from where Small Caps peaked, as they should in Quads 1 and 2) to down -4.7% from where the Russell peaked in Q3 of 2018. We’ll stay long LARGE CAP #Quad3 Long exposures and continue to short IWM when it taps the top-end of our Risk Range.



## 3 VIX

There's no WWII in the vol of vol, so we would tone down the Macro Tourist headlines and just let the market signal the way forward. Higher-low in the low-end of the VIX Risk Range being established at 12.01 here and the top-end of the range = 15.95, for now, with implied vol on SPY running pretty hot at +49% vs. 30-day realized (great market to fade and trade).



# Macro Grind

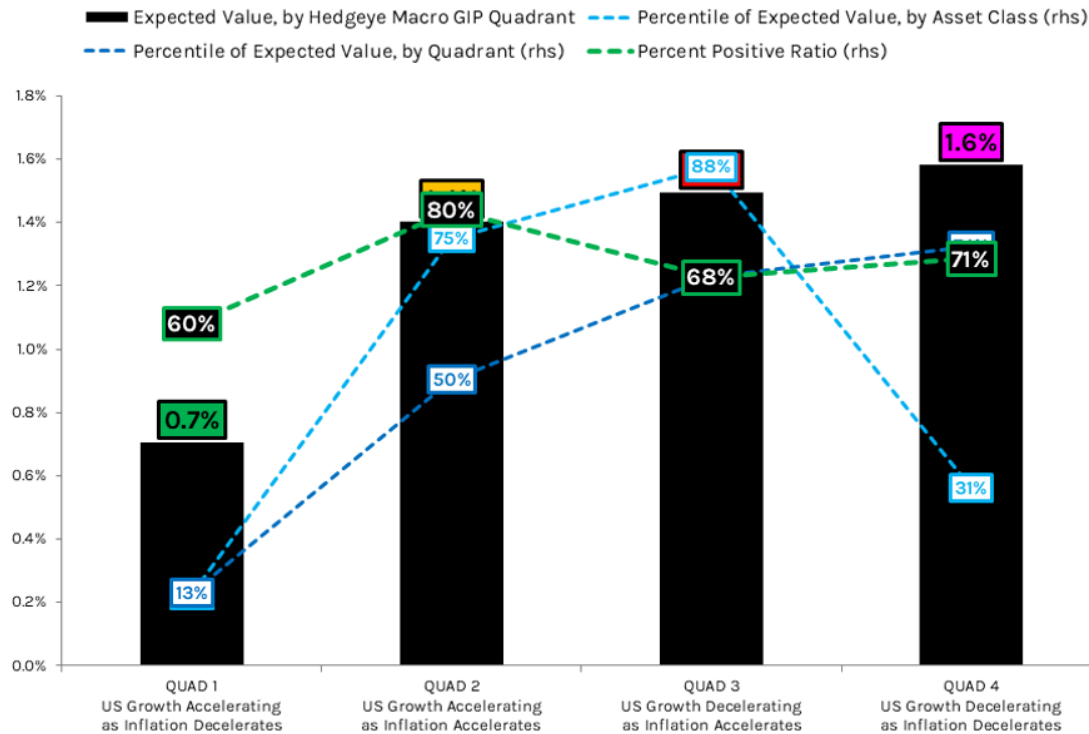


# Long Inflation, Short Credit Risk Tends To Work In Quad 3

## TIPS

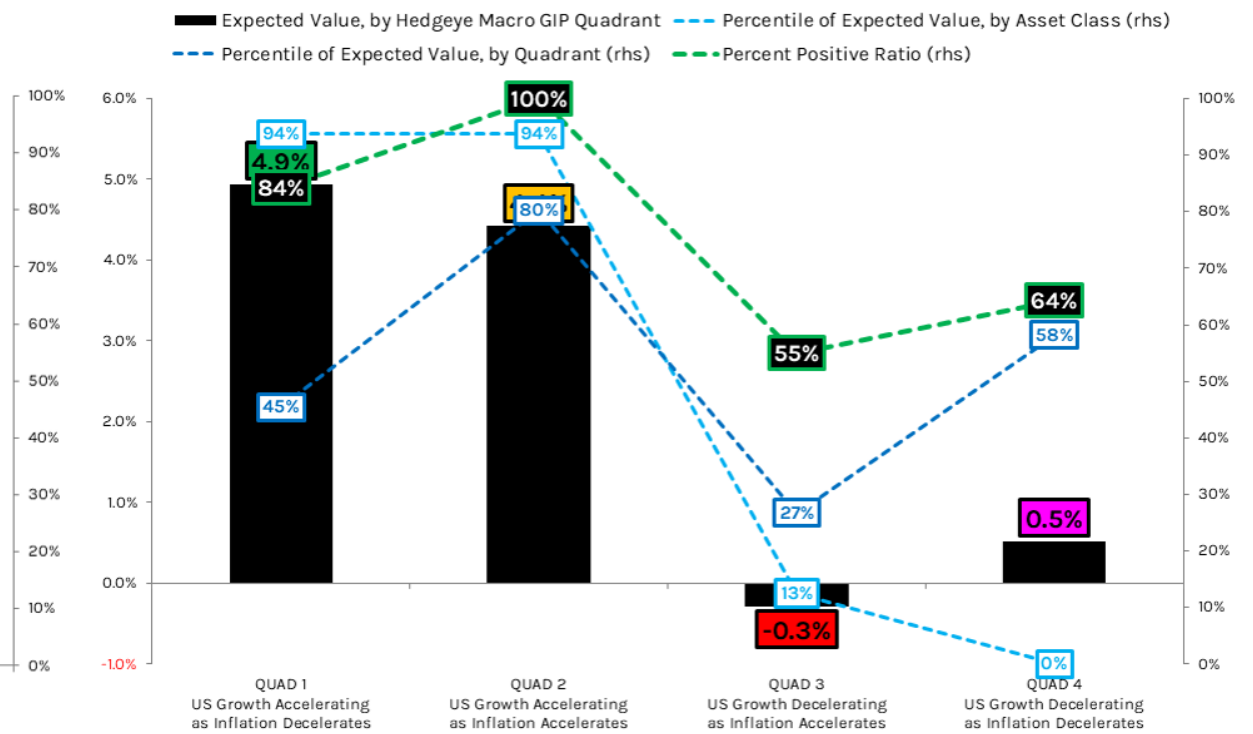
## CONVERTIBLES

Bloomberg Barclays US TIPS 5-10 Year Total Return Index



Data Source: Bloomberg. Asset classes include equities, fixed income, currencies and commodities. Quarterly observations starting in 1Q98.

Bloomberg Barclays US Convertibles Composite Total Return Index



Data Source: Bloomberg. Asset classes include equities, fixed income, currencies and commodities. Quarterly observations starting in 1Q98.



# Russian Trading System





# South Korean Seoul Composite



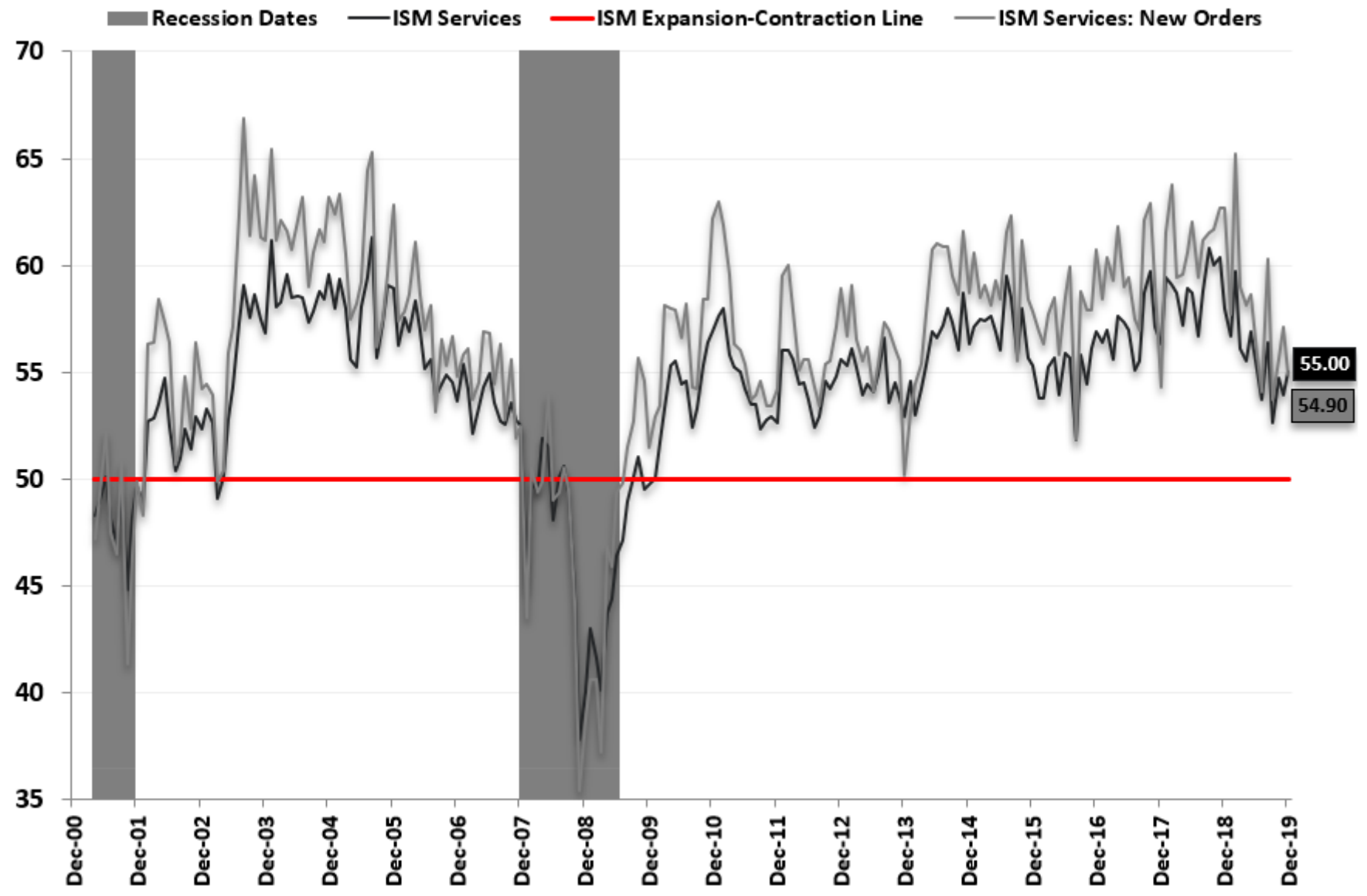


# Tokyo Nikkei 225 Average





# ISM Services



# ISM NON-MANUFACTURING

	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	MM Chg
<b>ISM Non-Manufacturing Index</b>	60.4	58.0	56.7	59.7	56.1	55.5	56.9	55.1	53.7	56.4	52.6	54.7	53.9	55.0	1.10
Business Activity	64.3	61.2	59.7	64.7	57.4	59.5	61.2	58.2	53.1	61.5	55.2	57.0	51.6	57.2	5.60
New Orders	62.7	62.7	57.7	65.2	59.0	58.1	58.6	55.8	54.1	60.3	53.7	55.6	57.1	54.9	-2.20
Business Employment	58.0	56.6	57.8	55.2	55.9	53.7	58.1	55.0	56.2	53.1	50.4	53.7	55.5	55.2	-0.30
Supplier Deliveries	56.5	51.5	51.5	53.5	52.0	50.5	49.5	51.5	51.5	50.5	51.0	52.5	51.5	52.5	1.00
Business Inventories	57.5	51.5	49.0	51.0	50.0	51.5	54.0	55.0	50.0	55.0	53.0	50.5	50.5	51.0	0.50
Business Backlog	55.5	50.5	52.5	55.5	56.5	55.0	52.5	56.0	53.5	49.0	54.0	48.5	48.5	47.5	-1.00
Export Orders	57.5	59.5	50.5	55.0	52.5	57.0	55.5	55.5	53.5	50.5	52.0	50.0	52.0	51.0	-1.00
Imports	54.5	53.5	52.0	48.5	51.5	55.0	50.0	50.0	53.5	50.5	49.0	48.5	45.0	48.0	3.00
Inventory Sentiment	60.0	59.0	60.5	59.0	62.5	60.0	58.5	58.5	60.5	56.0	58.0	57.0	58.5	60.0	1.50
Prices	64.3	58.0	59.4	54.4	58.7	55.7	55.4	58.9	56.5	58.2	60.0	56.6	58.5	58.5	0.00

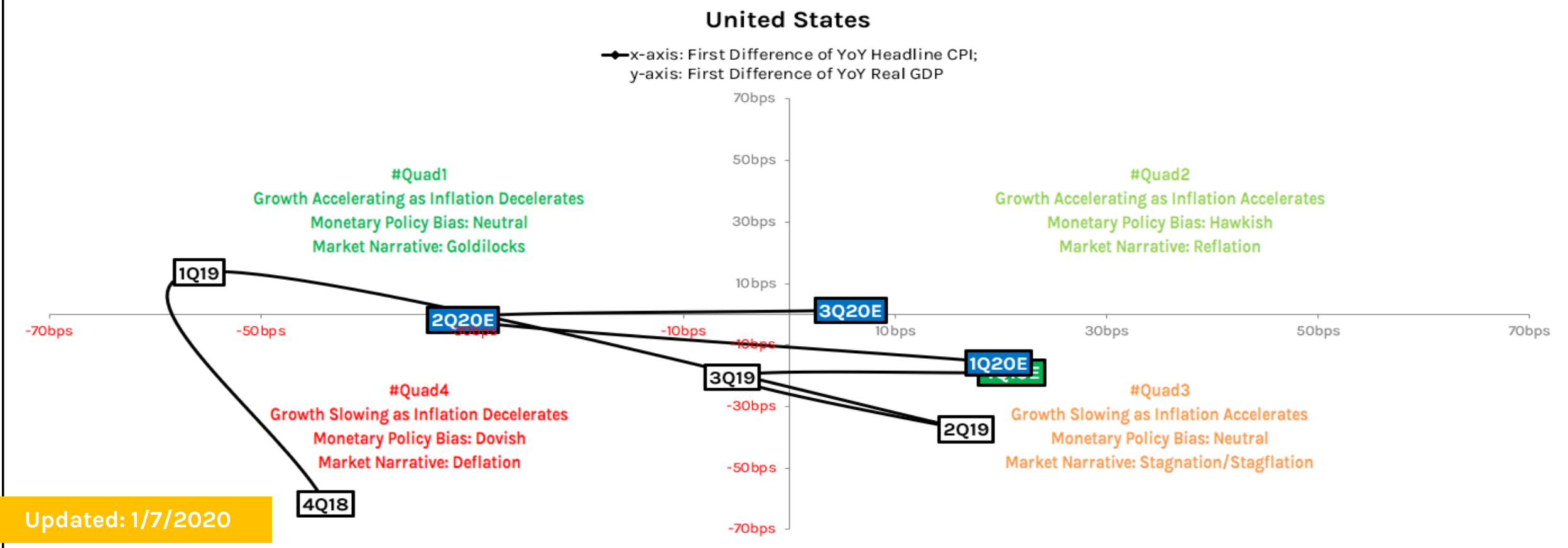
## INDEX & COMPONENT DETAIL

ISM NON-MANUFACTURING INDEX	60.4	58.0	56.7	59.7	56.1	55.5	56.9	55.1	53.7	56.4	52.6	54.7	53.9	55.0	
MM Chg	0.4	-2.4	-1.3	3.0	-3.6	-0.6	1.4	-1.8	-1.4	2.7	-3.8	2.1	-0.8	1.1	
Y/Y Chg	3.3	1.7	-2.7	0.6	-2.6	-1.7	-2.0	-3.6	-3.0	-2.4	-8.2	-5.3	-6.5	-3.0	
3M Ave	60.4	59.5	58.4	58.1	57.5	57.1	56.2	55.8	55.2	55.1	54.2	54.6	53.7	54.5	
6M Ave	59.2	59.1	59.1	59.3	58.5	57.7	57.2	56.7	56.2	55.6	55.0	54.9	54.4	54.4	
TTM Ave.	58.6	58.7	58.7	58.7	58.5	58.3	58.2	58.0	57.6	57.5	57.1	56.6	56.1	55.7	
<b>Business Activity</b>	64.3	61.2	59.7	64.7	57.4	59.5	61.2	58.2	53.1	61.5	55.2	57.0	51.6	57.2	
MM Chg	1.7	-3.1	-1.5	5.0	-7.3	2.1	1.7	-3.0	-5.1	8.4	-6.3	1.8	-5.4	5.6	
Y/Y Chg	3.9	2.4	-0.4	2.8	-3.4	0.0	0.0	-4.6	-4.6	0.2	-8.9	-5.6	-12.7	-4.0	
3M Ave	63.7	62.7	61.7	61.9	60.6	60.5	59.4	59.6	57.5	57.6	56.6	57.9	54.6	55.3	
TTM Ave.	61.2	61.3	61.3	61.7	61.3	61.2	61.4	61.1	60.4	60.7	60.2	59.7	58.8	58.3	
<b>New Orders</b>	62.7	62.7	57.7	65.2	59.0	58.1	58.6	55.8	54.1	60.3	53.7	55.6	57.1	54.9	
MM Chg	1.0	0.0	-5.0	7.5	-6.2	-0.9	0.5	-2.8	-1.7	6.2	-6.6	1.9	1.5	-2.2	
Y/Y Chg	3.6	8.4	-3.8	1.4	-0.4	-1.5	-2.0	-6.2	-5.3	-0.9	-7.8	-6.1	-5.6	-7.8	
3M Ave	62.0	62.4	61.0	61.9	60.6	60.8	58.6	57.5	56.2	56.7	56.0	56.5	55.5	55.9	
TTM Ave.	60.5	60.8	61.1	61.3	61.0	60.9	60.8	60.4	59.8	59.9	59.3	58.9	58.5	57.9	
<b>Employment</b>	58.0	56.6	57.8	55.2	55.9	53.7	58.1	55.0	56.2	53.1	50.4	53.7	55.5	55.2	
MM Chg	-0.3	-1.4	1.2	-2.6	0.7	-2.2	4.4	-3.1	1.2	-3.1	-2.7	3.3	1.8	-0.3	
Y/Y Chg	2.9	0.1	-2.7	0.1	-0.4	-1.3	2.9	0.6	-0.4	-3.7	-10.0	-4.6	-2.5	-1.4	
3M Ave	58.9	57.6	57.5	56.5	56.3	54.9	55.9	55.6	56.4	54.8	53.2	52.4	53.2	54.8	
TTM Ave.	56.8	56.9	57.0	56.6	56.7	56.5	56.7	56.7	56.8	56.5	56.1	55.5	55.3	55.1	
<b>Supplier Deliveries</b>	56.5	51.5	51.5	53.5	52.0	50.5	49.5	51.5	51.5	50.5	51.0	52.5	51.5	52.5	
MM Chg	-1.0	-5.0	0.0	2.0	-1.5	-1.5	-1.0	2.0	0.0	-1.0	0.5	1.5	-1.0	1.0	
Y/Y Chg	2.5	-4.0	-4.0	-2.0	-6.5	-4.0	-9.0	-4.0	-1.5	-5.5	-6.0	-5.0	-5.0	1.0	
3M Ave	57.0	55.2	53.2	52.2	52.3	52.0	50.7	50.5	50.8	51.2	51.0	51.3	51.7	52.2	
TTM Ave.	56.0	55.8	55.5	55.3	55.0	54.4	54.0	53.5	53.2	53.0	52.6	52.3	51.8	51.5	
<b>Business Inventories</b>	57.5	51.5	49.0	51.0	50.0	51.5	54.0	55.0	50.0	55.0	53.0	50.5	50.5	51.0	
MM Chg	1.5	-6.0	-2.5	2.0	-1.0	1.5	2.5	1.0	-5.0	5.0	-2.0	-2.5	0.0	0.5	
Y/Y Chg	3.0	-2.0	0.0	-2.5	-3.5	-3.5	-3.5	1.5	-3.5	1.5	-1.5	-3.5	-7.0	-0.5	
3M Ave	56.0	55.0	52.7	50.5	50.0	50.8	51.8	53.5	53.0	53.3	52.7	52.8	51.3	50.7	
TTM Ave.	54.4	54.2	53.8	54.0	53.7	53.5	53.3	53.1	52.8	53.0	52.9	52.6	52.2	51.7	



# Our Research Process is REPEATABLE

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%	2.10%	Real GDP QoQ SAAR	0.34%	2.43%	1.93%	2.14%
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%	2.07%	Real GDP YoY	1.88%	1.73%	1.71%	1.72%
3yr 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%	3yr Comparative Base Effects	2.66%	2.76%	2.74%	2.60%
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	1.97%	2.17%	1.86%	1.91%
2yr 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%	2yr Comparative Base Effects	2.16%	1.93%	2.26%	2.20%



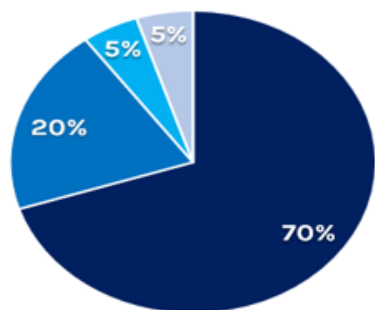
Data Source: Bloomberg. Green box = Hedgeye Predictive Tracking Algorithm nowcast. Blue boxes = Hedgeye β-Adjusted Comparative Base Effect Model estimates.

# What Works In Each Quad?

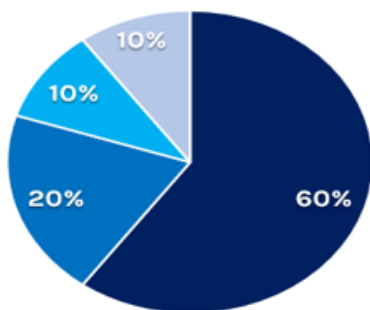
For illustrative purposes only. Not intended to simulate or recommend static core exposures or asset class weights.

Quad 1: Goldilocks				Quad 2: Reflation				Quad 3: Stagflation				Quad 4: Deflation			
Exposure	ETF	Hypothetical Long-Only Balanced Portfolio*	Hypothetical Long-Short Market Neutral Portfolio**	Exposure	ETF	Hypothetical Long-Only Balanced Portfolio*	Hypothetical Long-Short Market Neutral Portfolio**	Exposure	ETF	Hypothetical Long-Only Balanced Portfolio*	Hypothetical Long-Short Market Neutral Portfolio**	Exposure	ETF	Hypothetical Long-Only Balanced Portfolio*	Hypothetical Long-Short Market Neutral Portfolio**
Tech	XLK	8.8%	8.8%	Tech	XLK	7.5%	7.5%	Utilities	XLU	5.0%	5.0%	Consumer Staples	XLP	3.8%	3.8%
Consumer Discretionary	XLY	8.8%	8.8%	Consumer Discretionary	XLY	7.5%	7.5%	Tech	XLK	5.0%	5.0%	Health Care	XLV	3.8%	3.8%
Industrials	XLI	8.8%	8.8%	Industrials	XLI	7.5%	7.5%	Energy	XLE	5.0%	5.0%	REITS	VNQ	3.8%	3.8%
Materials	XLB	8.8%	8.8%	Energy	XLE	7.5%	7.5%	REITS	VNQ	5.0%	5.0%	Utilities	XLU	3.8%	3.8%
Utilities	XLU	-	-7.9%	Telecom	IYZ	-	-6.8%	Financials	XLF	-	-4.5%	Tech	XLK	-	-3.4%
Consumer Staples	XLP	-	-7.9%	Utilities	XLU	-	-6.8%	Materials	XLB	-	-4.5%	Energy	XLE	-	-3.4%
Energy	XLE	-	-7.9%	Consumer Staples	XLP	-	-6.8%	Telecom	IYZ	-	-4.5%	Industrials	XLI	-	-3.4%
Health Care	XLV	-	-7.9%	REITS	VNQ	-	-6.8%	Consumer Staples	XLP	-	-4.5%	Financials	XLF	-	-3.4%
High Beta	SPHB	11.7%	11.7%	Momentum	MTUM	10.0%	10.0%	Low Beta	SPLV	6.7%	6.7%	Low Beta	SPLV	5.0%	5.0%
Growth	IWF	11.7%	11.7%	Growth	IWF	10.0%	10.0%	Quality	QUAL	6.7%	6.7%	Dividend Yield	SPHD	5.0%	5.0%
Momentum	MTUM	11.7%	11.7%	Small Caps	IWM	10.0%	10.0%	Growth	IWF	6.7%	6.7%	Defensives	DEF	5.0%	5.0%
Low Beta	SPLV	-	-10.5%	Low Beta	SPLV	-	-9.0%	Dividend Yield	SPHD	-	-6.0%	Momentum	MTUM	-	-4.5%
Defensives	DEF	-	-10.5%	Value	IWD	-	-9.0%	Small Caps	IWM	-	-6.0%	High Beta	SPHB	-	-4.5%
Dividend Yield	SPHD	-	-10.5%	Dividend Yield	SPHD	-	-9.0%	Value	IWD	-	-6.0%	Growth	IWF	-	-4.5%
Convertibles	CWB	5.0%	5.0%	BDCs	BIZD	5.0%	5.0%	Munis	MUB	10.0%	10.0%	Long Duration Treasuries	TLT	12.5%	12.5%
High Yield Credit	HYG	5.0%	5.0%	Convertibles	CWB	5.0%	5.0%	Long Duration Treasuries	TLT	10.0%	10.0%	Medium Duration Treasuries	IEF	12.5%	12.5%
Leveraged Loans	BKLN	5.0%	5.0%	Preferreds	PFF	5.0%	5.0%	TIPS	TIP	10.0%	10.0%	Munis	MUB	12.5%	12.5%
BDCs	BIZD	5.0%	5.0%	Leveraged Loans	BKLN	5.0%	5.0%	Investment Grade Credit	LQD	10.0%	10.0%	MBS	MBB	12.5%	12.5%
TIPS	TIP	-	-4.5%	Long Duration Treasuries	TLT	-	-4.5%	BDCs	BIZD	-	-9.0%	Convertibles	CWB	-	-11.3%
Short Duration Treasuries	SHY	-	-4.5%	Munis	MUB	-	-4.5%	Preferreds	PFF	-	-9.0%	TIPS	TIP	-	-11.3%
MBS	MBB	-	-4.5%	Investment Grade Credit	LQD	-	-4.5%	Convertibles	CWB	-	-9.0%	Leveraged Loans	BKLN	-	-11.3%
Medium Duration Treasuries	IEF	-	-4.5%	Medium Duration Treasuries	IEF	-	-4.5%	Leveraged Loans	BKLN	-	-9.0%	High Yield Credit	HYG	-	-11.3%
EUR/USD	FXE	5.0%	5.0%	EM FX	CEW	10.0%	10.0%	G10 FX	UDN	10.0%	10.0%	DXY	UUP	10.0%	10.0%
DXY	UUP	-	-4.5%	DXY	UUP	-	-9.0%	EM FX	CEW	-	-9.0%	EUR/USD	FXE	-	-9.0%
Copper	JJC	5.0%	5.0%	Crude Oil	USO	10.0%	10.0%	Crude Oil	USO	10.0%	10.0%	Gold	GLD	10.0%	10.0%
Agriculture	DBA	-	-4.5%	Agriculture	DBA	-	-9.0%	Base Metals	DBB	-	-9.0%	Crude Oil	USO	-	-9.0%

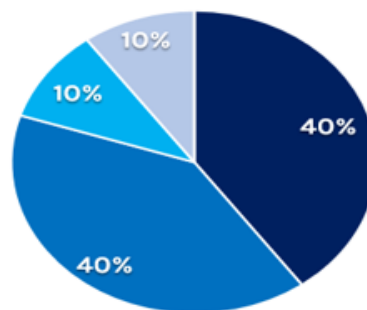
■ Equities  
■ Fixed Income  
■ Currencies  
■ Commodities/Real Assets



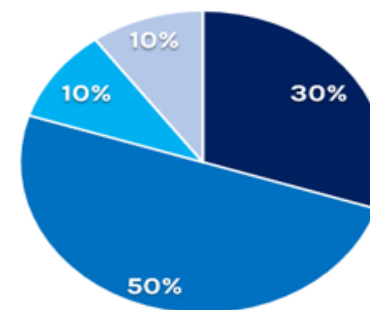
■ Equities  
■ Fixed Income  
■ Currencies  
■ Commodities/Real Assets



■ Equities  
■ Fixed Income  
■ Currencies  
■ Commodities/Real Assets



■ Equities  
■ Fixed Income  
■ Currencies  
■ Commodities/Real Assets





# Sector Performance

<u>SECTOR</u>	<u>Ticker</u>	<u>Price</u>	<u>1-Day % Chg</u>	<u>MTD % Chg</u>	<u>QTD % Chg</u>	<u>YTD % Chg</u>
Consumer Discretionary	XLY	\$125.98	-0.16%	0.45%	0.45%	0.45%
Financial Select Sector	XLF	\$30.53	-0.65%	-0.81%	-0.81%	-0.81%
Health Care Select Sector	XLV	\$101.67	-0.20%	-0.19%	-0.19%	-0.19%
Technology Select Sector	XLK	\$92.52	-0.04%	0.93%	0.93%	0.93%
Consumer Staples Select Sector	XLP	\$62.03	-0.77%	-1.51%	-1.51%	-1.51%
Industrial Select Sector	XLI	\$82.71	-0.21%	1.52%	1.52%	1.52%
Materials Select Sector	XLB	\$59.39	-0.12%	-3.31%	-3.31%	-3.31%
The Energy Select Sector	XLE	\$60.71	-0.26%	1.12%	1.12%	1.12%
Utilities Select Sector	XLU	\$63.91	-0.14%	-1.10%	-1.10%	-1.10%
Real Estate Select Sector	XLRE	\$38.09	-1.09%	-1.50%	-1.50%	-1.50%
Communications Services Sector	XLC	\$54.70	0.13%	2.00%	2.00%	2.00%
<b>S&amp;P 500</b>	<b>SPX</b>	<b>3,237.18</b>	<b>-0.28%</b>	<b>0.20%</b>	<b>0.20%</b>	<b>0.20%</b>

# Sector Relative Performance

	<u>Ticker</u>	<u>Price</u>	<u>1-Day %</u> <u>Chg</u>	<u>MTD %</u> <u>Chg</u>	<u>QTD %</u> <u>Chg</u>	<u>YTD %</u> <u>Chg</u>
Consumer Discretionary	XLY	\$125.98	0.12%	0.25%	0.25%	0.25%
Financial Select Sector	XLF	\$30.53	-0.37%	-1.01%	-1.01%	-1.01%
Health Care Select Sector	XLV	\$101.67	0.08%	-0.38%	-0.38%	-0.38%
Technology Select Sector	XLK	\$92.52	0.24%	0.73%	0.73%	0.73%
Consumer Staples Select Sector	XLP	\$62.03	-0.49%	-1.71%	-1.71%	-1.71%
Industrial Select Sector	XLI	\$82.71	0.08%	1.32%	1.32%	1.32%
Materials Select Sector	XLB	\$59.39	0.16%	-3.50%	-3.50%	-3.50%
The Energy Select Sector	XLE	\$60.71	0.02%	0.92%	0.92%	0.92%
Utilities Select Sector	XLU	\$63.91	0.14%	-1.30%	-1.30%	-1.30%
Real Estate Select Sector	XLRE	\$38.09	-0.81%	-1.70%	-1.70%	-1.70%
Communications Services Sector	XLC	\$54.70	0.41%	1.80%	1.80%	1.80%



# Market Share Volume & Total Value Traded

<u>INDEX/SECURITY</u>	<b>VOLUME: (1/7) vs.</b>			
	<u>Prior Day</u>	<u>1M Ave</u>	<u>3M ave</u>	<u>1Y Ave</u>
Total Market Volume*	-14%	1%	7%	-7%
Total Exchange Volume**	-11%	1%	3%	0%

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

\*\*Tape A+B+C volume = total US exchange volume

\*\*\* Total Traded Value for Russell 3000 (total mkt proxy)

# Style Factor Performance

	FACTOR	1D % Chg	1W % Chg	1M % Chg	3M % Chg	6M % Chg	YTD % Chg
Debt	High Debt/EV	0.0%	-0.1%	2.6%	8.5%	4.9%	-0.6%
	Low Debt/EV	0.0%	0.7%	3.2%	11.5%	7.2%	0.4%
SI	High Short Interest	0.3%	0.5%	3.3%	11.0%	4.5%	-0.1%
	Low Short Interest	-0.4%	0.4%	2.1%	8.4%	6.4%	0.1%
BETA	High Beta	0.4%	0.8%	4.4%	16.9%	6.2%	0.4%
	Low Beta	-0.5%	-0.4%	0.5%	0.3%	4.4%	-0.8%
YIELD	High Yield	-0.2%	-0.5%	1.2%	5.3%	1.3%	-1.0%
	Low Yield	0.1%	1.0%	3.0%	14.0%	7.8%	0.6%
MKT CAP	MCAP Bottom 25%	0.1%	-0.1%	2.0%	8.8%	1.1%	-0.7%
	MCAP Top 25%	-0.2%	0.6%	3.0%	11.3%	10.2%	0.4%
Sales	Top 25% Sales Growth	0.2%	1.2%	4.6%	13.1%	9.9%	0.9%
	Bottom 25% Sales Growth	-0.3%	-0.6%	1.3%	9.3%	3.0%	-1.0%
EPS	Top 25% EPS Growth	0.2%	0.8%	5.1%	12.2%	9.0%	0.4%
	Bottom 25% EPS Growth	-0.1%	-0.1%	1.3%	5.5%	1.7%	-0.6%

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



# Rates & Spreads

	Price	1D Bps Chg	5D Bps Chg	1M Bps Chg	3M Bps Chg	vs. 52-Wk, Bps		vs. 3Y Ave	vs. 5Y Ave
						High	Low		
3M T-Bill	1.52%	0.0	-2.6	1	-18	-96	3	-15	45
3M LIBOR	1.87%	0.0	-3.6	-2	-14	-93	0	-10	48
2Y T-Note	1.54%	-0.8	-3.3	-8	7	-108	18	-43	6
5Y T-Note	1.60%	-0.2	-8.7	-6	21	-103	30	-60	-29
10Y T-Note	1.81%	0.2	-10.7	-3	25	-99	38	-64	-46
30Y T-Note	2.29%	0.8	-9.6	2	25	-84	39	-56	-51
2Y-10Y Spread, Bps	27.44	1.0	-7.4	5.3	18	10	20	-22	-51
IG SPREAD (AAABBB)	1.28%	0.0	3.0	-8	-19	-58	3	-19	-33
HIGH YIELD	5.08%	0.0	-11.0	-40	-77	-238	0	-97	-139
5Y BREAKEVEN	1.68%	-0.8	-2.0	7.3	38.5	-24.3	42.8	-12.4	2.3

# Key \$USD Correlations

METRIC	15D	30D	90D	120D	180D	52-Wk Rolling 30D Correlation			
						High	Low	% Time Pos	% Time Neg
SPX	-0.43	-0.58	-0.75	-0.58	-0.13	0.77	-0.78	50%	50%
BRENT Oil	-0.44	-0.69	-0.60	-0.51	-0.27	0.79	-0.69	52%	48%
CRB Index	-0.88	-0.77	-0.76	-0.51	-0.58	0.71	-0.78	27%	73%
GOLD	-0.61	-0.69	-0.19	-0.07	0.28	0.42	-0.91	27%	73%

\*Days = Trading Days



# CFTC Non-Commercial Net Long Positioning

## 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)	54,404	26,388	12,234	23,498	16,576	249,638	(128,189)	0.66X	-0.49X
	VIX	(152,906)	3,650	(181,370)	(145,356)	(121,203)	92,913	(218,362)	-0.57X	-0.89X
	Russell 2000 (mini)	53,398	10,535	6,543	(25,124)	(38,008)	96,523	(135,573)	2.41X	1.33X
	Dow Jones (mini)	26,307	434	31,970	37,274	28,752	95,976	(282)	-0.21X	-0.64X
	Nasdaq (mini)	26,935	12,337	28,381	27,816	13,387	113,412	(24,815)	0.71X	-0.03X
	Nikkei Index	(6,953)	(1,672)	(7,909)	(7,538)	(10,046)	14,214	(16,298)	0.88X	-0.65X
RATES	10Y UST	(240,555)	(28,986)	(170,710)	(251,351)	(237,960)	372,991	(758,490)	-0.03X	-0.22X
	2Y UST	(325,515)	(45,855)	(278,709)	(256,178)	(218,484)	67,767	(421,551)	-1.05X	-1.33X
	5Y UST	(311,692)	39,184	(264,283)	(178,415)	(147,873)	6,400	(866,140)	-1.71X	0.03X
	UST Bonds	(88,932)	(7,968)	(66,056)	(58,432)	(45,387)	122,839	(142,810)	-2.25X	-1.48X
	30D Fed Funds	336,111	(7,877)	253,395	132,261	(2,686)	343,988	(286,025)	1.89X	2.56X
	Eurodollar	937,340	(107,199)	1,262,276	1,201,566	491,602	1,503,625	(3,110,209)	0.52X	1.57X
CURRENCIES	\$USD	12,055	(1,175)	25,078	28,953	29,021	53,060	(10,666)	-2.68X	-0.53X
	JPY	(25,502)	9,625	(29,298)	(8,515)	(31,024)	32,039	(140,151)	0.16X	0.79X
	EUR	(75,227)	2,655	(66,440)	(61,894)	(69,279)	147,318	(111,509)	-0.26X	-1.06X
	GBP	13,060	5,610	(31,025)	(58,785)	(45,256)	49,216	(113,271)	1.81X	1.21X
	AUD	(39,541)	8,157	(43,779)	(48,650)	(49,577)	77,969	(74,181)	1.04X	-0.58X
	CAD	9,591	1,408	24,085	19,994	(11,157)	78,001	(99,736)	0.61X	0.38X
	MXN	150,337	(7,906)	135,015	122,580	116,838	158,243	(73,499)	1.14X	1.48X
	NZD	(5,138)	2,616	(29,104)	(26,739)	(16,929)	35,981	(42,544)	0.82X	0.18X
CHF	(5,572)	4,076	(14,345)	(12,036)	(19,278)	1,539	(47,216)	1.33X	1.10X	
COMMODITIES	CRUDE OIL	563,050	1,956	460,426	447,775	444,129	784,290	332,714	1.84X	0.34X
	GOLD	263,170	20,251	226,169	242,901	157,726	292,066	(103,009)	1.06X	1.53X
	COPPER	5,973	2,416	(24,605)	(33,981)	(20,957)	67,602	(60,135)	1.19X	-0.17X
	Natural Gas	(203,212)	(2,552)	(183,271)	(177,009)	(116,335)	57,455	(223,176)	-1.17X	-1.94X
	RBOB Gasoline	109,038	(1,230)	83,631	73,993	80,648	114,862	29,519	1.91X	1.62X
	ULSD Heating Oil	7,604	2,592	305	(393)	(7,209)	67,696	(25,442)	1.81X	-0.49X
	Silver	72,023	6,776	51,780	54,894	37,977	107,003	(30,158)	1.33X	1.17X
	Platinum	63,993	6,562	44,487	35,991	25,200	63,993	(11,540)	2.44X	2.75X
	Aluminum	163,475	(2,043)	159,128	161,536	157,727	168,292	122,356	0.55X	1.31X
	Nickel	42,230	(365)	42,658	44,026	37,006	47,708	13,508	0.60X	1.21X
	Corn	(27,598)	8,146	(62,881)	(5,435)	(9,120)	372,754	(270,560)	-0.12X	-0.38X
	Soybeans	21,147	26,942	19,833	(1,711)	(25,761)	210,365	(148,817)	0.85X	0.11X
	Wheat	30,563	10,402	14,043	13,322	(4,797)	63,219	(143,292)	1.09X	1.21X
	Live Cattle	105,175	(5,137)	84,250	63,006	96,444	183,134	19,421	0.18X	0.07X
	Lean Hogs	32,054	2,801	37,437	49,795	52,225	97,769	(11,151)	-0.71X	-0.39X
	Sugar	50,002	(6,893)	(90,633)	(111,166)	(76,542)	213,702	(205,161)	1.74X	0.92X
	Cotton	28,223	3,748	2,259	(12,144)	(5,023)	132,318	(37,827)	1.52X	-0.54X
Coffee	46,860	55	(1,479)	(13,581)	(32,707)	46,860	(106,651)	2.50X	2.41X	
Cocoa	41,325	(2,129)	47,509	30,441	20,550	67,081	(43,846)	0.76X	1.15X	
Orange Juice	(5,538)	(66)	(6,232)	(6,408)	(6,986)	5,540	(9,416)	1.26X	-0.69X	

HEDGEYE TV

The Macro Show  
January 8, 2020

# Volatility

TIME WINDOW SETTING:		TOTAL RETURN	IVOL PREMIUM/DISCOUNT						REALIZED VOLATILITY TRENDS			IMPLIED VOLATILITY TRENDS		
VOLATILITY_30D		PERFORMANCE	IVOL PREM %		1M Ago		3Yr Z-Score		RVOL		PERCENTILE	IVOL		PERCENTILE
PUT_IMP_VOL_30D	TICKER	YTD %	IVOL / RVOL	Yesterday	1W Ago	1M Ago	TTM Z-Score	3Yr Z-Score	CURRENT	MM %	10YR	CURRENT	MM %	10YR
<b>US EQUITIES</b>														
CURRENT														
Communication Services SPDR ETF	XLC US EQUITY	2.00%	63%	62%	94%	86%	1.5		9.6	22%	7%	15.6	7%	20%
Industrials Sector SPDR ETF	XLI US EQUITY	1.52%	158%	27%	52%	41%	4.7	4.9	10.9	-10%	20%	28.0	65%	94%
Power Shares QQQ Trust ETF	QQQ US EQUITY	1.37%	50%	49%	59%	56%	1.3	1.2	10.4	15%	16%	15.6	10%	49%
Energy Sector SPDR ETF	XLE US EQUITY	1.12%	20%	16%	4%	-15%	0.9	0.6	16.6	-20%	40%	20.0	13%	53%
Technology Sector SPDR ETF	XLK US EQUITY	0.93%	118%	65%	54%	32%	3.0	3.0	11.8	8%	27%	25.6	79%	92%
Consumer Discretionary Sector SPDR ETF	XLY US EQUITY	0.45%	73%	32%	39%	27%	2.0	1.8	9.6	2%	16%	16.7	39%	67%
SPDR S&P 500 ETF Trust	SPY US EQUITY	0.27%	49%	46%	64%	50%	1.2	1.2	8.0	14%	16%	11.8	13%	36%
Health Care Sector SPDR ETF	XLV US EQUITY	-0.19%	14%	70%	62%	61%	0.3	0.1	9.0	-11%	14%	10.3	-37%	6%
I-Shares Russell 2000 ETF	RWM US EQUITY	-0.53%	48%	47%	44%	25%	2.0	1.7	9.6	-14%	3%	14.1	1%	16%
Financials Sector SPDR ETF	XLF US EQUITY	-0.81%	40%	30%	36%	34%	1.4	1.3	11.2	13%	11%	15.7	19%	37%
Utilities Sector SPDR ETF	XLU US EQUITY	-1.10%	25%	33%	263%	5%	0.2	0.4	8.1	-26%	7%	10.1	-12%	7%
Consumer Staples Sector SPDR ETF	XLP US EQUITY	-1.51%	144%	354%	85%	153%	1.4	2.3	6.1	0%	3%	15.0	-4%	86%
Vanguard Real Estate REIT ETF	VNQ US EQUITY	-1.55%	4%	4%	-4%	-11%	0.0	0.1	11.9	-1%	29%	12.3	16%	27%
Materials Sector SPDR ETF	XLB US EQUITY	-3.31%	37%	35%	92%	76%	0.7	0.9	10.9	8%	13%	15.0	-16%	35%
<b>INTERNATIONAL EQUITIES</b>														
I-Shares China Large-Cap ETF	FXI US EQUITY	0.87%	-8%	-1%	17%	0%	-1.0	-0.7	17.9	12%	26%	16.5	3%	8%
I-Shares MSCI Japan ETF	EWJ US EQUITY	0.46%	19%	23%	39%	29%	0.7	0.4	9.3	16%	11%	11.1	7%	14%
Euro Stoxx 50 Index	SX5E INDEX	0.44%	2%	7%	4%	19%	0.0	-0.4	11.9	15%	21%	12.1	-2%	13%
I-Shares MSCI Emerging Markets ETF	EEM US EQUITY	-0.18%	1%	12%	71%	23%	-0.5	-0.3	14.1	24%	22%	14.3	2%	10%
<b>CURRENCIES</b>														
PowerShares US Dollar Index ETF	UUP US EQUITY	0.58%	-14%	-12%	-20%	41%	-1.5	-0.8	7.1	114%	53%	6.1	31%	12%
Currency Shares Japanese Yen ETF	FXJ US EQUITY	0.09%	24%	22%	33%	6%	1.0	0.9	4.4	-7%	4%	5.4	9%	4%
Currency Shares Euro Trust ETF	FXE US EQUITY	-0.66%	3%	8%	22%	13%	-0.2	0.0	4.5	13%	7%	4.6	3%	2%
Currency Shares British Pound ETF	FXB US EQUITY	-0.95%	-20%	-21%	-6%	116%	-1.3	-1.3	9.4	81%	73%	7.5	-33%	31%
<b>COMMODITIES</b>														
SPDR Gold Shares ETF	GLD US EQUITY	3.55%	55%	56%	51%	-10%	3.5	3.1	8.3	-20%	4%	12.9	38%	31%
United States Oil Fund ETF	USO US EQUITY	2.50%	34%	35%	2%	-3%	1.6	1.7	21.0	-25%	24%	28.2	4%	45%
PowerShares DB Agriculture Fund ETF	DBA US EQUITY	-1.03%	-7%	-10%	7%	53%	-1.6	-1.5	12.1	55%	54%	11.2	-6%	7%
United States Natural Gas Fund ETF	UNG US EQUITY	-1.42%	2%	-1%	4%	15%	-0.3	-0.3	39.7	-15%	68%	40.4	-25%	58%
<b>FIXED INCOME</b>														
I-Shares 20+ Year Treasury Bond ETF	TLT US EQUITY	1.60%	-15%	-14%	-17%	-20%	-0.6	-1.1	13.7	-9%	62%	11.6	-4%	38%
I-Shares 7-10 Year Treasury Bond ETF	IEF US EQUITY	0.88%	-7%	-11%	-15%	-12%	-0.5	-0.5	5.9	-5%	61%	5.5	0%	33%
I-Shares IBOXX HY Corporate Bond ETF	HYG US EQUITY	0.13%	24%	23%	23%	31%	0.5	0.2	3.3	0%	13%	4.1	-6%	10%
I-Shares IBOXX IG Corporate Bond ETF	LQD US EQUITY	-0.04%	-7%	-1%	-2%	-15%	-0.5	-1.0	5.1	-17%	57%	4.7	-9%	24%
I-Shares J.P. Morgan USD EM Bond ETF	EMB US EQUITY	-0.17%	12%	18%	18%	7%	0.7	-0.2	4.9	-2%	32%	5.5	2%	18%

Data Source: CBOE, CME, Bloomberg



# Macro Data Callouts

1. Both the domestic and global industrial economies were rocked with a spate of bad data over the past 24hrs. In the US specifically, NOV Factory Orders slowed -20bps to -1.5% YoY, joining the downward revision to NOV Durable Goods, which decelerated -260bps to -3.8% YoY. Capex was the lone bright spot of the report, accelerating +140bps to 0.4% YoY – the first positive reading since JUN.
2. German Factory Orders decelerated -90bps from a downwardly-revised OCT print to a three-month low of -6.5% YoY in NOV. Worse, the European Commission's DEC Industrial Confidence Index (-0.2pts to -9.3) didn't leave much in the way of sanguinity from a forward-looking perspective. That figure is hovering right around the ~6yr low reached in OCT.
3. South Africa's DEC Manufacturing PMI print is not what you want to see in terms of a handoff for Q1 in that it slowed -0.6pts to a three-month low of 47.1. Despite the weakness, South Africa still is tracking in Quad 1 for 4Q19E and continues to have one of the highest-probability projected accelerations in GROWTH throughout the world here in 1Q20E.

# Macro Daily Data Dump

Date Time	Country/Region	C	Event	Period	Surv(M)	Actual	Prior	Revised	Ticker
01/07/20 10:00	United States	US	ISM Non-Manufacturing Index	Dec	54.5	55	53.9	--	NAPMNMI Index
01/07/20 10:00	United States	US	Factory Orders	Nov	--	-1.50%	-1.30%	--	TMNOCHNG Index
01/07/20 10:00	United States	US	Durable Goods Orders	Nov F	--	-3.80%	-1.20%	--	DGNOCHNG Index
01/07/20 10:00	United States	US	Cap Goods Orders Nondef Ex Air	Nov F	--	0.40%	-1.00%	--	CGNOXAI% Index
01/07/20 18:30	Japan	JN	Labor Cash Earnings YoY	Nov	-0.10%	-0.20%	0.50%	0.00%	JNLSUCTL Index
01/07/20 18:30	Japan	JN	Real Cash Earnings YoY	Nov	-0.70%	-0.90%	0.10%	-0.40%	JNLSUCRE Index
01/08/20 00:00	Japan	JN	Consumer Confidence Index	Dec	39.5	39.1	38.7	--	JCOMSHCF Index
01/08/20 02:00	Germany	GE	Factory Orders WDA YoY	Nov	-4.70%	-6.50%	-5.50%	-5.60%	GEIOYY Index
01/08/20 02:45	France	FR	Consumer Confidence	Dec	104	102	106	105	FRCCO Index
01/08/20 04:00	South Africa	SA	Absa Manufacturing PMI	Dec	45.5	47.1	47.7	--	SAPMI Index
01/08/20 04:30	United Kingdom	UK	Unit Labor Costs YoY	3Q	--	3.60%	3.60%	4.00%	UKMWDWVN Index
01/08/20 04:30	United Kingdom	UK	Output Per Hour YoY	3Q F	--	0.10%	0.00%	-0.60%	UKPRLZVD Index
01/08/20 05:00	Eurozone	EC	Economic Confidence	Dec	101.4	101.5	101.3	101.2	EUESEMU Index
01/08/20 05:00	Eurozone	EC	Business Climate Indicator	Dec	-0.18	-0.25	-0.23	-0.21	EUBCI Index
01/08/20 05:00	Eurozone	EC	Industrial Confidence	Dec	-9	-9.3	-9.2	-9.1	EUICEMU Index
01/08/20 05:00	Eurozone	EC	Services Confidence	Dec	9.5	11.4	9.3	9.2	EUSCEMU Index
01/08/20 05:00	Eurozone	EC	Consumer Confidence	Dec F	--	-8.1	-7.2	--	EUCCEMU Index

# Hedgeye Macro GIP Model Signals

1/8/2020	Hedgeye Macro GIP Model Signals												GROWTH					Strength Of Signal				INFLATION					Strength Of Signal											
	Actuals						Estimates						Real GDP YoY					NTM Δ				Conditional Probability Of Est. Δ				Headline CPI YoY					NTM Δ				Conditional Probability Of Est. Δ			
	1Q18	2Q18	3Q18	4Q18	1Q19	2Q19	3Q19	4Q19E	1Q20E	2Q20E	3Q20E	3Q19	4Q19E	1Q20E	2Q20E	3Q20E	3Q20E Less 3Q19A	4Q19E	1Q20E	2Q20E	3Q20E	3Q19	4Q19E	1Q20E	2Q20E	3Q20E	3Q20E Less 3Q19A	4Q19E	1Q20E	2Q20E	3Q20E	3Q19	4Q19E	1Q20E	2Q20E	3Q20E		
Argentina	3	3	2	3	2	2	4	1	4	1	4	-1.70	-1.25	-2.10	-1.95	-2.00	-30bps	62	72	54	51	54.14	53.57	52.76	49.92	47.15	-699bps	55	58	77	77							
Australia	1	1	3	4	4	4	1	4	2	2	4	1.70	1.44	1.63	1.68	1.54	-16bps	81	73	56	67	1.68	1.60	1.77	1.83	1.80	12bps	67	85	61	55							
Brazil	4	3	2	4	4	4	2	1	2	3	4	3	1.19	1.77	1.31	1.04	0.44	-75bps	98	90	73	98	3.18	3.49	3.87	3.57	3.60	42bps	69	74	68	52						
Canada	3	3	2	4	4	4	2	4	3	2	4	1	1.65	1.30	1.51	0.67	1.10	-55bps	92	75	98	98	1.94	2.06	2.14	1.80	1.73	-21bps	74	66	98	65						
<b>China</b>	3	4	3	4	4	3	3	3	3	1	1	4.95	4.74	4.25	4.81	5.76	80bps	58	69	71	86	2.88	3.76	3.82	3.59	3.25	36bps	98	56	72	82							
<b>Eurozone</b>	4	3	3	4	1	4	4	3	2	1	2	1.20	1.18	1.24	1.35	1.52	32bps	54	61	73	84	0.93	1.00	1.20	1.04	1.06	13bps	63	88	81	55							
France	3	3	3	4	1	1	4	1	2	4	4	1.35	1.38	1.59	1.20	1.18	-17bps	55	94	98	54	1.23	1.23	1.41	1.21	1.09	-15bps	50	82	86	73							
Germany	4	3	3	4	1	3	1	3	2	1	2	0.50	0.41	0.59	1.13	1.19	69bps	62	74	98	58	1.00	1.20	1.41	1.21	1.37	37bps	86	88	86	79							
India	2	3	4	4	4	3	3	3	2	1	2	4.50	2.82	3.12	3.77	4.00	-50bps	98	67	86	63	3.47	4.64	4.82	4.52	4.72	125bps	98	59	64	59							
Indonesia	4	1	4	2	4	3	3	4	2	4	1	5.02	5.02	5.07	5.01	5.04	2bps	51	61	62	55	3.40	2.95	3.35	3.14	3.11	-29bps	69	67	59	52							
Italy	4	3	3	4	1	1	1	4	2	1	1	0.32	0.16	0.27	0.33	0.61	30bps	73	66	58	92	0.33	0.30	0.50	0.49	0.46	13bps	54	74	51	53							
Japan	3	1	3	1	1	2	1	3	2	3	1	1.70	-0.20	-0.16	-0.36	-0.32	-202bps	98	53	65	53	0.33	0.44	0.53	0.62	0.60	27bps	58	57	57	51							
Mexico	4	1	3	4	4	3	1	4	2	2	2	-0.30	-0.98	-0.93	0.25	0.36	66bps	98	55	98	60	3.31	3.17	3.96	4.34	4.68	136bps	63	98	84	80							
Russia	1	2	2	2	3	1	1	4	2	3	3	1.70	1.31	1.38	0.68	0.41	-129bps	83	56	98	73	4.30	3.43	4.00	4.02	4.05	-25bps	68	62	51	51							
South Africa	4	3	2	4	4	2	4	1	2	4	4	0.10	0.26	0.81	0.54	0.40	30bps	67	98	79	64	4.13	3.90	4.30	4.04	3.99	-15bps	70	83	72	54							
South Korea	1	2	3	2	4	2	1	2	2	4	3	2.00	2.13	2.44	2.40	2.28	28bps	67	93	55	66	0.07	0.30	0.73	0.50	0.76	70bps	88	98	88	93							
Spain	4	3	3	4	1	4	4	3	2	1	2	1.86	1.43	1.48	1.50	1.66	-20bps	98	57	53	72	0.40	0.50	0.87	0.59	0.67	27bps	63	98	86	61							
Turkey	1	3	3	3	1	1	1	1	3	1	4	0.95	3.19	2.62	2.94	1.12	18bps	98	67	60	98	13.64	10.32	12.23	11.87	10.44	-320bps	98	98	64	98							
United Kingdom	4	1	2	4	1	3	4	1	3	2	3	1.10	1.13	0.94	1.28	1.25	15bps	56	83	98	57	1.83	1.66	1.92	1.98	2.01	17bps	77	91	60	54							
<b>United States</b>	2	2	4	4	1	3	4	3	3	4	2	2.07	1.89	1.73	1.71	1.72	-35bps	74	71	52	52	1.76	1.97	2.17	1.86	1.91	16bps	98	98	98	64							
<b>MODE/MEDIAN</b>	4	3	3	4	4	3	1	3	2	1	2	1.50	1.35	1.43	1.24	1.19	-32bps	74	70	72	65	1.89	2.01	2.15	1.92	1.96	7bps	69	83	72	60							

Data Source: Bloomberg, BIS, World Bank, and IMF. Intellectual Property of Hedgeye Risk Management. GREEN header = Hedgeye Nowcast estimates. BLUE header = Hedgeye β-Adjusted Comparative Base Effect Model estimates.  
Conditional probability inversely proportional to the prior base rate's percentile score within a 95% confidence interval band around the projected GROWTH or INFLATION rate in a given quarter.



# Hedgeye Macroeconomic Data Sequencer

HEDGEYE MACROECONOMIC DATA SEQUENCER	QUARTERLY AVERAGE DELTA		TRENDING DELTA		SEQUENTIAL DELTA		PERCENTILE BASIS (T10Y)	RoC	HISTORICAL CONTEXT	
	Sep-19	Dec-19	12MMA	6MMA (NOV)	Prior	Latest (NOV)	Latest Reading	NOV	Best Since	Worst Since
US Durable Goods New Orders Industries SA YoY % Change	-2.58	-2.54	-0.49	-2.46	-1.24	-3.84	13%	-2.60	10/31/2019	9/30/2019
Capital Goods New Orders Nondefense Excluding Aircraft SA YoY % Change	-0.85	-0.29	1.02	-0.36	-0.99	0.40	36%	1.39	6/30/2019	10/31/2019
US Manufacturers New Orders YoY SA	-1.73	-1.40	-0.16	-1.55	-1.30	-1.50	23%	-0.20	10/31/2019	9/30/2019
ISM Non-Manufacturing NMI	54.23	54.53	55.53	54.38	53.90	55.00	35%	1.10	8/31/2019	11/30/2019
Japan Labour Statistics Avg Monthly Cash Earnings YoY	-0.20	-0.10	-0.19	-0.07	0.00	-0.20	29%	-0.20	10/31/2019	7/31/2019
Japan Labour Statistics Avg Monthly Real Cash Earnings YoY	-0.67	-0.65	-0.75	-0.63	-0.40	-0.90	31%	-0.50	10/31/2019	7/31/2019
Japan Consumer Confidence Households: Confidence SA	36.83	38.00	38.90	37.42	38.70	39.10	18%	0.40	5/31/2019	11/30/2019
Germany Manufacturing Orders YoY NSA	-5.50	-6.05	-5.65	-5.35	-5.60	-6.50	3%	-0.90	10/31/2019	5/31/2019
France Consumer Confidence Overall Indicator SWDA	103.00	103.67	100.00	103.33	105.00	102.00	90%	-3.00	11/30/2019	6/30/2019
South Africa PMI Barclays SA	47.27	47.63	48.16	47.45	47.70	47.10	6%	-0.60	11/30/2019	9/30/2019
UK Total Unit Labour Costs YoY	#N/A	3.23	2.67	3.00	4.00	3.60	71%	-0.40	6/30/2019	3/31/2019
UK Total Output per Hour YoY	#N/A	-0.20	0.55	0.08	-0.60	0.10	18%	0.70	6/30/2018	6/30/2019
European Commission Economic Sentiment Indicator Eurozone	102.50	101.17	103.46	101.83	101.20	101.50	46%	0.30	9/30/2019	11/30/2019
European Commission Euro Area Business Climate Indicator	-0.07	-0.22	0.17	-0.14	-0.21	-0.25	18%	-0.04	11/30/2019	8/31/2013
European Commission Manufacturing Confidence Eurozone Industrial Confidence	-7.33	-9.30	-5.34	-8.32	-9.10	-9.30	16%	-0.20	11/30/2019	10/31/2019
European Commission Services Confidence Indicator Eurozone	9.77	9.87	10.70	9.82	9.20	11.40	68%	2.20	5/31/2019	11/30/2019
European Commission Consumer Confidence Indicator Eurozone	-6.73	-7.63	-7.08	-7.18	-7.20	-8.10	61%	-0.90	11/30/2019	2/28/2017