

THE
MACRO
SHOW

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1

TECH

2

OIL

3

ITALY





1

TECH

Leading losers at the *Sector Style* level yesterday at -3.5% (XLK) is your #1 Sector Underweight (Short) when in *Quad 4*. Utes and REITS were flat to up on a very red day so the playbook continues to play out here.

2

OIL

Down another -2.2% this morning, the crash in Crude Oil continues – WTI is down -23.3% since the beginning of OCT. Since it is the heaviest weight in our predictive tracking algo for future headline U.S. inflation (CPI). It's now a trivial matter that the cycle peak for U.S. inflation is in; inverse correlation between *#StrongDollar* and Oil is now trending towards -0.8.

3 ITALY

No bounce for the Italian Stock market so far this morning (MIB Index is -23.3% since May) and Italian Bond Yields are up again this morning in kind (3.48% on Italy's 10YR Yield). Eurozone ZEW for November of -22 (vs. -19.4 OCT) was horrific; don't forget a big part of our *#StrongDollar* call remains Short Euros on *#EuropeSlowing*.



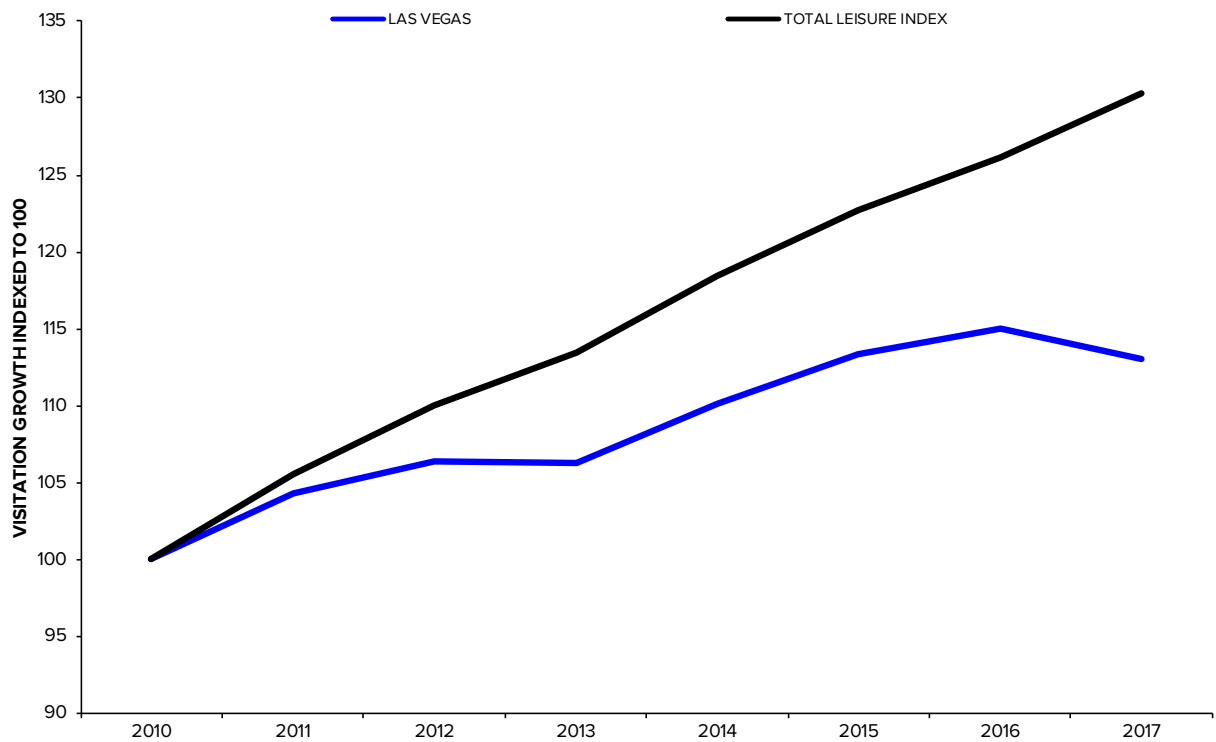
TODD JORDAN

Gaming, Lodging, & Leisure

LV STRIP | SOMETHING FOR EVERYONE - THE HEDGEYE PERSPECTIVE

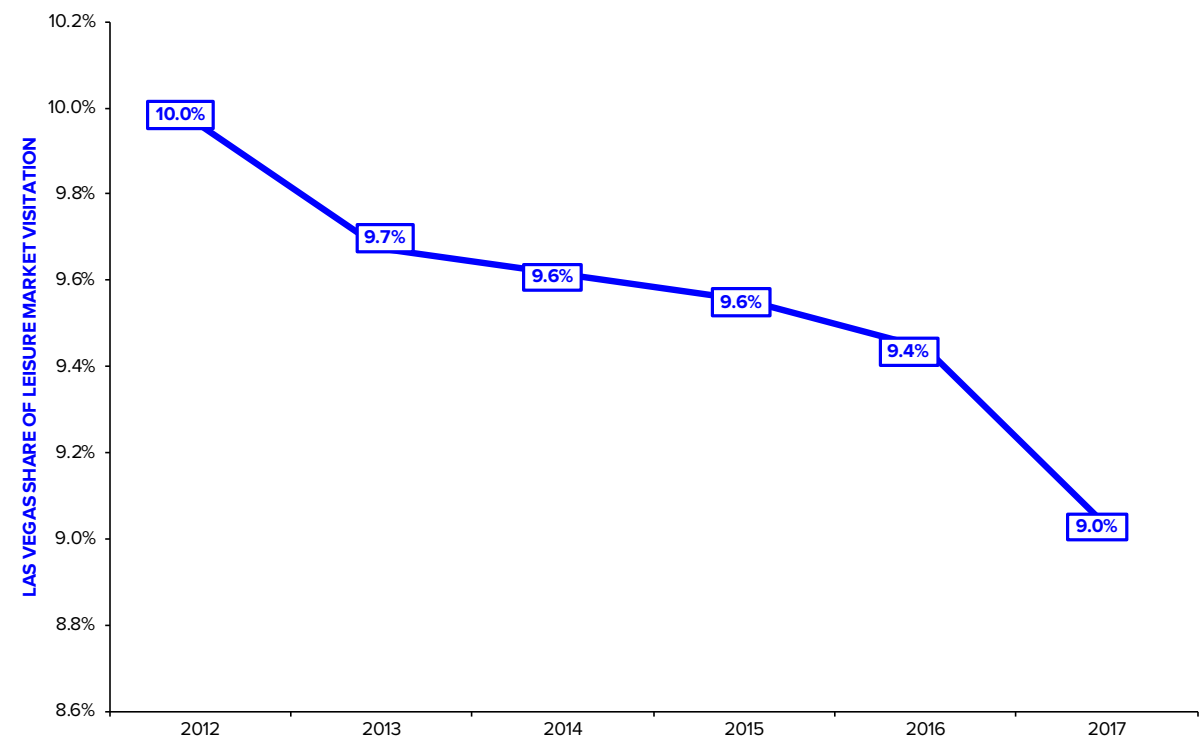
NEGATIVE | VEGAS HAS BEEN LAGGING

LAGGING THE US. WHY?



NOTES
(1) MARKETS INCLUDED IN THE VISITATION INDEX = CHICAGO, ORLANDO, NEW YORK, NEW ORLEANS, MIAMI, SAN DIEGO, LOS ANGELES, SAN FRANCISCO, ANAHEIM, ATLANTIC CITY, NASHVILLE, AUSTIN, HAWAII (STATE)
(2) NASHVILLE AND ATLANTIC CITY WERE ADDED TO THE INDEX IN 2012 DUE TO LACK OF DATA

ONGOING SHARE LOSSES



NOTES
(1) % REPRESENT LAS VEGAS LEISURE VISITATION (TOTAL ex CONVENTION) / TOTAL LEISURE MARKET INDEX
(2) MARKETS INCLUDED IN THE VISITATION INDEX = CHICAGO, ORLANDO, NEW YORK, NEW ORLEANS, MIAMI, SAN DIEGO, LOS ANGELES, SAN FRANCISCO, ANAHEIM, ATLANTIC CITY, NASHVILLE, AUSTIN, HAWAII (STATE)

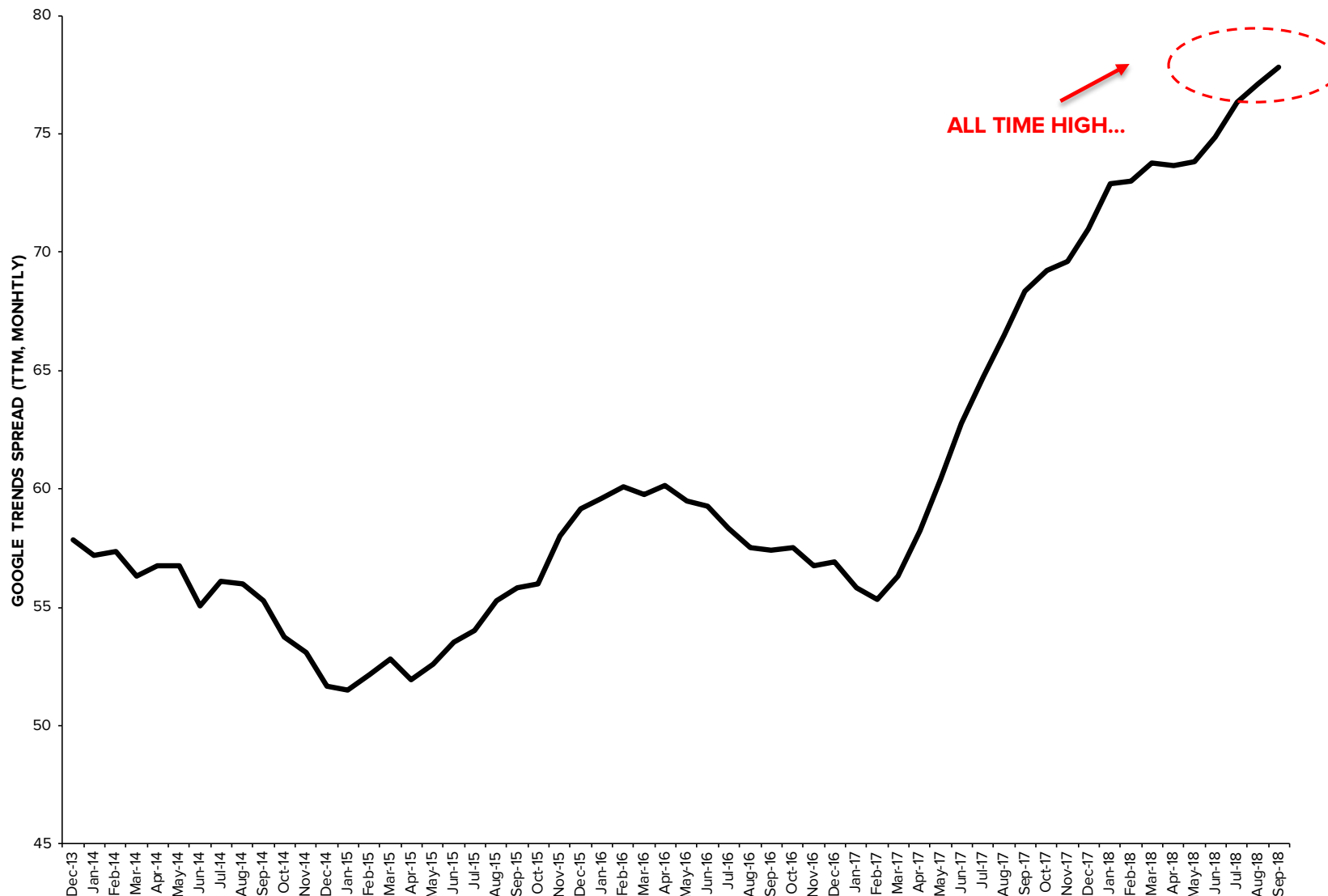
SHARE LOSSES MOUNTING ON THE LEISURE FRONT

The shooting in early October last year definitely hurt Las Vegas, but share losses were evident prior to the tragedy. Many of LV’s largest competitors have experienced outsized growth on the visitation front, and have grown at multiples of GDP. 2017 was no exception, and many leisure markets we tracked showed **acceleration** in visitation trends.

NEGATIVE | CUSTOMERS STARTING TO GET IT...

"LAS VEGAS RESORT FEE" SEARCH INTEREST OVER TIME...

NEW ALL TIME HIGHS IN SEPTEMBER, AND UP DOUBLE DIGITS Y/Y




From **Stealth** to **Transparent**. Customers now realizing how significant and costly are resort fees. And they're not happy.

It's not just resort fees – hard not to notice the price of everything does not seem competitive.


The only exception are published room rates during the week – which is why the convention and group business still looks promising for the long term.


FLASHBACK | HEDGEYE'S 2018 STEALTH PRICING THEME

 HEDGEYE GAMING LODGING & LEISURE

01/05/18 12:52 PM EST

LV STRIP CONF CALL | STEALTHY GROWTH
- END OF AN ERA? 1/10 AT 2PM

**Todd Jordan**
[@hedgeyesnakeye](#)

**Felix Wang**

Takeaway: "Stealth" pricing generated much of the Strip's growth but signs point to the end of that tailwind. Call is @ 2PM ET on January 10th.

*The Hedgeye Gaming, Lodging, and Leisure (GLL) team will host a conference call next **Wednesday, January 10 at 2PM ET** to discuss the stealth pricing effect on Las Vegas Strip gaming and non-gaming revenues. Unfortunately, the positive impact appears to be waning. For revenues to improve without this pricing tailwind, leisure visitation needs to grow in the face of potentially negative 2018 convention attendance. However, visitation trends are sluggish and lagging other leisure options. Have consumers already figured out the true cost of a Vegas trip?*

Themes discussed and presented on in January...

1. Various stealth pricing hikes becoming transparent to consumers which could negatively impact visitation
2. Higher hold % as gaming tailwind could begin to top
3. We estimate flat or even lower convention attendance which creates headwind to midweek room compression
4. Q3 could be the quarter to see these trends most manifested

A lot of these themes have played out, but will they persist? Let's take a look...

POSITIVE | BETTER Q4 CONVENTION CALENDAR

4Q 2018 TRACKER

CONVENTION	CONVENTION LOCATION		ATTENDEES
	4Q 2017	4Q 2018	
NACS	CHICAGO	LVCVA	30,000
AIMS	OHIO	MGM	25,000
SIGA	NEW ORLEANS	LVCVA	23,000
NFMT	ORLANDO	RIO (CZR)	1,500
GROWING INNOVATIONS (NXT)	NA	LVCVA	2,000
FRANCHISE TIMES	COSMO	WYNN	2,500
INTERNATIONAL POOL/PATIO	ORLANDO	MGM	10,000
DEMA	ORLANDO	LVCVA	10,000
AARC*	INDIANA	MGM	5,000
NGWA*	NASHVILLE, TN	LVCVA	4,500
LIGHTSHOW WEST	LA	RENAISSANCE	4,500
WORLD CRYPTO CON	NA	VEGAS	3,000
ESOP	CZR	DC	(2,830)
POWER-GEN	LVCVA	ORLANDO	(20,000)
NBAA-BACE	LVCVA	ORLANDO	(27,000)
RODAN/FIELDS	MGM	NEW ORLEANS	(13,500)
SWEET ADELINE	MGM	ST LOUIS	(15,000)
AHCA	MGM	SAN DIEGO	(4,000)
ISPA	MGM	PHOENIX	(2,500)
EMS WORLD EXPO	WESTGATE	NASHVILLE	(5,000)
METALCON	WESTGATE	MINNEAPOLIS	(3,000)
WORLD GLOBAL NETWORK	CZR	NA	(5,000)
TOTAL GAIN/LOSS			23,170

4Q LOOKS BETTER ON CONVENTION SIDE

We expect 4Q 2018 convention attendance to grow modestly YoY despite tough comps (+18%). There are more small groups/meetings along with one additional large convention in 4Q 2018.

We heard more positive commentary in Las Vegas during our trip earlier this week. Citywides are up in November and December and the event calendar is strong in October. Moreover, we think the smaller group business looks pretty good for Q4 as well.

POSITIVE | HEDGEYE TRACKER – Q1 A STANDOUT\$

CONVENTIONS LEAVING VEGAS IN 2019

CONVENTION	EXPECTED ATTENDEES
INFOCOMM*	(40,000)
HIMSS*	(30,000)
NACS*	(30,000)
NADA*	(30,000)
AIMS EXPO*	(25,000)
SIGA	(23,000)
SCI	(21,000)
ASIS/GSX	(21,000)
NERIUM	(20,000)
HELI	(20,000)
DDW	(20,000)
AWWA	(15,000)
INTERNATIONAL POOL/PATIO	(10,000)
DEMA*	(10,000)
CSES*	(9,000)
GLASSBUILD AMERICA*	(9,000)
MINEXPO*	(7,500)
APCO	(6,000)
CAR WASH	(6,000)
NIGA*	(5,000)
AARC	(5,000)
LIGHTSHOW WEST	(4,500)
IDA EXPO	(3,000)
ARDA	(2,850)
NGA	(2,700)
ASPEN	(1,500)
IFEBP	(1,500)
TOTAL	(378,550)
NET TOTAL (EX. CYCLE EVENTS)	(183,050)

* Cycle Convention

** Triennial Convention

CONVENTIONS COMING TO VEGAS IN 2019

CONVENTION	EXPECTED ATTENDEES
IBS*	60,000
KBIS*	33,000
AAOS	33,500
PACK EXPO*	30,000
NBAA-BACE*	27,000
IBIE**	22,000
ISA Sign Expo*	19,500
AWFS*	18,500
SHRM	18,000
ISSA*	17,000
AIA	15,000
IWCE*	12,000
DAC	8,000
NECA	5,500
CMSA	5,000
BICSI*	4,500
ABA (MID-YEAR)	4,000
NACo	3,200
IFA	3,000
WQA	3,000
VDTA	2,600
ASHP	2,500
ISPA*	2,500
ASPPA	2,210
SMFM	1,600
DBIA	1,600
ASMA	1,500
ARN	1,400
TOTAL	357,610
NET TOTAL (EX. CYCLE EVENTS)	111,610

COMBINED TOTAL (COMING - LEAVING) (20,940)

TOTAL EX. CYCLE EVENTS (COMING - LEAVING) (71,440)

Our tally of LV conventions suggests another flattish year. Q1 2019 is positive and has a higher weighting, so we expect total convention attendance to be flattish in 2019, although there could be some closer in bookings. While major citywide attendance will increase in 2019 due to conventions, a greater number of small-to-medium groups are leaving Vegas next year which is leading to a net deficit. If you exclude all the cycle conventions, Vegas is losing more convention business in 2019 vs 2018.

Vegas typically attracts shorter booking windows for smaller meetings and with lower weekday rates, the operators can still pull this lever.

Note: Since most big conventions are booked far in advance, we estimate ~80% of 2019 conventions are already on the LV calendar. This is a dynamic calendar which we update every month.

POSITIVE | RAIDER STADIUM, MORE THAN JUST FOOTBALL

Assumptions	
Stadium Capacity (Raiders)	70,000
Total Annual Events	25
TTM Room Nights (Ended Aug-18)	47,185,976

OUT OF TOWN GUESTS SHARE
OF ARENA CAPACITY

INCREMENTAL ROOM NIGHTS GENERATED via RAIDER STADIUM									
	LENGTH OF STAY PER FAN								
	2.2	2.5	2.7	3.0	3.2	3.5	3.7	4.0	4.2
100%	4.1%	4.5%	5.0%	5.5%	5.9%	6.4%	6.9%	7.3%	7.8%
95%	3.9%	4.3%	4.8%	5.2%	5.6%	6.1%	6.5%	7.0%	7.4%
90%	3.7%	4.1%	4.5%	4.9%	5.3%	5.8%	6.2%	6.6%	7.0%
85%	3.5%	3.9%	4.3%	4.6%	5.0%	5.4%	5.8%	6.2%	6.6%
80%	3.3%	3.6%	4.0%	4.4%	4.7%	5.1%	5.5%	5.9%	6.2%
75%	3.1%	3.4%	3.8%	4.1%	4.5%	4.8%	5.1%	5.5%	5.8%
70%	2.9%	3.2%	3.5%	3.8%	4.2%	4.5%	4.8%	5.1%	5.5%
65%	2.7%	3.0%	3.3%	3.6%	3.9%	4.2%	4.5%	4.8%	5.1%
60%	2.4%	2.7%	3.0%	3.3%	3.6%	3.8%	4.1%	4.4%	4.7%
55%	2.2%	2.5%	2.8%	3.0%	3.3%	3.5%	3.8%	4.0%	4.3%
50%	2.0%	2.3%	2.5%	2.7%	3.0%	3.2%	3.4%	3.7%	3.9%
45%	1.8%	2.0%	2.3%	2.5%	2.7%	2.9%	3.1%	3.3%	3.5%
40%	1.6%	1.8%	2.0%	2.2%	2.4%	2.6%	2.7%	2.9%	3.1%
35%	1.4%	1.6%	1.8%	1.9%	2.1%	2.2%	2.4%	2.6%	2.7%
30%	1.2%	1.4%	1.5%	1.6%	1.8%	1.9%	2.1%	2.2%	2.3%
25%	1.0%	1.1%	1.3%	1.4%	1.5%	1.6%	1.7%	1.8%	1.9%
20%	0.8%	0.9%	1.0%	1.1%	1.2%	1.3%	1.4%	1.5%	1.6%

4.2% = Probable range

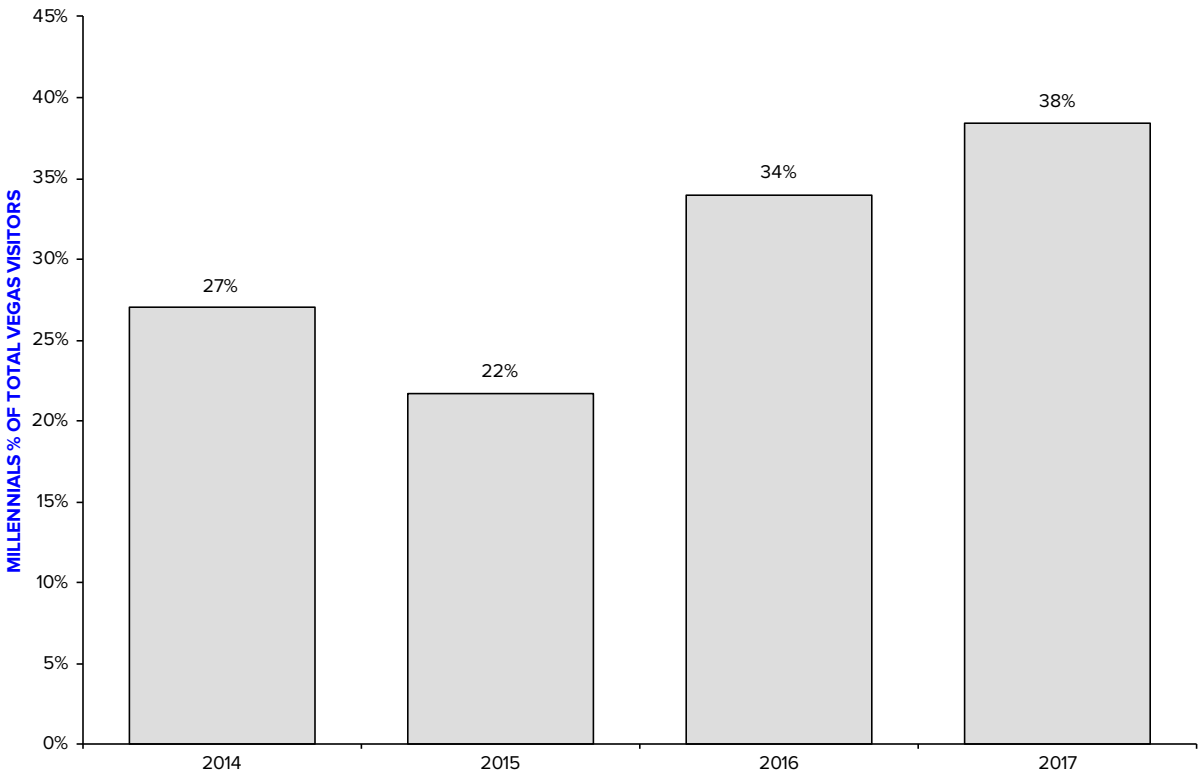
- Notes
- 1 Matrix output = incremental room nights as a % of the TTM (ended Aug-18) total
 - 2 Analysis assumes double occupancy for each room night
 - 3 Sources: LVCVA, LVSA, NFL, HEDGEYE

Inclusive of the Raiders 8 guaranteed home games + potential other events (college neutral site football, concerts, festivals, etc.), we estimate the stadium could create an **incremental ~4% in room nights for the city.**

Again, this is a big catalyst, but it's not a 2019 catalyst.

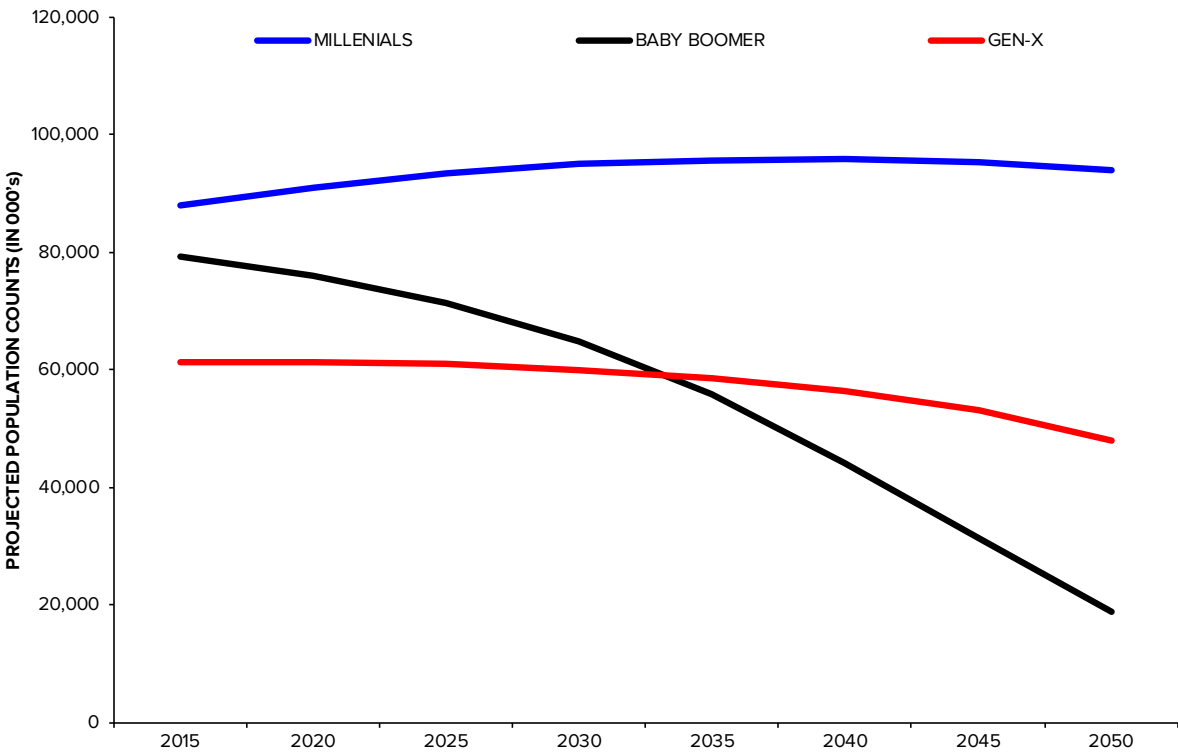
POSITIVE | MILLENNIALS ATTRACTED TO LAS VEGAS

MILLENNIALS FLOCKING TO LAS VEGAS



NOTES
(1) % BASED ON LVCVA ANNUAL VISITOR PROFILE SURVEY

MILLENNIALS ARE THE LARGEST DEMOGRAPHIC COHORT IN THE US



NOTES
(1) DATA IS BASED OFF OF RECENT CENSUS POPULATION PROJECTIONS BY AGE
(2) BABY BOOMER COHORT BORN BETWEEN 1946-1964, GEN-X: 1965-1980, MILLENNIAL: 1981-1997
(3) CALCULATION FOR MILLENNIALS INCLUDES SOME CONTRIBUTION FROM GEN-Z DUE TO THE CENSUS AGE COHORT BREAK OUT

LAS VEGAS HAS BEEN ABLE TO ATTRACT THE MOST IMPORTANT DEMOGRAPHIC COHORT IN THE US

Millennials accounted for 38% of all Vegas visitors - the largest proportion of visitors in 2017. This is the 1st time that there are more Millennial visitors than any other demographic group to Vegas. It's important to capture and retain this long-term demographic opportunity but Millennials are not so easy to please.

MGM | SENTIMENT REVERSAL; THE LONG TRADE

MGM | HEDGEYE LONG TRADE THESIS

1

KNOWLEDGE IS POWER

- MGM has the opportunity to capitalize on the better Q4 environment, beat its guidance, and be more proactive **in yielding its rooms in 2019**
- Looking ahead, we think management recognizes that the Vegas leisure customer segment is weaker than leisure spend overall and pricing across the business segments is too high. The solution? Be more proactive pushing smaller group nights on the books.
- We think MGM already has more contracted convention room nights on the books for 2019 than the company did at this time last year for 2018. Room mix should skew more towards group in 2019 vs 2018. While a % of group room nights may pressure GGR, it could be a positive force on revenues and non-gaming spend.

2

NEAR TERM CATALYSTS

- Our work corroborates management's assertion that Q4 is much improved from Q3 - even after excluding the easy comp from the shooting
- The event/convention calendar is better and, seasonally, is less reliant on the leisure customer. Citywides are up in Oct/Nov and MGM internals are likely up as well.
- The event calendar was strong in Oct. Could it get better? Yes and we think there's a good chance MGM lands the Pacquiao/Mayweather fight (our guess is Q2 2019)
- **Following the conclusion of earnings season we expect management to start striking a more positive tone on the margin with both the sell side and buy side**

3

CORPORATE STRATEGY & MESSAGING

- We've been critical of mgmt's promotional presentations/earnings calls but more importantly, the the company hasn't always been run with a consistent LT strategy. Following mgmt. meetings this week, we came away (for the first time in a long time) feeling good about their desire to improve margins and drive cash flow
- **There's potential for an activist shareholder to make sure that management doesn't stray away from its true potential of driving higher FCF and margins**
- MGM still has margin opportunity in our opinion, and the pressure will be on from shareholders for them to deliver. Their l/t goal seems to be 32% property level LV EBITDA margins a nice improvement over the 30% run rate. 4Q could be the start of their march toward that target

4

VALUATION

- The stock looks inexpensive at 9x 2019 EV/EBITDA (economic), even on our below consensus numbers
- MGM is so clearly a prove it story – both in terms of quarterly performance but also staying committed to a strategy.
- We think Q4 commentary could be a start but the message and execution needs to stay consistent
- **SOTP suggests value at \$32**

MGM | SOTP AT \$32

<i>(In US\$ million)</i>	MGM 2019 EBITDA	Multiple	EV
DOMESTIC PROPERTIES	\$2,768	9.0x	\$24,911
+ HARD ROCKSINO/EMPIRE CITY	180	7.0x	1,258
MGM CHINA (56%)	489	11.0x	5,383
CITYCENTER (50%)	210	10.0x	2,103
MGMT FEES	40	11.0x	444
MACAU ROYALTIES	25	13.0x	328
MGP (26%)	(210)	11.0x	(2,308)
CORPORATE	(393)	9.0x	(3,536)
TOTAL EV	\$3,110	9.2x	\$28,584
NET DEBT			
WHOLLY-OWNED			7,382
MGP (74%)			3,314
MGM CHINA (56%)			916
CITYCENTER (50%)			781
CASH			(612)
NET DEBT			\$11,780
TOTAL EQUITY VALUE			\$16,803
SHARES OUTSTANDING			525
EQUITY PER SHARE			\$32

MGM is cheap at current valuations (7x – US entity, 9x- Macau entity). The two pending acquisitions (Hard Rocksino/Empire City) and continued stock repurchases should boost valuation as well.

We see MGM near term fair value closer to \$32 with upside should management deliver on our longer term thesis.

MACRO GRIND

VOL-HALLA: Growths' Ragnarok!.....

HEDGEYE VOLATILITY METRICS																						
		Realized Volatility			Front-Month Implied Volatility				Implied vs. Realized Volatility											CM Vol Term Structure		
									5Yr Percentile (%)				At-The-Money (%)				30 Day		Z-Score		60 Day	
		Ticker	30D	60D	90D	Current	v 1M Avg	v 3M Avg	v 6M Avg	Current IVOL	IVOL Prem %	TTM	3Yr	Current IVOL	IVOL Prem %	TTM	3Yr	Current IVOL	IVOL Prem %		TTM	3Yr
S&P 500 Index	SPX	96.3%	84.9%	74.7%	17.1%	0.6%	36.7%	51.6%	17.3%	-24.1%	-0.9	-1.1	17.1%	3.3%	-0.3	-0.4	17.0%	19.4%	0.1	0.0	-0.2	
Nasdaq 100 Index	NDX	100.0%	94.9%	86.8%	25.3%	7.4%	35.9%	48.3%	25.6%	-24.4%	-1.1	-1.2	24.0%	-4.0%	-0.5	-0.7	23.6%	9.3%	-0.1	-0.2	-2.3	
Dow Jones Industrial Average	INDU	94.0%	83.1%	72.1%	18.0%	3.3%	32.8%	42.4%	18.1%	-16.9%	-0.8	-1.1	17.4%	7.8%	-0.2	-0.4	17.3%	22.2%	0.2	0.1	-0.8	
Russell 2000 Index	RTY	98.4%	80.8%	62.4%	21.8%	3.0%	37.5%	51.1%	21.9%	-12.4%	-0.9	-0.9	20.8%	10.7%	-0.1	0.1	20.4%	22.5%	0.2	0.6	-2.1	
SPDR S&P 500 ETF Trust	SPY	95.5%	84.1%	74.4%	17.2%	0.6%	36.7%	51.3%	17.5%	-22.3%	-0.9	-1.1	17.0%	3.5%	-0.3	-0.4	17.0%	20.6%	0.1	0.1	-0.4	
Consumer Discretionary Select Sector SPDR ETF	XLY	98.8%	91.0%	81.3%	21.0%	0.5%	30.8%	42.7%	20.9%	-23.1%	-1.4	-1.4	20.5%	0.2%	-0.6	-0.7	20.2%	16.2%	-0.1	-0.1	-1.6	
Financials Select Sector SPDR ETF	XLF	87.1%	72.6%	61.4%	21.4%	3.1%	24.4%	28.8%	20.9%	-10.6%	-0.8	-0.8	20.4%	12.8%	0.1	0.2	20.2%	22.6%	0.5	0.8	-1.4	
Health Care Select Sector SPDR ETF	XLV	93.4%	74.1%	55.6%	17.0%	-2.2%	23.2%	30.0%	17.2%	-24.4%	-1.1	-1.4	16.3%	-2.7%	-0.4	-0.6	16.3%	12.3%	0.1	0.1	-0.5	
Technology Select Sector SPDR ETF	XLK	100.0%	98.1%	93.0%	24.5%	4.2%	33.0%	44.9%	25.0%	-28.2%	-1.1	-1.3	23.1%	-9.9%	-0.6	-0.8	21.7%	-2.2%	-0.4	-0.5	-1.4	
Communication Services Select Sector SPDR ETF	XLC	100.0%	100.0%	100.0%	28.1%	5.4%	28.9%	31.8%	28.5%	-7.1%			26.6%	15.3%			26.1%	24.3%			-2.4	
Consumer Staples Select Sector SPDR ETF	XLP	92.4%	81.3%	73.9%	14.3%	-1.0%	14.6%	18.6%	15.4%	-10.6%	-0.5	-0.7	14.1%	2.4%	0.0	-0.3	14.3%	12.9%	0.4	0.2	-0.1	
Industrials Select SPDR ETF	XLI	96.2%	85.3%	77.0%	21.0%	0.1%	29.1%	37.2%	21.8%	-7.5%	-0.4	-0.7	20.3%	12.3%	0.2	0.1	22.0%	30.4%	0.8	0.9	-0.6	
Materials Select Sector SPDR ETF	XLB	91.0%	76.2%	69.0%	21.2%	-0.3%	24.4%	33.6%	21.8%	-9.6%	-0.5	-0.8	20.3%	6.7%	0.0	-0.1	20.3%	16.7%	0.3	0.4	-1.6	
Energy Select Sector SPDR ETF	XLE	80.7%	60.6%	51.9%	24.5%	8.4%	31.8%	34.8%	25.2%	-2.2%	-0.2	-0.4	23.1%	13.9%	0.5	0.6	22.9%	20.4%	0.6	1.0	-1.3	
Utilities Select Sector SPDR ETF	XLU	82.0%	68.0%	44.1%	14.5%	-6.6%	4.5%	8.0%	15.2%	-12.4%	-1.0	-1.0	14.8%	-4.8%	-0.5	-0.6	14.5%	4.7%	-0.1	0.0	0.2	
Real Estate Select SPDR ETF	XLRE	86.6%	75.0%	62.4%	16.3%	2.6%	23.3%	32.1%	16.3%	-19.1%	-1.0	NA*	15.4%	-8.0%	-0.6	NA*	14.9%	-1.8%	-0.4	NA*	-1.5	
I-Shares US Telecommunications ETF	IYZ	93.3%	58.4%	36.1%	16.1%	-10.9%	6.1%	9.5%	16.1%	-32.1%	-1.7	-1.0	16.5%	-5.9%	-0.7	-0.2	16.8%	6.2%	-0.1	0.5	-0.6	
I-Shares Russell 2000 ETF	IWM	98.4%	83.7%	65.0%	22.0%	3.2%	37.5%	51.1%	22.5%	-11.1%	-0.8	-0.8	20.8%	10.3%	-0.2	0.0	20.6%	23.5%	0.2	0.6	-2.3	
I-Shares Russell 2000 Value ETF	IWN	93.6%	64.0%	38.4%	20.7%	5.6%	35.6%	46.9%	21.0%	-1.2%	-0.8	-0.5	19.6%	23.1%	-0.1	0.4	18.9%	35.2%	0.3	1.0	-2.2	
I-Shares Russell 2000 Growth ETF	IWO	99.4%	91.9%	81.7%	24.5%	2.3%	32.2%	48.5%	24.9%	-16.1%	-1.0	-1.1	24.2%	7.8%	-0.2	-0.2	24.0%	20.0%	0.1	0.4	-1.7	
I-Shares Russell 1000 ETF	IWB	95.9%	84.0%	74.6%	17.5%	4.6%	39.4%	53.5%	17.7%	-21.5%	-1.0	-1.1	18.4%	11.9%	-0.1	-0.2	19.0%	33.8%	0.4	0.5	0.1	
I-Shares Russell 1000 Value ETF	IWD	87.5%	69.7%	57.2%	16.3%	3.7%	40.0%	53.7%	16.5%	-10.6%	-0.7	-0.8	16.1%	18.2%	0.1	0.1	16.0%	34.1%	0.4	0.6	-1.0	
I-Shares Russell 1000 Growth ETF	IWF	99.6%	92.9%	84.8%	20.2%	3.9%	38.9%	56.2%	20.5%	-27.9%	-1.1	-1.2	20.0%	-4.1%	-0.3	-0.6	19.9%	10.0%	0.0	-0.2	-1.3	
Power Shares QQQ Trust ETF	QQQ	100.0%	94.9%	87.0%	25.5%	6.9%	36.3%	48.6%	25.9%	-24.5%	-1.1	-1.2	24.1%	-4.9%	-0.5	-0.7	23.7%	8.5%	-0.1	-0.2	-2.5	
Facebook	FB	81.5%	66.9%	93.9%	33.0%	-6.9%	4.9%	15.7%	33.1%	-10.7%	-0.2	-0.6	31.4%	2.4%	0.4	-0.3	32.1%	-29.7%	-0.9	-1.4	-0.8	
Amazon	AMZN	100.0%	98.7%	92.0%	39.5%	3.3%	21.6%	35.9%	40.5%	-32.9%	-1.1	-1.2	37.5%	-17.5%	-1.0	-1.2	38.9%	0.0%	-0.5	-0.7	-3.6	
Apple	AAPL	98.9%	95.5%	90.3%	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	-1.3	-1.4	#VALUE!	#VALUE!	-1.3	-1.6	#VALUE!	#VALUE!	-0.7	-0.8	1.6	
Netflix	NFLX	96.1%	95.1%	83.9%	47.6%	2.6%	6.5%	13.7%	48.9%	-28.2%	-1.1	-0.9	46.3%	-17.0%	-1.3	-1.1	47.7%	-3.8%	-0.7	-0.5	-3.7	
Google	GOOG	96.7%	89.5%	82.1%	29.3%	-1.1%	15.5%	25.0%	30.0%	-25.2%	-0.8	-1.0	28.2%	-7.5%	-0.5	-0.9	28.2%	2.9%	-0.2	-0.5	-1.6	

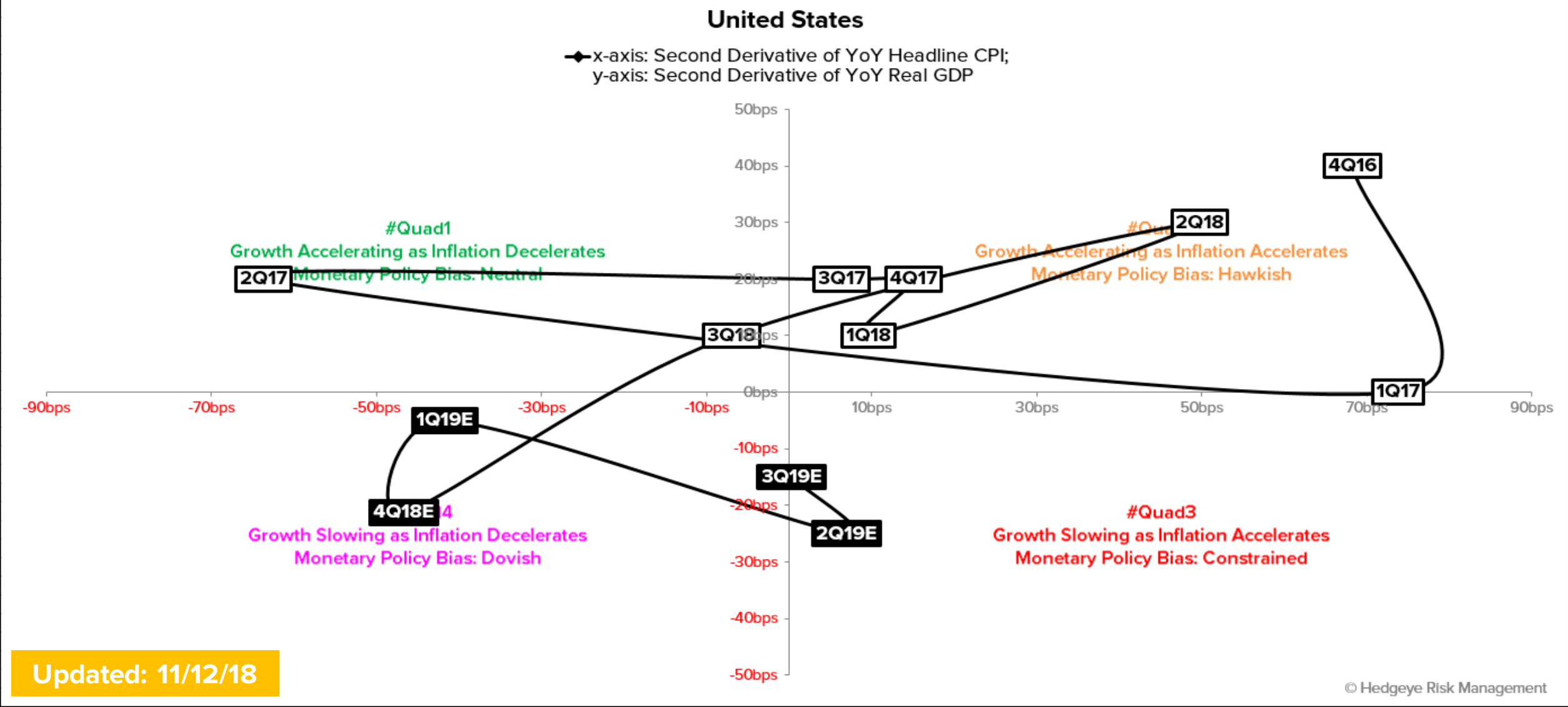
U.S. CONSUMER & BUSINESS CONFIDENCE

HEDGEYE TV

The Macro Show
November 13, 2018

	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	M/M Chg	3M Ave	6M Ave	12M Ave
CONFERENCE BOARD CONSUMER CONFIDENCE	128.6	123.1	124.3	130.0	127.0	125.6	128.8	127.1	127.9	134.7	135.3	137.9	-	2.60	91.1	110.5	118.5
Expectations	111.0	100.8	104.0	109.2	106.2	104.3	107.2	104.0	102.4	109.3	112.5	114.6	-	2.10	75.7	90.5	97.9
Present Situation	154.9	156.5	154.7	161.2	158.1	157.5	161.2	161.7	166.1	172.8	169.4	172.8	-	3.40	114.1	140.5	149.3
Business Conditions = Good	35.0	35.8	35.0	36.5	37.6	34.8	38.6	37.2	38.1	40.5	39.9	40.5	-	0.60	26.8	32.7	34.5
Business Conditions = Bad	12.3	11.7	13.0	11.3	13.3	12.3	12.6	11.5	10.3	9.3	9.6	9.2	-	-0.40	6.3	8.3	10.3
Jobs Plentiful (Present Conditions)	37.5	36.3	37.2	39.1	39.5	38.2	42.1	40.4	42.8	42.3	44.1	45.9	-	1.80	30.0	35.9	37.3
Jobs Not-So-Plentiful (Present Conditions)	45.7	47.7	46.5	45.8	44.8	46.3	42.3	44.5	42.4	45.6	41.8	40.9	-	-0.90	27.6	35.9	40.7
Jobs Harder to Get (Present Conditions)	16.8	16.0	16.3	15.1	15.7	15.5	15.6	15.1	14.8	12.1	14.1	13.2	-	-0.90	9.1	11.6	13.6
Fewer Jobs (6 Mo. Expectations)	12.1	15.9	12.5	12.4	12.5	13.2	13.1	13.1	15.2	13.2	11.4	10.5	-	-0.90	7.3	10.6	11.9
More Jobs (6 Mo. Expectations)	21.3	18.9	18.7	22.4	18.9	18.6	19.7	20.0	22.6	21.5	22.1	21.9	-	-0.20	14.7	18.0	18.8
UNIV. OF MICHIGAN CONSUMER CONFIDENCE	98.5	95.9	95.7	99.7	101.4	98.8	98.0	98.2	97.9	96.2	100.1	98.6	98.3	-0.30	99.0	98.2	98.2
Current Conditions	113.5	113.8	110.5	114.9	121.2	114.9	111.8	116.5	114.4	110.3	115.2	113.1	113.2	0.10	113.8	113.8	114.2
Expectations	88.9	84.3	86.3	90.0	88.8	88.4	89.1	86.3	87.3	87.1	90.5	89.3	88.7	-0.60	89.5	88.2	88.0
Inflation Rate - 1Y Ahead	2.5	2.7	2.7	2.7	2.8	2.7	2.8	3.0	2.9	3.0	2.7	2.9	2.8	-0.10	2.8	2.9	2.8
Inflation Rate - 5Y Ahead	2.4	2.4	2.5	2.5	2.5	2.5	2.5	2.6	2.4	2.6	2.5	2.4	2.6	0.20	2.5	2.5	2.5
BLOOMBERG CONSUMER COMFORT	51.7	51.7	53.9	56.1	56.8	57.5	55.2	56.4	58.4	58.8	60.0	60.2	61.3	1.13	60.5	59.2	57.2
National Economy	52.0	52.4	56.4	60.1	59.1	57.7	56.4	57.2	59.9	61.9	64.0	65.1	66.9	1.80	65.3	62.5	59.7
Personal Finance	59.3	59.2	59.9	60.6	63.1	64.8	62.6	63.1	64.9	64.3	63.7	63.9	67.0	3.15	64.8	64.5	63.1
Buying Climate	43.8	43.5	45.5	47.6	48.1	49.9	46.6	48.8	50.4	50.1	52.3	51.7	50.1	-1.55	51.4	50.6	48.7
Expectations	53.0	47.0	52.5	54.5	56.0	52.5	54.5	56.0	53.5	57.0	57.5	58.5	-	-58.50	38.7	47.1	50.0
Age: 18-34 YOA	51.6	52.6	49.5	52.3	56.5	55.8	53.4	56.3	57.7	58.0	55.2	56.5	60.5	4.03	57.4	57.4	55.4
Age: 35-44 YOA	52.8	49.9	51.0	58.7	57.4	58.2	54.0	55.8	60.3	59.7	62.8	63.3	62.8	-0.48	63.0	60.8	57.8
Age: 45-54 YOA	51.9	50.6	55.3	57.1	57.7	58.7	57.1	56.8	62.2	59.3	63.9	56.7	56.4	-0.33	59.0	59.2	57.6
Age: 55-64 YOA	44.8	47.2	50.7	53.1	52.6	57.9	53.4	53.6	54.9	57.6	60.2	60.9	63.9	3.03	61.7	58.5	55.5
Age: 65+ YOA	53.7	54.8	62.8	60.6	59.8	58.5	58.9	58.2	57.4	59.4	60.9	63.6	63.2	-0.40	62.6	60.5	59.8
Income: 15-25K	32.5	37.2	34.9	34.6	36.4	38.2	37.5	38.3	41.2	33.1	35.4	47.2	55.8	8.63	46.1	41.8	39.1
Income: 25-40K	41.2	37.9	43.9	45.6	46.5	44.6	44.3	48.2	47.5	46.5	46.1	50.8	54.5	3.70	50.5	48.9	46.4
Income: 40-50K	52.9	51.5	53.5	55.1	58.9	56.0	52.3	49.0	54.7	54.6	51.1	57.3	63.2	5.95	57.2	55.0	54.8
Income: 50-75K	58.7	50.6	55.9	60.3	67.3	64.7	64.6	61.1	66.9	69.8	68.5	65.2	67.1	1.93	66.9	66.4	63.5
Income: 75-100K	63.0	68.3	63.3	69.4	70.4	70.4	71.5	69.2	70.0	75.9	77.2	71.0	69.9	-1.05	72.7	72.2	70.5
Income: 100K+	76.2	75.9	79.8	82.8	79.9	79.1	75.7	80.1	79.8	80.6	80.0	82.4	80.6	-1.75	81.0	80.6	79.7
NFIB SMALL BUSINESS OPTIMISM	107.5	104.9	106.9	107.6	104.7	104.8	107.8	107.2	107.9	108.8	107.9	-	-	-107.90	36.0	72.0	89.0
Hiring Plans	24.0	20.0	20.0	18.0	20.0	16.0	18.0	20.0	23.0	26.0	23.0	22.0	-	-1.00	15.0	19.0	18.8
Outlook for General Business Conditions	48.0	37.0	41.0	43.0	32.0	30.0	37.0	33.0	35.0	34.0	33.0	-	-	-33.00	11.0	22.5	29.6
Sales Expectations	34.0	28.0	25.0	28.0	20.0	21.0	31.0	26.0	29.0	26.0	29.0	-	-	-29.00	9.7	18.3	21.9
Openings Hard to Fill	30.0	31.0	34.0	34.0	35.0	35.0	33.0	36.0	37.0	38.0	38.0	38.0	-	0.00	25.3	31.2	32.4
Compensation	27.0	27.0	31.0	31.0	33.0	33.0	35.0	31.0	32.0	32.0	37.0	34.0	-	-3.00	23.7	27.7	29.7
Compensation Plans	17.0	23.0	24.0	22.0	19.0	21.0	20.0	21.0	22.0	21.0	24.0	23.0	-	-1.00	15.7	18.5	20.0
Higher Prices	10.0	8.0	11.0	13.0	16.0	14.0	19.0	14.0	16.0	17.0	15.0	-	-	-15.00	5.0	10.3	11.9
Capital Expenditure Plans	26.0	27.0	29.0	29.0	26.0	29.0	30.0	29.0	30.0	33.0	30.0	-	-	-30.00	10.0	20.3	24.3
Credit Conditions - Availability of Loans	(4.0)	(3.0)	(3.0)	(3.0)	(4.0)	(5.0)	(5.0)	(2.0)	(4.0)	(5.0)	(3.0)	-	-	3.00	-1.0	-2.3	-3.1
Expected Credit Conditions	(4.0)	(4.0)	(4.0)	(3.0)	(6.0)	(6.0)	(5.0)	(4.0)	(4.0)	(6.0)	(5.0)	-	-	5.00	-1.7	-3.2	-3.9

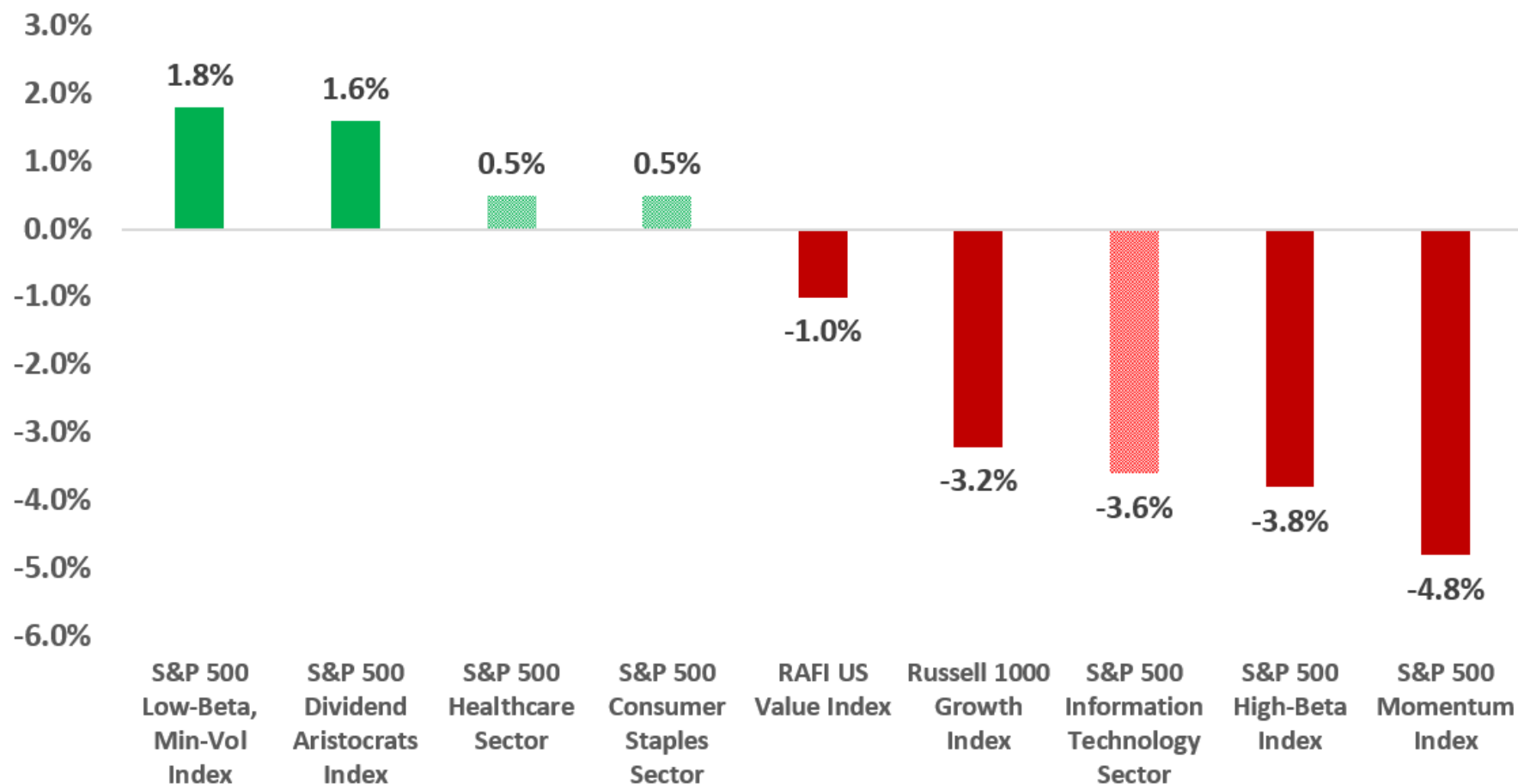
United States	4Q15	1Q16	2Q16	3Q16	4Q16	1Q17	2Q17	3Q17	4Q17	1Q18	2Q18	3Q18		4Q18E	1Q19E	2Q19E	3Q19E	NTM
Real GDP QoQ SAAR	0.40%	1.50%	2.30%	1.90%	1.80%	1.80%	3.00%	2.80%	2.30%	2.20%	4.20%	3.50%	Hedgeye Estimates	1.29%	2.00%	3.11%	2.86%	-
Percentile (T10Y)	21%	41%	59%	46%	46%	44%	69%	64%	59%	56%	90%	82%	Bloomberg Consensus Estimates	2.64%	2.40%	2.50%	2.27%	-
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%



Q: Why Are We Talking About Style Factor Returns in Quad 4?

A: PLAYING QUAD 4 WITH STYLE FACTOR CONSTRUCTIONS HAS HISTORICALLY CREATED HIGHER DISPERSION RETURN STREAMS THAN PICKING WINNERS AND LOSERS BY SECTOR.

Expected Value In #Quad4



Historically, the most divergent QUAD 4 returns at the sector level have come in the following:

Staples: +0.5%

Healthcare: +0.5%

Info Tech: -3.6%

However “Style-Factor” return capture has historically been even more powerful during historical instances of Quad 4:

Low-Beta, Min-Vol: +1.8%

Dividend Yield: +1.6%

High-Beta: -3.8%

Momentum: -4.8%

U.S. Index Revenue & Earnings Comps

Q3 2018 QTD S&P 500	SALES GROWTH (YY%)	EARNINGS GROWTH (YY%)	#REPORTED
S&P 500 (Aggte.)	8.4%	26.7%	451 / 500
Energy	19.6%	125.0%	29 / 30
Materials	10.7%	29.6%	23 / 23
Industrials	6.1%	16.3%	67 / 71
Consumer Discretionary	9.5%	23.9%	45 / 64
Consumer Staples	3.7%	9.9%	25 / 32
Healthcare	7.0%	14.7%	60 / 63
Financials	4.5%	37.9%	67 / 67
Information Technology	10.8%	26.3%	53 / 66
Communication Services	11.6%	26.8%	21 / 22
Utilities	1.2%	13.0%	29 / 29
Real Estate	13.1%	8.9%	32 / 32

Nasdaq 100	SALES GROWTH (YY%)	EARNINGS GROWTH (YY%)	#REPORTED
Nasdaq (Aggte.)	12.5%	24.2%	85 / 100
Industrials	10.2%	29.3%	7 / 7
Consumer Discretionary	24.3%	85.7%	12 / 16
Consumer Staples	5.4%	5.4%	6 / 6
Healthcare	3.7%	4.1%	20 / 20
Information Technology	15.8%	30.1%	26 / 35
Communication Services	12.9%	21.5%	11 / 12

U.S. Index Revenue & Earnings Comps

Dow Jones	SALES GROWTH (YY%)	EARNINGS GROWTH (YY%)	#REPORTED
Dow Jones (Aggte.)	10.6%	28.5%	27 / 30
Energy	17.8%	98.8%	2 / 2
Industrials	10.1%	32.4%	1 / 1
Consumer Discretionary	6.7%	22.4%	4 / 4
Consumer Staples	3.3%	14.5%	2 / 3
Health Care	4.5%	5.9%	3 / 4
Financials	8.1%	12.7%	4 / 4
Information Technology	8.1%	29.9%	4 / 4
Communication Services	15.4%	30.2%	5 / 6

Russell 2000	SALES GROWTH (YY%)	EARNINGS GROWTH (YY%)	#REPORTED
Russell 2000 (Aggregate)	9.1%	33.7%	1763 / 2011
Energy	25.7%	268.0%	106 / 123
Materials	10.8%	23.5%	68 / 73
Industrials	9.7%	29.6%	232 / 265
Consumer Discretionary	6.9%	19.0%	166 / 225
Consumer Staples	-6.7%	1.0%	42 / 55
Healthcare	7.7%	-1.5%	325 / 367
Financials	12.7%	47.6%	386 / 397
Information Technology	8.2%	19.7%	196 / 223
Communication Services	7.3%	N.M.	59 / 64
Utilities	6.7%	1.1%	33 / 36
Real Estate	7.7%	4.5%	105 / 113

Sector Performance

<u>SECTOR</u>	<u>Ticker</u>	<u>Price</u>	<u>1-Day % Chg</u>	<u>MTD % Chg</u>	<u>YTD % Chg</u>
Consumer Discretionary	XLY	\$107.81	-2.01%	2.31%	9.24%
Financial Select Sector	XLF	\$26.58	-1.99%	1.14%	-4.77%
Health Care Select Sector	XLV	\$91.69	-1.36%	3.37%	10.90%
Technology Select Sector	XLK	\$67.38	-3.52%	-2.77%	5.36%
Consumer Staples Select Sector	XLP	\$56.52	-0.53%	2.74%	-0.65%
Industrial Select Sector	XLI	\$70.99	-1.97%	1.59%	-6.18%
Materials Select Sector	XLB	\$54.17	-1.47%	2.97%	-10.51%
The Energy Select Sector	XLE	\$67.08	-2.07%	-0.12%	-7.17%
Utilities Select Sector	XLU	\$54.84	-0.05%	2.14%	4.10%
Real Estate Select Sector	XLRE	\$33.19	0.21%	3.43%	0.76%
Communications Services Sector	XLC	\$44.69	-1.50%	-2.93%	
S&P 500	SPX	2,726.22	-1.97%	0.53%	1.97%

Sector Relative Performance

	<u>Ticker</u>	<u>Price</u>	<u>1-Day %</u> <u>Chg</u>	<u>MTD %</u> <u>Chg</u>	<u>YTD %</u> <u>Chg</u>
Consumer Discretionary	XLY	\$107.81	-0.04%	1.77%	7.27%
Financial Select Sector	XLF	\$26.58	-0.02%	0.61%	-6.73%
Health Care Select Sector	XLV	\$91.69	0.61%	2.84%	8.93%
Technology Select Sector	XLK	\$67.38	-1.55%	-3.30%	3.40%
Consumer Staples Select Sector	XLP	\$56.52	1.44%	2.21%	-2.62%
Industrial Select Sector	XLI	\$70.99	0.00%	1.05%	-8.15%
Materials Select Sector	XLB	\$54.17	0.50%	2.43%	-12.47%
The Energy Select Sector	XLE	\$67.08	-0.10%	-0.65%	-9.14%
Utilities Select Sector	XLU	\$54.84	1.92%	1.61%	2.13%
Real Estate Select Sector	XLRE	\$33.19	2.18%	2.89%	-1.21%
Communications Services Sector	XLC	\$44.69	0.47%	-3.47%	

Market Share Volume & Total Value Traded

<u>INDEX/SECURITY</u>	VOLUME: (11/12) vs.			
	<u>Prior Day</u>	<u>1M Ave</u>	<u>3M ave</u>	<u>1Y Ave</u>
Total Market Volume*	-24%	-19%	-7%	-21%
Total Exchange Volume**	-8%	-11%	-1%	5%

*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	-1.0%	-0.2%	0.8%	-2.7%	-0.3%	-5.1%
	Low Debt/EV	-2.3%	-1.5%	-1.3%	-5.4%	-1.2%	6.2%
SI	High Short Interest	-1.2%	-0.9%	1.4%	-3.7%	-1.0%	0.3%
	Low Short Interest	-1.9%	0.0%	-0.7%	-2.9%	0.9%	3.5%
BETA	High Beta	-2.3%	-1.1%	-2.2%	-8.7%	-7.8%	-4.4%
	Low Beta	-0.8%	0.3%	3.2%	1.0%	6.1%	3.0%
YIELD	High Yield	-0.7%	0.2%	1.7%	-3.0%	-1.1%	-6.8%
	Low Yield	-2.7%	-1.2%	-2.2%	-5.6%	-0.3%	9.6%
MKT CAP	MCAP Bottom 25%	-1.3%	-1.2%	-0.1%	-6.3%	-5.1%	-6.9%
	MCAP Top 25%	-1.9%	-0.1%	-0.6%	-1.4%	3.3%	5.8%
Sales	Top 25% Sales Growth	-2.5%	-1.3%	-3.2%	-6.6%	-2.7%	5.7%
	Bottom 25% Sales Growth	-0.9%	-0.4%	1.5%	-2.8%	-1.1%	-5.5%
EPS	Top 25% EPS Growth	-2.3%	-1.4%	-2.6%	-5.5%	-2.2%	2.8%
	Bottom 25% EPS Growth	-0.9%	0.1%	0.9%	-4.2%	-1.9%	-4.6%

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

Rates & Spreads

		1D	5D	1M	3M	vs. 52-Wk, Bps		vs.	vs.
	Price	Bps Chg	Bps Chg	Bps Chg	Bps Chg	High	Low	3Y Ave	5Y Ave
3M T-Bill	2.34%	0.0	3.3	8	30	-1	114	138	176
3M LIBOR	2.62%	0.0	2.7	18	30	0	120	128	171
2Y T-Note	2.92%	0.0	1.7	7	32	-5	128	142	182
5Y T-Note	3.04%	0.0	0.7	2	29	-6	102	109	124
10Y T-Note	3.18%	0.0	-1.9	2	31	-8	87	86	84
30Y T-Note	3.38%	0.0	-4.4	5	35	-8	71	53	41
2Y-10Y Spread, Bps	26	0.0	-3.6	-5.1	-1	-3	-40	-57	-98
IG SPREAD (AAABBB)	1.54%	0.0	-1.0	7	2	-10	34	-4	-6
HIGH YIELD	6.35%								
5Y BREAK EVEN	1.90%	0.0	-1.4	-9.3	-7.9	-28.3	14.1	17.5	20.9

Key \$USD Correlations

METRIC	15D	30D	90D	120D	180D	52-Wk Rolling 30D Correlation			
						High	Low	% Time Pos	% Time Neg
SPX	-0.34	-0.54	-0.53	-0.12	0.58	0.73	-0.93	36%	64%
BRENT Oil	-0.18	-0.72	-0.54	-0.28	0.39	0.84	-0.91	27%	73%
CRB Index	-0.53	-0.50	-0.32	-0.28	-0.63	0.67	-0.94	45%	55%
GOLD	-0.50	0.31	-0.10	-0.51	-0.86	0.54	-0.97	7%	93%

*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)	184,180	(64,089)	179,453	173,245	159,655	249,638	(248,441)	0.55X	0.99X
	VIX	13,005	11,007	(87,393)	(71,846)	(43,059)	92,913	(174,665)	0.75X	1.31X
	Russell 2000 (mini)	(44,667)	(14,250)	(22,025)	14,368	4,747	93,772	(110,686)	-1.21X	-0.93X
	Dow Jones (mini)	21,802	3,485	33,696	25,267	33,956	95,976	(999)	-0.53X	-0.86X
	Nasdaq (mini)	(287)	(9,914)	24,736	21,968	14,111	163,838	(24,647)	-0.87X	-1.19X
	Nikkei Index	(8,034)	(1,066)	(6,983)	(3,614)	1,280	14,253	(9,128)	-1.24X	-2.35X
RATES	10Y UST	(445,673)	18,543	(614,911)	(489,622)	(333,932)	372,991	(758,490)	-0.48X	-1.34X
	2Y UST	(330,636)	(7,326)	(235,390)	(123,951)	(143,423)	104,027	(330,636)	-1.73X	-2.28X
	5Y UST	(587,451)	(34,390)	(783,169)	(696,332)	(569,447)	(33,993)	(866,140)	-0.10X	-1.22X
	UST Bonds	(60,841)	9,352	(77,099)	(44,344)	6,728	122,839	(142,810)	-1.03X	-1.59X
	30D Fed Funds	(62,919)	6,904	(29,449)	50,389	27,161	219,071	(286,025)	-0.92X	-0.10X
	Eurodollar	(1,949,799)	8,926	(2,272,019)	(2,457,857)	(2,541,043)	251,098	(3,110,209)	1.93X	-0.36X
CURRENCIES	USD	40,293	696	36,485	25,681	11,757	56,635	(10,666)	1.68X	0.96X
	JPY	(91,900)	3,976	(81,302)	(58,385)	(69,103)	70,342	(140,151)	-0.49X	-0.92X
	EUR	(46,849)	(11,680)	(11,091)	17,962	69,549	147,318	(172,030)	-1.91X	-0.50X
	GBP	(47,305)	1,090	(58,711)	(39,652)	(8,697)	49,216	(113,271)	-1.02X	-0.27X
	AUD	(64,949)	6,475	(62,925)	(48,868)	(19,382)	77,969	(74,181)	-1.31X	-1.98X
	CAD	(3,156)	5,477	(18,389)	(24,821)	(4,744)	78,001	(99,736)	0.05X	0.06X
	MXN	7,224	(26,842)	39,360	26,936	52,256	117,131	(89,524)	-1.29X	-0.03X
	NZD	(25,728)	9,303	(29,289)	(21,212)	(10,046)	35,981	(35,412)	-0.89X	-1.58X
COMMODITIES	CHF	(19,145)	(5,376)	(25,927)	(33,269)	(25,841)	10,064	(47,216)	0.52X	-0.44X
	CRUDE OIL	437,666	(25,514)	546,352	603,264	658,630	784,290	195,086	-2.64X	-0.30X
	GOLD	(37,486)	8,136	(65,451)	(27,946)	61,366	286,921	(103,009)	-0.97X	-1.53X
	COPPER	5,624	5,267	2,911	15,923	28,303	67,602	(44,710)	-1.11X	-0.30X
	Natural Gas	3,711	9,404	(40,665)	(64,097)	(84,655)	57,455	(218,444)	2.04X	1.44X
	RBOB Gasoline	86,814	(2,272)	102,657	101,854	92,722	114,862	29,519	-0.52X	0.71X
	ULSD Heating Oil	28,400	(4,694)	40,298	41,501	40,809	67,696	(23,640)	-0.82X	0.03X
	Silver	(2,788)	5,956	(16,211)	1,078	7,380	107,003	(30,158)	-0.43X	-1.33X
	Platinum	26,355	10,337	3,038	239	14,063	56,853	(11,540)	0.70X	0.16X
	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	89,814	14,241	27,286	74,777	73,278	373,443	(166,835)	0.10X	0.36X
	Soybeans	(35,552)	33,196	(52,884)	(15,740)	33,003	255,950	(113,144)	-0.68X	-0.93X
	Wheat	(29,119)	1,660	10,186	15,049	(21,729)	63,219	(143,292)	-0.15X	0.58X
	Live Cattle	87,603	(3,854)	88,438	64,147	80,622	164,117	(695)	0.18X	0.16X
	Lean Hogs	31,999	(3,382)	20,260	7,519	22,627	90,653	(11,151)	0.34X	-0.32X
	Sugar	78,847	(4,067)	(43,026)	(33,110)	(48,421)	351,383	(131,628)	2.09X	-0.06X
	Cotton	51,371	(1,974)	69,978	89,571	93,682	132,318	(28,816)	-2.01X	-0.71X
	Coffee	(25,823)	4,535	(77,606)	(68,461)	(55,780)	67,942	(106,651)	1.29X	-0.34X
	Cocoa	(5,781)	13,454	(8,736)	16,115	20,089	70,034	(43,846)	-0.99X	-0.60X
	Orange Juice	(6,528)	(280)	(1,522)	1,702	342	10,123	(6,528)	-1.95X	-2.15X

HEDGEYE TV

The Macro Show
November 13, 2018

Euro-Area Economic Data

COUNTRY	Event	MONTH	SURVEY	ACTUAL	PRIOR	REVISED
Netherlands	Retail Sales YoY	Sep	--	-0.70%	4.50%	--
Germany	CPI YoY	Oct F	2.50%	2.50%	2.30%	--
UK	Average Weekly Earnings 3M/YoY	Sep	3.00%	3.00%	2.70%	2.80%
Germany	ZEW Survey Current Situation	Nov	65	58.2	70.1	--
Germany	ZEW Survey Expectations	Nov	-26	-24.1	-24.7	--
Eurozone	ZEW Survey Expectations	Nov	--	-22.0	-19.4	--

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															
Health Care Sector SPDR ETF	XLV US EQUITY	12.13%	-24%	-37%	-10%	35%	-1.1	-1.4	22.8	61%	90%	17.2	-10%	73%	
Consumer Discretionary Sector SPDR ETF	XLY US EQUITY	10.18%	-23%	-32%	-17%	23%	-1.4	-1.4	27.2	67%	87%	20.9	4%	75%	
Power Shares QQQ Trust ETF	QQQ US EQUITY	7.38%	-24%	-31%	-19%	14%	-1.1	-1.2	34.2	70%	94%	25.9	13%	87%	
Utilities Sector SPDR ETF	XLU US EQUITY	6.78%	-12%	-20%	-11%	5%	-1.0	-1.0	17.3	8%	76%	15.2	-10%	63%	
Technology Sector SPDR ETF	XLK US EQUITY	6.43%	-28%	-37%	-24%	30%	-1.1	-1.3	34.8	60%	94%	25.0	-12%	87%	
SPDR S&P 500 ETF Trust	SPY US EQUITY	3.48%	-22%	-35%	-16%	29%	-0.9	-1.1	22.6	66%	85%	17.5	0%	71%	
Consumer Staples Sector SPDR ETF	XLP US EQUITY	1.38%	-11%	-23%	-8%	26%	-0.5	-0.7	17.2	28%	84%	15.4	-9%	82%	
Vanguard Real Estate REIT ETF	VNQ US EQUITY	0.59%	-26%	-31%	-16%	12%	-1.4	-1.5	19.4	12%	66%	14.3	-26%	38%	
I-Shares Russell 2000 ETF	IWM US EQUITY	-0.08%	-11%	-19%	-8%	55%	-0.8	-0.8	25.3	89%	82%	22.5	9%	69%	
Financials Sector SPDR ETF	XLF US EQUITY	-3.58%	-11%	-17%	-3%	40%	-0.8	-0.8	23.4	39%	72%	20.9	-11%	63%	
Industrials Sector SPDR ETF	XLI US EQUITY	-4.98%	-7%	-21%	-3%	34%	-0.4	-0.7	23.5	48%	82%	21.8	2%	75%	
Energy Sector SPDR ETF	XLE US EQUITY	-5.22%	-2%	-8%	-2%	23%	-0.2	-0.4	25.8	44%	74%	25.2	14%	72%	
Materials Sector SPDR ETF	XLB US EQUITY	-9.31%	-10%	-22%	-4%	46%	-0.5	-0.8	24.1	50%	75%	21.8	-7%	66%	
Communication Services	XLC US EQUITY		-7%	-18%	-5%	37%			30.7	73%	100%	28.5	18%	94%	
INTERNATIONAL EQUITIES															
Euro Stoxx 50 Index	SXSE INDEX	-5.86%	6%	-2%	10%	38%	-0.1	-0.3	14.5	14%	28%	15.3	-13%	27%	
I-Shares MSCI Japan ETF	EWJ US EQUITY	-8.60%	-17%	-22%	-6%	12%	-0.8	-1.0	19.8	30%	72%	16.4	-4%	35%	
I-Shares China Large-Cap ETF	FXI US EQUITY	-13.21%	-16%	-20%	-9%	24%	-0.8	-1.1	31.7	48%	80%	26.5	-1%	68%	
I-Shares MSCI Emerging Markets ETF	EEM US EQUITY	-16.17%	-15%	-19%	-10%	21%	-0.7	-0.9	29.8	50%	83%	25.2	5%	70%	
CURRENCIES															
PowerShares US Dollar Index ETF	UUP US EQUITY	8.28%	34%	40%	39%	44%	1.1	1.2	5.6	10%	17%	7.6	3%	35%	
Currency Shares Japanese Yen ETF	FXJ US EQUITY	-1.35%	16%	1%	9%	26%	0.4	0.4	6.0	7%	12%	7.0	-2%	10%	
Currency Shares British Pound ETF	FXB US EQUITY	-4.98%	19%	20%	13%	15%	0.7	0.4	10.0	14%	73%	11.8	18%	82%	
Currency Shares Euro Trust ETF	FXE US EQUITY	-7.04%	33%	28%	27%	18%	2.1	1.4	6.2	0%	11%	8.2	13%	34%	
COMMODITIES															
United States Natural Gas Fund ETF	UNG US EQUITY	35.33%	40%	35%	20%	25%	1.3	1.7	40.3	29%	62%	56.5	44%	89%	
United States Oil Fund ETF	USO US EQUITY	3.91%	47%	41%	14%	8%	2.6	2.2	24.1	-1%	35%	35.4	35%	67%	
PowerShares DB Agriculture Fund ETF	DBA US EQUITY	-7.78%	17%	3%	23%	41%	-0.4	-0.5	11.8	7%	42%	13.9	-11%	34%	
SPDR Gold Shares ETF	GLD US EQUITY	-8.08%	-6%	-13%	-5%	1%	-0.8	-0.8	11.2	-1%	23%	10.6	-7%	10%	
PowerShares DB Base Metals Fund ETF	DBB US EQUITY	-17.93%	21%	44%	27%	-1%	-0.2	-0.3	17.4	-19%	39%	21.1	0%	42%	
FIXED INCOME															
I-Shares IBOXX HY Corporate Bond ETF	HYG US EQUITY	0.36%	25%	-5%	12%	33%	0.4	0.2	5.4	26%	39%	6.7	19%	39%	
I-Shares 7-10 Year Treasury Bond ETF	IEF US EQUITY	-3.03%	-5%	8%	6%	11%	-0.8	-1.0	4.7	10%	22%	4.4	-6%	5%	
I-Shares IBOXX IG Corporate Bond ETF	LQD US EQUITY	-4.94%	9%	7%	18%	11%	-0.4	-0.5	4.1	-11%	19%	4.5	-12%	11%	
I-Shares J.P. Morgan USD EM Bond ETF	EMB US EQUITY	-6.75%	56%	35%	36%	11%	1.3	0.9	4.5	-28%	23%	7.1	1%	44%	
I-Shares 20+ Year Treasury Bond ETF	TLT US EQUITY	-8.05%	-10%	-15%	1%	0%	-0.8	-1.0	10.5	-2%	21%	9.4	-11%	7%	

U.S. Equities: Returns

U.S. EQUITIES	Ticker	D/D %	W/W%	1M%	3M%	6M%	Y/Y%	WTD%	MTD%	YTD%
S&P 500 Index	SPX	-1.97%	-0.44%	-1.48%	-3.39%	-0.05%	5.48%	-1.97%	0.53%	1.97%
Nasdaq 100 Index	NDX	-2.98%	-1.56%	-4.58%	-7.73%	-1.78%	8.19%	-2.98%	-1.98%	6.76%
Dow Jones Industrial Average	INDU	-2.32%	-0.29%	0.19%	0.79%	2.24%	8.21%	-2.32%	1.08%	2.70%
Russell 2000 Index	RTY	-1.98%	-1.86%	-1.80%	-9.34%	-5.48%	2.97%	-1.98%	0.49%	-1.09%
SPDR S&P 500 ETF Trust	SPY	-1.87%	-0.30%	-1.22%	-3.38%	-0.10%	5.58%	-1.87%	0.72%	2.14%
Consumer Discretionary Select Sector SPDR ETF	XLY	-2.01%	-0.29%	-0.62%	-3.87%	2.78%	17.11%	-2.01%	2.31%	9.24%
Financials Select Sector SPDR ETF	XLF	-1.99%	-0.82%	0.57%	-4.04%	-5.94%	1.61%	-1.99%	1.14%	-4.77%
Health Care Select Sector SPDR ETF	XLV	-1.36%	1.82%	0.68%	2.26%	10.43%	12.19%	-1.36%	3.37%	10.90%
Technology Select Sector SPDR ETF	XLK	-3.52%	-1.88%	-4.87%	-7.61%	-3.58%	6.11%	-3.52%	-2.77%	5.36%
Communication Services Sector SPDR ETF	XLC	-1.50%	-2.10%	-3.62%	-9.17%			-1.50%	-2.93%	
Consumer Staples Select Sector SPDR ETF	XLP	-0.53%	1.29%	7.90%	6.16%	14.09%	5.19%	-0.53%	2.74%	-0.65%
Industrials Select SPDR ETF	XLI	-1.97%	-0.52%	-3.94%	-4.98%	-4.98%	0.04%	-1.97%	1.59%	-6.18%
Materials Select Sector SPDR ETF	XLB	-1.47%	0.09%	0.76%	-6.75%	-8.01%	-6.92%	-1.47%	2.97%	-10.51%
Energy Select Sector SPDR ETF	XLE	-2.07%	-2.34%	-8.11%	-9.75%	-12.58%	-4.21%	-2.07%	-0.12%	-7.17%
Utilities Select Sector SPDR ETF	XLU	0.05%	1.74%	3.57%	3.35%	8.85%	-1.67%	-0.05%	2.14%	4.10%
Real Estate Select SPDR ETF	XLRE	0.21%	2.22%	7.72%	0.82%	5.26%	-1.83%	0.21%	3.43%	0.76%
I-Shares US Telecommunications ETF	IYZ	-2.08%	-1.36%	0.43%	-1.09%	2.69%	1.15%	-2.08%	0.11%	-4.01%
I-Shares Russell 2000 ETF	IWM	-1.98%	-1.85%	-1.67%	-9.32%	-5.51%	2.97%	-1.98%	0.67%	-0.94%
I-Shares Russell 2000 Value ETF	IWN	-1.35%	-1.20%	-0.80%	-8.17%	-4.75%	0.74%	-1.35%	1.20%	-2.50%
I-Shares Russell 2000 Growth ETF	IWO	-2.58%	-2.41%	-2.50%	-10.43%	-6.14%	5.06%	-2.58%	-0.13%	0.51%
I-Shares Russell 1000 ETF	IWB	-1.93%	-0.47%	-1.35%	-3.83%	-0.50%	5.19%	-1.93%	0.57%	1.68%
I-Shares Russell 1000 Value ETF	IWD	-1.42%	-0.22%	0.48%	-2.00%	-0.73%	1.90%	-1.42%	1.42%	-2.04%
I-Shares Russell 1000 Growth ETF	IWF	-2.49%	-0.79%	-3.20%	-5.75%	-0.52%	8.22%	-2.49%	-0.42%	5.06%
Power Shares QQQ Trust ETF	QQQ	-3.03%	-1.56%	-4.58%	-7.76%	-1.85%	8.22%	-3.03%	-2.06%	6.79%

U.S. Equities: Returns

U.S. EQUITIES	Ticker	D/D %	W/W%	1M%	3M%	6M%	Y/Y%	WTD%	MTD%	YTD%
Facebook	FB	-2.35%	-4.80%	-7.93%	-21.38%	-24.30%	-21.05%	-2.35%	-6.75%	-19.78%
Amazon	AMZN	-4.41%	0.56%	-8.48%	-13.68%	2.12%	44.97%	-4.41%	2.43%	39.97%
Apple	AAPL	-5.04%	-3.68%	12.58%	-7.04%	2.96%	10.40%	-5.04%	-11.28%	14.74%
Netflix	NFLX	-3.10%	-6.77%	13.40%	-13.84%	-9.92%	51.66%	-3.10%	-2.55%	53.19%
Google	GOOG	-2.58%	-0.14%	-6.44%	-15.90%	-5.43%	0.71%	-2.58%	-3.54%	-0.74%
SPDR Dow Jones Industrial Average ETF Trust	DIA	-2.26%	-0.10%	0.36%	0.86%	2.29%	8.31%	-2.26%	1.21%	2.76%
I-Shares Transportation Average ETF	IYT	-1.36%	0.14%	-1.01%	-5.82%	-3.31%	9.03%	-1.36%	1.95%	-2.53%
SPDR Oil & Gas Exploration & Production ETF	XOP	-3.46%	-5.56%	14.67%	-13.62%	-14.88%	-4.02%	-3.46%	-2.61%	-5.51%
I-Shares Nasdaq Biotechnology ETF	IBB	-3.04%	-3.31%	-6.11%	-10.39%	-2.00%	0.74%	-3.04%	0.37%	-2.17%
SPDR S&P Metals & Mining ETF	XME	-1.68%	-4.59%	-7.46%	-11.04%	-17.76%	-2.28%	-1.68%	-0.65%	-16.50%
VanEck Vectors Gold Miners ETF	GDV	-2.26%	-4.86%	-5.77%	-6.86%	-18.66%	-18.41%	-2.26%	-1.69%	-19.92%
I-Shares US Home Construction ETF	ITB	-1.57%	-4.98%	-4.09%	-16.63%	-21.14%	-23.19%	-1.57%	-1.41%	-29.71%
SPDR S&P Insurance ETF	KIE	-1.76%	0.26%	1.66%	-2.04%	0.36%	-0.26%	-1.76%	2.10%	-0.10%
SPDR S&P Regional Banking ETF	KRE	-1.21%	-0.25%	-2.27%	-11.56%	-14.05%	0.62%	-1.21%	1.48%	-6.90%
VanEck Vectors Semiconductor ETF	SMH	-4.38%	-4.41%	-6.19%	-13.65%	-12.55%	-10.72%	-4.38%	-2.30%	-6.65%
SPDR S&P Retail ETF	XRT	-0.93%	0.66%	1.64%	-4.95%	5.82%	21.38%	-0.92%	2.25%	6.68%
I-Shares US Broker-Dealers & Security Exchanges ETF	IAI	-2.64%	-1.58%	1.01%	-4.68%	-10.67%	5.74%	-2.64%	0.07%	-2.92%
I-Shares US Oil Equipment & Services ETF	IEZ	-3.85%	-6.86%	18.63%	-20.51%	-27.09%	-20.30%	-3.85%	-4.47%	-22.08%
I-Shares Pharmaceuticals ETF	IHE	-1.21%	0.89%	-2.08%	-6.21%	5.04%	2.96%	-1.21%	1.54%	0.25%
I-Shares US Medical Devices ETF	IHI	-3.30%	-0.64%	-1.55%	-0.05%	5.36%	19.06%	-3.30%	1.18%	19.68%
Vanguard REIT ETF	VNQ	0.20%	1.97%	6.52%	-1.02%	3.17%	-4.81%	0.20%	3.12%	-2.68%
SPDR Dow Jones REIT ETF	RWR	0.02%	2.34%	6.42%	-0.21%	4.00%	-0.88%	0.02%	3.04%	-0.05%

U.S. Market Style Factor Performance (Total Return %)

	SECURITY	TICKER	PRICE (\$)	DD %	5D %	1Mth %	3Mth %	6Mth %	1Yr %	MTD %	YTD %
VALUE	iShares Russell 1000 Value ETF	IWD US Equity	\$121.80	-1.42%	-0.22%	0.48%	-1.94%	0.49%	4.42%	1.42%	-0.28%
	Vanguard Value ETF	VTV US Equity	\$106.94	-1.33%	0.05%	0.70%	-1.04%	2.69%	7.91%	1.68%	2.45%
	Alpha Architect Quantitative Value ETF	QVAL US Equity	\$29.11	-0.55%	-0.91%	0.28%	-7.82%	-2.57%	7.41%	1.50%	-4.51%
	Invesco S&P 500 Pure Value ETF	RPV US Equity	\$65.98	-1.35%	-0.62%	0.87%	-2.49%	0.81%	7.67%	1.84%	1.04%
	iShares Edge MSCI USA Value ETF	VLUE US Equity	\$82.47	-1.95%	-1.23%	-1.69%	-3.71%	-1.13%	5.58%	-0.23%	0.29%
MOMENTUM	iShares Edge MSCI USA Momentum ETF	MTUM US Equity	\$107.79	-2.68%	-1.11%	-2.72%	-5.09%	-2.46%	8.44%	0.48%	5.35%
	Invesco DWA Momentum ETF	PDP US Equity	\$52.54	-2.43%	-1.02%	-4.02%	-8.41%	-4.94%	3.81%	-0.87%	1.84%
	Alpha Architect Quantitative Momentum ETF	QMOM US Equity	\$27.64	-1.90%	-2.52%	-7.60%	-14.31%	-11.82%	-2.25%	-2.96%	-3.38%
	SPDR Russell 1000 Momentum ETF	ONEO US Equity	\$70.20	-1.89%	-0.88%	-1.24%	-6.78%	-3.64%	2.40%	0.99%	-2.46%
	Fidelity Momentum Factor ETF	FDMO US Equity	\$32.31	-2.65%	-0.83%	-2.60%	-5.21%	-2.35%	6.51%	-0.03%	4.13%
GROWTH	iShares Russell 1000 Growth ETF	IWF US Equity	\$141.49	-2.49%	-0.79%	-3.20%	-5.65%	0.06%	9.39%	-0.42%	5.98%
	Nasdaq 100 Index	QQQ US Equity	\$166.33	-3.03%	-1.56%	-4.58%	-7.70%	-1.46%	9.06%	-2.06%	7.38%
	Invesco S&P 500 Pure Growth ETF	RPG US Equity	\$107.20	-3.03%	-1.80%	-3.06%	-8.56%	-6.41%	3.74%	-0.58%	2.54%
	Vanguard Growth ETF	VUG US Equity	\$145.64	-2.59%	-0.92%	-3.52%	-6.26%	-1.52%	7.01%	-0.55%	4.40%
	iShares North American Tech-Software ETF	IGV US Equity	\$178.20	-2.89%	-2.21%	-4.85%	-7.55%	-2.76%	14.36%	-2.76%	15.33%
LOW VOL & YIELD	iShares Edge MSCI Min Vol USA ETF	USMV US Equity	\$55.88	-1.13%	1.12%	2.31%	1.43%	6.83%	10.43%	2.10%	7.42%
	Invesco S&P 500 Low Volatility ETF	SPLV US Equity	\$49.40	-0.46%	2.09%	4.19%	1.43%	5.99%	7.43%	2.94%	5.30%
	Invesco S&P 500 High-Div Low-Vol ETF	SPHD US Equity	\$41.12	-0.63%	0.69%	3.02%	0.47%	4.44%	2.32%	2.16%	0.29%
	Vanguard High Dividend Yield ETF	VYM US Equity	\$84.74	-1.18%	0.32%	1.11%	-0.80%	2.08%	5.82%	1.78%	1.22%
	iShares Select Dividend ETF	DVY US Equity	\$97.57	-0.65%	0.25%	1.25%	-1.35%	2.15%	6.28%	1.77%	1.51%
QUALITY	iShares Edge MSCI USA Quality Factor ETF	QUAL US Equity	\$84.26	-1.85%	-0.22%	-1.18%	-2.52%	0.81%	7.50%	0.87%	2.99%
	Invesco S&P 500 Quality Factor ETF	SPHQ US Equity	\$30.56	-2.27%	-0.71%	-1.07%	-1.81%	1.73%	6.35%	0.26%	1.55%
	Fidelity U.S. Quality Factor ETF	FQAL US Equity	\$32.55	-1.91%	0.11%	-1.26%	-3.35%	1.06%	8.15%	0.55%	3.55%
	Barron's 400 ETF	BFOR US Equity	\$40.42	-1.57%	-1.42%	-2.65%	-10.14%	-5.50%	2.13%	0.79%	-2.79%
	Vanguard U.S. Quality Factor ETF	VFQY US Equity	\$78.95	-0.49%	-0.52%	0.23%	-5.99%	0.04%	NA	0.30%	NA

S&P 500 Sector Performance & Dispersion

SECTOR PERFORMANCE (ABSOLUTE TOTAL RETURN %)

SECURITY	TICKER	PRICE (\$)	DD %	5D %	1Mth %	3Mth %	6Mth %	1Yr %	3Yr %	MTD %	YTD %
S&P 500 SPDR ETF Trust	SPY US Equity	\$270.63	1.07%	2.00%	-6.91%	-3.37%	3.24%	7.16%	11.35%	-6.91%	2.74%
Energy Sector SPDR ETF	XLE US Equity	\$67.16	0.61%	1.50%	-11.33%	-12.32%	-7.76%	1.64%	2.51%	-11.33%	-5.11%
Materials Sector SPDR ETF	XLB US Equity	\$52.61	1.37%	4.16%	-9.18%	-11.50%	-6.84%	-9.20%	7.20%	-9.18%	-11.93%
Industrials Sector SPDR ETF	XLI US Equity	\$69.88	0.76%	0.84%	-10.87%	-8.72%	-2.39%	-0.51%	10.98%	-10.87%	-6.46%
Consumer Discretionary Sector SPDR ETF	XLY US Equity	\$105.38	1.29%	1.72%	-10.10%	-5.01%	2.19%	15.93%	10.74%	-10.10%	7.70%
Consumer Staples Sector SPDR ETF	XLP US Equity	\$55.01	-0.94%	0.47%	2.00%	3.41%	10.65%	6.51%	6.06%	2.00%	-1.33%
Health Care Sector SPDR ETF	XLV US Equity	\$88.70	0.14%	1.62%	-6.78%	0.13%	8.65%	11.01%	9.19%	-6.78%	8.48%
Financials Sector SPDR ETF	XLF US Equity	\$26.28	1.39%	4.12%	-4.71%	-5.56%	-3.42%	0.49%	12.38%	-4.71%	-4.67%
Technology Sector SPDR ETF	XLK US Equity	\$69.30	2.38%	3.17%	-8.00%	-1.95%	6.61%	11.61%	18.54%	-8.00%	9.46%
Telecommunications I-Shares ETF	IYZ US Equity	\$28.20	1.51%	1.99%	-5.18%	2.68%	4.25%	-3.71%	0.73%	-5.18%	-2.16%
Utilities Sector SPDR ETF	XLU US Equity	\$53.69	-1.18%	-2.79%	1.98%	2.62%	6.00%	0.84%	10.74%	1.98%	4.54%
Vanguard Real Estate ETF	VNQ US Equity	\$78.32	-1.17%	0.28%	-2.93%	-3.05%	5.37%	0.00%	3.98%	-2.93%	-2.45%

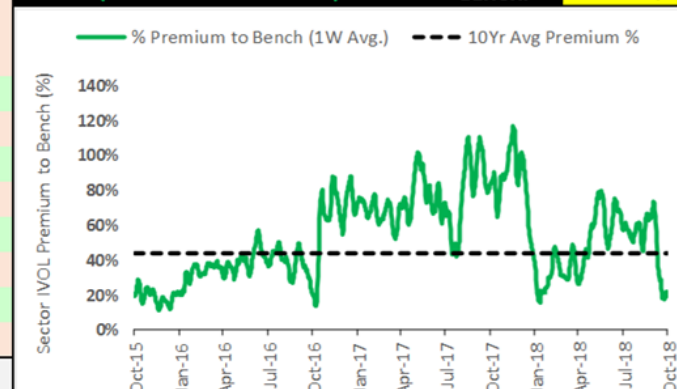
SECTOR DISPERSION (RELATIVE VOLATILITY TRENDS)

TIME WINDOW SETTING:		IMPLIED DISPERSION (to SPY)*			IVOL PREMIUM/DISCOUNT			VOLATILITY PERCENTILE READINGS			
PUT_IMP_VOL_30D		*Z-Score Based on Ratio Series			IVOL PREM %						
SECURITY	TICKER	Vol % Pts.	TTM Z-Score	3Yr Z-Score	IVOL / RVOL	TTM Z-Score	3Yr Z-Score	RVOL MM %	PERCENTILE 10YR	IVOL MM %	PERCENTILE 10YR
S&P 500 SPDR ETF Trust	SPY US Equity				-7%	-0.5	-0.6	229%	81%	112%	75%
Energy Sector SPDR ETF	XLE US Equity	7.5	-1.0	-1.5	8%	0.2	0.1	110%	69%	71%	74%
Materials Sector SPDR ETF	XLB US Equity	5.6	-0.5	-0.6	18%	0.5	0.4	66%	63%	75%	74%
Industrials Sector SPDR ETF	XLI US Equity	3.9	-0.7	-0.3	5%	-0.1	-0.3	122%	77%	67%	77%
Consumer Discretionary Sector SPDR ETF	XLY US Equity	1.5	-1.4	-0.9	-17%	-1.2	-1.2	149%	84%	56%	73%
Consumer Staples Sector SPDR ETF	XLP US Equity	-2.2	-1.0	-0.9	-5%	-0.3	-0.5	88%	84%	48%	85%
Health Care Sector SPDR ETF	XLV US Equity	0.8	-1.3	-1.3	-2%	-0.4	-0.5	188%	83%	80%	83%
Financials Sector SPDR ETF	XLF US Equity	2.9	-1.6	-1.5	-1%	-0.5	-0.4	94%	70%	41%	64%
Technology Sector SPDR ETF	XLK US Equity	15.7	0.7	1.3	10%	0.0	-0.1	191%	93%	172%	94%
Telecommunications I-Shares ETF	IYZ US Equity	-0.1	-1.2	-0.9	-15%	-1.1	-0.5	154%	81%	36%	68%
Utilities Sector SPDR ETF	XLU US Equity	-1.4	-1.4	-1.4	-7%	-0.7	-0.7	39%	81%	26%	78%
Vanguard Real Estate ETF	VNQ US Equity	-0.8	-1.3	-1.4	-16%	-0.8	-1.0	44%	72%	38%	60%

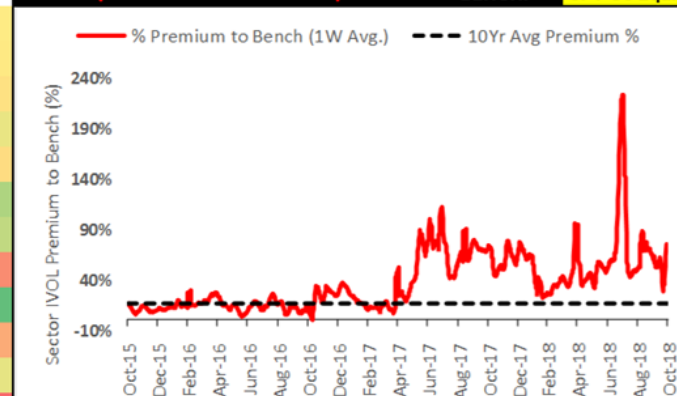
SECTOR DISPERSION DIVERGENCES

HIGHEST & LOWEST TTM Z-SCORE FACTOR READINGS

DOWNSIDE DISPERSION (BULLISH CONSENSUS)	SECTOR:	XLK US Equity
	BENCH:	SPY US Equity



UPSIDE DISPERSION (BEARISH CONSENSUS)	SECTOR:	XLK US Equity
	BENCH:	SPY US Equity



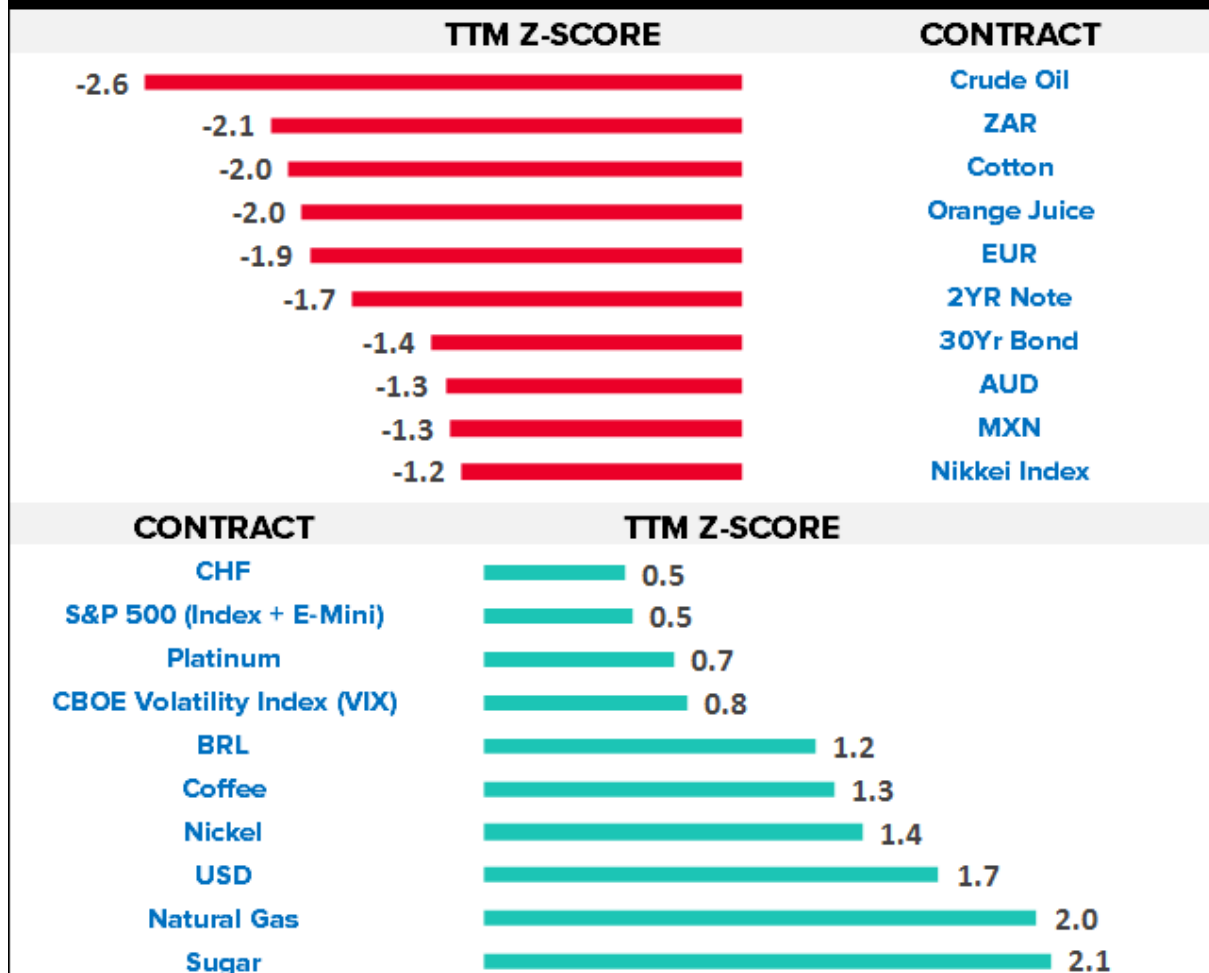
Global Volatility Indices

EQUITIES	INDEX	INDEX Level	WW%	MM%	3M%	5Yr Percentile	10Yr Percentile
CBOE S&P 500 Volatility Index	VIX Index	19.60	-1.80%	-8.02%	47.26%	88.2%	69.0%
CBOE S&P 500 Short-Term Volatility Index	VSTN Index*	23.80	-4.53%	5.97%	99.50%	92.6%	92.6%
CBOE Nasdaq 100 Volatility Index	VXN Index	28.11	3.12%	13.85%	85.42%	96.8%	86.8%
CBOE Russell 2000 Volatility Index	RVX Index	25.15	3.71%	7.85%	76.62%	94.7%	71.1%
CBOE Dow Jones Industrial Avg. Volatility Index	VXD Index	20.32	0.54%	-1.98%	45.35%	92.0%	77.8%
Deutsche Borse Euro Stoxx 50 Volatility Index	V2X Index	17.06	-6.95%	-15.61%	7.53%	41.2%	23.3%
Euronext FTSE 100 Volatility Index	VFTSE Index	16.64	11.41%	5.02%	22.08%	80.5%	55.7%
Euronext CAC 40 Volatility Index	VCAC Index	17.55	-2.65%	-12.48%	12.93%	52.6%	32.4%
OSE Nikkei Stock Avg. Volatility Index	VNKY Index	22.35	-21.08%	-12.08%	39.95%	62.7%	48.0%
HSE Hang Seng Volatility Index	VHSI Index	23.75	-12.30%	-0.04%	18.51%	87.5%	74.5%
KSE KOSPI 200 Volatility Index	VKOSPI Index	18.62	-5.63%	8.38%	41.81%	94.8%	68.7%
CBOE Emerging Markets ETF Volatility Index	VXEEM Index*	28.66	3.73%	9.68%	56.27%	92.1%	85.6%
CBOE Brazil ETF Volatility Index	VXEWZ Index*	41.18	1.98%	0.68%	29.42%	78.5%	82.4%
NSE Nifty 50 Volatility Index	INVIXN Index	18.70	-4.04%	0.36%	40.75%	85.8%	56.1%
COMMODITIES		INDEX Level	WW%	MM%	3M%	5Yr Percentile	10Yr Percentile
CBOE Crude Oil ETF Volatility Index	OVX Index	40.14	22.83%	44.75%	53.32%	72.3%	70.7%
CBOE Gold ETF Volatility Index	GVZ Index*	12.13	-2.10%	-4.94%	2.10%	23.1%	11.6%
CBOE Silver ETF Volatility Index	VXSLV Index*	22.30	2.86%	-1.41%	23.14%	37.6%	25.0%
COMEX Copper 3Mth IVOL Index	IVOLCCOP Index	21.03	-1.12%	0.18%	0.25%	66.9%	41.4%
CME Corn 3Mth IVOL Index	IVOLCORN Index	15.00	-6.95%	-0.32%	-15.61%	7.0%	3.5%
CME Soybeans 3Mth IVOL Index	IVOLSOYB Index	16.50	-3.03%	9.57%	-11.67%	21.9%	10.9%
CURRENCIES		INDEX Level	WW%	MM%	3M%	5Yr Percentile	10Yr Percentile
Deutsche Bank FX Volatility Index	CVIX Index	8.02	2.43%	1.91%	-1.11%	42.5%	24.6%
CBOE/CME Euro Volatility Index	EUVIX Index	8.20	6.77%	9.77%	-5.09%	49.4%	29.1%
CBOE/CME Yen Volatility Index	JYVIX Index	7.51	-3.35%	-3.47%	-4.70%	15.9%	9.8%
CBOE/CME Pound Volatility Index	BPVIX Index	11.86	12.42%	13.93%	40.02%	90.6%	77.4%
FIXED INCOME		INDEX Level	WW%	MM%	3M%	5Yr Percentile	10Yr Percentile
CBOE CBOT 10Yr Treasury Note Volatility Index	TYVIX Index	3.90	-11.96%	-0.76%	1.04%	13.4%	7.1%
Merrill Lynch Treasury Option Volatility Estimate Index	MOVE Index	53.54	-10.61%	-1.53%	7.43%	20.5%	11.6%
CBOE 20+Yr Treasury Bond ETF Volatility Index	VXTLT Index	10.25	-14.30%	-7.91%	11.17%	17.2%	8.7%
CBOE 7-10Yr Treasury Note ETF Volatility Index	VXIEF Index**	4.64	-21.89%	-33.71%	-2.32%	12.1%	12.1%
CBOE High-Yield Corporate Bond ETF Volatility Index	VXHYG Index**	9.34	18.83%	11.32%	88.69%	58.3%	58.3%

Note: *Denotes Absense of 10yrs of data; **Denotes Absense of 5yrs of data

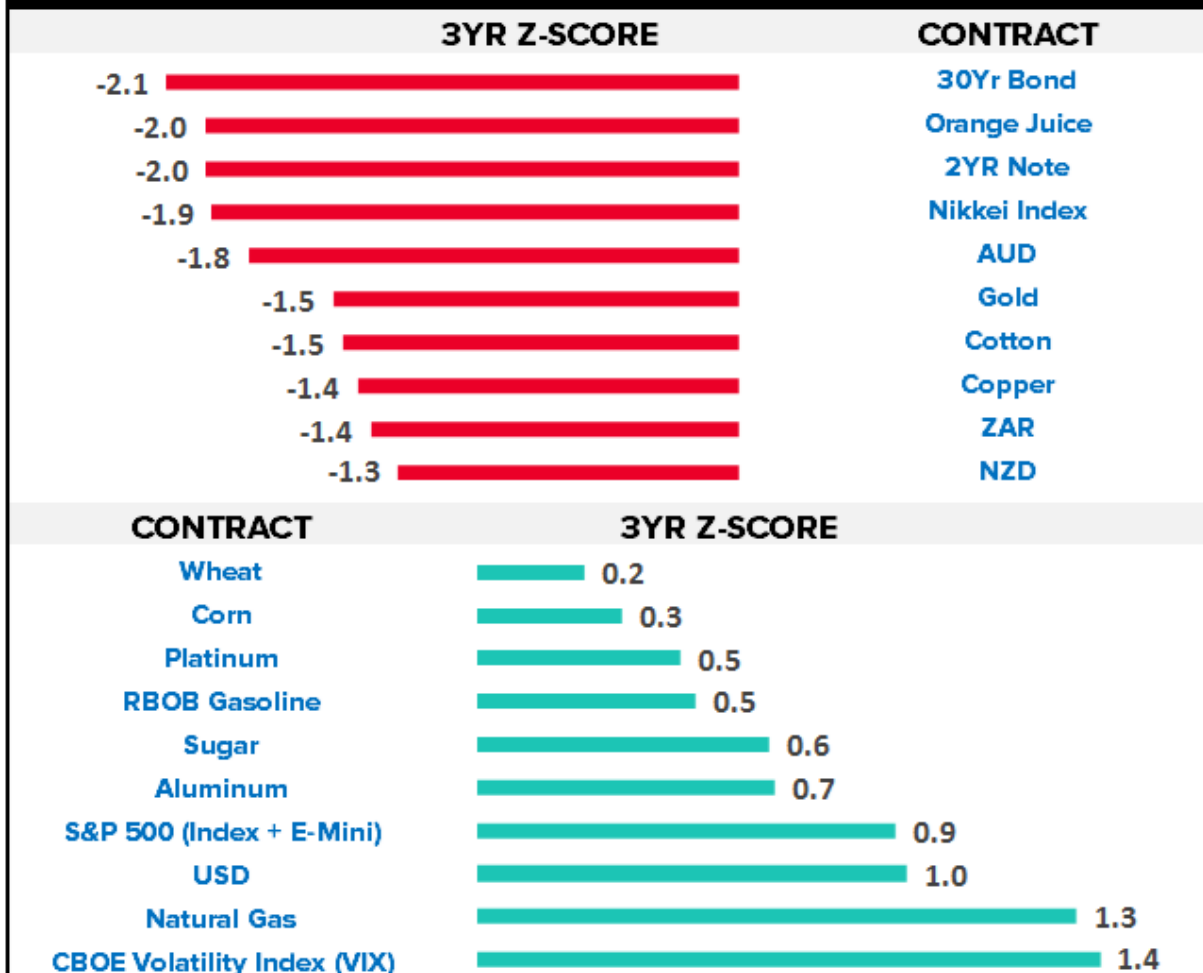
CFTC Net Futures & Options Positioning

CFTC NET FUTURES & OPTIONS POSITIONING (TTM Z-SCORE)



Data Source: CFTC, LME, Bloomberg

CFTC NET FUTURES & OPTIONS POSITIONING (3YR Z-SCORE)



Data Source: CFTC, LME, Bloomberg