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TRIVARIATE RESEARCH

IT'S NOT THE CHANGE IN RATES, IT'S THE PERCEPTION ABOUT THE CHANGE IN RATES

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SUMMARY

The number one investor question over the last year has been about interest rates. Bear-steepening fears first impacted the market a year ago, and following a fantastic second half of 2020, the profitless software and biotechnology companies began to materially lag. At that time, investor sentiment shifted toward value-based stocks potentially outperforming.

Many investors who are predominantly net long hyper growth stocks underperformed last year and year-to-date. The underperformance has gotten to the point of some allocators questioning their exposures to hyper growth. Some money managers with fantastic long-term track records are now performing poorly for a second straight year. For the first time in a decade, we are hearing multiple allocators question whether the performance they got in the last decade was alpha, or just factor betting to this style. Thus, we wanted to take a step back, give our thoughts on the backdrop, and do some new work on interest rates that go beyond the basic measurement of the relationships between historical stock performance and the 10-year yield that we initially did over a decade ago.

We have long thought that what matters to investing is changes to perceptions about growth and changes to perceptions about rates. We continue to believe that since the November "pivot", perceptions about interest rates have changed more than interest rates ultimately will.

In that light, we analyzed the Fed Funds future curves over multiple horizons (6,12,24, etc. months) minus the Fed fund rate as a proxy for changes in perception of interest rates vs. subsequent stock returns.

INVESTMENT CONCLUSIONS

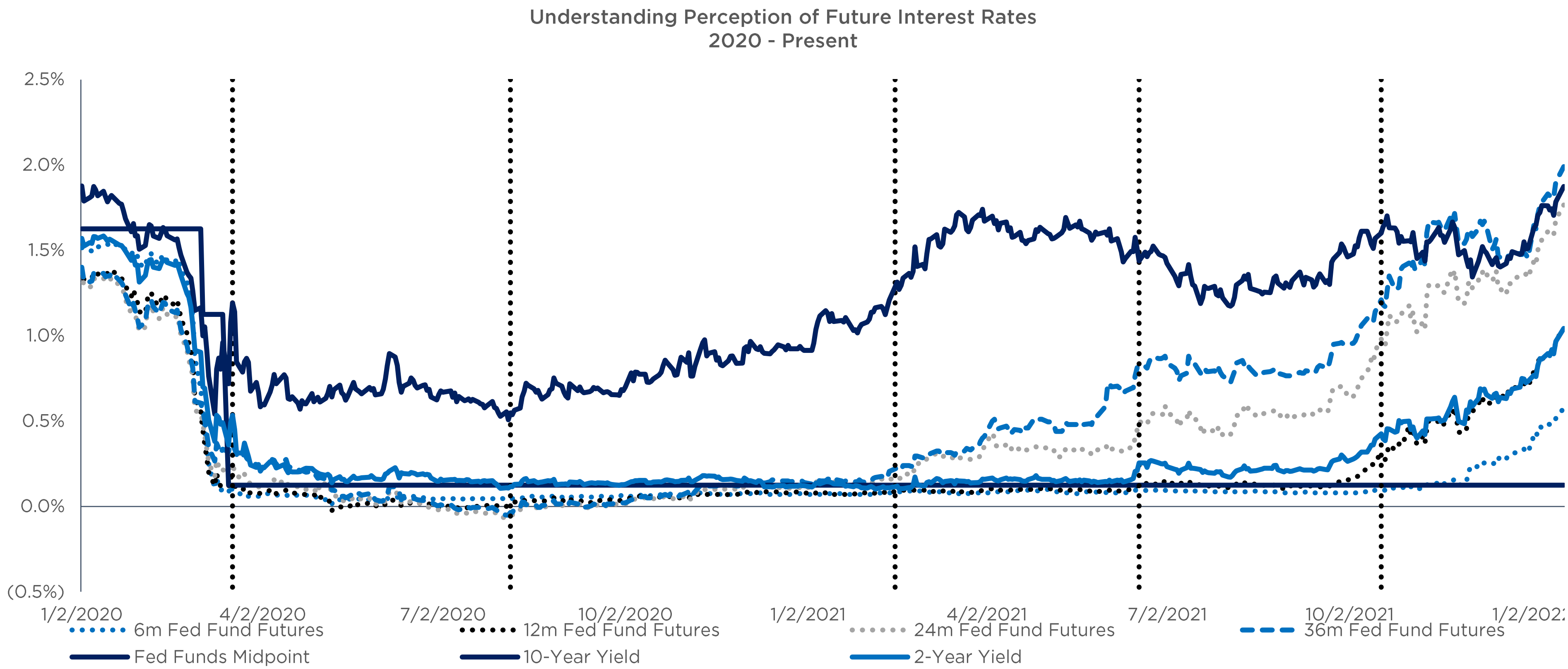
Anticipation of rate hikes leads actual rate hikes. There is not a statistically significant relationship between changes in the level and slope of interest rates (2-year yield, 10-year yield, 10-year minus 2-year yield) and beta-adjusted growth stock returns. However, there is a strong relationship between changes in perceptions about interest rates (the Fed Fund Futures Curve) and growth stock investing, and the current relationship is the most negative it has been since COVID. Therefore, the key to growth stocks working appears to be a moderation in the perception about Fed hawkishness.

Within the growth universe, performance of the software, biotechnology, IT services, and healthcare technology industries all have a statistically significant and negative relationship to changes in perceptions about the Fed Funds rate. While semiconductors have also recently lagged, their performance is not statistically significantly associated with perception about rate changes. Perhaps semis are a good place to look for long ideas.

Among the stocks with a high and significant negative relationship to perceptions about inflation, we think the biotechnology sell-off is overdone, with mid-cap. biotechnology at a ten-year low on relative price-to-sales. Only 15% of all biotechnology companies EVER generate cumulative positive free cash flow and most biotechnology companies that do eventually generate cash take on average five years to do so. Perceptions about Fed Fund futures likely will dramatically change several times in the interim. On the flip side, profitless software stocks seem less justified and rarely work after growth stock sell-offs. For stocks with high and positive relationships to the perception of rising Fed Fund rates, we prefer materials to select staples. Stock ideas are shown on page 10.

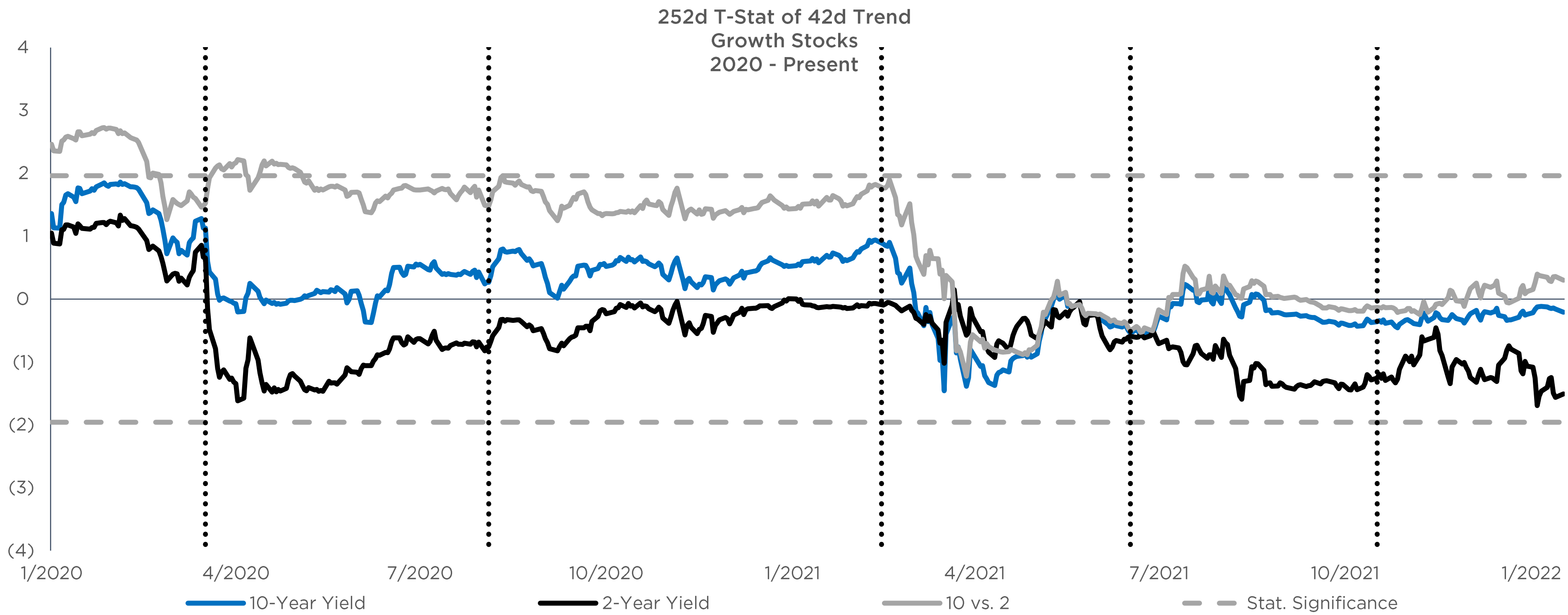
PERCEPTIONS OF INTEREST RATES LED ACTUAL INTEREST RATES

Below, we show the Fed Fund futures moves for 6-,12-,24-, and 36-months over the last two years. The five vertical lines are 3/18/2020 (Initial COVID crash), 8/5/2020 (10-year yield bottoms), 2/15/2021 (longer-term Fed Fund Futures start to rise), 6/18/2021 (longer-term Fed funds slow), and 10/18/21 (an anticipation of the Fed pivot). Perception about Future Fed Funds Rates is clearly distinct from the actual rates (particularly the 24-and 36-month horizons). Said another way, anticipation of rate hikes were reflected more consistently in futures than actual yields.



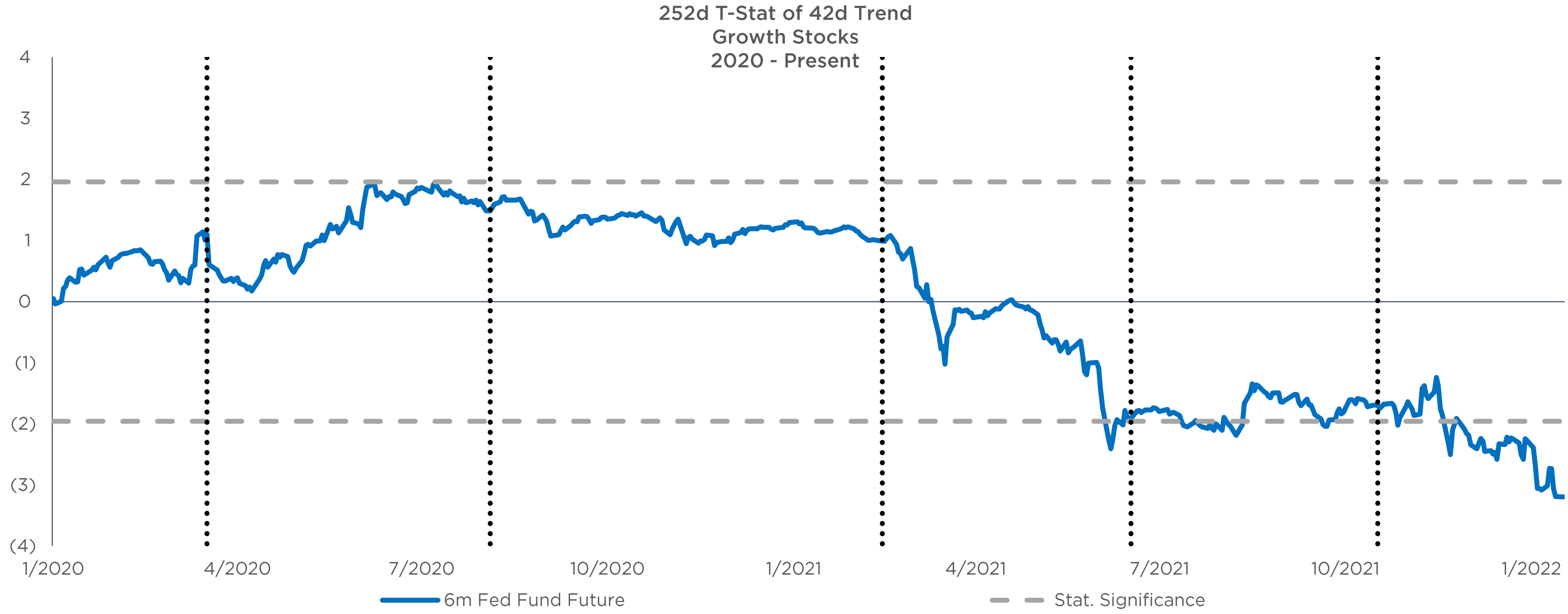
INTEREST RATES DO NOT EXPLAIN GROWTH STOCK PERFORMANCE

We analyzed the T-statistic to assess statistical significance between the performance of growth stocks and the 2-month (42 trading days) trend of the 2-year, 10-year, and 10-year minus 2-year (slope) of interest rates. We used a yearly (252-day trading days) window to evaluate this. There is not much statistical significance in the last year, as the 10-year and slope essentially exhibit no relationship. The 2-year yield is closest to significant negative association but does not quite make it there. Hence, the traditional way people are thinking about this analysis really does not address the issue.



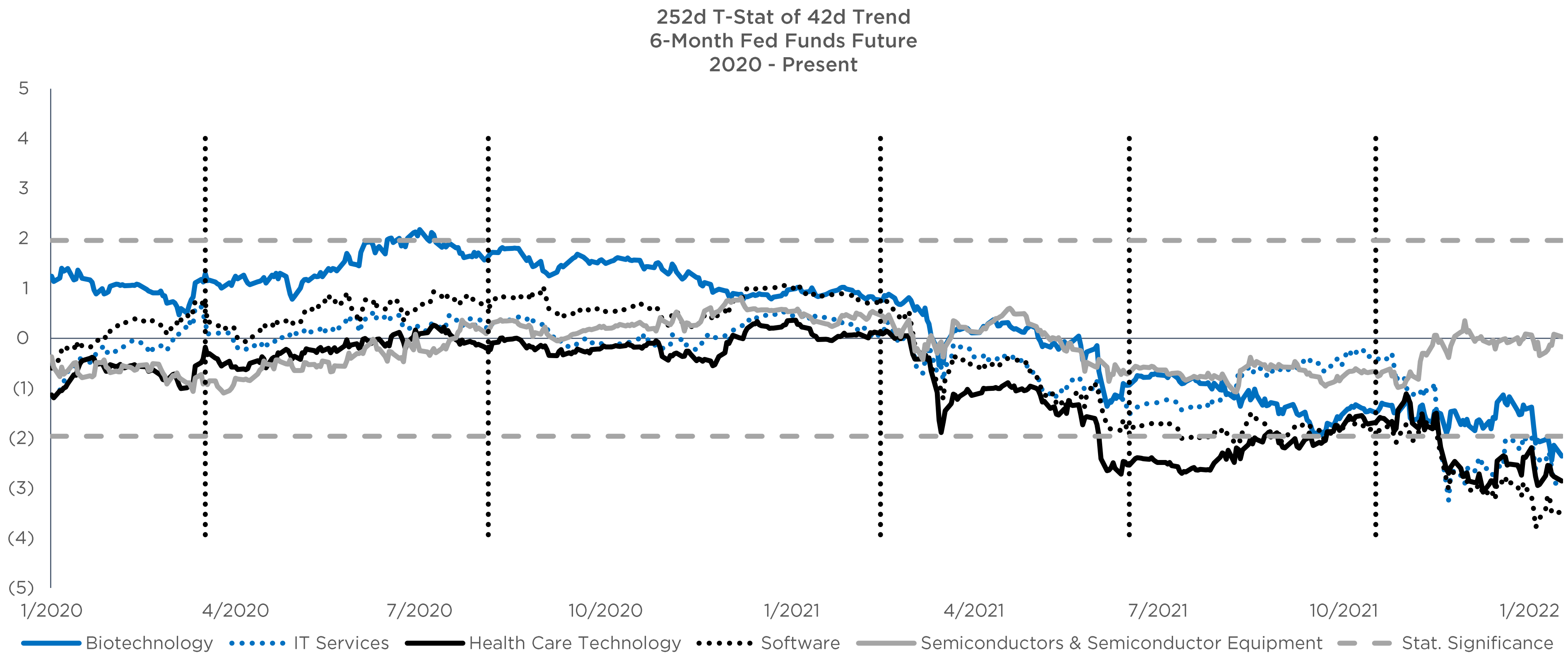
… BUT PERCEPTIONS ABOUT INTEREST RATES DO

What matters far more than actual rates, is changes to perception in rates. Here, the 6-month Fed Futures Curve shows that there has been a statistically significant relationships since late June of 2021. The relationship has intensified since the "Powell Pivot" in Q4 and is now the most negative it has been since COVID. The key to growth stocks working appears to be a moderation in the perception about Fed hawkishness.



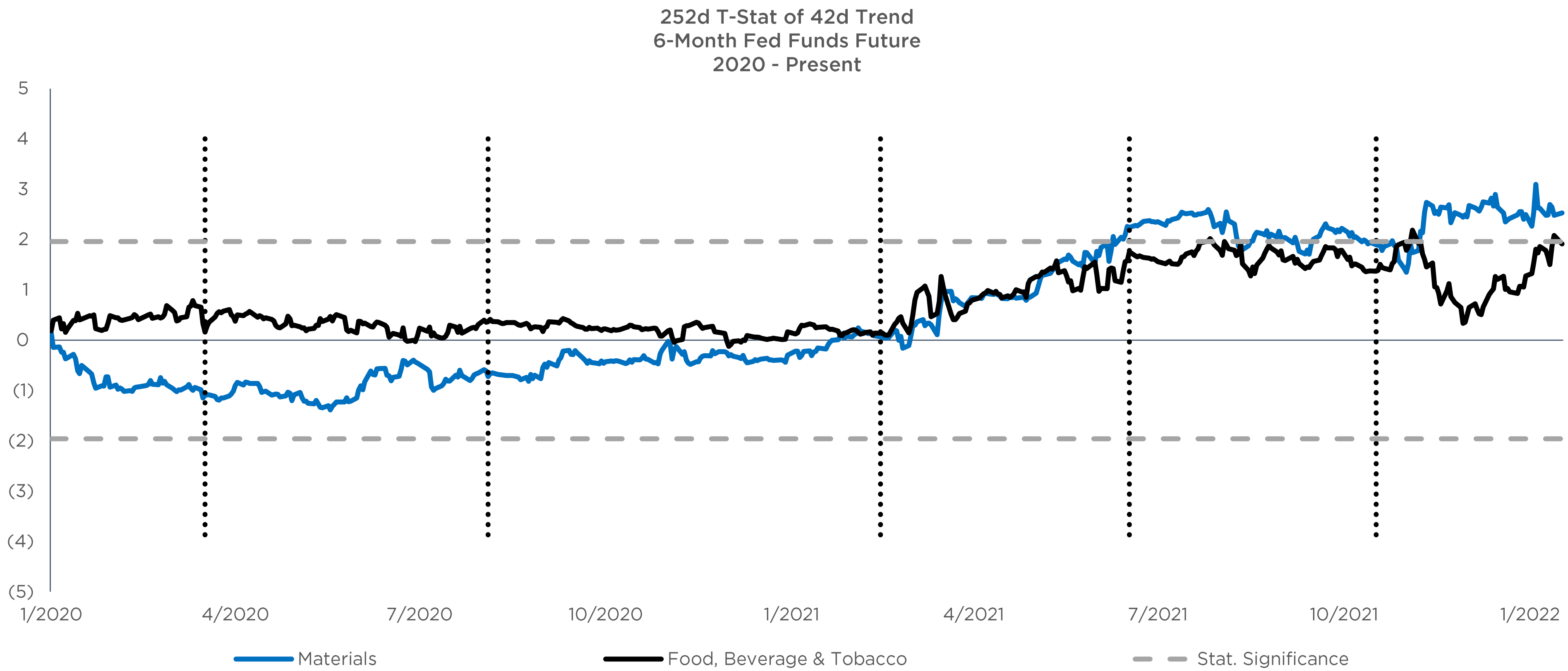
YOU CAN ALSO SEE THIS ESPECIALLY HEALTHCARE AND SOFTWARE

Within the growth universe, performance of the software, biotechnology, IT services, and healthcare technology industries all have a statistically significant and negative relationship to changes in perceptions about the Fed Funds rate. Semiconductors have recently lagged, but performance is not statistically significantly associated with changes to perceptions about rates. If one does not want to express a view on rates, perhaps semiconductors make sense as a place to add “offense”.



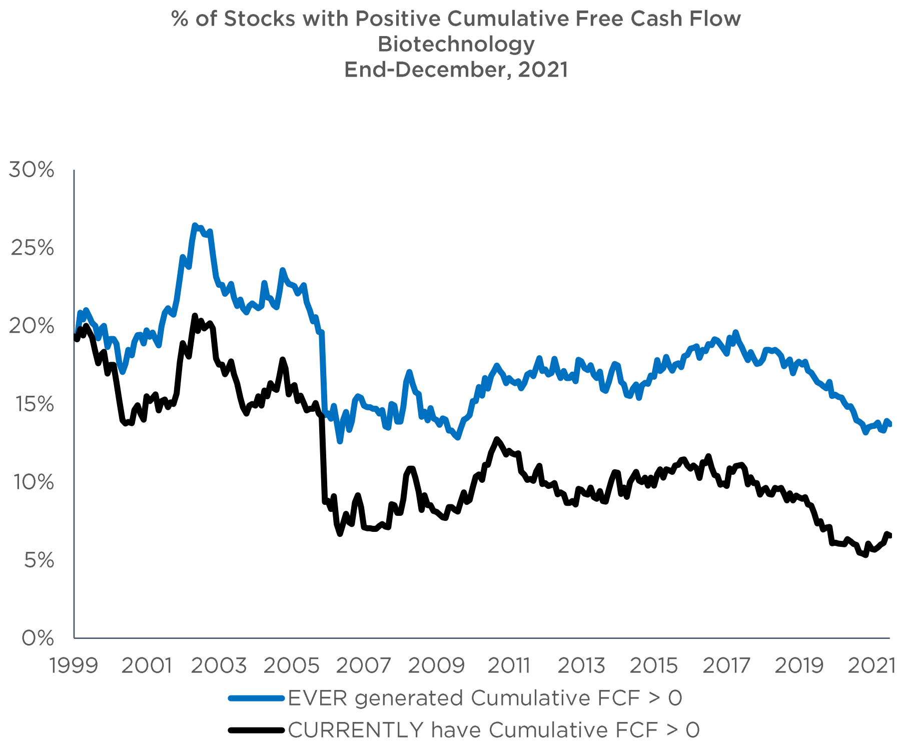
MATERIALS, SELECT STAPLES UP ON PERCEPTION OF HIGHER RATES

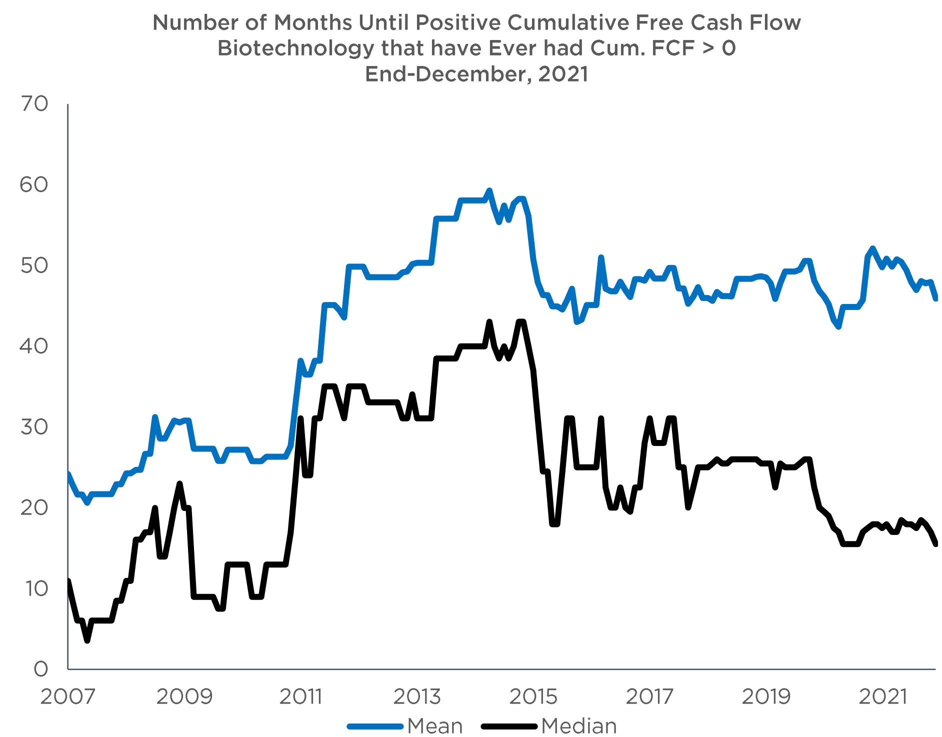
Materials and food, beverages & tobacco are both groups that have a positive and statistically significant relationship to changing perceptions about interest rates over the last six months, though the relationship was closer to zero for 2020.



IS THE BIOTECH SELL-OFF OVERDONE?

We suspect that any perception of dovishness will cause a rebound in the most negatively impacted areas. We think the biotech sell-off is overdone (as we pointed out in our December healthcare note, mid-cap. biotechnology is at a ten-year low on relative price-to-sale after a ~50% correction). First, only 15% of all biotechnology companies EVER generate cumulative positive free cash flow (left chart). So what terminal value is even impaired? The best argument is that these companies will have a higher cost of capital, but that merits a correction of 5-15% at most, not ~50%! If most of the value is in the terminal value, then rising short-term rates shouldn't impair something more than ten years out, as at that point, we will probably be onto the next rate cycle. Secondly, most companies that do eventually generate cash take on average five years to do so – and perceptions about Fed Fund futures likely dramatically change several times in the interim.





BUY MATERIALS & BIOTECH, SHORT STAPLES & SELECT SOFTWARE

The left side of this chart shows ideas with a highly positive (materials) and highly negative (biotechnology) relationship to changes in perceptions about rates. We think these are good areas to look for buy ideas. Select food, beverages, and tobacco (high positive) and profitless software (high negative) would make for a good “perception of rates” barbell.

Short Interest Rate Perception Sensitive
Materials and Biotechnology

Ticker	Company Name	Industry	T-Stat	Market Cap ($ US. Bil)
Materials				
SCCO	Southern Copper Corporation	Metals & Mining	2.19	52.99
DOW	Dow Inc.	Chemicals	2.67	44.52
LYB	LyondellBasell Industries N.V.	Chemicals	2.38	33.37
EMN	Eastman Chemical Company	Chemicals	2.91	17.17
FMC	FMC Corporation	Chemicals	2.65	14.03
RS	Reliance Steel & Aluminum Co.	Metals & Mining	2.77	10.27
CC	The Chemours Company	Chemicals	2.17	5.81
CBT	Cabot Corporation	Chemicals	2.85	3.41
IOSP	Innospec Inc.	Chemicals	2.86	2.42
MTX	Minerals Technologies Inc.	Chemicals	2.26	2.41
KRO	Kronos Worldwide, Inc.	Chemicals	2.48	1.78
CRS	Carpenter Technology Corp	Metals & Mining	2.34	1.54
Biotechnology				
SGEN	Seagen Inc.	Biotechnology	(2.08)	23.82
HZNP	Horizon Therapeutics Public	Biotechnology	(2.02)	20.01
NBIX	Neurocrine Biosciences, Inc.	Biotechnology	(2.19)	7.07
NTRA	Natera, Inc.	Biotechnology	(2.79)	5.78
KOD	Kodiak Sciences Inc.	Biotechnology	(2.75)	3.22
NVTA	Invitae Corporation	Biotechnology	(2.07)	2.54
IOVA	Iovance Biotherapeutics, Inc.	Biotechnology	(2.09)	2.27
TVTX	Travere Therapeutics, Inc.	Biotechnology	(2.23)	1.60
CDMO	Avid Bioservices, Inc.	Biotechnology	(2.08)	1.19
ENTA	Enanta Pharmaceuticals, Inc.	Biotechnology	(2.53)	1.17
CHRS	Coherus BioSciences, Inc.	Biotechnology	(2.41)	1.02

Short Interest Rate Perception Sensitive
Food, Beverage & Tobacco and Profitless Software & Services

Ticker	Company Name	Industry	T-Stat	Market Cap ($ US. Bil)
Food, Beverage & Tobacco				
MO	Altria Group, Inc.	Tobacco	2.01	92.69
MKC	McCormick & Company, Inc.	Food Products	2.55	26.06
TAP	Molson Coors Beverage	Beverages	2.54	11.23
LW	Lamb Weston Holdings, Inc.	Food Products	2.15	9.83
UVV	Universal Corporation	Tobacco	2.67	1.39
Profitless Software & Services				
TWLO	Twilio Inc.	IT Services	(2.11)	36.96
NET	Cloudflare, Inc.	IT Services	(3.36)	30.13
MDB	MongoDB, Inc.	IT Services	(2.78)	25.85
BILL	Bill.com Holdings, Inc.	Software	(2.79)	17.85
CDAY	Ceridian HCM Holding Inc.	Software	(3.64)	12.10
GLOB	Globant S.A.	IT Services	(2.53)	9.87
GWRE	Guidewire Software, Inc.	Software	(2.72)	8.47
APPN	Appian Corporation	Software	(2.12)	3.69
REKR	Rekor Systems, Inc.	Software	(2.17)	0.23
VHC	VirnetX Holding Corp	Software	(2.18)	0.17

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