

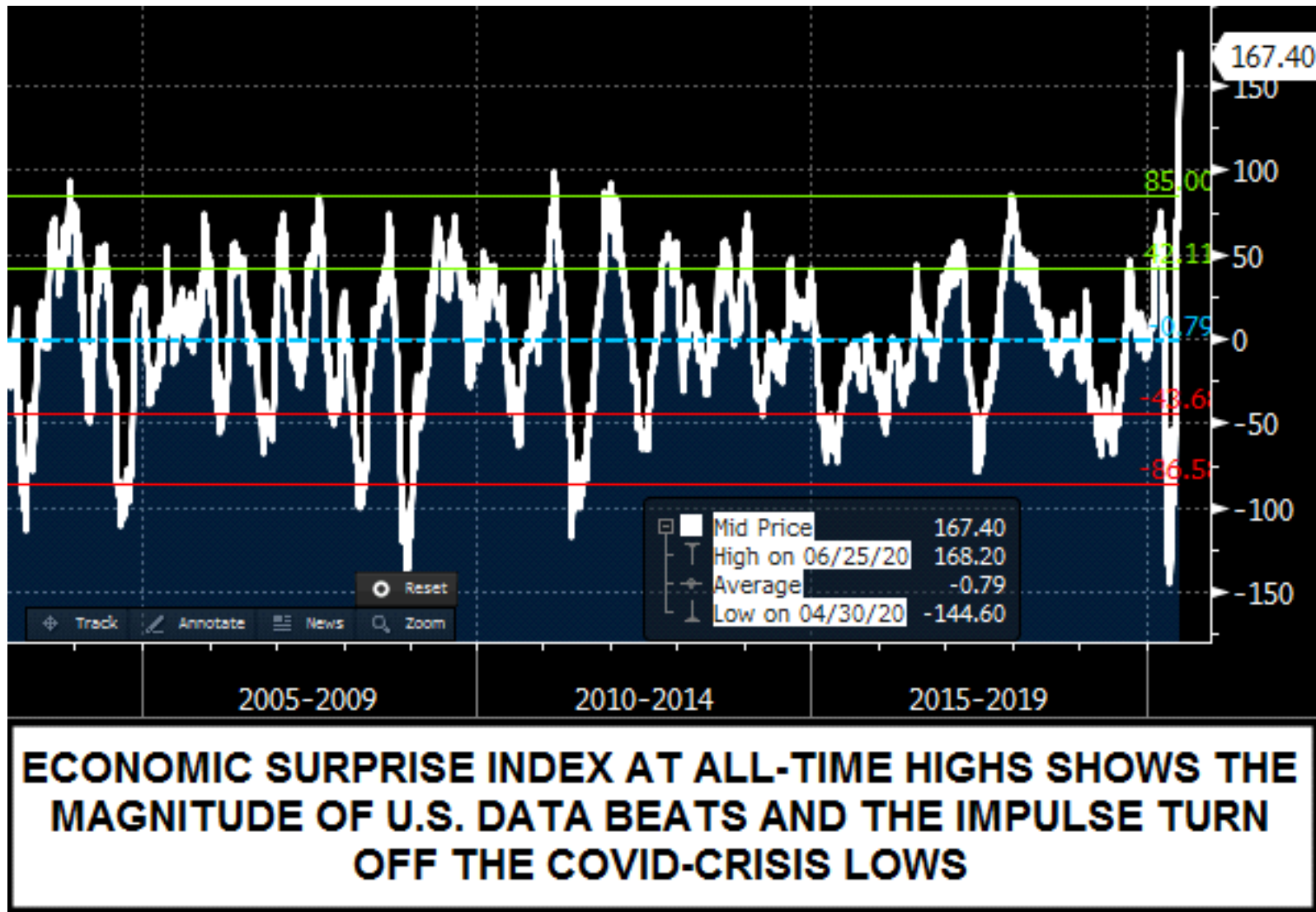
CTA Position Estimates

		Sig(Today)	Sig(1d)	Sig(1w)	Sig(1m)	CurrentLevel	LevelToSell	LevelToBuy	Pos(Today)	Pos(1d)	Pos(1w)	Pos(1m)
Bonds	USD_10Y	100	100	100	100	139.328	138.218	nan	58.37	57.21	54.72	26.63
	EUR_10Y	100	100	100	53	176.66	176.392	nan	36.47	35.76	32.48	11.05
	JPY_10Y	-100	-100	-55	-100	152.14	nan	152.838	-38.2	-36.16	-14.61	-13.93
	GBP_10Y	100	100	100	100	137.8	134.978	nan	29.63	29.61	28.85	13.96
	AUD_10Y	100	100	100	53	99.1	100.481	nan	5.53	5.09	5.02	1.26
	CAD_10Y	100	100	100	100	154.04	149.819	nan	2.89	2.9	2.84	1.86
	CHF_10Y	-63	-63	-55	-100	174.14	172.193	185.118	-1.62	-1.6	-1.34	-1.28
	FRA_10Y	100	100	100	53	167.72	164.615	nan	2.63	2.62	2.07	0.74
	ITA_10Y	100	100	100	53	143.33	139.02	nan	1.64	1.6	1.39	0.4
	ESP_10Y	100	100	100	53	156.61	154.715	nan	2.24	2.23	1.7	0.52
MM	ED4	100	100	100	100	99.815	99.7913	nan	178.2	178.2	180.96	167.22
	ER4	-63	-63	-55	53	100.495	100.48	100.504	-112.85	-112.85	-99	88.66
	YE4	-63	-63	-55	-100	100	100	100.021	-67.71	-67.71	-59.4	-100.33
	L4	100	100	100	100	99.92	99.8667	nan	106.92	106.92	108.58	100.33

Source: Nomura-QIS

W 34: US Factor Categories (Shared)										
	Ticker	Short Name	Time	%1D	1-Day Ret Z-Score (1yrRel)	%MTD	%YTD	Yesterday's Ret	Last Price	Chg QTD %
Options										
▼ Momentum LS Pairs (3)										
	NMAAPM1F	1M Price Reversal Factor	16:30	-.54%	-0.28	-.85%	+3.34%	2.89%	↓148.20	+22.90%
	NMAAVPMF	Vol Adj Momentum Factor	16:30	+.53%	0.45	+1.50%	+17.75%	-1.23%	↑114.26	+1.15%
	NMAAPMF	1Y Price Momentum Factor	16:30	+1.56%	0.46	-5.37%	+.68%	-4.52%	↑150.61	-22.85%
► Momentum Legs (6)										
▼ Value LS Pairs (9)										
	NMAADYF	Dividend Yield Factor	16:30	-.56%	-0.31	+6.71%	-11.55%	1.91%	↑86.99	+20.02%
	NMAABPF	B/P Factor	16:30	-.12%	-0.04	+3.40%	-18.48%	2.88%	↑48.92	+16.70%
	NMAASPF	Sales/Price Factor	16:30	-1.13%	-0.48	+.35%	-22.98%	4.59%	↓80.61	+8.19%
	NMAAPEGF	PEG Factor	16:30	-.08%	-0.02	+1.38%	-14.24%	1.24%	↑64.45	+6.62%
	NMAAEBTF	EBITDA/EV Factor	16:30	-.64%	-0.21	+.98%	-38.37%	5.15%	↑37.12	+3.63%

Source: Nomura-Instinet, Bloomberg



Source: Nomura, Bloomberg

Vol Targeting Implied Rebalances as of:

6/30/2020 16:19

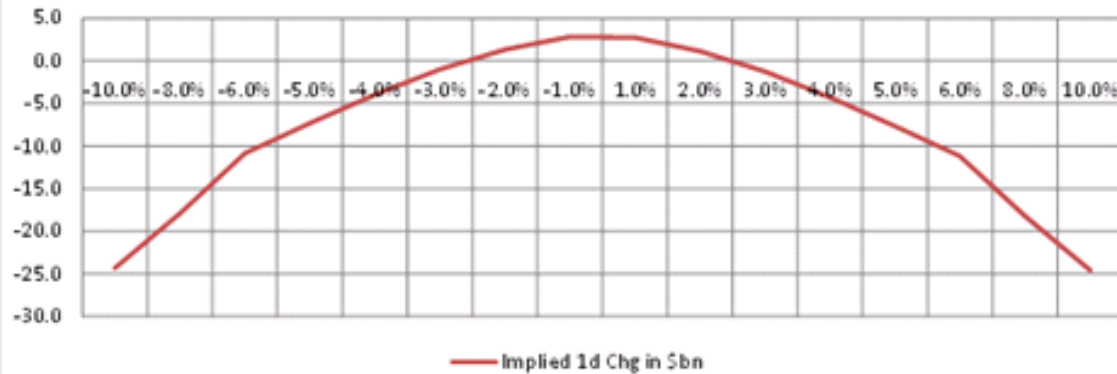
Data back to 2010

Estimated Chg as of 1d Chg in SPX Index	6/30/2020 1.53%	Assumed AUM:	\$bn 250	Assumed Target Vol:	% 10
Current Implied Chg in \$bn	2.0				

Hypothetical 1d Price Change vs Implied Notional Change

1d Pct Chg	-10.0%	-8.0%	-6.0%	-5.0%	-4.0%	-3.0%	-2.0%	-1.0%	1.0%	2.0%	3.0%	4.0%	5.0%	6.0%	8.0%	10.0%
Implied 1d Chg in \$bn	-24.3	-17.9	-10.9	-7.3	-4.0	-1.0	1.3	2.8	2.7	1.1	-1.3	-4.3	-7.6	-11.2	-18.2	-24.6

Implied 1d Chg in \$bn



Implied \$bn Notional



Implied Changes Tomorrow in \$bn

1d change tomorrow (t+1)	1d change today (t)							
	-4.0%	-2.0%	-1.0%	-0.5%	0.5%	1.0%	2.0%	4.0%
-4.0%	-3.9	-5.3	-5.8	-6.0	-6.2	-6.2	-6.1	-5.4
-2.0%	0.0	-0.3	-0.5	-0.6	-0.8	-0.9	-1.0	-1.1
-1.0%	1.0	1.0	0.9	0.8	0.7	0.6	0.4	0.2
-0.5%	1.2	1.2	1.2	1.1	1.1	1.0	0.8	0.5
0.5%	0.9	1.0	1.0	1.0	0.9	0.9	0.8	0.6
1.0%	0.4	0.5	0.5	0.5	0.5	0.5	0.4	0.3
2.0%	-1.0	-1.2	-1.2	-1.2	-1.2	-1.2	-1.1	-0.8
4.0%	-5.7	-6.7	-6.9	-7.0	-6.8	-6.7	-6.2	-4.9

Cumulative Implied Changes Today + Tomorrow in \$bn

1d change tomorrow (t+1)	1d change today (t)							
	-4.0%	-2.0%	-1.0%	-0.5%	0.5%	1.0%	2.0%	4.0%
-4.0%	-7.9	-4.0	-3.0	-2.8	-3.1	-3.5	-5.0	-9.7
-2.0%	-4.0	1.0	2.3	2.6	2.3	1.8	0.1	-5.4
-1.0%	-3.0	2.3	3.7	4.0	3.8	3.3	1.6	-4.1
-0.5%	-2.8	2.6	4.0	4.3	4.2	3.7	2.0	-3.8
0.5%	-3.1	2.3	3.8	4.2	4.1	3.6	1.9	-3.7
1.0%	-3.5	1.8	3.3	3.7	3.6	3.2	1.6	-4.0
2.0%	-5.0	0.1	1.6	2.0	1.9	1.6	0.1	-5.1
4.0%	-9.7	-5.4	-4.1	-3.8	-3.7	-4.0	-5.1	-9.2

Average Daily Market Move +/- X% vs. \$bn to buy/sell over period

	0.0%	1.0%	2.0%	3.0%	4.0%	5.0%
+1w	6.8	4.4	-1.9	-9.8	-17.7	-24.7
+2w	19.9	17.2	10.4	1.7	-11.2	-22.7
+1m	39.1	32.1	16.8	1.1	-11.9	-21.9

Levels	in \$bn	alloc %	%tile
today	78.9	31.6%	6.3%
1d	76.9	30.8%	5.9%
1w	71.2	28.5%	4.8%
2w	60.8	24.3%	3.5%
1m	40.4	16.1%	2.1%
3m	25.4	10.2%	0.1%
6m	269.1	107.6%	84.4%

Changes	in \$bn	alloc %	%tile
1d	1.99	0.8%	76.4%
2d	2.30	0.9%	67.1%
1w	7.69	3.1%	68.9%
2w	18.07	7.2%	72.2%
1m	38.54	15.4%	75.4%
3m	53.51	21.4%	73.8%
6m	-190.17	-76.1%	4.0%

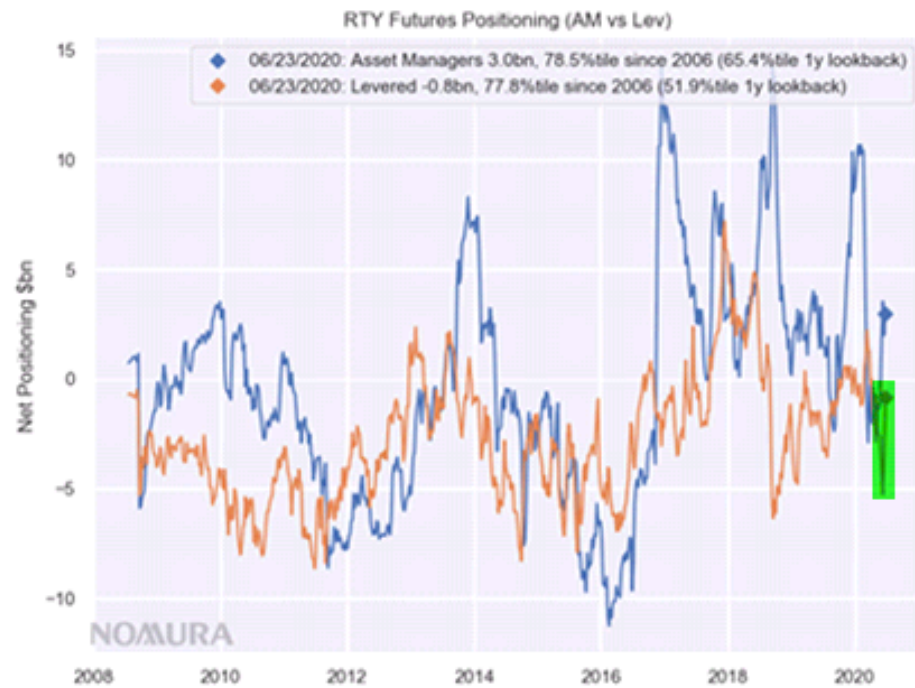
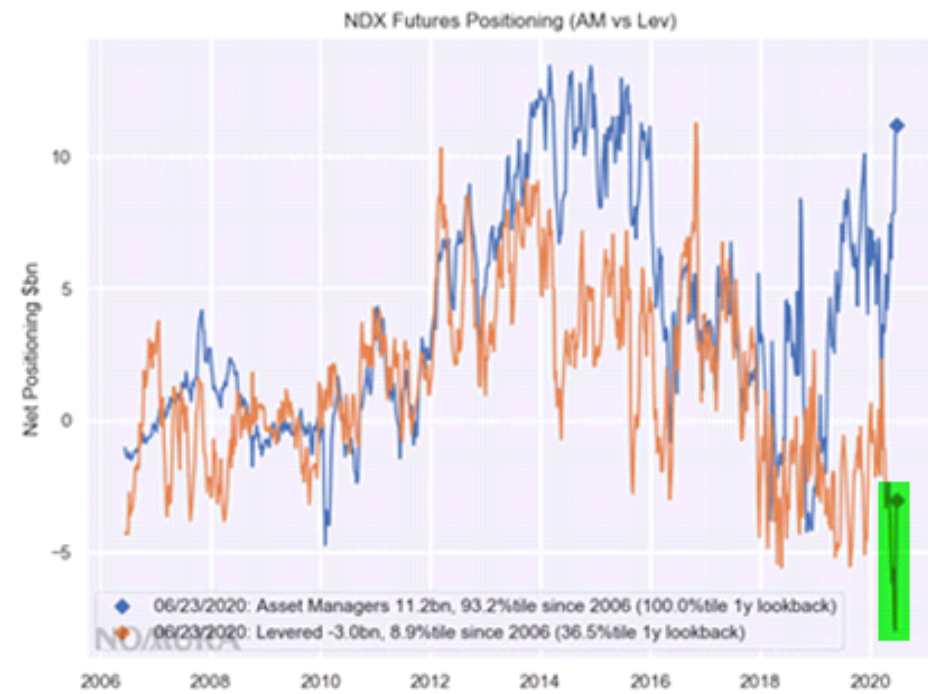
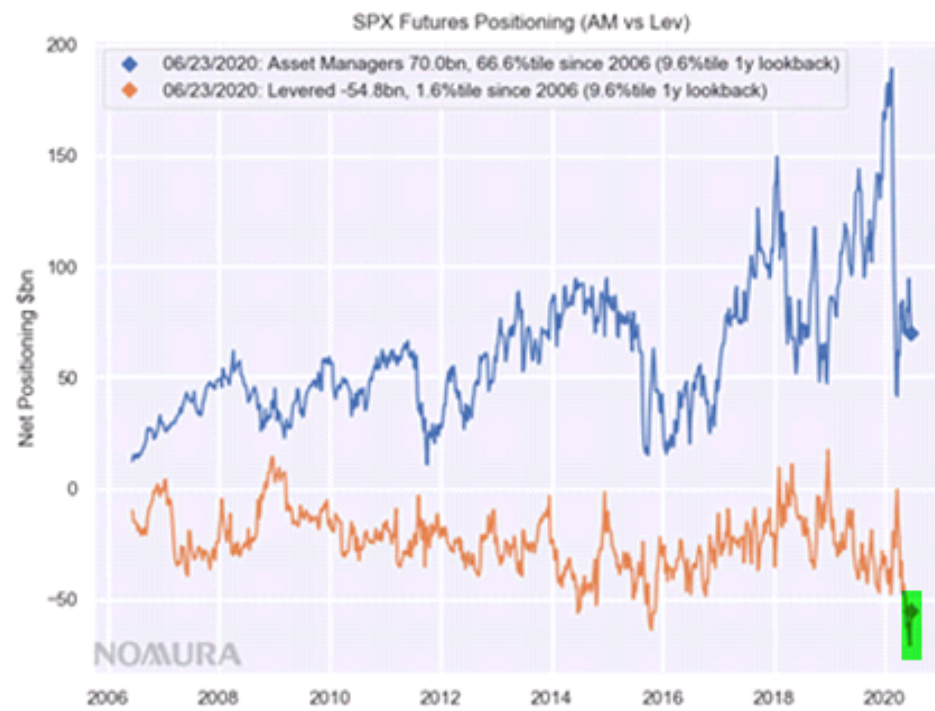
Implied Allocation %



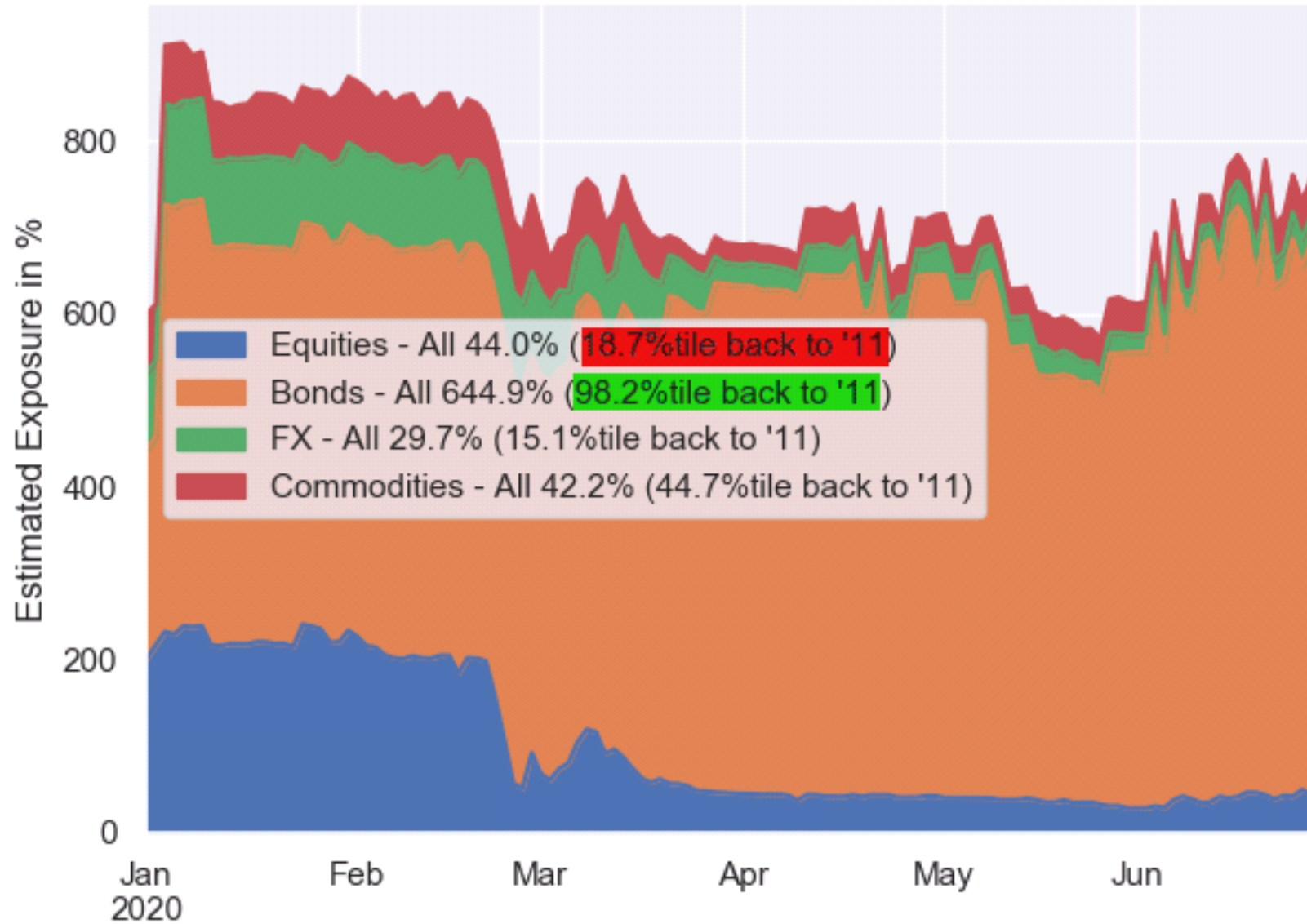
CTA Position Estimates

		Sig(Today)	Sig(1d)	Sig(1w)	Sig(1m)	CurrentLevel	LevelToSell	LevelToBuy	Pos(Today)	Pos(1d)	Pos(1w)	Pos(1m)
Equities	S&P 500	-28	-28	100	100	3047.7	2802.9	3057.09	-3.41	-3.34	9.54	6.37
	Russell 2000	-100	-100	-27	-29	1423.2	nan	1440.2	-8.17	-8.11	-1.95	-1.52
	NASDAQ 100	100	100	100	100	9973.75	8168.33	nan	12.99	12.66	10.44	6.55
	Euro Stoxx 50	-28	-28	-27	-29	3222	3188.67	3432.33	-2.18	-2.17	-1.77	-1.45
	Nikkei 225	-28	-28	-27	-29	22050	20411.5	22611.9	-2.45	-2.44	-1.89	-1.75
	DAX	-28	-28	-27	-29	12246.5	11905.5	12662	-2.09	-2.08	-1.71	-1.47
	FTSE100	-100	-100	-100	-100	6202.5	nan	7008.45	-0.88	-0.88	-0.7	-0.56
	CAC40	-100	-100	-100	-100	4922	nan	5170.36	-0.42	-0.42	-0.35	-0.26
	Hang Seng	-100	-100	-100	-100	24301	nan	27024.2	-2.46	-2.43	-2.14	-1.68
	HangSeng CH	-100	-100	-100	-100	9761	nan	10612.5	-2.76	-2.72	-2.35	-1.74
	ASX SPI 200	-100	-100	-100	-100	5807	nan	6152.86	-5.58	-5.08	-4.19	-2.87
	KOSPI 200	-28	-28	-27	100	278.15	261.287	282.914	-0.4	-0.4	-0.3	0.83
	Bovespa	-28	-100	-100	-100	95876	94875.4	106283	-0.26	-0.93	-0.71	-0.39

Source: Nomura-QIS



YTD Breakdown of Gross CTA Est. Exposure as of 6/29/2020



Source: Nomura-QIS