

UBS Investment Bank
Sales and Trading Commentary

<u>Not</u> a product of the UBS
Research department

# Market Internal Dynamics Update

March 9, 2020

For Broker/Dealer and Qualified Institutional Buyer (QIB) Use Only.

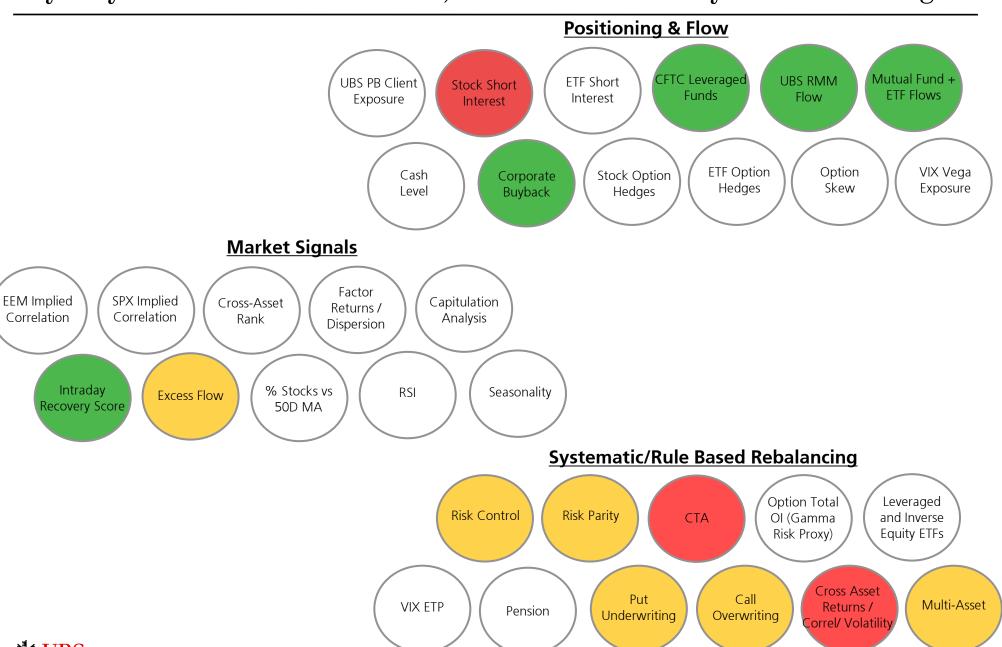
Presentation Not Approved for Retail Investors.



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### Key Players to watch: Multi-Asset, Retail Investors & Systematic Strategies

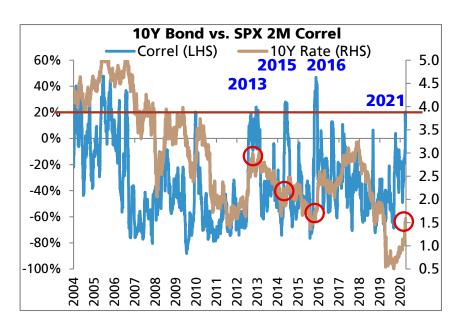


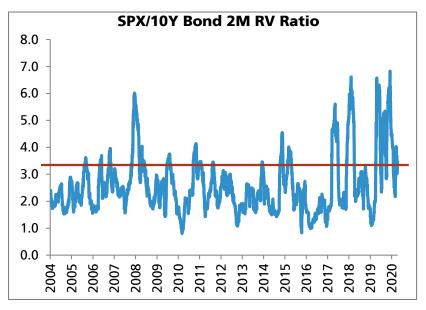
# Systematic / Rule-Based Rebalancing



#### Positive Eq/Bond Correl – Medium Term Bearish Bonds, Bullish Equities

- 10Y Bond vs. SPX 2M correlation has turned positive since 2/25 (highest since Sep-Nov 2016)
- SPX/10Y Bond 2M RV Ratio ~3.0-3.5x (54%-tile vs 3Y)







- Risk Parity Fund Target 1: Maintain target portfolio volatility => Portfolio unwind
- **Risk Parity Fund Target 2:** Maintain equal risk contribution => Asset allocation

#### Similar Positive Correlation Periods

- 8 times since 2005 w/ Correl >= 20%: TLT, SPY, GLD 4M Lo/Hi Median @ -7.3%/+1.1%, -2.6%/+4.8%, -4.9%/+8.3%
- High correl + 10Y rate < 2.5%: Jun-Dec '13, Mar-Jun '15 and Sep-Nov '16: TLT, SPY, GLD Next 4M Lo/Hi Avg @</li>

**-10.7%**/+1.5%, -1.3%/**+6.5%**, -8.8%/+4.4%

#### Asset Returns after 2M Correl turned positive (& rising correl) since 2005

Beg	End	# of			Beg	Max
Date	Date	Dys	2M C	Correl	10Y	Rate
2/25/21	3/8/21		20%		1.52	1.60
Median w	hen correl	>= 20	%			
3/20/06	11/29/06	255	2%	48%	4.66	5.24
9/9/16	11/7/16	60	17%	<b>47</b> %	1.67	1.85
6/7/07	7/25/07	49	12%	<b>37</b> %	5.13	5.29
6/27/05	9/20/05	86	2%	<b>32</b> %	3.90	4.42
12/29/06	2/26/07	60	2%	29%	4.70	4.89
3/26/15	6/3/15	70	1%	28%	1.99	2.36
6/20/13	12/17/13	181	0%	24%	2.41	2.99
11/4/10	11/30/10	27	3%	20%	2.49	2.96

TLT	T	LT Next	e)	4M Ra	ange		
1D	1W	1M	2M	3M	4M	Min	Max
-1.6%	-0.4%						
-0.8%	-0.5%	-2.1%	-4.5%	-5.5%	-5.9%	-7.3%	1.1%
0.2%	-0.3%	-4.8%	-6.8%	-3.6%	-5.2%	-7.1%	0.1%
-1.6%	-0.6%	-1.2%	-2.8%	-11.7%	-12.1%	-13.8%	2.4%
-1.8%	-0.9%	-0.1%	4.1%	5.9%	5.5%	-1.8%	8.5%
0.3%	-2.4%	-3.6%	-3.1%	-4.5%	-6.7%	-6.7%	0.1%
-0.1%	0.9%	-1.7%	0.5%	0.4%	-0.3%	-1.9%	2.4%
-1.6%	1.0%	-0.9%	-7.0%	-9.2%	-8.8%	-11.0%	2.1%
-1.6%	-0.5%	-2.5%	-5.9%	-6.5%	-4.3%	-7.4%	0.2%
0.8%	-3.4%	-4.1%	-6.6%	-8.3%	-8.0%	-11.5%	0.0%

SPY	SP	Y Next	Ret (vs	Beg Da	te)	4M R	ange
1D	1W	1M	2M	3M	4M	Min	Max
-2.4%	0.3%						
-0.3%	0.3%	1.4%	2.7%	3.2%	4.1%	-2.6%	4.8%
-0.2%	-0.3%	-1.3%	-0.7%	-4.9%	-2.7%	-6.0%	1.7%
-2.4%	0.0%	0.8%	-2.2%	3.0%	4.8%	-2.2%	6.8%
-1.8%	2.5%	2.1%	-1.0%	-2.0%	2.7%	-5.4%	4.0%
0.1%	1.1%	3.4%	2.8%	3.3%	0.0%	-1.4%	4.7%
-0.4%	-0.8%	0.4%	2.6%	1.2%	4.9%	-3.0%	4.9%
-0.2%	0.6%	2.9%	4.0%	3.7%	3.4%	-0.4%	4.0%
-2.5%	1.1%	5.9%	4.4%	6.0%	6.1%	-1.5%	8.6%
1.9%	-0.5%	0.2%	2.8%	6.3%	7.1%	-3.4%	10.0%

GLD	G	LD Next	t Ret (vs	Beg Da	te)	4M R	ange
1D	1W	1M	2M	3 <b>M</b>	4M	Min	Max
-1.9%	-1.2%						
0.1%	-1.2%	-0.7%	0.9%	1.9%	4.1%	-4.9%	8.3%
0.1%	2.2%	10.7%	22.2%	8.8%	12.4%	-0.9%	28.9%
-0.7%	-1.3%	-5.5%	-1.9%	-11.5%	-13.5%	-15.3%	0.7%
-1.7%	-1.0%	-1.3%	1.0%	0.8%	11.4%	-2.5%	11.4%
0.0%	-3.7%	-3.2%	-0.5%	5.3%	7.6%	-4.6%	7.9%
0.5%	-4.8%	1.4%	7.1%	3.1%	8.7%	-4.8%	8.7%
0.7%	-0.2%	-0.7%	0.2%	-0.1%	-5.0%	-5.0%	1.8%
-5.4%	-6.2%	0.3%	6.5%	3.3%	0.5%	-6.2%	10.6%
3.4%	1.2%	-0.6%	0.7%	-6.0%	0.3%	-6.0%	2.3%

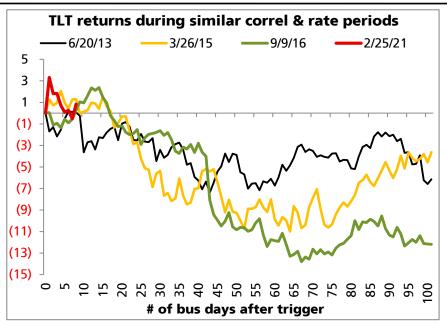


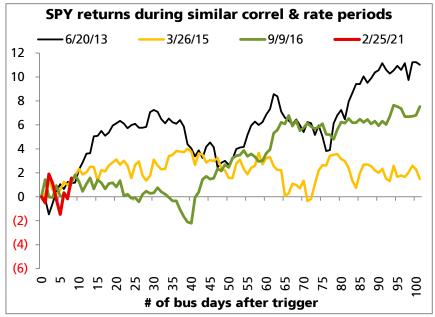
#### **Cross-Asset Drawdowns**

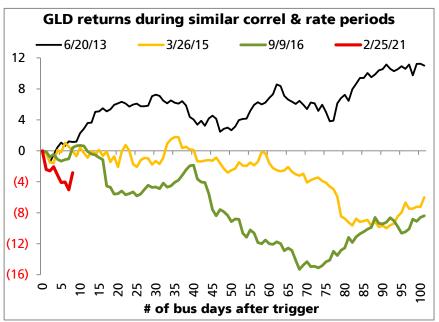
									UBS R	UBS Risk Parity Assets							
	Total #			Equities			Gov't	Bonds		Comm	odities /	Inflation-	Linked		Credit	/ Carry	
End	Assets	Median	S&P	MSCI	MSCI	US	Euro	Japan	EM	US	BBG	BBG	BBG	EM	Inv Gr		EM Corp
Date	Down	Ret	500	EAFE	EM	Treasury	Bund	JGB	Sov	Inflat'n	Agri	Energy	Metals	FX	Bonds	HYG	Bonds
2/16/21	11	-0.23%	-0.06%	1.31%	0.93%	-0.72%	-0.66%	-0.12%	-0.87%	-0.40%	1.75%	2.01%	-0.23%	-0.27%	-0.57%	-0.16%	-0.28%
2/17/21	8	-0.03%	-0.03%	-1.03%	0.19%	0.09%	0.14%	-0.18%	-0.26%	-0.05%	-0.32%	1.40%	-0.48%	0.03%	0.22%	-0.03%	0.36%
2/18/21	10	-0.11%	-0.44%	-0.52%	-1.37%	-0.01%	-0.20%	0.05%	0.14%	-0.41%	0.30%	-0.88%	0.78%	-0.07%	0.09%	-0.14%	-0.11%
2/19/21	10	-0.19%	-0.19%	0.47%	0.34%	-0.42%	-0.29%	-0.09%	-0.28%	-0.45%	-0.04%	-0.82%	1.15%	0.12%	-0.55%	0.01%	-0.23%
2/22/21	9	-0.14%	-0.77%	0.05%	-2.26%	-0.14%	0.31%	-0.12%	-0.72%	0.06%	1.36%	1.98%	1.59%	-0.24%	-0.56%	-0.31%	-0.49%
2/23/21	5	0.03%	0.13%	0.03%	0.04%	0.07%	-0.21%	0.00%	-0.13%	0.03%	0.48%	-0.41%	-0.40%	0.16%	-0.36%	0.24%	0.32%
2/24/21	7	0.01%	1.14%	-0.74%	-1.53%	-0.14%	-0.18%	0.01%	-0.01%	-0.10%	1.31%	1.26%	0.79%	0.19%	-0.08%	0.10%	0.09%
2/25/21	13	-0.93%	-2.45%	0.71%	0.51%	-1.36%	-0.56%	-0.17%	-0.74%	-1.21%	-0.98%	-0.03%	-0.53%	-1.84%	-0.93%	-0.95%	-0.95%
2/26/21	10	-0.35%	-0.48%	-2.90%	-3.22%	0.96%	0.20%	-0.19%	-0.35%	1.24%	-1.09%	-1.98%	-3.38%	-0.38%	0.65%	-0.30%	0.54%
3/1/21	5	0.14%	2.38%	1.37%	1.73%	-0.19%	0.67%	0.13%	0.47%	-0.25%	-0.95%	-0.77%	0.03%	0.14%	0.20%	0.76%	-0.24%
3/2/21	5	0.07%	-0.81%	0.03%	-0.21%	0.19%	0.07%	0.20%	0.06%	0.36%	0.72%	-0.48%	1.45%	0.14%	0.19%	-0.15%	-0.03%
3/3/21	11	-0.31%	-1.31%	0.28%	1.35%	-0.53%	-0.42%	0.05%	-0.31%	-0.23%	-0.74%	1.22%	-1.82%	-0.29%	-0.57%	-0.32%	-0.31%
3/4/21	13	-0.39%	-1.34%	-0.90%	-2.30%	-0.52%	0.19%	-0.12%	-0.36%	-0.39%	-0.17%	2.27%	-2.51%	-0.64%	-0.69%	-0.38%	-0.36%
3/5/21	8	-0.02%	1.95%	-1.37%	-0.52%	-0.14%	-0.16%	0.43%	-0.83%	0.04%	0.86%	2.28%	0.69%	-0.44%	-0.39%	0.30%	-0.02%
3/8/21	13	-0.54%	-0.54%	0.80%	-2.33%	-0.38%	-0.14%	-0.24%	-0.96%	-0.49%	0.07%	-1.34%	-0.44%	-0.96%	-0.64%	-0.73%	-0.90%



### Positive Correl + Low Rate Periods Comparison

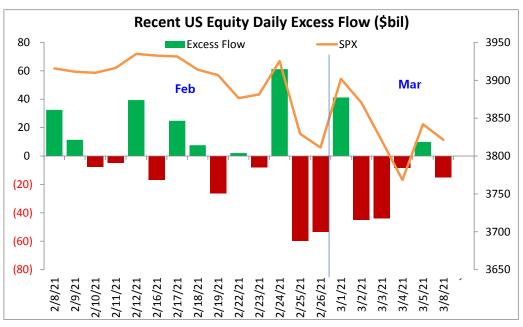


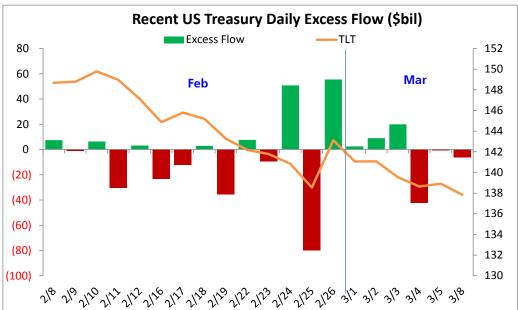




- Since 2/25/21, TLT **+0.8%**, SPY **+1.5%**, GLD **-3.0%** (as of 3/9 10:20a)
- Since 2/26/21 (post pension month-end rebal),
   TLT -2.4%, SPY +2.1%, GLD -0.5%

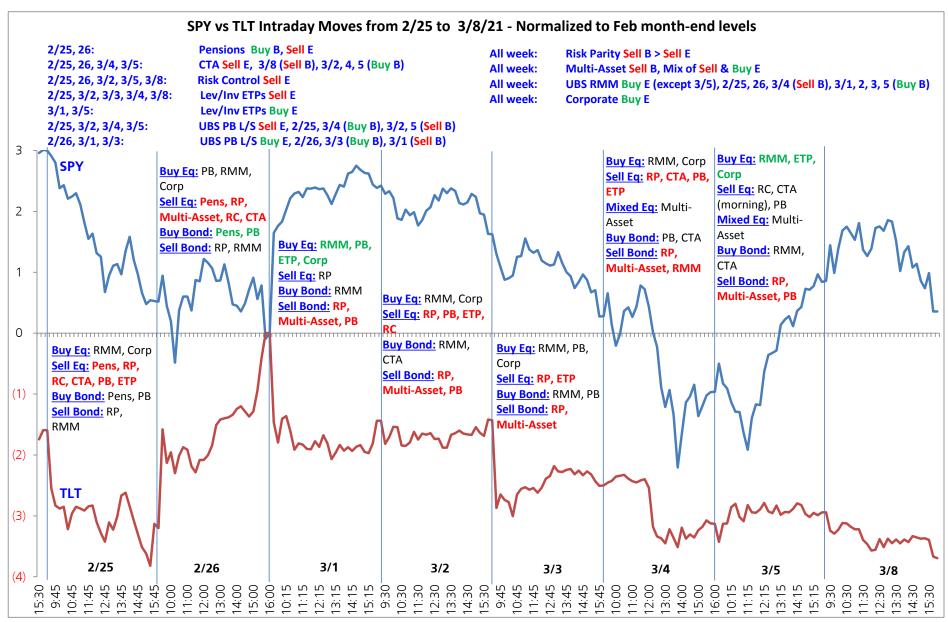
### US Equity vs Treasury Excess Flows





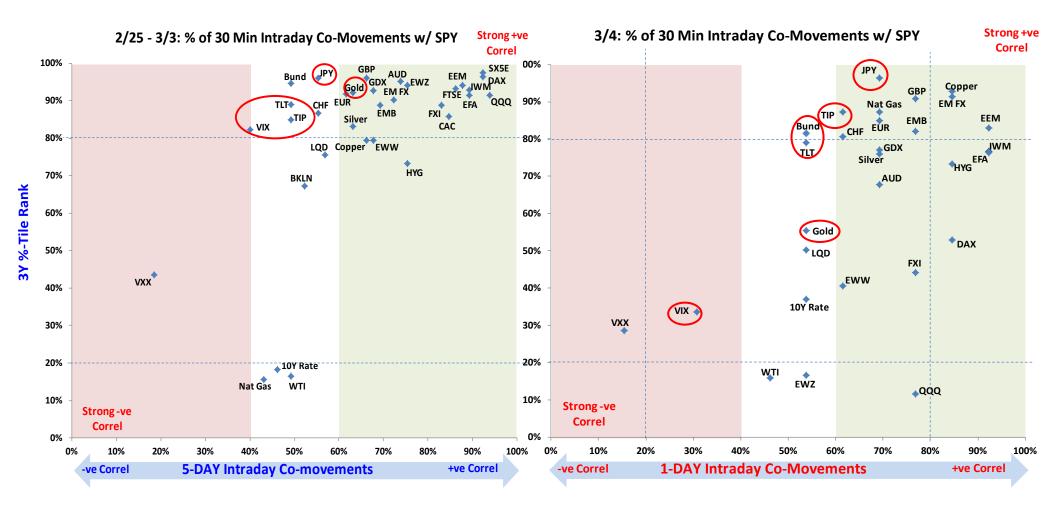


#### Key Equity & Bond Flow Drivers since 2/25



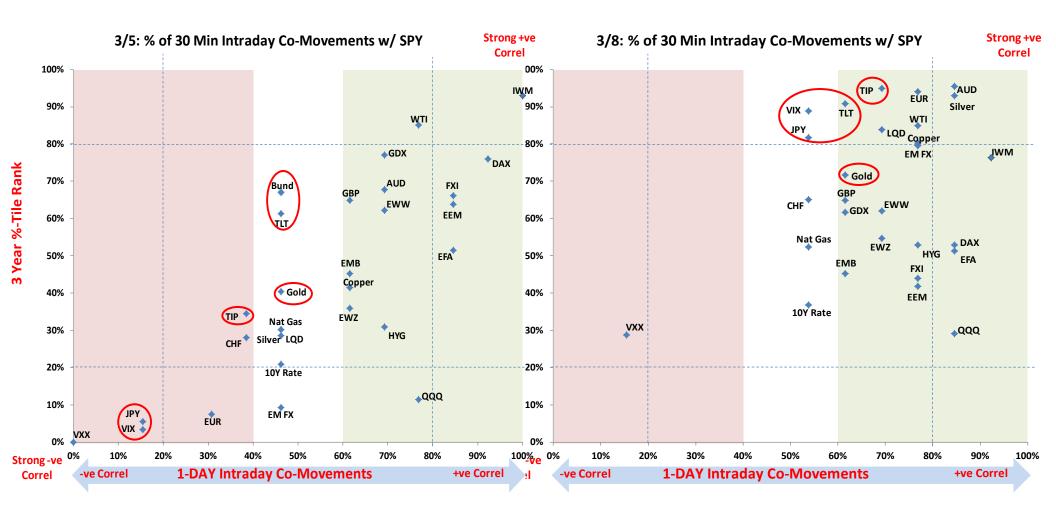


# Cross-Asset Intraday Correlations: 2/25 – 3/4



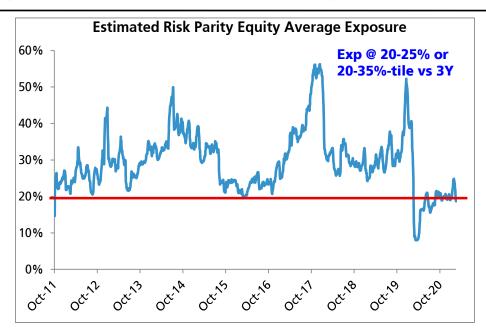


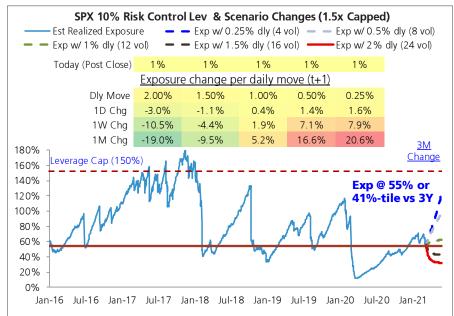
# Cross-Asset Intraday Correlations: 3/5, 3/8

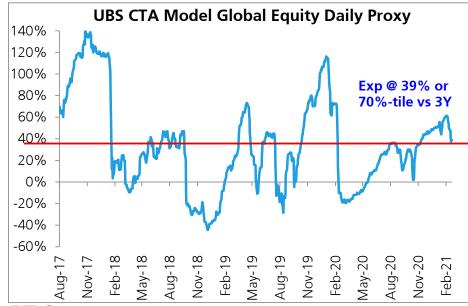


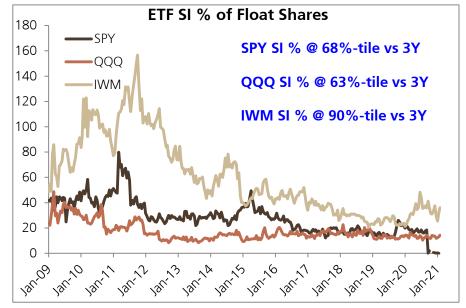


# Systematic & Macro Equity Exposures

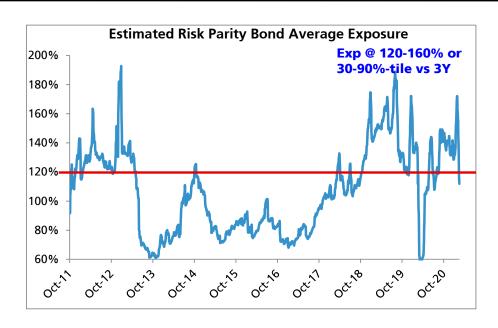


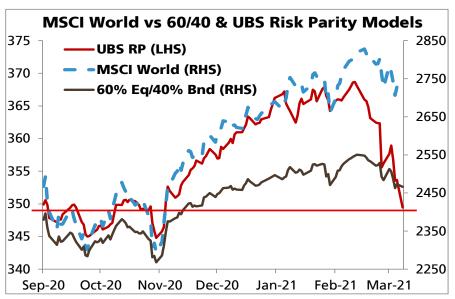


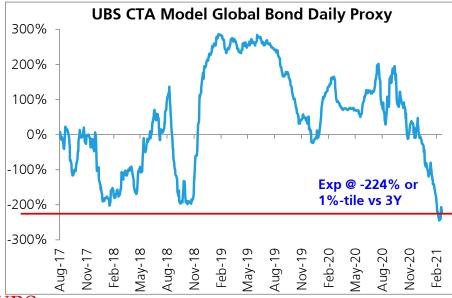


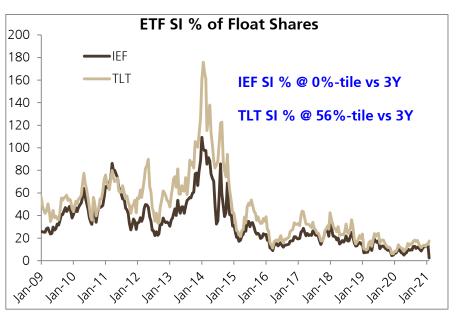


### Systematic & Macro Bond Exposures









#### **UBS CTA Tracker**

					L			S	Bl	JY Wa	tch	SE	LL Wa	tch	D	ys in I	T N	lom.
		Proxy	3Y	%	Today	Action	%	Today Action	%	Next	% or	%	Next	% or	L/	1Y	L/	LT
Asset	Spot	Exp +	Rank	Strat	New L	Exit L	Strat	New S Exit S	Strat	Level	# *	Strat	Level	# *	S	Mom.	S	MA
S&P 500	3855	4.6%	61%	67%			8%		8%	3877	0.6%	25%	3797	-1.5%	L	203	L	166
Russell 2000	2229	3.0%	64%	75%			8%		8%	2243	0.6%	8%	MAVG	2	L	85	L	140
Nasdaq 100	12557	1.2%	27%	42%			42%		8%	12819	2.1%				L	233	L	200
S&P Midcap	2559	3.6%	60%	75%					17%	2574	0.6%				L	83	L	141
Dow Jones	31876	6.3%	75%	92%								8%	31394	-1.5%	L	85	L	146
Euro STOXX	3777	5.0%	83%	92%								8%	3692	-2.3%	L	12	L	128
FTSE 100	6733	4.8%	82%	83%	8%				17%	6820	1.3%	17%	6589	-2.1%	L	8	L	67
DAX	14418	4.8%	86%	92%											L	52	L	158
Nikkei 225	29160	3.7%	66%	75%			8%		8%	29614	1.6%	17%	28260	-3.1%	L	193	L	155
HSCEI	10973	2.2%	79%	42%		8%	8%					8%	10665	-2.8%	L	36	L	68
Hang Seng	28836	3.5%	88%	58%		8%	8%					8%	27976	-3.0%	L	34	L	71
Bovespa	109970	0.5%	30%	33%			42%								L	4	L	138
MSCI EM	1316	1.6%	61%	33%		8%	17%	8%				8%	1277	-3.0%	L	172	L	157
WTI Crude	65.4	3.7%	88%	100%											L	26	L	127
Gold	1704	-3.9%	10%	8%			92%					8%	1664	-2.4%	L	446	S	12
Copper	404.2	4.0%	80%	92%											L	173	L	161
Silver	25.7	1.1%	55%	42%		8%	17%		8%	26	1.9%				L	213	L	171
EUR	1.189	2.1%	67%	42%			50%		42%	1.204	1.2%	25%	1.183	-0.6%	L	177	L	181
GBP	1.387	11.6%	98%	83%								42%	1.376	-0.8%	L	108	L	144
AUD	0.770	7.6%	82%	67%		8%	8%		8%	0.779	1.1%	42%	0.762	-1.1%	L	170	L	179
JPYUSD	108.8	-8.1%	20%	17%			83%					8%	110.4	1.4%	L	3	L	226
US 10Y Bond	133.4	-26.5%	7%				100%		8%	135.1	1.3%				S	7	S	59
US 20Y Bond	159.6	-13.3%	10%				100%		8%	162.8	2.0%				S	12	S	85
US 30Y Bond	189.7	-8.6%	12%				100%								S	12	S	70
Euro BTP 10Y	148.9	-0.9%	25%	33%			58%	8%	42%	151.0	1.4%	8%	MAVG	2	L	457	L	159
Euro Bund 10Y	171.6	-14.2%	5%	8%			83%		8%	174.7	1.8%	25%	173.1	0.8%	S	13	L	182
Euro Buxl 30Y	209.5	-10.4%	0%				100%		8%	211.6	1.0%				S	13	S	8
JGB 10Y	151.1	-69.9%	5%				92%	8%	58%	151.6	0.4%	8%	150.7	-0.3%	S	26	S	296
Aussie 3Y	99.73	-96.1%	7%	17%			67%		58%	99.75	0.0%	8%	99.56	-0.2%	L	577	L	665
Aussie 10Y	98.26	-100.5%	5%				100%		67%	98.47	0.2%				S	35	S	11



### UBS Monitors – ES1 & NQ1

#### <u>ES1</u>

#### Buy Triggers:

3877.3 (+0.6% ST), 3961.5 (+2.8% MT)

#### Sell Triggers:

3796.5 (-1.5% ST), 3765.6.1 (-2.3% ST), 3751.6 (-2.7% MT), 3684.9 (-4.4% LT), 3676.1 (-4.6% MT)

ES1	38	55.00				<u>UBS</u>	CTA T	<u>racker</u>		As of	As of 3/9/21 08:17		
			Curre	nt					BUY	/ SELL Watch			
Signal	Cı	urrent	Trig	gered Tod	ay	Bu	y/Sell			Spot*		MA X-over**	
Method	L/S	# Dys	Cond	Level	Time	B/S	# Dys	Action	Level	vs Cur	vs Hi-Lo	Action # Dys	
New High / Low ST	L	23				S	2	Exit	3765.60	-2.3%	-1.6%		
New High / Low MT	L	164											
1Y Momentum LT	L	203				S		Exit	2866.65	-25.6%	-25.1%		
Bollinger Band ST	S	4				В	4	Exit	3877.30	0.6%	0.3%		
<b>Bollinger Band MT</b>						В		Long	3961.47	2.8%	2.5%		
Bollinger Band LT						В		Long	4284.76	11.1%	10.8%		
Bollinger Band ST	L	2				S	2	Exit	3796.55	-1.5%	-0.8%		
<b>Bollinger Band MT</b>	L	2				S	2	Exit	3751.55	-2.7%	-2.0%		
Bollinger Band LT	L	85				S		Exit	3684.90	-4.4%	-3.7%		
MA Crossover ST						S	1	Short	3471.26	-10.0%	-9.3%		
MA Crossover MT	L	190											
MA Crossover LT	L	166											

#### NQ1

#### **Buy Triggers:**

12818.7 (+2.1% MT), 13044.5 (+3.9% ST), 13137.5 (+4.6% MT)

#### Sell Triggers:

N/A

NQ1	12						CTA T	<u>racker</u>		As of	3/9/2	1 08:17
		Cu	rrent Posi	tioning					BUY	/ SELL Watch		
Signal	Cı	urrent	Trigg	gered Tod	lay	Buy	/Sell			Spot*		MA X-over**
Method	L/S	# Dys	Cond	Level	Time	B/S	# Dys	Action	Level	vs Cur	vs Hi-Lo	Action # Dys
New High / Low ST	S	4				В		Exit	13804.8	9.9%	9.5%	
New High / Low MT	L	190										
1Y Momentum LT	L	233				S		Exit	8287.7	-34.0%	-32.8%	
<b>Bollinger Band ST</b>	S	11				В		Exit	13255.5	5.6%	5.1%	
<b>Bollinger Band MT</b>	S	4				В		Exit	13137.5	4.6%	4.2%	
<b>Bollinger Band LT</b>	L	189				S		Exit	11684.6	-6.9%	-5.2%	
Bollinger Band ST	S	4				В		Exit	13044.5	3.9%	3.4%	
<b>Bollinger Band MT</b>	S	3				В	2	Exit	12818.7	2.1%	1.6%	
<b>Bollinger Band LT</b>						S		Short	11882.5	-5.4%	-3.6%	
MA Crossover ST						S	5	Short	11684.6	-6.9%	-5.2%	
MA Crossover MT	L	211										
MA Crossover LT	L	200										



### **UBS Monitors – TY1 & WN1**

<u>TY1</u>

**Buy Triggers:** 

135.1 (+1.3% ST)

Sell Triggers:

N/A

TY1	13	33.42				<u>UBS</u>	CTA T	<u>racker</u>	USGG10YR	1.53	As of	3/9/	21 08:17
			Currer	nt					BUY /	<b>SELL Wat</b>	ch		
Signal	Cı	urrent	Trig	gered Tod	ay	Bu	y/Sell			Ref	Fut Pri	ce vs*	MA X-over**
Method	L/S	# Dys	Cond	Level	Time	B/S	# Dys	Action	Level	Yield	Cur	Hi-Lo	Action # Dys
New High / Low ST	S	43				В		Exit	137.19	1.10	2.8%	2.8%	
New High / Low MT	S	88											
1Y Momentum LT	S	7				В		Exit	137.76	1.03	3.3%	3.2%	
Bollinger Band ST	S	16				В	15	Exit	135.15	1.33	1.3%	1.3%	
Bollinger Band MT	S	43				В		Exit	136.38	1.19	2.2%	2.2%	
Bollinger Band LT	S	43				В		Exit	138.34	0.97	3.7%	3.7%	
Bollinger Band ST	S	52				В		Exit	136.70	1.15	2.5%	2.4%	
<b>Bollinger Band MT</b>	S	98				В		Exit	137.06	1.11	2.7%	2.7%	
Bollinger Band LT	S	97				В		Exit	137.37	1.08	3.0%	2.9%	
MA Crossover ST	S	48											
MA Crossover MT	S	85											
MA Crossover LT	S	59											

WN1

**Buy Triggers:** 

193.5 (+2.0% ST)

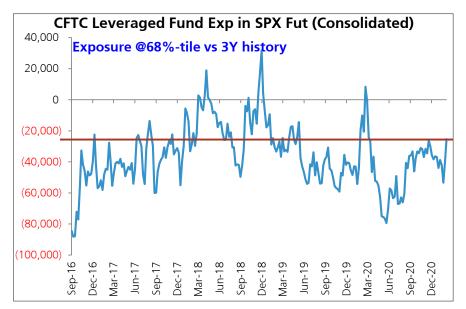
Sell Triggers:

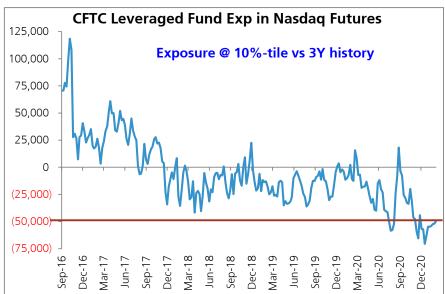
N/A

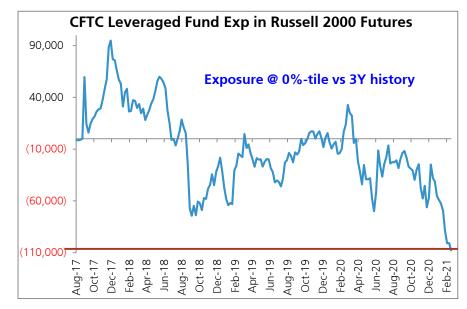
WN1	18	89.72				UBS	CTA T	<u>racker</u>	USGG30YR	2.25	As of	3/9/	21 08:17
			Currer	nt					BUY /	SELL Wat	ch		
Signal	C	urrent	Trig	gered Tod	lay	Bu	y/Sell			Ref	Fut Pri	ce vs*	MA X-over*
Method	L/S	# Dys	Cond	Level	Time	B/S	# Dys	Action	Level	Yield	Cur	Hi-Lo	Action # Dys
New High / Low ST	S	51				В		Exit	205.28	1.83	8.2%	8.2%	
New High / Low MT	S	95											
1Y Momentum LT	S	12				В		Exit	221.03	1.45	16.5%	16.5%	
Bollinger Band ST	S	24				В		Exit	193.53	2.15	2.0%	2.0%	
<b>Bollinger Band MT</b>	S	51				В		Exit	201.58	1.93	6.3%	6.3%	
Bollinger Band LT	S	44				В		Exit	214.30	1.61	13.0%	13.0%	
Bollinger Band ST	S	52				В		Exit	203.70	1.87	7.4%	7.4%	
<b>Bollinger Band MT</b>	S	53				В		Exit	206.53	1.80	8.9%	8.9%	
<b>Bollinger Band LT</b>	S	53				В		Exit	208.56	1.75	9.9%	9.9%	
MA Crossover ST	S	62	***************************************				***************************************						
MA Crossover MT	S	94											000000000000000000000000000000000000000
MA Crossover LT	S	70											



### **CFTC Leveraged Fund Exposures in Equity Futures**

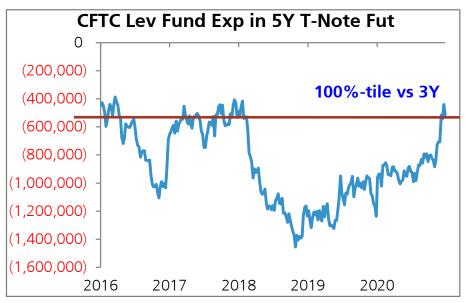


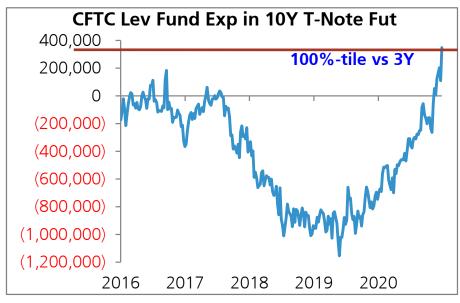


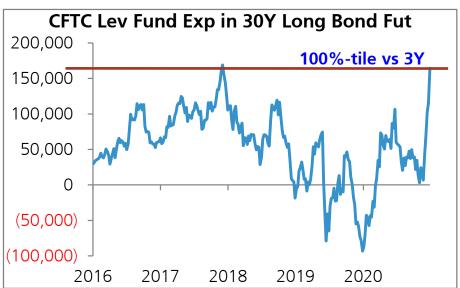


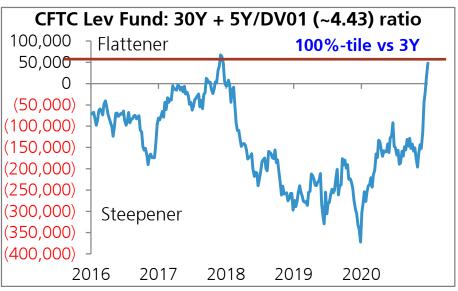


#### **CFTC Leveraged Fund Exposures in Bond Futures**







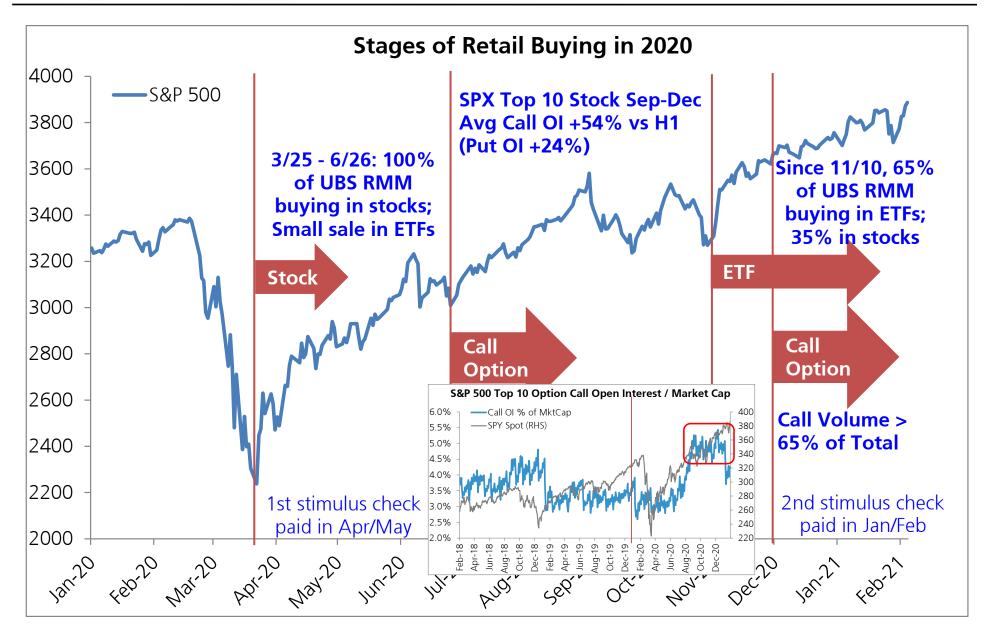




# **Retail Flow Implication**

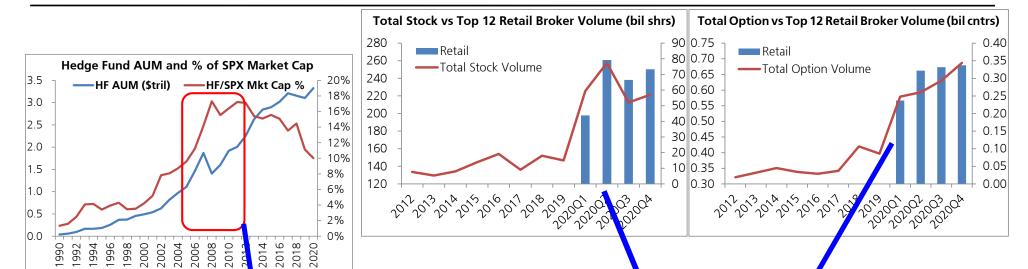


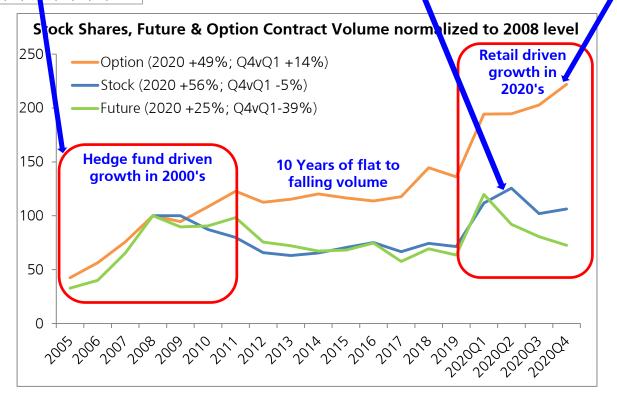
#### Stages of Retail Equity Trading Focus in 2020





### Retail Influence #1: Significant Stock & Option Volume Growth

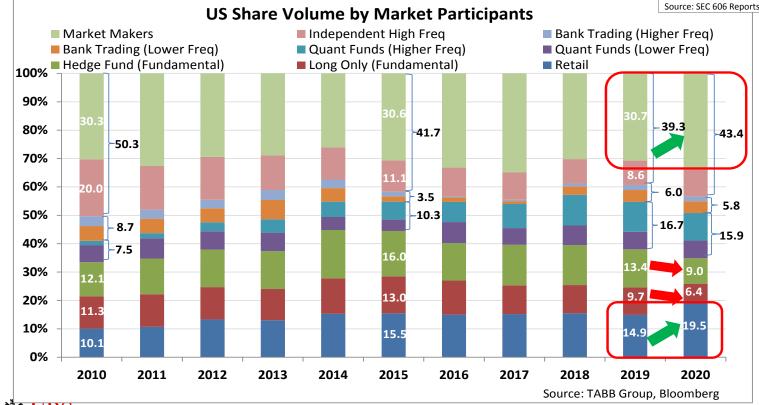




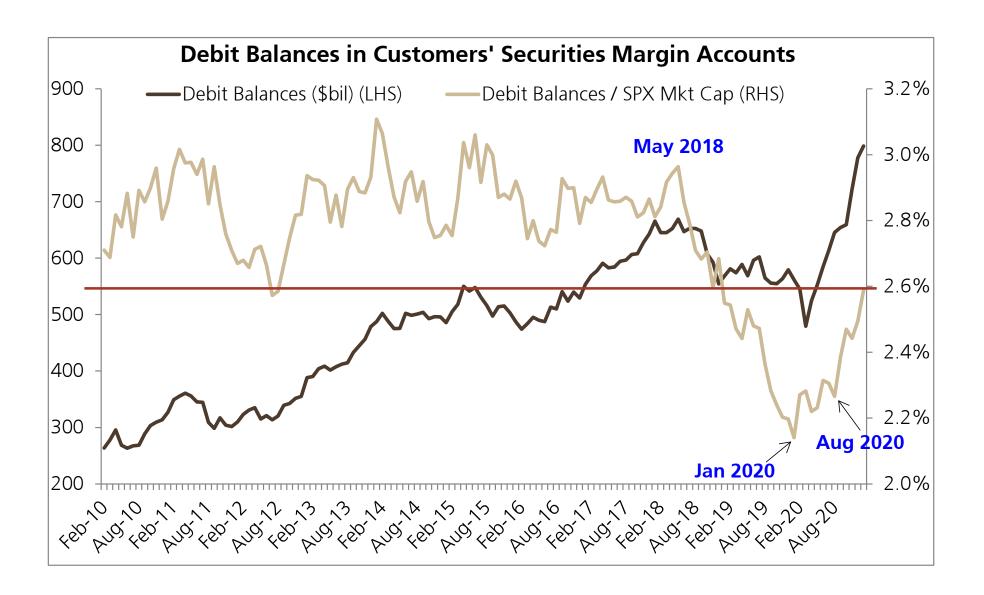


#### Retail Influence #2: Rise in Retail Volume Market Shares



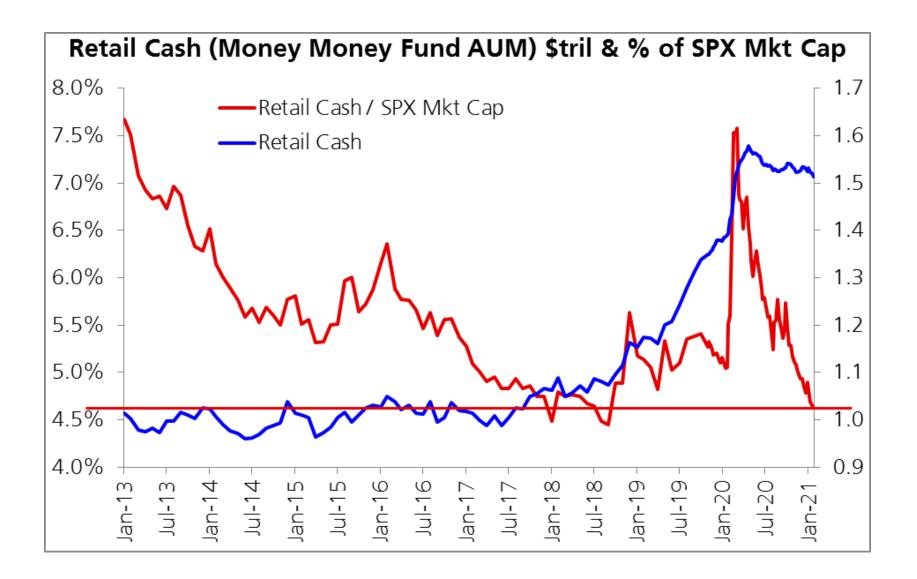


### Retail Influence #3a: Rising Leverage



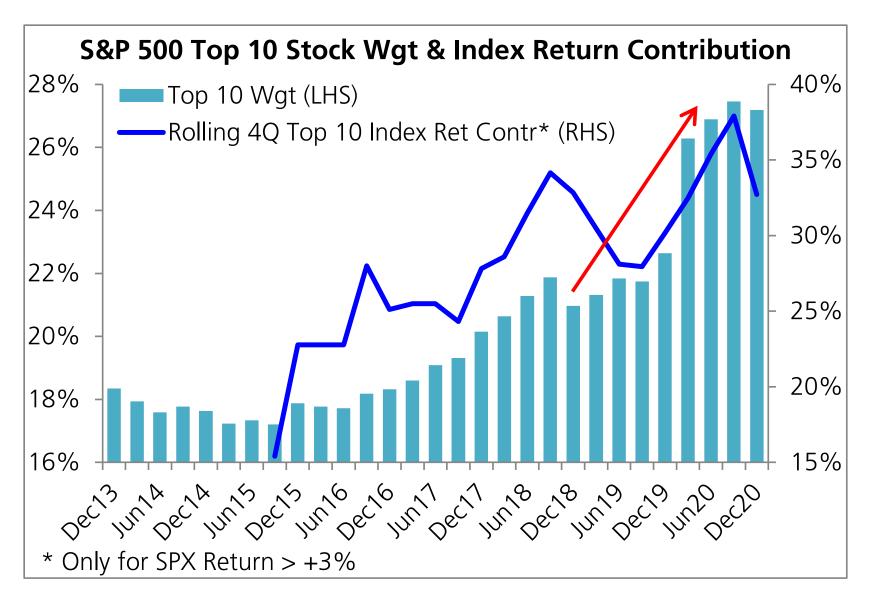


### Retail Influence #3b: Falling Cash %





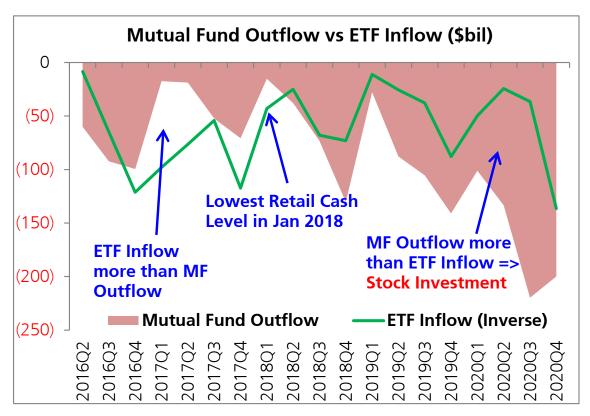
### Retail Influence #4: Top Stock Dominance





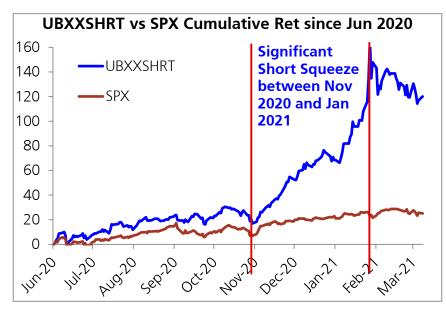
#### Retail Influence #3 & 4: MF Outflows -> ETF & Stock Inflows

	MF	ETF	ETF %	
Qtr	Outflow	Inflow	of MF	
2019Q1	(27,731)	11,154	40%	
2019Q2	(87,810)	25,585	29%	
2019Q3	(105,416)	37,830	36%	
2019Q4	(140,983)	87,925	62%	
2020Q1	(101,150)	49,732	49%	Strong Stock
2020Q2	(133,497)	24,374	18%	Buying in
2020Q3	(219,760)	36,558	17%	Q2-Q3
2020Q4	(199,870)	136,331	68%	





#### Retail Influence #5a: Rising Portfolio Influence

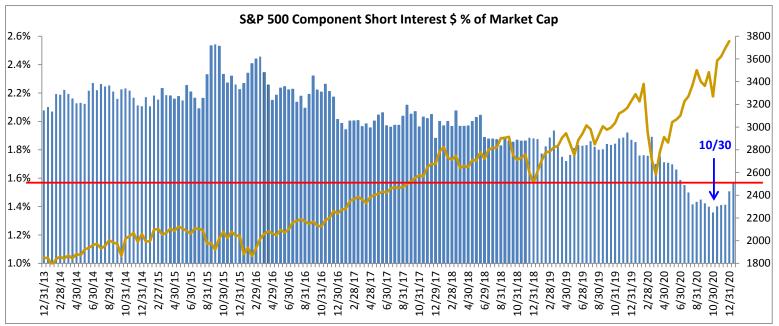


UBXXSHRT +127% b/w 10/30/20 & 1/27/21

Despite S&P 500 Stock SI @ all-time low in Oct 2020

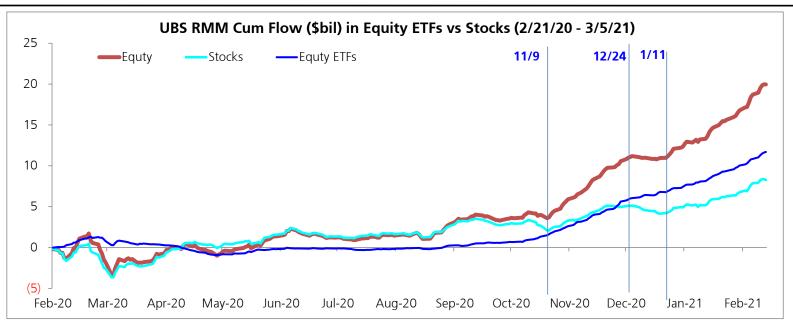
#### **UBXXSHRT Index Methodology**

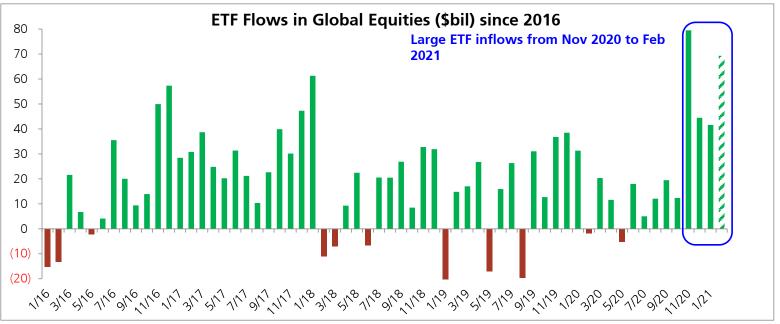
- Equal-weight basket of the 100 stocks in the Russell 3000 with the highest short utilization rate
- We screened for stocks with > \$1bn market cap



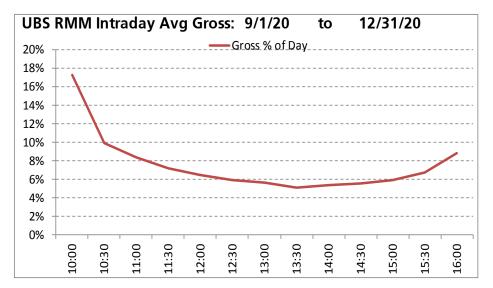


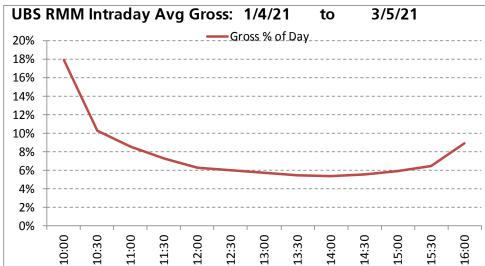
### Retail Influence #5b: ETF buying boosts Portfolio buying indiscriminately

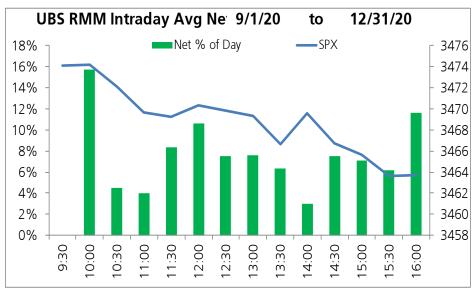


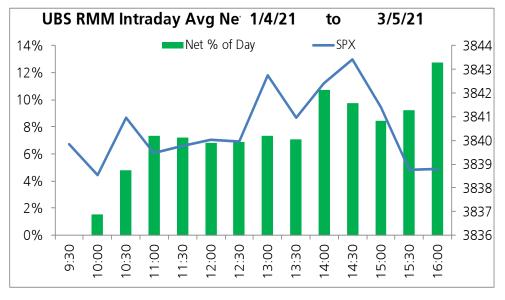


### Retail Influence #6a: Volatile Open + Buy the Dip



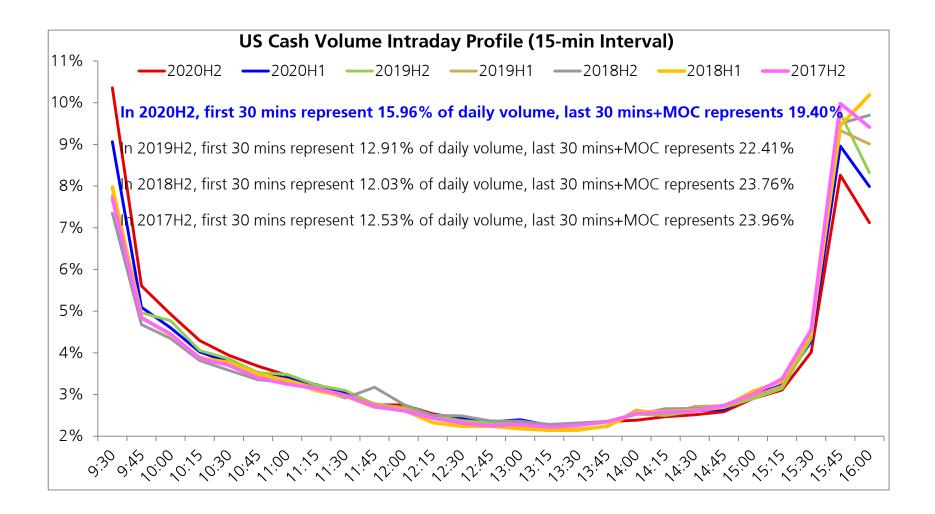








### Retail Influence #6b: Volatile Open + Buy the Dip

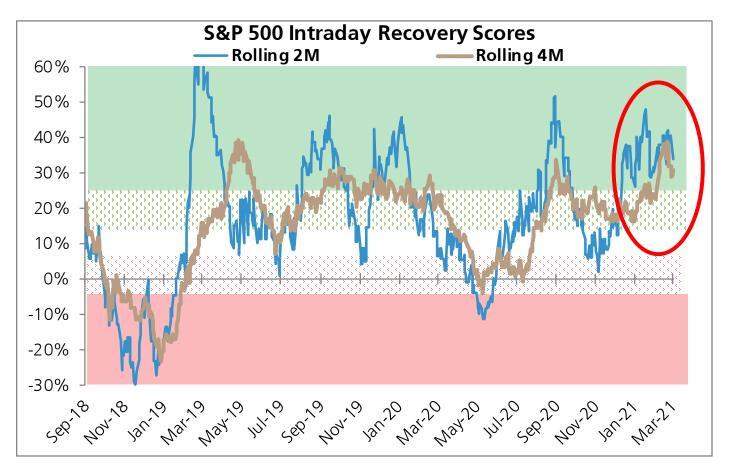




# Retail Influence #7: Retail Buying -> High Intraday Recovery Score

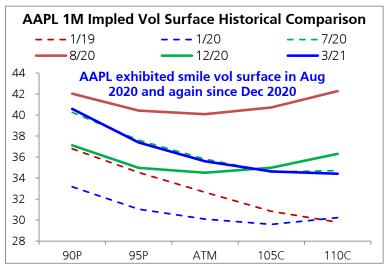
Intraday Recovery Scores have been strong with 2M > 25% since mid-Dec and 4M > 25% since mid-Jan

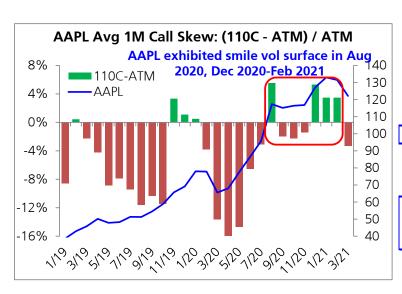
Both are currently high @ 34% & 31% respectively





# Retail Influence #8: Upside Demand causes Option "Smile" Volatility Surface



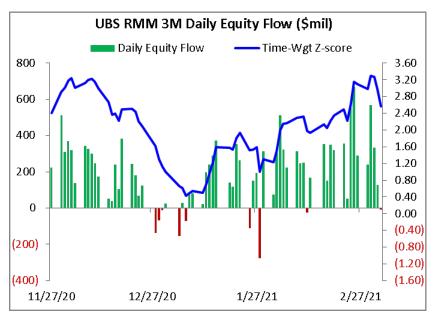


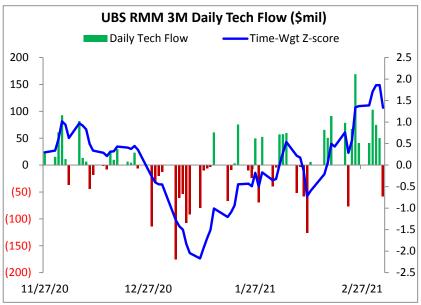
#### S&P 500 Top 12 Stock 110% Call Skew

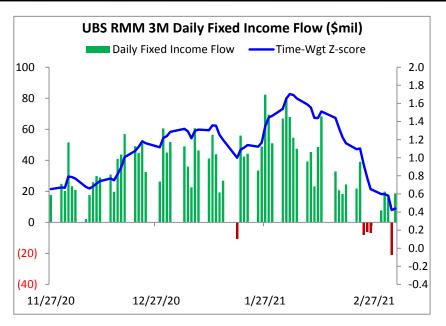
			ATM)	/ ATM I	V									
Month	SPY	Top 12	AAPL	MSFT	AMZN	FB	GOOGL	GOOG	BRK/B	JNJ	PG	V	TSLA	JPM
1/19	260.1	-9%	-9%	-13%	-7%	-8%	-11%	-10%	-4%	-9%	-7%	-12%	-7%	-13%
2/19	275.2	-5%	0%	-8%	-3%	-4%	-3%	-3%	-1%	-7%	-6%	-8%	-7%	-7%
3/19	280.0	-6%	-2%	-9%	-4%	-7%	-6%	-6%	0%	-7%	-3%	-10%	-8%	-10%
4/19	289.8	-6%	-4%	-7%	-5%	-5%	-6%	-6%	-1%	1%	-5%	-7%	-6%	-9%
5/19	285.3	-9%	-9%	-9%	-9%	-9%	-9%	-9%	-1%	-5%	-6%	-15%	-8%	-14%
6/19	289.0	-8%	-8%	-9%	-8%	-8%	-7%	-8%	-2%	-9%	-2%	-12%	-5%	-13%
7/19	299.0	-6%	-9%	-5%	-6%	-7%	-5%	-5%	1%	-2%	-8%	-7%	-6%	-11%
8/19	289.6	-13%	-12%	-15%	-14%	-12%	-15%	-15%	-4%	-5%	-9%	-16%	-9%	-20%
9/19	298.1	-9%	-10%	-13%	-9%	-9%	-14%	-13%	-4%	-6%	-9%	-8%	-7%	-14%
10/19	297.1	-9%	-11%	-9%	-6%	-8%	-12%	-12%	-4%	-4%	-9%	-11%	-5%	-15%
11/19	310.3	-2%	3%	0%	9%	-2%	-6%	-7%	4%	-3%	-5%	-3%	1%	-6%
12/19	317.5	-2%	1%	0%	10%	-5%	-9%	-9%	0%	-9%	-8%	-3%	-1%	-1%
1/20	327.0	-5%	1%	-4%	2%	-6%	-7%	-7%	-2%	-8%	-8%	-2%	0%	-5%
2/20	327.4	0%	-4%	4%	5%	-4%	1%	0%	2%	-2%	-8%	1%	2%	-9%
3/20	264.8	-15%	-14%	-15%	-15%	-14%	-15%	-15%	-22%	-14%	-14%	-16%	-5%	-13%
4/20	275.4	-12%	-16%	-12%	-4%	-13%	-14%	-14%	-15%	-11%	-12%	-19%	-1%	-9%
5/20	291.7	-11%	-15%	-14%	-1%	-11%	-15%	-15%	-11%	-9%	-5%	-18%	-1%	-8%
6/20	310.2	-6%	-7%	-8%	0%	-6%	-11%	-11%	-1%	-5%	-5%	-12%	1%	-3%
7 <i>/</i> 20	320.0	-2%	-3%	-4%	3%	-5%	-3%	-3%	2%	-1%	14%	-4%	1%	-1%
8/20	338.7	3%	6%	1%	4%	0%	-6%	-6%	14%	9%	21%	4%	2%	1%
9/20	336.0	-2%	-2%	-3%	-3%	-5%	-9%	-9%	9%	-2%	6%	-4%	1%	0%
10/20	341.0	-3%	-2%	-7%	-1%	-4%	-6%	-6%	5%	-2%	1%	-5%	0%	-5%
11/20	354.4	0%	-1%	-3%	0%	-5%	-6%	-5%	12%	2%	0%	1%	1%	-1%
12/20	368.9	2%	5%	0%	5%	-1%	-5%	-3%	15%	11%	7%	2%	0%	1%
1/21	378.2	1%	3%	0%	1%	-2%	-3%	-3%	13%	8%	4%	2%	1%	1%
2/21	387.5	2%	3%	-1%	3%	0%	1%	1%	17%	17%	10%	5%	-3%	0%
3/21	383.3	-4%	-3%	-8%	-5%	-5%	-8%	-7%	13%	13%	4%	7%	-4%	4%

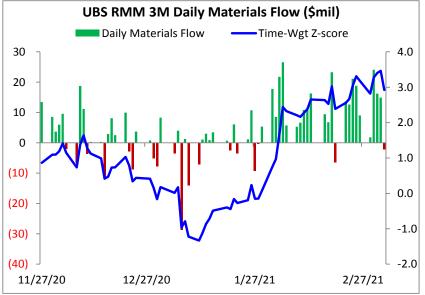


### **UBS RMM Flows in Equity vs Fixed Income**



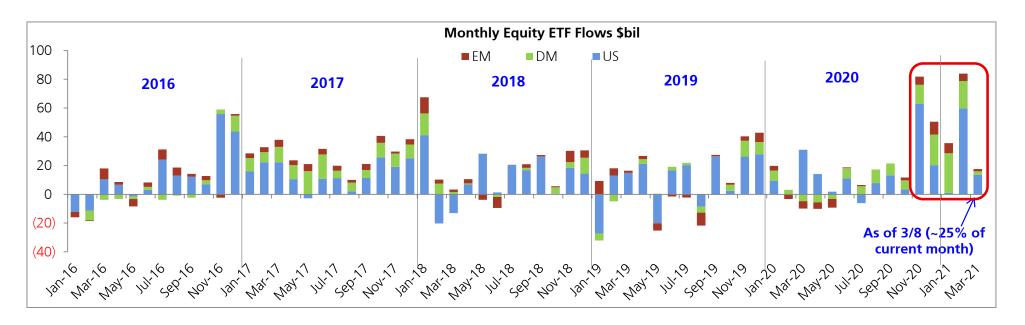


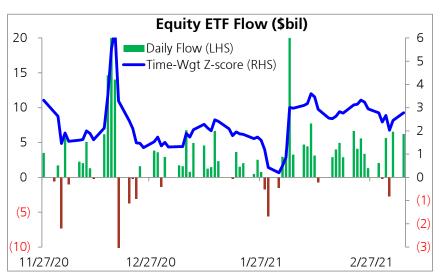


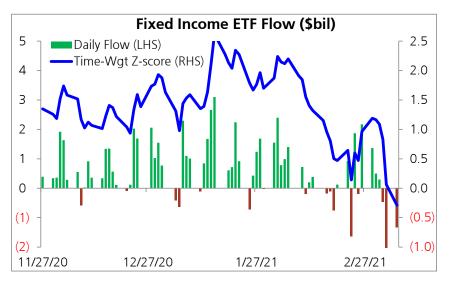




# Equity ETF Flows in Equity vs Fixed Income









# **Other Factors**



# **US Pension Rebalancing Estimate**

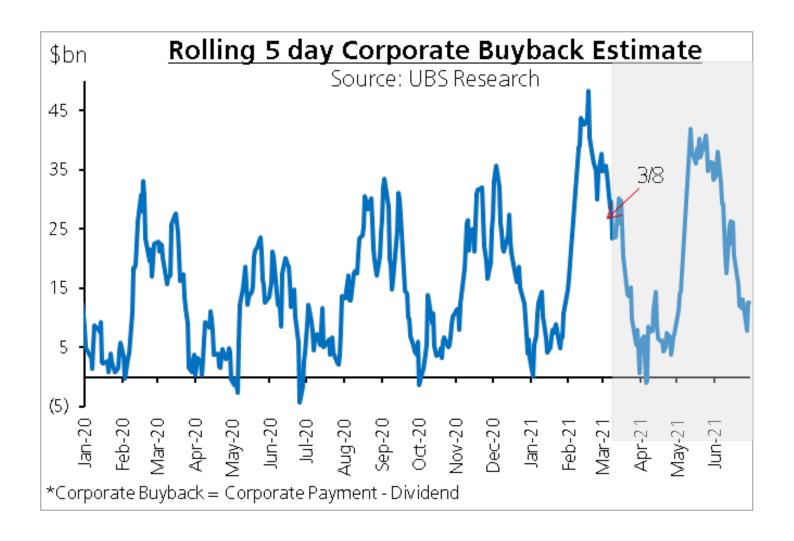
**US Pensions Rebalancing Estimate in \$B (as of Mar 8, 21)** 

OST CHISIONS REDUIENING ESTIMATE III SE (AS OT WAI O, E I)												
	US Public Pensions						US Corporate Pensions					
Estimated AUM	\$	5,067					\$	3,363				
	US	US			US		US	US			US	
	Large	Small	DM	EM	Bonds	Oth	Large	Small	DM	EM	Bonds	Oth
Target Weight	35%	5%	10%	5%	25%	20%	35%	5%	10%	5%	25%	20%
Proxy Index	SPX	RTY	EFA	EEM	TLT/AGG		SPX	RTY	EFA	EEM	AGG	
MTD Total Ret	1.2%	1.1%	0.8%	-2.4%	-2.2%		1.2%	1.1%	0.8%	-2.4%	-1.0%	
QTD Total Ret	2.9%	12.8%	2.3%	1.5%	-7.7%		2.9%	12.8%	2.3%	1.5%	-3.3%	
Pre-rebal Mth Wgt	35.5%	5.1%	10.1%	4.9%	24.5%		35.3%	5.0%	10.1%	4.9%	24.7%	
Pre-rebal Qtr Wgt	36.0%	5.6%	10.2%	5.1%	23.1%		35.5%	5.6%	10.1%	5.0%	23.8%	
Rebal Mth \$	(5.8)	(0.8)	(1.2)	1.4	6.4		(2.8)	(0.4)	(0.5)	1.1	2.6	
Rebal Qtr \$	(12.7)	(8.1)	(2.8)	(0.9)	24.5		(4.3)	(4.8)	(0.7)	(0.0)	9.8	
Rebalancing \$bil	(18.5)	(8.8)	(4.1)	0.5	31.0		(7.1)	(5.1)	(1.2)	1.1	12.4	
	(31.0) ←					(43.4)		>(12	2 4)			

Triggered Rebalancing Gl Eq: (6.5) => ME: (6.5) Wkly: 0.0

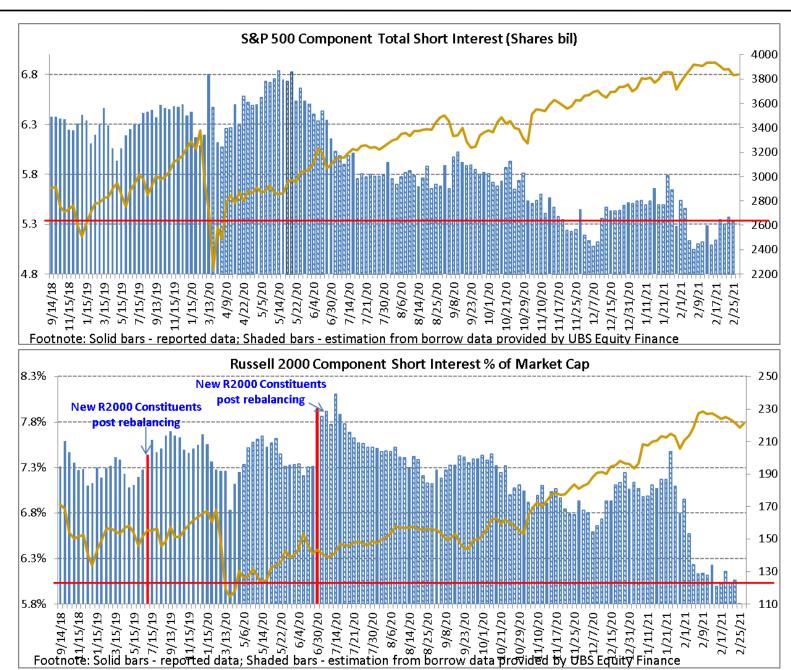


# **Corporate Buyback Seasonality**

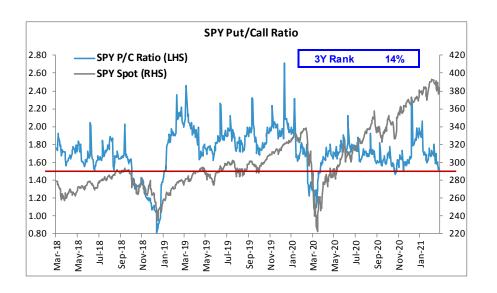


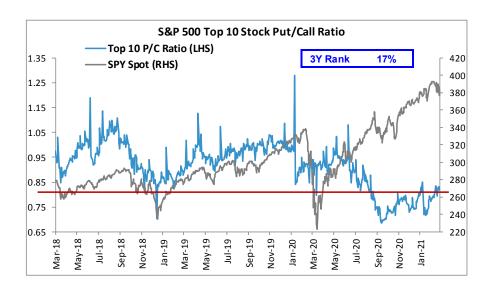


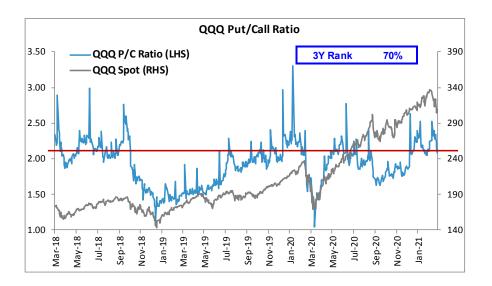
## Low Stock Short Interest

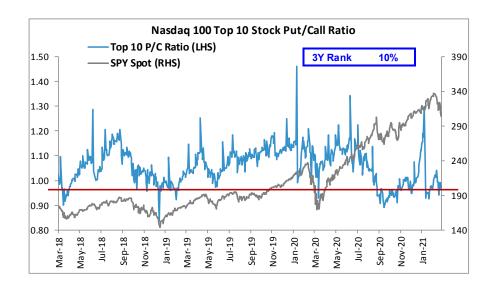


# Option Put/Call Ratio



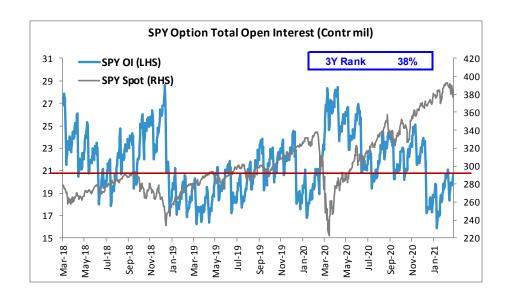


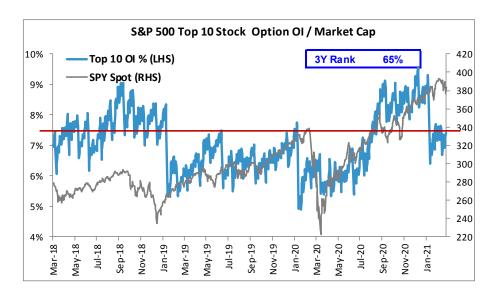


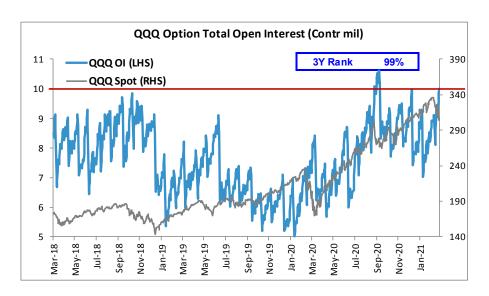


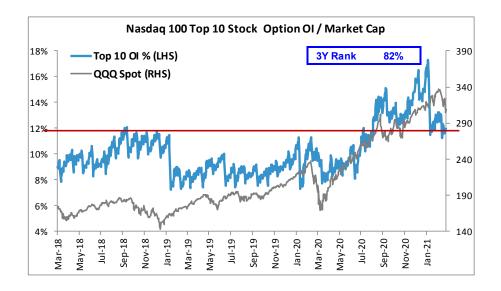


# **Option Gamma**











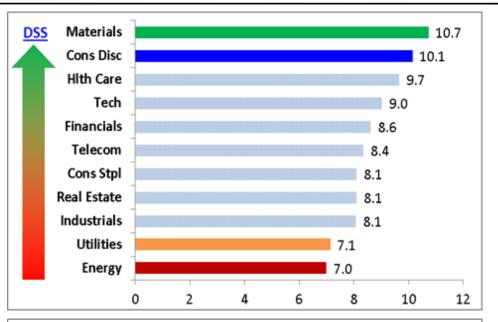
# **Dynamic Sector Score (DSS)**

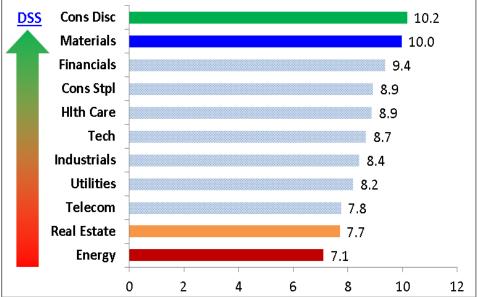


# Dynamic Sector Score (DSS)

	2/25/21					
Sector	DSS	Rank	Signal	How	Hedge	Gamma
Energy	7.0	11	1.8	3.2	0.1	1.8
Tech	9.0	4	3.3	2.8	1.5	1.5
Financials	8.6	5	2.5	2.5	1.8	1.8
Industrials	8.1	9	2.8	3.2	0.3	1.8
Materials	10.7	1	2.5	4.5	1.3	2.5
Cons Disc	10.1	2	3.0	3.5	0.7	3.0
Real Estate	8.1	8	2.0	2.7	0.6	2.8
Telecom	8.4	6	2.8	2.0	2.3	1.3
Hith Care	9.7	3	2.4	3.0	1.4	2.8
Cons Stpl	8.1	7	1.6	1.8	2.1	2.6
Utilities	7.1	10	1.9	2.2	0.9	2.1

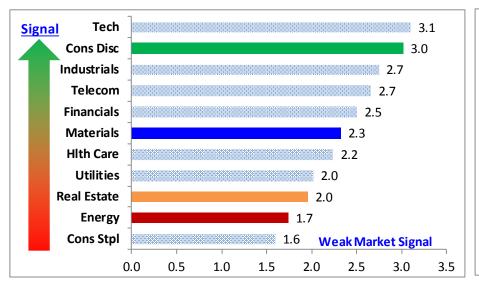
	3/3/21					
Sector	DSS Rank		Signal	Flow	Hedge	Gamma
Energy	7.1	11	1.7	2.3	1.4	1.6
Tech	8.7	6	3.1	2.2	1.5	1.9
Financials	9.4	3	2.5	3.2	2.1	1.6
Industrials	8.4	7	2.7	3.5	1.0	1.2
Materials	10.0	2	2.3	3.7	1.6	2.4
Cons Disc	10.2	1	3.0	2.6	1.3	3.3
Real Estate	7.7	10	2.0	2.1	1.1	2.6
Telecom	7.8	9	2.7	1.8	1.4	1.9
HIth Care	8.9	5	2.2	2.7	1.4	2.5
Cons Stpl	8.9	4	1.6	2.1	2.6	2.7
Utilities	8.2	8	2.0	2.6	1.6	2.0

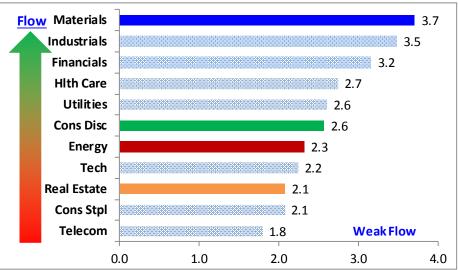


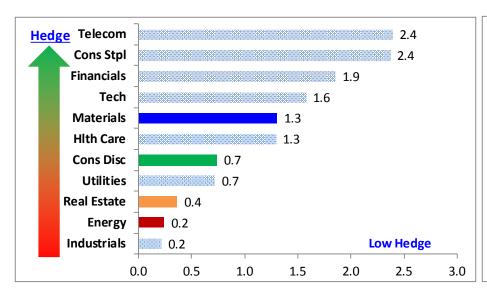


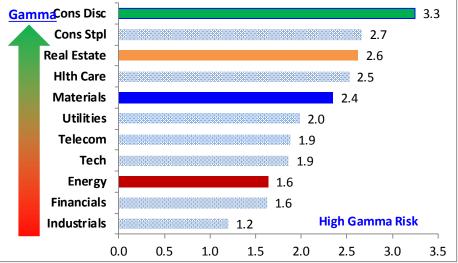


## **DSS Components**











# Market Internal Dynamic Model – US Sector

### **Market Signals**



	<u>Flo</u>	<u>W</u>	
Excess Flow	ETF Flow	UBS RMM Flow	UBS PB Impl Trading

	reatured Sectors							
Start	Bull	Bear						
Deriv Conf (10/21)	Energy, Materials	Industrials, Utilities						
10/23/20	Energy							
10/29/20		Industrials						
12/3/20		Technology						
12/18/20	Financials							
2/8/21	Materials							
2/25/21	Consumer Discretionary							

Eastured Costors

### **Positioning (Hedges)**









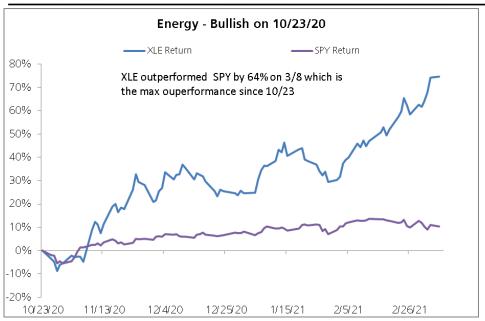
#### **Short Gamma Risk (HF / Systematic / Option / ETF)**

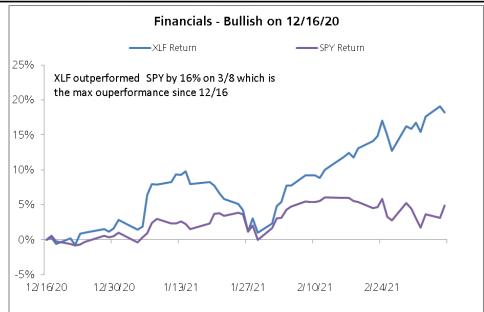


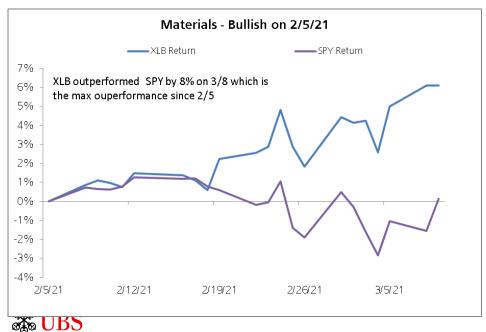
Momentum Exposure Option Total OI (Gamma Proxy) Leveraged and Inverse Equity ETFs

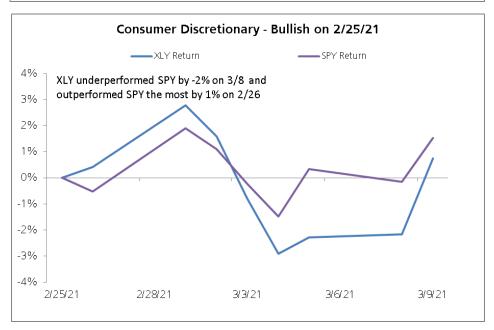


### **DSS Bullish Recommendations**









# Dynamic Sector Score (DSS) – Market Signals Pillar

									Mark	et Signa	al				
				Intrada	ay Rec	overy	Score	Sto	ock %	> 50D N	ЛΑ	RSI 14-Day			
	3/3	/21		Bull/	Sco	ore		Bull/	<20	or >80		Bull/	<30	or > 70	
Sector	DSS	Rank	Signal	Bear	2M	4M	Start	Bear	Cur	Last 2W	Start	Bear	Cur	Last 2W	Start
Energy	5.9	11	1.7		27	8			100				67	71	2/23
Tech	8.8	5	3.1	Bull	<b>25</b>	<b>25</b>	12/24		47				41		
Financials	9.1	3	2.5	Bull	20	22	2/25		89				<b>67</b>	78	2/24
Industrials	7.6	8	2.7		29	11			<b>70</b>				<b>61</b>	70	2/24
Materials	9.7	1	2.3		19	9			<b>57</b>				<b>53</b>		
Cons Disc	9.6	2	3.0		22	34			<b>62</b>				<b>36</b>		
Real Estate	7.0	10	2.0	Bear	0	(8)	3/1		<b>67</b>				38		
Telecom	8.7	6	2.7		<b>25</b>	16			<b>65</b>				<b>50</b>		
HIth Care	8.8	4	2.2		(10)	(3)			29				<b>37</b>		
Cons Stpl	8.7	7	1.6	Bear	(35)	(18)	2/2		38			Bull	33	28	2/26
Utilities	7.3	9	2.0	Bear	(19)	(22)	2/1		7	7	2/26		34	28	2/26



# Dynamic Sector Score (DSS) – Flow Pillar

					Exponentially Time Wgt Flow (\$mil)										
					Excess			ETF		ι	JBS RMI	VI	UBS PB		
	3/3	/21			2W	3Y Z-		2W	3Y Z-		2W	3Y Z-		2W	1Y Z-
Sector	DSS	Rank	Flow	3/3	Ago	score	3/3	Ago	score	3/3	Ago	score	3/3	Ago	score
Energy	5.9	11	2.3	\$0.0	\$0.2	(0.0)	(\$352)	\$40	(3.6)	\$8	\$7	0.9	(\$1)	(\$2)	(0.2)
Tech	8.8	5	2.2	(\$2.5)	(\$1.0)	(1.5)	(\$2)	\$53	(0.0)	\$50	\$2	1.9	(\$20)	(\$9)	(1.2)
Financials	9.1	3	3.2	(\$0.5)	(\$0.4)	(0.7)	\$293	\$85	2.8	\$8	\$4	0.6	\$1	(\$2)	0.2
Industrials	7.6	8	3.5	\$0.3	(\$0.2)	0.2	\$82	(\$19)	1.5	\$15	\$5	1.3	\$1	(\$7)	0.1
Materials	9.7	1	3.7	\$0.0	(\$0.1)	(0.2)	\$49	(\$8)	1.4	\$13	\$9	3.4	\$3	\$3	1.2
Cons Disc	9.6	2	2.6	(\$6.5)	\$0.3	(1.1)	(\$2)	\$44	(0.0)	\$23	\$7	1.3	\$1	(\$6)	0.1
Real Estate	7.0	10	2.1	(\$0.4)	\$0.1	(1.7)	(\$2)	\$77	(0.0)	\$7	\$7	1.6	(\$4)	(\$9)	(1.2)
Telecom	8.7	6	1.8	(\$0.4)	(\$0.1)	(1.3)	\$36	\$23	1.2	(\$5)	(\$22)	(0.4)	(\$16)	\$2	(1.9)
HIth Care	8.8	4	2.7	(\$1.2)	(\$0.6)	(2.0)	(\$28)	(\$34)	(0.3)	\$26	\$18	1.5	\$8	\$0	1.6
Cons Stpl	8.7	7	2.1	(\$0.3)	(\$0.3)	(1.0)	(\$47)	(\$89)	(1.2)	\$7	\$2	0.7	\$1	(\$5)	0.1
Utilities	7.3	9	2.6	(\$0.2)	(\$0.1)	(1.8)	\$10	(\$65)	0.3	\$8	\$2	2.3	(\$0)	\$3	(0.1)



# Dynamic Sector Score (DSS) – Hedge Positioning Pillar

						Не	edge P	ositionir	ng		
				Top St	k P/C^	ETF	P/C	Stock SI	Shrs^^	ETF SI/	Shrs %
	3/3/21				3 <b>Y</b>		3 <b>Y</b>		3Y		3Y
Sector	DSS	Rank	Hedge	3/3	Rnk	3/3	Rnk	2/25	Rnk	2/12	Rnk
Energy	5.9	11	0.2	0.63	3	0.47	2	460	13	8	1
Tech	8.8	5	1.6	0.80	19	1.46	<b>37</b>	910	<b>28</b>	4	42
Financials	9.1	3	1.9	0.87	54	1.18	31	630	17	9	<b>46</b>
Industrials	7.6	8	0.2	0.71	3	0.97	9	497	1	13	4
Materials	9.7	1	1.3	0.75	<b>27</b>	0.90	10	191	<b>28</b>	16	39
Cons Disc	9.6	2	0.7	0.92	20	0.61	8	672	3	5	<b>28</b>
Real Estate	7.0	10	0.4	0.70	1	1.49	17	254	7	20	4
Telecom	8.7	6	2.4	0.68	1	0.21	7	731	<b>85</b>	3	99
HIth Care	8.8	4	1.3	0.65	4	1.01	2	418	20	11	77
Cons Stpl	8.7	7	2.4	0.68	5	2.07	83	396	20	14	<b>82</b>
Utilities	7.3	9	0.7	0.53	10	1.03	18	182	0	23	30



# Dynamic Sector Score (DSS) – Systematic / Gamma Pillar

				Systematic / Gamma Risk											
				UBS	РВ		M	oment	um E		Top 10 (	OI/Cap	ETF Reba	al/%	
	3/3	/21		Net	1Y	Exp <sup>+</sup>	3Y	9	6	+/- 2%			3 <b>Y</b>	\$mil /	3Y
Sector	DSS	Rank	Gamma	3/3	Rnk	3/3	Rnk	L	S	Buy*	Sell*	3/3	Rnk	1% Move	Rnk
Energy	5.9	11	1.6	0.04	60	2.8	88	100	0			3.4	90	\$37	31
Tech	8.8	5	1.9	0.09	24	4.0	<b>57</b>	67	8	8	17	5.2	<b>73</b>	\$1,311	97
Financials	9.1	3	1.6	0.04	12	4.8	86	100	0			4.2	<b>72</b>	\$225	100
Industrials	7.6	8	1.2	0.15	71	5.1	83	92	0			5.1	74		
Materials	9.7	1	2.4	0.02	<b>73</b>	3.5	80	75	0	8	8	2.1	<b>58</b>	\$40	1
Cons Disc	9.6	2	3.3	0.14	11	2.6	35	42	8		25	10.7	<b>59</b>		
Real Estate	7.0	10	2.6	0.00	2	2.6	<b>56</b>	67	17	8	42	1.0	<b>45</b>	\$15	<b>87</b>
Telecom	8.7	6	1.9	0.13	24	5.8	84	58	8	8	17	2.6	<b>79</b>		
HIth Care	8.8	4	2.5	0.10	<b>59</b>	3.9	58	42	17	17	33	2.0	55	\$51	<b>26</b>
Cons Stpl	8.7	7	2.7	0.07	41	(2.0)	16	17	67	8	8	2.2	83		
Utilities	7.3	9	2.0	0.01	85	(3.1)	8	8	83			1.1	88		



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