April 25, 2022 04:04 AM GMT

US Equity Strategy | North America

Weekly Warm-up: Harder to Hide as the Bear Gets Grisly

With defensive stocks now expensive and offering little absolute upside, the S&P500 appears ready to join the ongoing bear market. Defensives can still outperform but it's just a relative trade at this point. Inflation is peaking but that's not bullish, because it means margins & EPS have peaked too.

Harder to hide... Over the past year, equity markets have provided plenty of opportunity to investors who were nimble and traded it with the major averages flat to down. With defensives the latest big outperformer, they are now expensive, leaving very few places to hide. This suggests the S&P500 will finally catch up to the average stock and enter a bear market (-20%).

Defensives still a good *relative* trade, we prefer large cap Pharma/Biotech... Large Cap Pharma & Biotech's defensive attributes make it a consistent outperformer in the type of macro backdrop we expect in 2022—slowing EPS growth, decelerating PMIs and tighter Fed policy. On top of that, it offers a relatively attractive dividend yield at a compelling valuation level. As the US economy moves to a late cycle phase and GDP/earnings growth rates decelerate for the overall economy and market, we think Pharma/Biotech's defensive properties will outweigh policy concern and drive relative performance higher—a dynamic that has started to play out since November of last year. On this score, this morning, we also published a joint note with our Biotech and Pharma analysts, reiterating our OW strategy view on the space (Large Cap Pharma & Biotech: Defensive Exposure at an Attractive Price).

Margin expansion is slowing and companies that are guiding for a 2021 repeat are at risk... We track *incremental* operating margins for a sign of where the profit cycle is heading. Incremental margins peaked in 1Q 2021, which is one of the major reasons we made our mid cycle transition call at that time and downgraded small caps. Since then, we've witnessed a sharp deceleration, supporting our current late cycle view. Looking ahead, consensus expectations are pointing to margins expanding again even though incremental margins are likely to fall further and cost pressures are likely to persist—a poor setup for revisions, in our view.

Highlighting a new episode of our Equities Unplugged podcast... We discuss our expectations for 1Q earnings season, dive into investor pushback and lay out the case for sticking with defensives.

Also in today's note... (1) 1Q earnings synopsis thus far; (2) feedback from our micro/macro roundtable with our industry analysts (demand, pricing, margin, supply trends across industries); and (3) our usual factor/quant update section.

MORGAN STANLEY & CO. LLC

Michael J Wilson
EQUITY STRATEGIST
M.Wilson@morganstanley.com +1 212 761-2532

Andrew B Pauker
EQUITY STRATEGIST
Andrew.Pauker@morganstanley.com +1 212 761-1330

Michelle M. Weaver, CFA
EQUITY STRATEGIST
Michelle.M.Weaver@morganstanley.com +1 212 296-5254

Diane Ding, Ph.D.
QUANTITATIVE STRATEGIST
Qian.Ding@morganstanley.com +1 212 761-6758

Nicholas Lentini, CFA
RESEARCH ASSOCIATE
Nick.Lentini@morganstanley.com +1 212 761-5863

Morgan Stanley does and seeks to do business with companies covered in Morgan Stanley Research. As a result, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of Morgan Stanley Research. Investors should consider Morgan Stanley Research as only a single factor in making their investment decision.

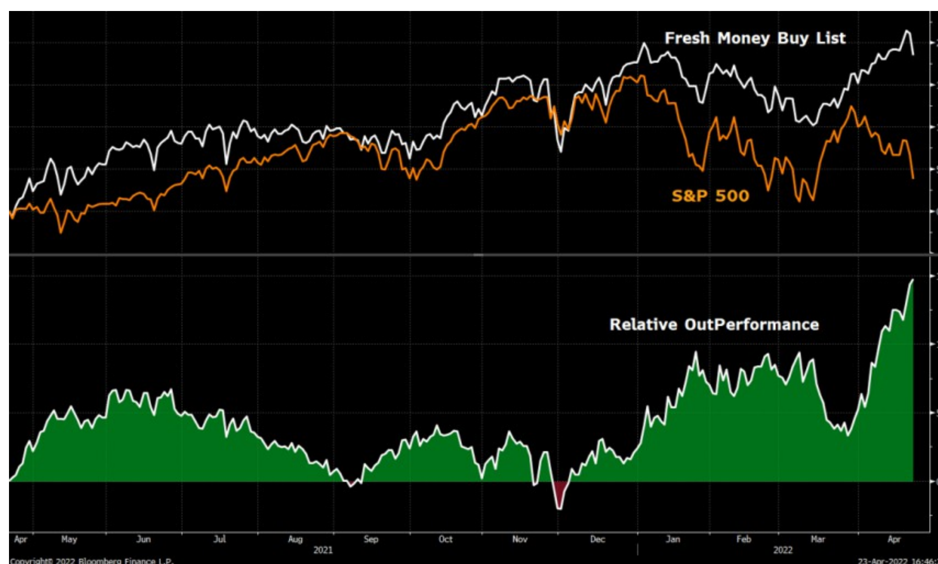
For analyst certification and other important disclosures, refer to the Disclosure Section, located at the end of this report.

What to Focus on This Week

Harder to Hide

Over the past 12 months, the US equity market has provided plenty of opportunity to investors in certain areas even as the major averages have traded flat to down (SPX +2%, DOW -1%, NDX -4%, RTY -15%). However, one needed to be nimble and trade it well. As equity strategists, our primary job is to help clients find the best areas of the market at the right time, since beating the averages is the name of the game. Our sector and style preferences are reflected in our Fresh Money Buy List, which closely follows those recommendations. Over the past 12 months, that list is up nearly 19%, or 15% above the S&P 500 (Exhibit 1).

Exhibit 1: Fresh Money Buy List Has Been Nimble but It's Getting Harder to Find New Opportunities.



Source: Bloomberg, Morgan Stanley Research

Unfortunately, we now find ourselves at a bit of a loss for new ideas. In short, **the market has been so picked over at this point, it's not clear where the next rotation lies. In our experience, when that happens, it usually means the overall index is about to fall sharply with almost all stocks falling in unison.** In many ways this is what we have been waiting for as our Fire and Ice narrative concludes—a fast tightening Fed right into the teeth of a slowdown. While our defensive posture since November has worked well, we can't argue for absolute upside anymore for these groups given the major re-rating they have experienced in both absolute and relative terms, another sign that investors know what's coming and are bracing for it the best they can by hiding in such stocks.

Exhibit 2: Relative Re-ratings Suggest There Isn't Anywhere to Go for Absolute Upside at this Point

Sector	Industry Group (GICS Level 2)	Fwd P/E, 11/15/21	Fwd P/E, 4/22/22	% Change	Relative to S&P, % Change
S&P 500	S&P 500	21.4	18.1	-15%	-
Energy	Energy	11.9	10.0	-15%	0%
Materials	Materials	17.2	15.1	-12%	3%
Industrials	Capital Goods	21.1	18.7	-12%	4%
	Commercial & Professional Services	29.3	25.4	-13%	2%
	Transportation	22.8	16.8	-26%	-11%
Discretionary	Autos & Components	40.9	31.8	-22%	-7%
	Consumer Durables & Apparel	16.9	11.8	-30%	-15%
	Consumer Services	51.5	31.1	-40%	-24%
	Retailing	34.6	27.2	-22%	-6%
Staples	Food & Staples Retailing	24.1	24.6	2%	18%
	Food Beverage & Tobacco	17.9	19.9	11%	27%
	Hosuehold & Personal Products	25.3	26.4	4%	19%
Health Care	HC Equipment & Services	20.6	19.8	-4%	11%
	Pharma, Biotech, & Life Sciences	15.0	14.2	-5%	10%
Financials	Banks	13.3	10.5	-21%	-5%
	Diversified Financials	17.6	16.1	-9%	7%
	Insurance	13.7	14.2	4%	19%
Tech	Semis & Semi Equip	24.0	16.3	-32%	-17%
	Software & Services	33.3	25.2	-24%	-9%
	Tech Hardware & Equipment	23.0	22.0	-4%	11%
Comm	Comm Services	21.6	15.8	-27%	-11%
	Media & Entertainment	25.5	17.5	-31%	-16%
	Telecom	9.8	10.0	3%	18%
Utilities	Utilities	19.4	21.1	9%	25%
Real Estate	Real Estate	23.2	22.3	-4%	11%

*Gray shading used to separate sectors

Source: Factset, Morgan Stanley Research

In our opinion, **the accelerative price action on Thursday and Friday may also support the view we are now moving to this much broader sell-off phase.** We think Friday, in particular, appears indicative of what to expect next—lower beta/defensive stocks outperform but they still go down. Another important signal from the market lately is how poorly Materials and Energy stocks have traded, particularly the former. Some of the reversals in the base metals stocks have been eye popping, with most securing outsized reversal patterns on a weekly basis. **To us, this signifies the market's realization that we are now entering the Ice phase, and that growth will be the primary concern for stocks from here rather than inflation, the Fed and interest rates.**

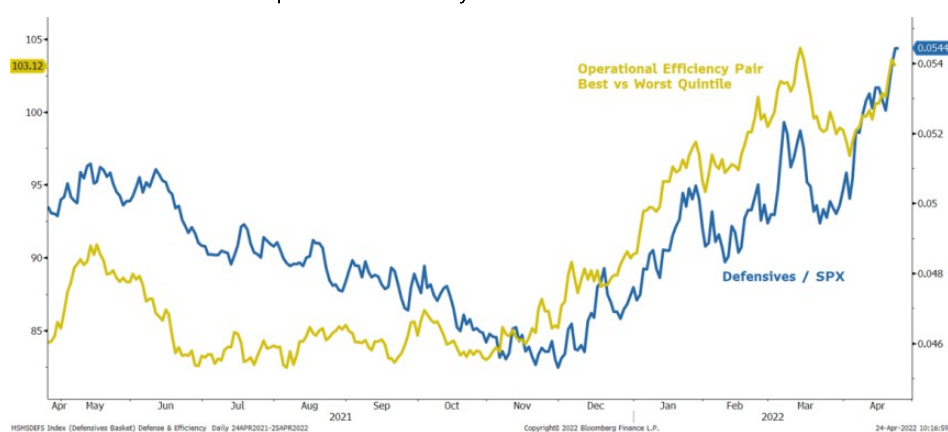
On that note more specifically, **we believe inflation and inflation expectations have likely peaked, and while others have been using this as a bullish argument, we would like to send a clear warning—be careful what you wish for.** There's no doubt that a fall in inflation should take pressure off the back end of the rate curve, which arguably could relieve pressure on valuations for some stocks. The problem is that **falling inflation comes with lower nominal GDP growth and therefore sales and EPS growth**, too. For many companies it could be particularly painful if those declines in inflation are swift and sharp. The move in some of the aforementioned Materials stocks suggest that's exactly what could be in store for commodity prices. In other words, the Energy and Materials names could be in for a period of underperformance after being one of the big winners of 2022.

Of course, **many will argue that a fall in commodity prices will help the consumer.** We don't disagree on the surface of that conclusion, **but pricing has been a big reason why consumer-oriented *stocks* have done so well.** If pricing become less secure, the margin pressure we have been expecting to show up this year may be just around the corner for such stocks even if the consumer remains active, another highly debatable assumption in our view.

The bottom line is that we can't help but think we are at an important inflection point

for inflation, the mirror image of our call in April 2020 to look for higher inflation when we were at the trough of the COVID recession. At that time we suggested inflation would be a big part of the next recovery given the nature of the stimulus—i.e., helicopter money—at a time when supply would be constrained. We thought this would lead to extremely positive operating leverage and earnings growth. Fast forward to today and that's where we are. The question now is will that positive tailwind continue or will it turn into a headwind for earnings growth? Our view is that it will be more of the latter for many sectors and companies and **this is why we have been positioned in defensives and/or stocks with high operational efficiency (Exhibit 3). In other words, the stock market seems to be foreshadowing the peak in inflation and a tougher earnings environment overall.**

Exhibit 3: Defensives and Operational Efficiency Have Been and Remain the Best Places to Be



Source: Bloomberg, Morgan Stanley Research

This all lines up nicely with our hotter but shorter cycle analysis that compares the current period to the immediate post WWII period in the 1940s. As a reminder, the explosive spike in inflation during that era was quickly followed by a sharp decline. **The result was a classic boom/bust that most investors do not seem prepared for even though the stock market internals appear to be strongly signaling that's exactly what's about to happen.** Furthermore, if the stock market is about to experience a more significant decline at the index level during which there are very few places to make positive returns, it will simply feed the disinflationary forces described above. If it gets bad enough, it could even feel deflationary for many segments of the economy where discounting returns. This will show up via margin pressure and earnings misses.

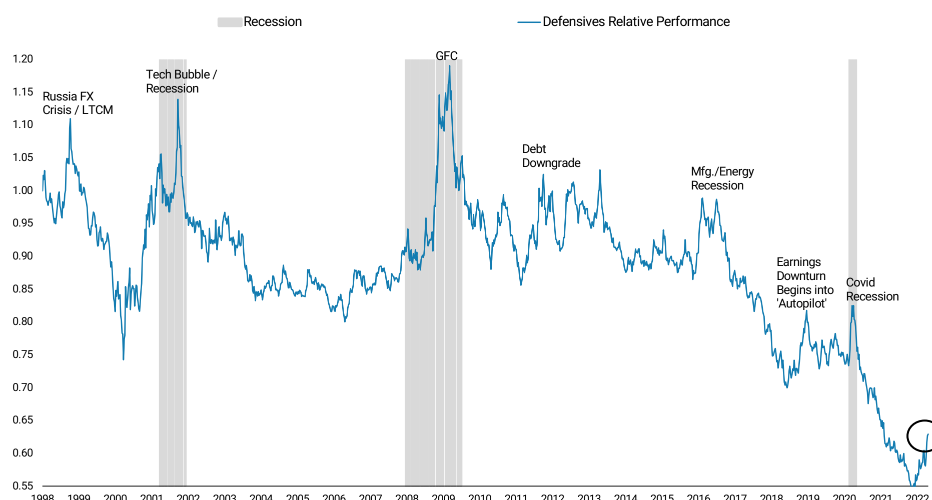
Finally, we anticipate the above commentary may elicit the following question from many—**if inflation and growth is decelerating sharply, doesn't that mean a return to the secular growth companies that can easily carry the overall market? Normally we would say yes, but unfortunately, we think many of the secular growers are also vulnerable now to earnings disappointment due to the pay back in demand for many of the goods and services offered by such companies.** In our view, these companies likely benefitted more than average from the COVID dynamics. Therefore, they will not be immune to the bust in growth as they normally tend to be. In fact, they could be worse off. Keep in mind that the COVID recession was unusual due to the lock-downs and work/stay at home phenomenon. We've said this before but we think **Y2K may offer a good road map on what to expect next. We will be expanding on this analysis in our**

upcoming mid-year outlook but the spoiler alert is a mild recession in technology spending (both consumer and corporate) even as the overall economy avoids one. **This does not bode well for the majority of secular growers that drive the overall index; and it is especially negative for non-profitable ones in our view.**

Lean Toward Large Cap Pharma/Biotech Within Defensives

In recent weeks, **we've gotten a good deal of pushback on our preference for defensives. The main source of pushback has been that they are expensive, which is a very fair point. Our response to that feedback has centered around a couple of main points: (1)** we don't expect defensives to offer much absolute upside from here as we think relative outperformance comes more from cyclicals/the index going down more, **(2)** defensives have a strong track record of outperforming during growth slowdown/scare periods (both inclusive and exclusive of recessions - Exhibit 4); our call is that we avoid a recession this year but that we see a slowdown in earnings revisions/PMIs that is just now in gear (i.e., it's premature to pivot away from defensives in the hope that revisions/PMIs will now reaccelerate as this risk is not yet discounted), and **(3)** our preference within defensives continues to be large cap Pharma/Biotech, an industry that is quite cheap from a valuation standpoint.

Exhibit 4: Defensives Have a Strong Track Record of Outperforming During Growth Slowdown/Scare Periods, Not Just in Recessions

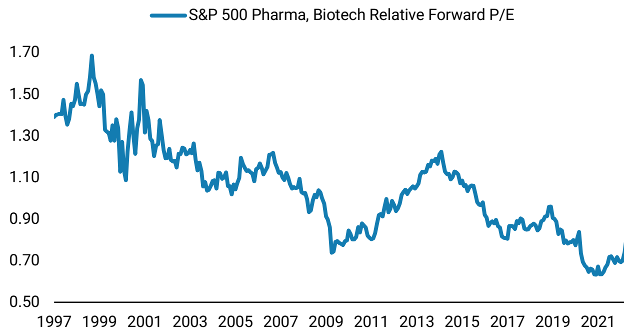


Source: Bloomberg, Morgan Stanley Research.

On the topic of that last point, today, we also published a joint note with our Biotech and Pharma analysts, reiterating our OW view on large cap Pharma/Biotech (Large Cap Pharma & Biotech: Defensive Exposure at an Attractive Price)—summary below, more detail in the note. **Large Cap Pharma & Biotech's defensive attributes make it a consistent outperformer in the type of macro backdrop we expect in 2022**—slowing EPS growth, decelerating PMIs and tighter Fed policy. On top of that, it offers a relatively attractive dividend yield at a compelling valuation level.

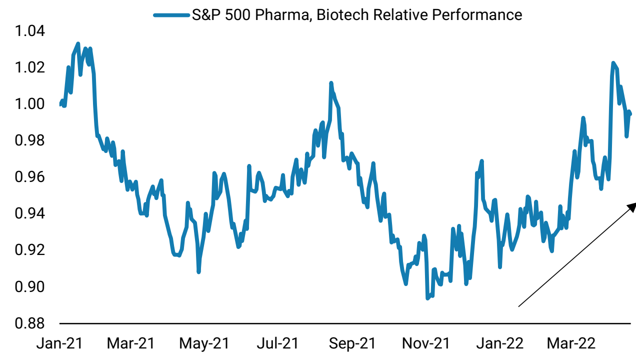
As the US economy moves to a late cycle phase and GDP/earnings growth rates decelerate for the overall economy and market, **we think Pharma/Biotech's defensive properties will outweigh policy concern and drive relative performance higher**—a dynamic that has started to play out since November of last year.

Exhibit 5: Pharma/Biotech Relative Forward Multiple Is Near All-Time Lows



Source: FactSet, Morgan Stanley Research.

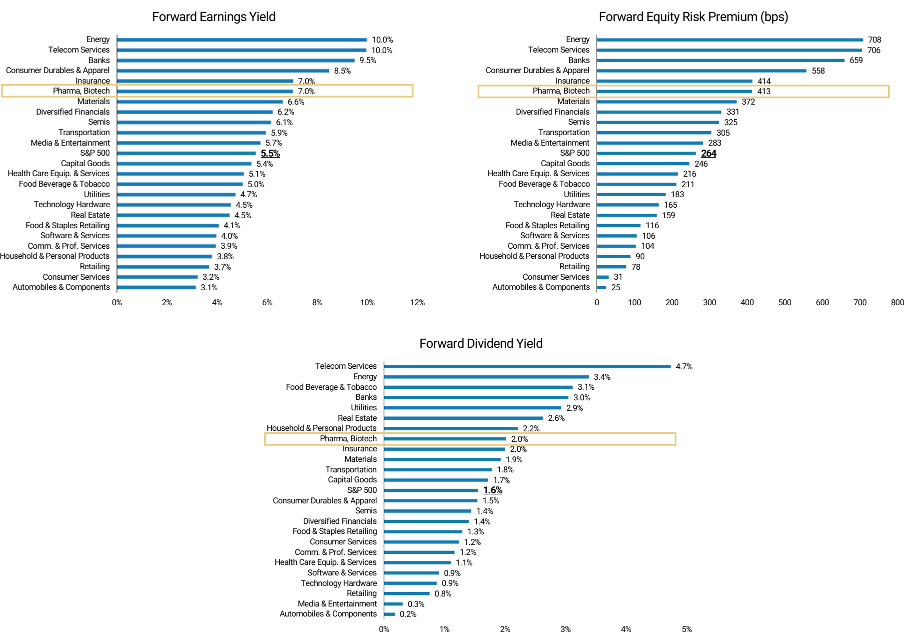
Exhibit 6: While Relative Performance Is Just Starting to Turn Higher



Source: Bloomberg, Morgan Stanley Research.

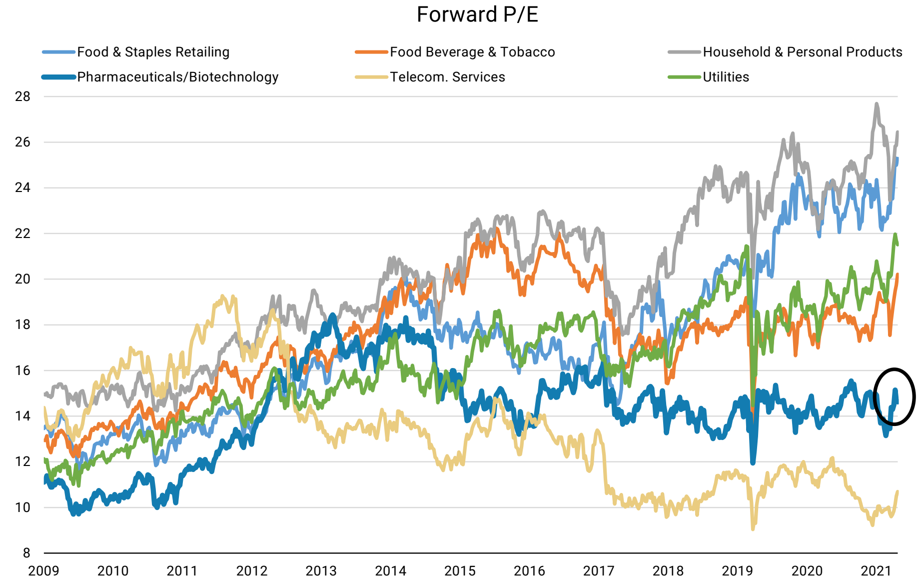
The Pharma/Biotech industry group offers a compelling equity risk premium and dividend yield versus the broader S&P 500. Pharma/Biotech's equity risk premium stands at ~410 bps, ~150 bps higher than the aggregate S&P 500's ERP. From a dividend standpoint, the industry's forward yield is 2%, about 40-50 bps higher than the broader market. The cohort also trades at a significant valuation discount versus other defensive industries (with the exception of Telecom).

Exhibit 7: Pharma/Biotech Offers An Attractive Equity Risk Premium and Dividend Yield



Source: Bloomberg, FactSet, Morgan Stanley Research.

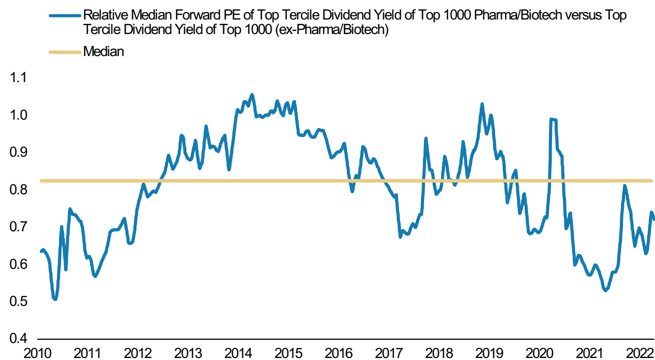
Exhibit 8: Pharma/Biotech Trades at a Significant Discount to Most Other Defensive Groups



Source: FactSet, Morgan Stanley Research.

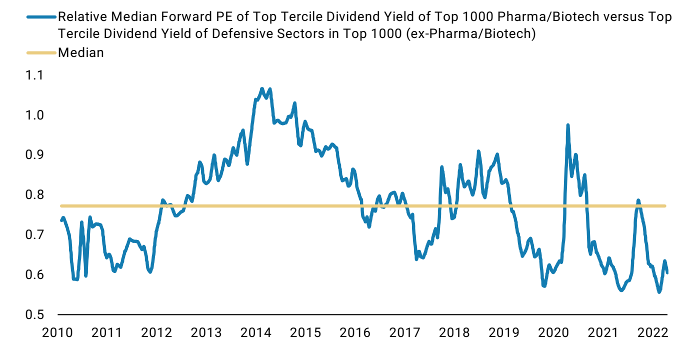
The top dividend yielders in Pharma/Biotech appear cheap from a valuation standpoint versus the top yielders in both the broader market and in other defensive sectors. We think this offers support to the idea that investors looking for yield should consider the top dividend yielding stocks within Pharma/Biotech as opposed to other industries.

Exhibit 9: Relative Valuation of Top Yielders in Pharma/Biotech Remains Attractive Vs. Top Yielders in the Broader Market...



Source: ClariFi, Morgan Stanley Research.

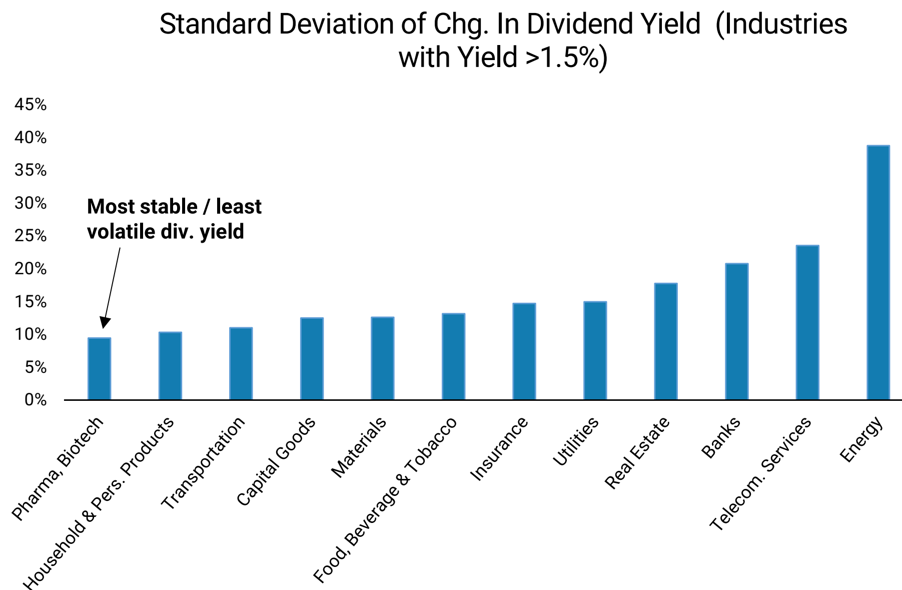
Exhibit 10: ...And Other Defensive Sectors



Source: ClariFi, Morgan Stanley Research.

Another reason to seek yield exposure in Pharma/Biotech is that the industry's dividend yield has been quite stable over time. Our work shows that Pharma/Biotech exhibits the least volatile dividend yield over time of industries with above benchmark yields, making it a reliable pocket of the market on this basis.

Exhibit 11: Pharma/Biotech Exhibits the Most Stable/Least Volatile Dividend Yield over Time When Compared to Other Dividend Paying Industries



Source: FactSet, Morgan Stanley Research.

1Q22 EPS Update

Earnings growth for the S&P 500 is tracking at 7% YOY with companies beating earnings estimates by approximately 9% (Exhibit 12). Companies typically beat estimates by approximately 5% and the higher than usual beat rate has been driven by Consumer Discretionary and Financials thus far. Approximately half of all companies that have reported so far have surprised to the upside on earnings while 9% have missed estimates. Earnings growth is tracking at the highest levels in Energy, Industrials, and Materials while it is weakest in Financials, Consumer Discretionary, and Comm Services. However, it is important to note that the negative growth for Financials is a function of 1Q21's one time boost from reserve releases. **Earnings growth is receiving the strongest positive contributions from Energy, Tech, and Industrials. The Financials sector has been the biggest drag on index level growth, reducing it by 4%.**

Exhibit 12: 1Q22 Earnings Summary

S&P 500 1Q22 Preliminary Earnings Analysis

Sector	# Reported	% Mktcap Rptd	Surprise Ratios: Above	Surprise Ratios: At/Above	Surprise Ratios: Below	$ Actual vs. Est. 1Q22	**1Q22 Y/Y %	Growth Contribution
Communication Services	**3/23**	**12%**	**67%**	**100%**	**0%**	**6.0%**	**-5.0%**	**-0.5%**
Media & Entertainment	*NM*	*0%*	*0%*	*0%*	*0%*	*0.0%*	*-4.8%*	*-0.4%*
Telecommunication Services	*NM*	*0%*	*0%*	*0%*	*0%*	*0.0%*	*-5.4%*	*-0.2%*
Consumer Discretionary	**11/59**	**29%**	**55%**	**55%**	**45%**	**14.3%**	**-11.0%**	**-0.9%**
Automobiles & Components	*NM*	*0%*	*0%*	*0%*	*0%*	*0.0%*	*-7.8%*	*-0.1%*
Consumer Durables & Apparel	*2/15*	*55%*	*50%*	*50%*	*50%*	*-2.2%*	*-6.0%*	*-0.1%*
Consumer Services	*2/18*	*5%*	*0%*	*0%*	*100%*	*-46.8%*	*93.8%*	*0.4%*
Retailing	*2/21*	*2%*	*50%*	*50%*	*50%*	*8.7%*	*-20.1%*	*-1.0%*
Consumer Staples	**9/32**	**36%**	**56%**	**100%**	**0%**	**6.0%**	**1.9%**	**0.1%**
Food & Staples Retailing	*2/5*	*37%*	*100%*	*100%*	*0%*	*9.8%*	*8.3%*	*0.1%*
Food Beverage & Tobacco	*5/21*	*10%*	*60%*	*100%*	*0%*	*9.6%*	*2.1%*	*0.1%*
Household & Personal Products	*NM*	*0%*	*0%*	*0%*	*0%*	*0.0%*	*-4.8%*	*-0.1%*
Energy	**3/21**	**7%**	**33%**	**67%**	**33%**	**2.8%**	**249.0%**	**5.6%**
Financials	**29/66**	**54%**	**66%**	**93%**	**7%**	**13.1%**	**-19.2%**	**-4.2%**
Banks	*2/18*	*29%*	*100%*	*100%*	*0%*	*10.4%*	*-26.0%*	*-2.7%*
Diversified Financials	*2/26*	*7%*	*50%*	*100%*	*0%*	*3.1%*	*-15.7%*	*-1.3%*
Insurance	*NM*	*0%*	*0%*	*0%*	*0%*	*0.0%*	*-6.2%*	*-0.2%*
Health Care	**7/65**	**30%**	**43%**	**100%**	**0%**	**5.7%**	**7.8%**	**1.3%**
Health Care Equipment & Services	*NM*	*0%*	*0%*	*0%*	*0%*	*0.0%*	*2.8%*	*0.2%*
Pharmaceuticals Biotechnology & Life Sciences	*NM*	*0%*	*0%*	*0%*	*0%*	*0.0%*	*11.1%*	*1.1%*
Industrials	**15/72**	**21%**	**47%**	**100%**	**0%**	**9.8%**	**38.4%**	**1.9%**
Capital Goods	*1/46*	*2%*	*100%*	*100%*	*0%*	*6.4%*	*3.0%*	*0.1%*
Commercial & Professional Services	*1/11*	*14%*	*100%*	*100%*	*0%*	*22.1%*	*8.7%*	*0.0%*
Transportation	*2/14*	*12%*	*50%*	*100%*	*0%*	*3.3%*	*264.8%*	*1.7%*
Information Technology	**7/75**	**9%**	**43%**	**100%**	**0%**	**2.8%**	**10.2%**	**2.2%**
Semiconductors & Semiconductor Equipment	*1/19*	*4%*	*100%*	*100%*	*0%*	*8.9%*	*23.6%*	*1.2%*
Software & Services	*4/35*	*14%*	*50%*	*100%*	*0%*	*1.5%*	*9.2%*	*0.8%*
Technology Hardware & Equipment	*NM*	*0%*	*0%*	*0%*	*0%*	*0.0%*	*2.0%*	*0.2%*
Materials	**4/28**	*19%*	*100%*	*100%*	*0%*	*11.1%*	*40.4%*	*1.0%*
Real Estate	**2/29**	*19%*	*0%*	*100%*	*0%*	*2.4%*	*16.7%*	*0.4%*
Utilities	**2/29**	*18%*	*0%*	*100%*	*0%*	*2.8%*	*9.3%*	*0.3%*
S&P 500	**92/500**	**23%**	**54%**	**91%**	**9%**	**9.0%**	**7.2%**	**7.2%**

Source: Refinitiv, Morgan Stanley Research

Index level sales growth is tracking at 11% and has surprised positively by 1.5% (Exhibit 13). 61% of companies have beat revenue estimates while 20% have missed estimates. The strongest year over year growth has occurred within Energy and Materials, while Energy and Health Care have contributed the most to index level growth. Utilities, Telecom, and Banks are the only groups with negative topline growth.

Exhibit 13: 1Q22 Revenue Summary

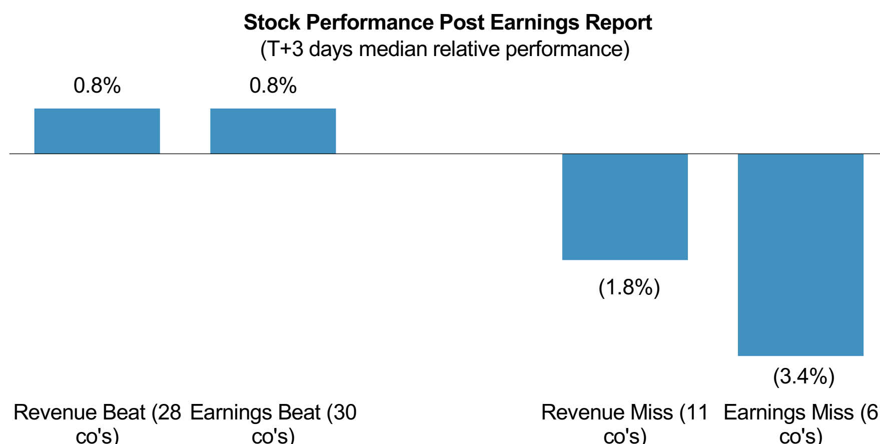
S&P 500 1Q22 Preliminary Revenue Analysis								
			Surprise Ratios			$ Actual vs. Est.	**1Q22 Y/Y	Growth
Sector	# Reported	% Mktcap Rptd	Above	At/Above	Below	1Q22	%	Contribution
Communication Services	3/23	12%	67%	100%	0%	1.9%	9.5%	0.8%
Media & Entertainment	NM	0%	0%	0%	0%	0.0%	18.5%	0.9%
Telecommunication Services	NM	0%	0%	0%	0%	0.0%	-5.1%	-0.2%
Consumer Discretionary	11/59	29%	82%	82%	18%	2.6%	8.6%	1.1%
Automobiles & Components	NM	0%	0%	0%	0%	0.0%	8.6%	0.2%
Consumer Durables & Apparel	2/15	55%	100%	100%	0%	2.4%	9.8%	0.1%
Consumer Services	2/18	5%	0%	0%	100%	-14.6%	44.2%	0.4%
Retailing	2/21	2%	100%	100%	0%	3.7%	4.4%	0.4%
Consumer Staples	9/32	36%	67%	89%	11%	1.6%	5.6%	0.7%
Food & Staples Retailing	2/5	37%	50%	100%	0%	0.9%	5.5%	0.5%
Food Beverage & Tobacco	5/21	10%	60%	80%	20%	1.6%	5.7%	0.2%
Household & Personal Products	NM	0%	0%	0%	0%	0.0%	5.8%	0.1%
Energy	3/21	7%	67%	67%	33%	4.4%	46.7%	3.1%
Financials	29/66	54%	41%	69%	31%	1.9%	0.1%	0.0%
Banks	2/18	29%	100%	100%	0%	1.5%	-1.6%	-0.1%
Diversified Financials	2/26	7%	50%	50%	50%	-1.0%	-0.1%	0.0%
Insurance	NM	0%	0%	0%	0%	0.0%	2.0%	0.1%
Health Care	7/65	30%	71%	100%	0%	1.7%	11.2%	2.2%
Health Care Equipment & Services	NM	0%	0%	0%	0%	0.0%	10.9%	1.6%
Pharmaceuticals Biotechnology & Life Sciences	NM	0%	0%	0%	0%	0.0%	12.5%	0.5%
Industrials	15/72	21%	73%	87%	13%	0.7%	11.5%	1.1%
Capital Goods	1/46	2%	100%	100%	0%	1.7%	3.9%	0.3%
Commercial & Professional Services	1/11	14%	100%	100%	0%	2.9%	8.5%	0.1%
Transportation	2/14	12%	50%	100%	0%	1.4%	32.0%	0.8%
Information Technology	7/75	9%	57%	86%	14%	1.6%	10.4%	1.2%
Semiconductors & Semiconductor Equipment	1/19	4%	100%	100%	0%	3.5%	19.5%	0.4%
Software & Services	4/35	14%	50%	100%	0%	1.6%	11.0%	0.5%
Technology Hardware & Equipment	NM	0%	0%	0%	0%	0.0%	5.5%	0.3%
Materials	4/28	19%	75%	100%	0%	2.4%	20.3%	0.5%
Real Estate	2/29	19%	50%	50%	50%	0.7%	19.2%	0.2%
Utilities	2/29	18%	50%	50%	50%	-26.6%	-8.7%	-0.2%
S&P 500	92/500	23%	61%	80%	20%	1.5%	10.6%	10.6%

Source: Refinitiv, Morgan Stanley Research

The median company that has beaten on earnings or revenue estimates has seen little reward and has traded up 80 bps relative to the market 3 days after reporting results (Exhibit 14). Companies that have missed on earnings have seen harsh punishment, with the median stock falling 3.4% on a relative basis.

This does not tell the whole story though and some companies that have met estimates have still traded down sharply for providing negative guidance or missing on other key metrics.

Exhibit 14: Reaction to Earnings Reports



Source: Refinitiv, Morgan Stanley Research. Earnings considered to be a surprise if reported number is at least +/- 1% from last estimate. Revenue considered to be a surprise if reported number is at least +/- 5% from last estimate

Exhibit 15 through Exhibit 18 show how quarterly earnings estimates for 2022 have been revised YTD, since the end of January, and since the end of the first quarter. **Since the end of the first quarter, 1Q estimates have risen across the board with the exception of Tech as companies began reporting earnings results and surprising to the upside. However, the out quarter estimates have been cut amid this dynamic.** The majority of sectors saw 2Q estimates lowered since the end of March with the biggest cuts coming in Discretionary and Financials. Energy, Materials, and Real Estate have all see positive revisions. **Most sectors have also seen modest cuts to 3Q and 4Q estimates but not enough to the bring index level revisions negative given the Energy sector's continued strength.**

Exhibit 15: 1Q22 EPS Revisions

1Q 2022			
Sector	**Since 12/31**	**Since 1/31**	**Since 3/31**
Communication Services	-3.5%	-1.0%	3.1%
Consumer Discretionary	-8.4%	-8.0%	2.7%
Energy	38.2%	30.4%	3.9%
Financials	-1.6%	-0.9%	3.1%
Health Care	0.0%	-0.1%	1.0%
Industrials	-11.2%	-1.3%	0.4%
Materials	0.9%	1.8%	3.1%
Real Estate	5.7%	2.1%	2.0%
Staples	-2.5%	-0.8%	1.1%
Tech	2.0%	1.3%	-0.1%
Utilities	0.4%	2.2%	0.6%
S&P 500	0.7%	1.4%	1.7%

Source: FactSet, Morgan Stanley Research

Exhibit 16: 2Q22 EPS Revisions

2Q 2022			
Sector	**Since 12/31**	**Since 1/31**	**Since 3/31**
Communication Services	-5.0%	-4.2%	-0.7%
Consumer Discretionary	-6.6%	-6.6%	-1.9%
Energy	75.8%	62.6%	20.1%
Financials	-3.0%	-3.1%	-1.4%
Health Care	0.2%	0.7%	-1.2%
Industrials	-3.8%	-0.1%	1.0%
Materials	7.4%	5.0%	2.1%
Real Estate	2.3%	1.6%	1.9%
Staples	-2.8%	-2.6%	-1.1%
Tech	1.1%	0.9%	-0.4%
Utilities	0.1%	0.2%	0.2%
S&P 500	2.6%	2.5%	1.0%

Source: FactSet, Morgan Stanley Research

Exhibit 17: 3Q22 EPS Revisions

3Q 2022			
Sector	**Since 12/31**	**Since 1/31**	**Since 3/31**
Communication Services	-4.4%	-4.0%	-1.2%
Consumer Discretionary	-0.5%	-0.3%	0.3%
Energy	63.2%	51.2%	17.3%
Financials	-0.6%	-0.3%	0.6%
Health Care	0.4%	1.2%	-1.2%
Industrials	0.3%	0.9%	0.4%
Materials	12.6%	11.0%	1.5%
Real Estate	3.3%	0.5%	0.0%
Staples	-2.2%	-2.3%	-1.0%
Tech	1.9%	1.0%	-0.5%
Utilities	-2.8%	-1.7%	-0.4%
S&P 500	3.4%	3.0%	0.9%

Source: FactSet, Morgan Stanley Research

Exhibit 18: 4Q22 EPS Revisions

4Q 2022			
Sector	**Since 12/31**	**Since 1/31**	**Since 3/31**
Communication Services	-1.7%	1.0%	-0.2%
Consumer Discretionary	3.2%	3.0%	0.2%
Energy	52.8%	41.1%	15.0%
Financials	-0.2%	0.7%	1.1%
Health Care	2.5%	2.0%	-0.1%
Industrials	2.4%	2.1%	-0.2%
Materials	13.6%	11.2%	-0.5%
Real Estate	0.8%	0.6%	0.0%
Staples	1.9%	1.1%	-1.5%
Tech	4.8%	1.1%	-0.6%
Utilities	-2.5%	1.3%	0.1%
S&P 500	4.8%	3.8%	0.8%

Source: FactSet, Morgan Stanley Research

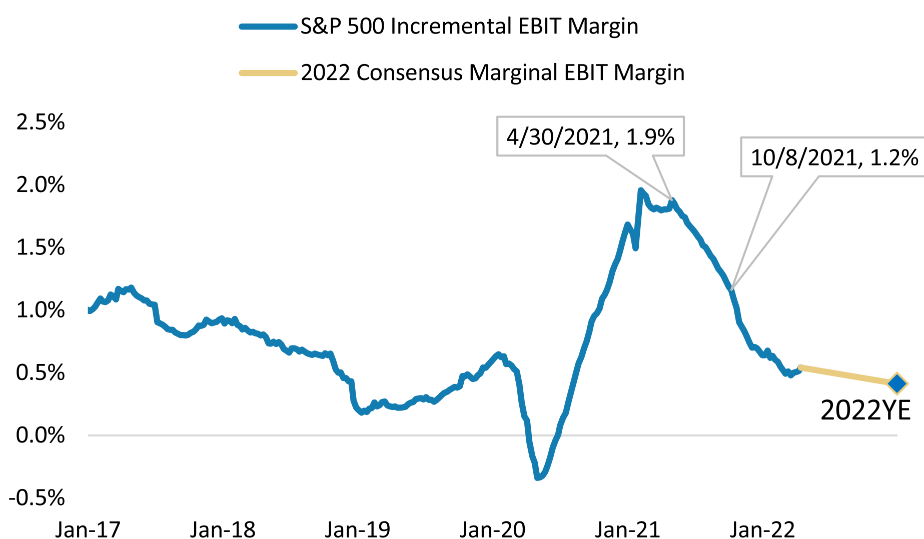
Margin Update

Margin expansion is slowing and companies that are guiding for a 2021 repeat are at risk. A general rule of thumb is that companies that expand margins will be rewarded while companies that lag expectations, or even worse, see margin compression, are punished. Given this dynamic, we closely track *incremental* operating margins - how much are margins moving up/down for every incremental dollar of sales - for a sign of where the profit cycle and market are heading. Incremental margins peaked in 1Q 2021 which is one of the major reasons we made our mid cycle transition call at that time and downgraded small caps. Since then we've witnessed a sharp deceleration, supporting our current late cycle view. Looking ahead, consensus expectations are pointing margins expanding again even though incremental margins are likely to fall further.

Operating margins are not immune to the broader cycle. We saw the early cycle benefits of operating leverage in 2020 with the margin peak rate of change at +2% YoY occurring in spring 2021, right as markets shifted to a mid-cycle environment. However, as we have written before, this cycle is likely to be hotter but shorter than most and we saw a distinct shift to the late cycle environment occurring in 4Q22 as incremental margins sharply decelerated and the Fed pivoted on runaway inflation.

Incremental margins still point lower. We have not seen the trough in incremental margins yet and we think the risk skews lower from here. Record cost and labor pressures combined with a potential demand slowdown and record Fed tightening are all coming together this summer. To us, this points incremental margins lower and potentially into negative territory as rising costs are met with lower demand from the 2020/2021 pull forward. Companies that are guiding for the same rate of margin expansion may face a wake-up call in the coming quarters and we have started to see signs of this in 1Q22.

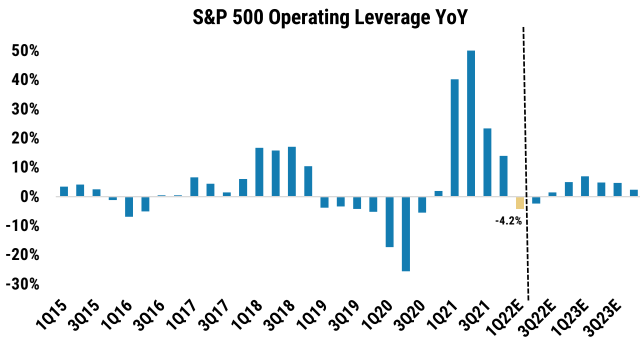
Exhibit 19: S&P 500 Incremental Margin Continues to Erode as Cost Pressures Increase



Note: Incremental margin calculated as the difference between 12M forward EBIT margin less 12M trailing EBIT margin.
Source: Factset, Morgan Stanley Research

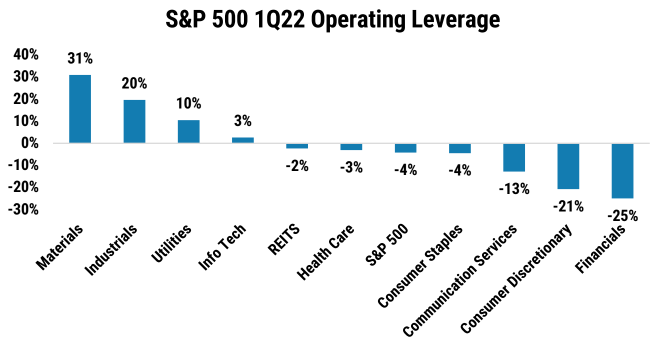
Negative operating leverage puts focus on margin protection. Stay defensive and find companies with high operating efficiency. Operating leverage highlights the difference between earnings and sales growth and negative operating leverage shows that earning growth is falling at a faster rate than sales growth. In fact, 1Q22 expectations (Exhibit 20) are for the first negative operating leverage in 6 quarters as estimates start to reflect the rising cost pressures. However, we aren't out of the woods yet. Earnings expectations for 1Q have come down to accommodate lower growth but 2022 earnings have remained stable as earnings are simply pushed back to 2H22. **We see the greatest risk coming in the 2022/2023 full year forecasts when "delayed" earnings are no longer an acceptable excuse and numbers are forced to be cut.**

Exhibit 20: Operating Leverage at the Lowest Since 3Q20



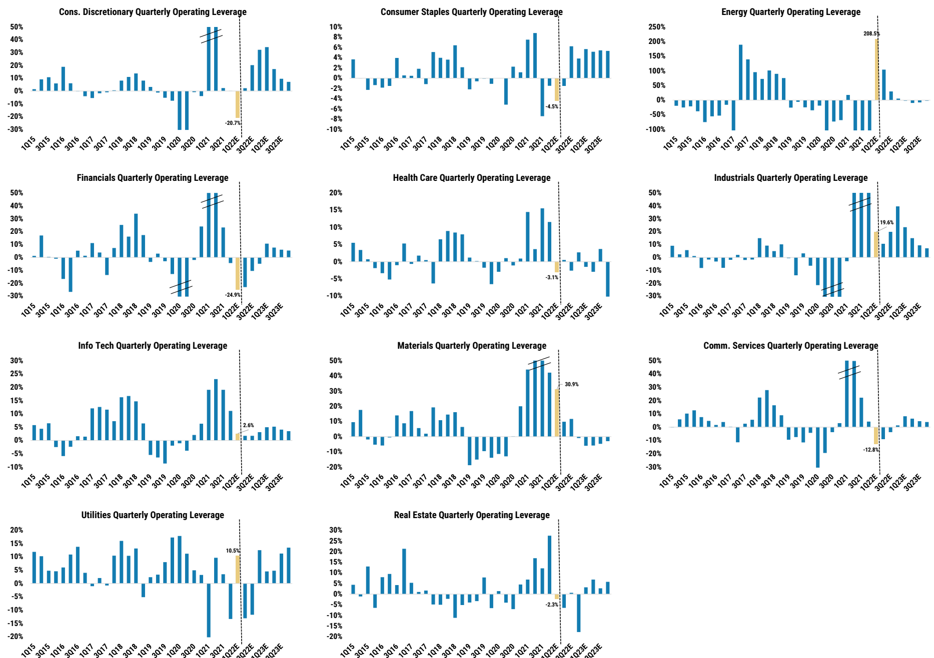
Source: Refinitiv, Morgan Stanley Research

Exhibit 21: Consensus Operating Leverage by Sector



Source: Refinitiv, Morgan Stanley Research

Exhibit 22: Operating Leverage by Sector



Source: Refinitiv, Morgan Stanley Research

Macro Meets Micro

We held our monthly meeting with lead analysts across US research and our economists/strategists to better connect macro and micro data points. **Throughout out the session analysts kept repeating one theme - companies are able to grow revenue but this is largely a function of pricing while the number of units sold is shrinking.** Customers will only be able to tolerate price increases for so long and this dynamic creates a very precarious demand environment.

On Industrial Companies:

- We made new highs on virtually all transportation data points in February but then the bottom fell out of the market in March. We essentially saw a 9-month

downturn in 4 weeks in the month of March, impacting everything from truck spot to ocean shipping rates. It is very clear that logistics costs have fallen because of demand not supply. We are hearing from all constituents that demand has simply hit a wall. It is unclear if demand is down because the cycle is over or because of Russia/Ukraine.

- Within Industrials/Multis, we are seeing more inventory on balance sheets in work in process, e.g. cars that are missing chips waiting for a few more parts. The aggregate inventory picture seems fair but there is a risk of overshoot as you see supply chains improve especially as demand is at risk. Company messaging remains positive.

On Consumer Facing Companies:

- Within retail, inventory isn't an issue for 1Q but will be later in the year. Apparel imports started surging in October and have continued for 5 consecutive months. We are seeing the highest levels in 20 years. We saw high inventory on 4Q balance sheets and we think it all points to over ordering of Spring/Summer goods. If there is any change in demand, retailers are at risk from excess inventory and will need to discount. There has been a modest traffic deceleration in March.

- Within retail, we see room for upside surprise to 1Q21 earnings results on ongoing strong consumer demand, limited promotional/discounting activity, & conservative guidance, but caution downside risk to margins as soon as 2Q21. This is because US apparel imports started surging in October, & have since continued to grow at LDD+ 2Y stack levels for 5 consecutive months. In fact, on a trailing 3-month basis, we are seeing the highest import levels in 20 years. This suggests retailers likely over-ordered Spring & Summer inventory, & also points to margin risk concentration in 2Q21, as that is when retailers will need to clear those goods for Fall & Winter product. And margin risk could be further exacerbated should we see any change in consumer demand trends, as with inventory levels so high, year over year compares so difficult, & many companies anticipating cost pressure easing in the back half, any slowdown in demand or persistence of cost pressure could seriously impair our stocks' financial performance compared to expectations.

- Within hardlines/broadlines/food retail consumers have been able to handle inflation thus far. We are seeing significant unit degradation but price is more than offsetting it. It feels like something has to give. Inventories are building but they don't look problematic yet. If demand holds at the current rate we don't have as much mark down risk.

- We have seen very resilient topline growth in packaged food. We are seeing prices up 10-15% across the large cap food companies. Demand elasticity has been very minimal. This is lapping 2 years of skewed comps because of covid. We expect to see strong topline driven largely by pricing. Companies typically realize inflation on a 6-9 month lag because of hedging.

- On food, beverages, and household/personal care we're looking for topline upside driven by pricing for 1Q, but some pressure on earnings for the balance of the year from commodities and FX. Overall elasticities have been below historical levels to date, but companies are expecting some volume weakness later this year given the sheer magnitude of inflationary headwinds facing consumers and other macro uncertainty. The beverage companies where you do have diverse channels and low

private label penetration lend itself to better pricing. In carbonated soft drinks, pricing has been running up in the low teens and volumes have been remarkably resilient.

- Restaurant traffic improved in March but is still below 2019 levels. Sales are running ahead of where they were last fall driven by check size and pricing while commodity prices are now running much higher than they were last year. The improvement post Omicron has been consistent. Labor availability is improving and we are seeing a much bigger pool of applicants. This has allowed wage inflation to moderate but not quite falling yet.

- In banks, loan demand is high and loan growth has accelerated as inflation drives up the price of goods and asset values. Card loan growth has been accelerating even as card spend has been decelerating a little bit. Consumer credit continues to be strong, with tax refunds helping this quarter. Residential loans are up given the 20% increase in home prices y/y. However, given the mortgage rate increase from 3% to 5% over the past 2 months, we expect a decelerating residential loan growth in the back half of the year. For Commercial loans, volumes are up in 1q22 q/q, from corporates increasing both inventories and capex. Commercial real estate loans also accelerated. Fixed income markets were choppy in 1q22, giving banks the ability to take some share last quarter in C&I and CRE. Expect C&I and CRE loan growth will slow in 2H22 as capital market frictions abate.

On Technology, Media, & Telecom Companies:

- Lowered our advertising forecast for the first time since covid started but still expect growth to be robust. This is rate driven. Generally, things are still quite strong but we are hearing softening here and there. We are hearing about continued weakness in auto and durable goods. However, ad spending continues to grow in movie and entertainment, sports betting, and broader technology sectors. The consumer remains quite healthy in the entertainment and DTC areas of our coverage, bad debt and churn remains at all-time lows for our cable companies and consumer spending on areas like concerts, theme parks, and sporting events is still extremely strong.

- Amazon added a 5% fuel charge in the US to all sellers. This is the third time they've taken price this year. There are "hundreds of warehouses" in the US looking at unionization.

- Verizon and T-Mobile are moving to a $20 minimum wage and others in the industry may follow. Demand has remained healthy, although Verizon just warned of slowing retail store traffic in March and April. The data centers have significant exposure to rising energy costs especially in Europe.

- While we have seen some easing of shortages in the semiconductors supply chain for higher volume verticals, some broader markets shortages are intensifying as incremental supply concerns from China lockdowns have maintained a crisis environment. We aren't in oversupply territory yet. Global demand decay and order cuts could relieve some supply pressure. Ultimately, what we've seen is that it is still an end market that is dictated by fear. Inventories are structurally higher than they have ever been and there is still double ordering going on.

- On the enterprise software side demand has been durable. For the most part,

larger enterprise and cybersecurity software demand has been defensive especially given the threats from Russia/Ukraine. Some of the more discretionary areas like marketing software are more at risk. We are seeing some difficulty in hiring. We haven't seen estimates come down broadly but multiples have come down.

Factor Update

We select a few key factors to monitor in Exhibit 23 and Exhibit 24 to help study market drivers from a factor standpoint. These Exhibits focus on factors within the US Top 1000 by market cap universe. Some key takeaways on performance in the last month:

- Quality has outperformed Junk (+4.2% relative return) and the overall market (+2.6% relative return versus the overall Top 1000 universe).
- Value has outperformed Growth (+6.2%) and the overall market (+2.4% relative return).
- Cyclicals are down -3.8% in absolute terms, underperforming Defensives (-4.5%); but that performance spread widens when we exclude Energy from Cyclicals, which has seen relatively strong performance amid the recent squeeze in crude prices; Cyclicals-Ex Energy have underperformed Defensives by -5.5%.
- High Momentum stocks have outperformed low momentum stocks (+2.2% relative return), and the overall market (+0.1% relative return).
- Small Caps have underperformed Large Caps by -1.6%;.

Exhibit 23: Top 1000 Factor Returns

Top 1000 Factor Return as of Apr 21, 2022

Factor	1 Week			1 Month			YTD Ret	12M Ret
	Ret	1W Chg	1M Chg	Ret	1M Chg	3M Chg		
Quality / Junk	2.9%	↑	↑	4.2%	↑	↓	6.6%	15.2%
Quality	0.7%	↑	↓	0.3%	↓	↑	-3.5%	8.9%
Junk	-2.2%	↓	↓	-3.8%	↓	↑	-10.1%	-6.3%
Value / Growth	3.9%	↑	↑	6.2%	↑	↓	19.5%	23.9%
Value	0.7%	↑	↓	0.2%	↓	↓	1.5%	10.3%
Growth	-3.2%	↓	↓	-6.0%	↓	↑	-18.0%	-13.6%
Cyclical / Defensive	-0.9%	↓	↓	-4.5%	↓	↓	-3.3%	-3.6%
Cyclical	-0.9%	↓	↓	-3.8%	↓	↓	-7.7%	0.5%
Defensive	0.1%	↓	↓	0.7%	↓	↑	-4.4%	4.0%
Cyclical xEnergy / Defensive	-0.8%	↓	↓	-5.5%	↓	↓	-7.2%	-9.2%
Cyclical xEnergy	-0.8%	↓	↓	-4.8%	↓	↓	-11.6%	-5.2%
12M Momentum	1.3%	↑	↑	2.2%	↑	↑	0.3%	7.2%
High Momentum	-1.3%	↓	↓	-2.2%	↓	↑	-8.6%	-0.7%
Low Momentum	-2.6%	↓	↓	-4.4%	↓	↓	-8.9%	-7.9%
Size (Small / Large)	-0.1%	↓	↓	-1.6%	↓	↑	-2.0%	-13.2%
Small Cap	-0.9%	↓	↓	-2.7%	↓	↑	-8.4%	-6.8%
Large Cap	-0.7%	↓	↓	-1.1%	↓	↑	-6.4%	6.4%

Source: ClariFi, Morgan Stanley Research

Exhibit 24: Excess Return Versus Broader Top 1000 Universe

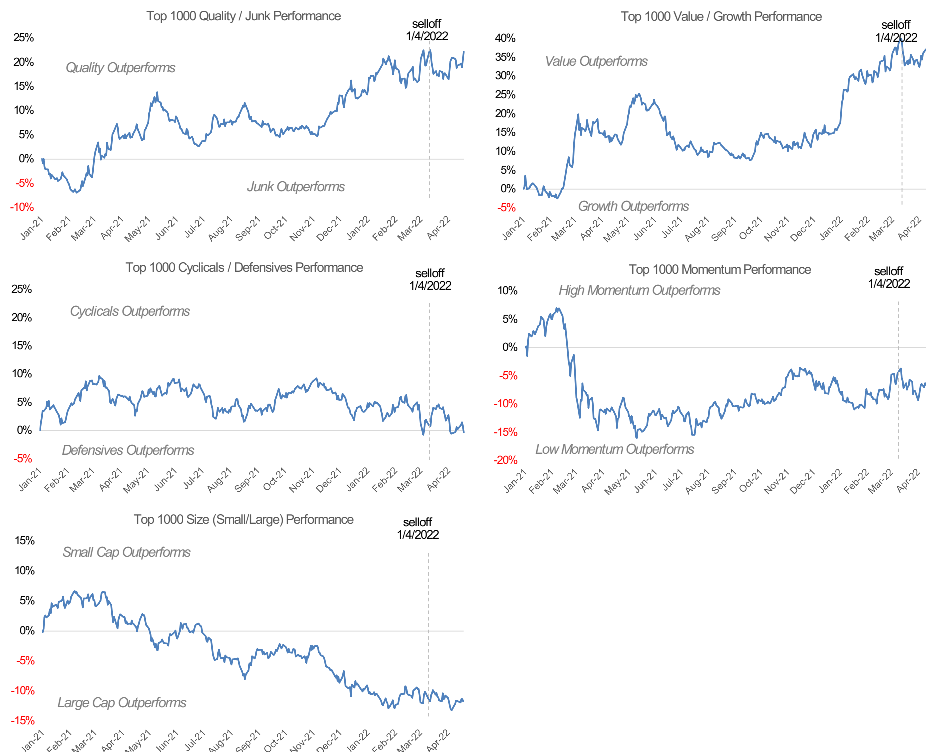
Top 1000 Excess Factor Return versus Broader Top 1000 Return as of Apr 21, 2022

Factor	1 Week			1 Month			YTD Ret	12M Ret
	Ret	1W Chg	1M Chg	Ret	1M Chg	3M Chg		
Quality / Junk								
Quality	1.6%	↑	↑	2.6%	↑	↓	4.3%	9.8%
Junk	-1.3%	↓	↓	-1.6%	↓	↑	-2.3%	-5.4%
Value / Growth								
Value	1.6%	↑	↑	2.4%	↑	↓	9.3%	11.2%
Growth	-2.3%	↓	↓	-3.7%	↓	↑	-10.2%	-12.7%
Cyclical / Defensive								
Cyclical	0.0%	↓	↓	-1.6%	↓	↓	0.1%	1.4%
Defensive	0.9%	↑	↑	3.0%	↑	↑	3.5%	5.0%
Cyclical xEnergy / Defensive								
Cyclical xEnergy	0.1%	↑	↓	-2.5%	↓	↓	-3.8%	-4.3%
Momentum								
High Momentum	-0.5%	↓	↑	0.1%	↓	↑	-0.8%	0.2%
Low Momentum	-1.8%	↓	↓	-2.1%	↓	↓	-1.1%	-7.0%
Size (Small / Large)								
Small Cap	0.0%	↓	↓	-0.4%	↓	↑	-0.6%	-5.9%
Large Cap	0.1%	↑	↑	1.1%	↑	↓	1.4%	7.3%

Source: ClariFi, Morgan Stanley Research

Exhibit 25 shows performance of these pairs in time series graph form.

Exhibit 25: Cumulative Factor Performance Since 2021



Source: ClariFi, Morgan Stanley Research

We include an extensive list of factors and their returns in Exhibit 26. We break down the factor spread return by their long and short portfolio and display the top and bottom performing portfolio legs last month in Exhibit 27.

Exhibit 26: Full List of Factor Spread Returns (Long - Short)

Equal Weighted Factor Return (Spread) in Top 1000 as of Apr 21, 2022

Factor Name	1 Week			1 Month			3M Ret	YTD Ret	12M Ret
	Ret	1W Chg	1M Chg	Ret	1M Chg	3M Chg			
12m Volatility (Low vs High)	5.3%	↑	↑	7.2%	↑	↑	3.9%	9.3%	23.3%
Y/Y Change in number of employees (Low vs High)	4.3%	↑	↑	6.9%	↑	↓	11.7%	18.3%	24.4%
Reduction in Shares Outstanding (Low vs High)	4.9%	↑	↑	6.7%	↑	↓	7.1%	13.2%	27.2%
Sales Variability (Low vs High)	5.0%	↑	↑	6.3%	↑	↓	4.4%	11.8%	19.4%
Value vs Growth	3.9%	↑	↑	6.2%	↑	↓	9.0%	19.5%	23.9%
3-Month Price Momentum (High vs Low)	2.8%	↑	↑	5.5%	↑	↑	5.8%	3.0%	9.4%
6-Month Price Momentum (High vs Low)	3.1%	↑	↑	5.3%	↑	↑	8.5%	3.9%	12.9%
Operational Efficiency (High vs Low)	3.6%	↑	↑	5.0%	↑	↓	8.2%	13.2%	16.7%
Inventory Turnover (High vs Low)	1.9%	↑	↑	4.6%	↑	↑	5.6%	8.4%	12.5%
Accruals (Low vs High)	1.6%	↑	↑	4.4%	↑	↓	6.2%	10.8%	17.9%
Trailing Dividend Yield (High vs Low)	2.1%	↑	↑	4.3%	↑	↓	3.1%	10.3%	2.2%
9-Month Price Momentum (High vs Low)	2.6%	↑	↑	4.3%	↑	↑	7.9%	0.3%	7.0%
Estimate Dispersion (Low vs High)	3.7%	↑	↑	4.3%	↑	↓	2.5%	5.8%	16.9%
Price-to-Sales (Cheap vs Expensive)	5.1%	↑	↑	4.2%	↑	↓	8.2%	18.6%	29.2%
Quality vs Junk	2.9%	↑	↑	4.2%	↑	↓	2.2%	6.6%	15.2%
CapEx-to-Depreciation (Low vs High)	2.4%	↑	↑	4.0%	↑	↓	4.8%	10.4%	9.2%
Free Cash Flow Yield (High vs Low)	4.8%	↑	↑	3.8%	↑	↓	7.7%	16.8%	29.3%
Earnings Stability (High vs Low)	1.9%	↑	↑	3.7%	↑	↑	2.5%	5.4%	13.4%
Price-to-Forward Earnings (Cheap vs Expensive)	5.5%	↑	↑	3.6%	↑	↓	6.0%	17.5%	32.9%
Price-to-Operating Income (Cheap vs Expensive)	5.8%	↑	↑	3.5%	↑	↓	7.2%	16.3%	28.6%
Total Yield (High vs Low)	1.8%	↑	↑	3.5%	↑	↓	2.4%	7.0%	5.3%
Inventory-to-Sales (Low vs High)	0.7%	↑	↑	3.4%	↑	↑	5.6%	4.3%	4.0%
Sales Growth Stability (High vs Low)	0.8%	↑	↑	3.4%	↑	↑	-1.3%	1.3%	6.3%
Dividend Payout Ratio (High vs Low)	1.2%	↑	↑	3.3%	↑	↑	0.0%	2.2%	4.5%
Composite Free Cash Flow (High vs Low)	4.7%	↑	↑	3.2%	↑	↓	7.2%	15.8%	29.6%
Composite Accruals (Low vs High)	1.4%	↑	↑	3.2%	↑	↓	4.9%	8.7%	12.7%
Price-to-EBITDA (Cheap vs Expensive)	5.8%	↑	↑	3.2%	↑	↓	7.3%	18.1%	29.9%
Enterprise Value-to-Free Cash Flow (Low vs High)	4.6%	↑	↑	3.2%	↑	↓	8.2%	16.5%	30.9%
Enterprise Value-to-EBITDA (Low vs High)	6.0%	↑	↑	3.1%	↑	↓	7.4%	18.4%	33.1%
Price-to-Earnings (Cheap vs Expensive)	5.1%	↑	↑	3.0%	↑	↓	4.5%	11.7%	22.5%
Operating Income Variability (Low vs High)	-0.6%	↓	↓	2.9%	↑	↑	-2.7%	-3.2%	-5.2%
Enterprise Value-to-Operating Income (Low vs High)	5.9%	↑	↑	2.8%	↑	↓	7.4%	16.3%	32.2%
Composite Quality (High vs Low)	1.6%	↑	↑	2.8%	↑	↑	3.2%	3.1%	11.2%
Composite Value (Cheap vs Expensive)	4.1%	↑	↑	2.6%	↑	↓	4.8%	12.1%	22.8%
12-Month Price Momentum (High vs Low)	1.3%	↑	↑	2.2%	↑	↑	6.2%	0.3%	7.2%
Return on Invested Capital (High vs Low)	3.5%	↑	↑	2.1%	↑	↓	2.6%	5.9%	23.3%
Net Margin (High vs Low)	3.2%	↑	↑	1.9%	↑	↓	1.6%	3.2%	16.9%
ROE (High vs Low)	2.5%	↑	↑	1.9%	↑	↑	1.7%	2.1%	17.0%
Price-to-Book (Cheap vs Expensive)	3.1%	↑	↑	1.8%	↑	↓	1.6%	11.2%	7.6%
Reinvestment Rate (High vs Low)	0.8%	↑	↑	1.8%	↑	↑	-1.7%	0.3%	3.4%
EPS Variability (Low vs High)	0.9%	↑	↑	1.7%	↑	↑	-0.5%	-0.2%	3.3%
Operating Leverage (High vs Low)	2.2%	↑	↑	1.5%	↑	↓	3.8%	5.5%	11.5%
Operating Margin (High vs Low)	2.7%	↑	↑	1.4%	↓	↓	1.7%	3.8%	15.3%
CapEx-to-Sales (Low vs High)	1.0%	↑	↑	1.3%	↑	↓	0.6%	3.2%	1.1%
Y/Y Change in Inventory/Sales (Low vs High)	0.5%	↓	↑	1.2%	↑	↑	2.8%	2.1%	3.3%
Receivables Turnover (High vs Low)	0.7%	↑	↑	1.1%	↓	↑	2.9%	2.1%	5.1%
ROA (High vs Low)	3.5%	↑	↑	1.0%	↑	↓	1.4%	2.8%	19.5%
Earnings Estimate Revisions (High vs Low)	1.8%	↑	↑	0.9%	↑	↑	1.8%	0.2%	6.0%
1-Year EPS Growth (High vs Low)	2.7%	↑	↑	0.9%	↑	↓	2.7%	3.3%	11.9%
Free Cash Flow-to-Debt (High vs Low)	2.2%	↑	↑	0.9%	↓	↓	1.4%	1.9%	17.2%
CapEx-to-Assets (Low vs High)	0.4%	↑	↑	0.9%	↑	↓	-1.2%	1.0%	-7.9%
Incremental Margin (High vs Low)	1.5%	↑	↑	0.8%	↑	↓	1.6%	4.0%	6.9%
Financial Leverage (Low vs High)	1.4%	↑	↑	0.8%	↓	↑	1.8%	0.1%	6.1%
Cash Flow / Debt (High vs Low)	2.3%	↑	↑	0.7%	↓	↓	2.0%	2.3%	17.6%
Asset Turnover (High vs Low)	2.0%	↑	↑	0.6%	↓	↓	3.4%	4.3%	15.3%
Earnings Revisions (High vs Low)	1.4%	↑	↑	0.6%	↓	↑	2.0%	0.9%	7.7%
Short-Term Accruals (Low vs High)	0.3%	↑	↑	0.4%	↑	↓	-0.8%	2.0%	-1.9%
Interest Coverage (High vs Low)	3.4%	↑	↑	0.4%	↓	↓	-0.6%	-0.5%	15.9%
Long-Term Operating Leverage (High vs Low)	1.1%	↑	↑	0.2%	↓	↓	1.4%	2.8%	1.0%
12m-1m Residual Momentum (High vs Low)	1.0%	↓	↑	0.0%	↓	↑	3.7%	-2.4%	5.5%
1-Month Estimate Revisions (%) (High vs Low)	-0.1%	↓	↓	0.0%	↑	↑	0.9%	-3.2%	-5.8%
Up-to-Down Revisions (High vs Low)	0.9%	↑	↑	-0.1%	↓	↓	1.4%	1.1%	7.3%
ROE Variability (Low vs High)	0.8%	↑	↑	-0.2%	↑	↑	-4.0%	-3.9%	1.3%
1-Year Dividend per share growth (High vs Low)	0.4%	↑	↑	-0.6%	↓	↑	-0.4%	-2.7%	-0.9%
Composite Growth (High vs Low)	1.0%	↑	↑	-0.7%	↓	↓	-0.1%	-0.2%	3.1%
Analyst Coverage (High vs Low)	-1.5%	↓	↓	-0.7%	↑	↓	-3.4%	0.1%	6.2%
Gross Margin (High vs Low)	-2.4%	↓	↓	-0.8%	↓	↑	-3.6%	-5.6%	-9.4%
Sales per Employee (High vs Low)	-0.1%	↓	↓	-0.8%	↓	↓	2.4%	1.8%	5.1%
Smoothed Estimate Revisions (%) (High vs Low)	0.3%	↓	↓	-1.1%	↓	↑	2.3%	-2.4%	4.7%
Sales Estimate Revisions (High vs Low)	0.5%	↓	↑	-1.2%	↓	↓	-1.4%	-3.4%	-1.1%
Profitability (High vs Low)	-0.7%	↓	↓	-1.4%	↓	↑	-2.6%	-4.4%	1.2%
Composite Sentiment (High vs Low)	1.5%	↑	↑	-1.4%	↓	↑	1.2%	-5.5%	-1.9%
5-Year Dividend per share growth (High vs Low)	0.7%	↑	↑	-1.5%	↓	↑	-3.0%	-4.8%	-1.4%
Net Cash Variability (Low vs High)	0.0%	↓	↓	-1.5%	↓	↓	1.3%	2.2%	11.5%
Size (Small vs Large)	-0.1%	↓	↓	-1.6%	↓	↑	0.7%	-2.0%	-13.2%
Sales Revisions (High vs Low)	0.0%	↓	↑	-1.7%	↓	↑	-1.0%	-4.4%	-0.6%
Cash Flow Coverage (High vs Low)	-1.3%	↓	↓	-2.2%	↓	↑	1.0%	-1.8%	-5.8%
Forecast long term growth (High vs Low)	-0.6%	↓	↓	-2.3%	↓	↓	-0.2%	-3.8%	-3.4%
1-Month Reversal (Low vs High)	0.2%	↑	↑	-2.5%	↓	↑	-2.6%	-8.3%	-9.2%
Up vs Down Sales Revisions (High vs Low)	-0.7%	↓	↑	-2.5%	↓	↑	-1.9%	-6.4%	-2.8%
Tangible Book/Price (Cheap vs Expensive)	-0.8%	↓	↓	-2.7%	↓	↓	0.0%	0.0%	-4.3%
Price-to-Cash Flow (Cheap vs Expensive)	-2.2%	↓	↓	-2.9%	↓	↑	-2.7%	-4.9%	-13.0%
Debt-to-Capital (Low vs High)	-1.2%	↓	↓	-3.3%	↓	↑	-3.9%	-7.5%	-12.7%
Cash-to-Market Cap (High vs Low)	-1.4%	↓	↓	-3.4%	↓	↓	-2.6%	1.6%	-5.8%
Debt-to-Equity (Low vs High)	-1.4%	↓	↓	-3.5%	↓	↑	-3.5%	-7.3%	-6.6%
Debt-to-EBITDA (Low vs High)	-3.1%	↓	↓	-3.5%	↓	↑	-2.3%	-9.1%	-11.3%
Gross Profit / Assets (High vs Low)	-1.6%	↓	↓	-3.7%	↓	↑	-4.7%	-9.0%	-7.3%
5-Year EPS Growth (High vs Low)	-1.0%	↓	↓	-3.9%	↓	↑	-1.2%	-7.9%	-4.8%
Debt-to-Assets (Low vs High)	-1.8%	↓	↓	-3.9%	↓	↓	-4.3%	-7.1%	-7.2%
Industry Cyclical vs Defensive	-0.2%	↓	↓	-4.3%	↓	↓	-4.2%	-3.4%	2.9%
Cyclical vs Defensive	-0.9%	↓	↓	-4.5%	↓	↓	-3.1%	-3.3%	-3.6%
Cash Ratio (High vs Low)	-3.6%	↓	↓	-4.7%	↓	↑	-6.6%	-13.0%	-26.2%
Cash-to-Debt (High vs Low)	-3.4%	↓	↓	-5.0%	↓	↑	-6.0%	-10.4%	-20.5%
Cash-to-Assets (High vs Low)	-4.6%	↓	↓	-5.1%	↓	↑	-6.3%	-12.2%	-23.9%
Net Cash Ratio (High vs Low)	-3.8%	↓	↓	-5.4%	↓	↑	-6.7%	-14.1%	-18.7%
Net Debt-to-Market Cap (Low vs High)	-4.1%	↓	↓	-5.4%	↓	↑	-7.5%	-16.4%	-21.4%
1-Year Sales Growth (High vs Low)	-3.5%	↓	↓	-7.5%	↓	↑	-8.2%	-18.1%	-19.8%
5-Year Sales Growth (High vs Low)	-5.5%	↓	↓	-8.7%	↓	↑	-9.2%	-18.2%	-24.4%

Source: ClariFi, Morgan Stanley Research

Exhibit 27: Best and Worst Performing Factor Leg Returns

Best 20 Performing Equal Weighted Group Return in Top 1000 as of Apr 21, 2022

Group	1 Week			1 Month			3M Ret	YTD Ret	12M Ret
	Ret	1W Chg	1M Chg	Ret	1M Chg	3M Chg			
Top 1000 (Equal Weighted)	-0.8%	↓	↓	-2.3%	↓	↑	-0.6%	-7.8%	-0.9%
High Trailing Dividend Yield	1.8%	↑	↓	2.0%	↓	↓	3.8%	3.0%	10.9%
High Total Yield	1.4%	↓	↓	1.6%	↓	↓	3.5%	1.7%	13.3%
High Dividend Payout Ratio	0.9%	↑	↓	1.5%	↓	↑	2.7%	-1.6%	9.2%
Low 1-Year Sales Growth	0.1%	↓	↓	1.4%	↓	↑	4.7%	0.6%	5.8%
High Inventory Turnover	0.0%	↓	↓	1.0%	↓	↑	5.5%	-0.7%	9.6%
Low 12m Volatility	1.4%	↑	↓	1.0%	↓	↑	2.1%	-3.3%	9.9%
Low Sales Variability	1.2%	↑	↓	1.0%	↓	↑	1.0%	-3.1%	5.4%
Low 5-Year Dividend per share growth	0.2%	↓	↓	1.0%	↓	↓	3.8%	0.7%	11.1%
Industry Defensive	-0.7%	↓	↓	0.9%	↓	↑	2.6%	-4.9%	-3.3%
High Reinvestment Rate	0.8%	↑	↓	0.8%	↓	↑	1.9%	-3.4%	8.6%
Defensive	0.1%	↓	↓	0.7%	↓	↑	1.9%	-4.4%	4.0%
Low 5-Year Sales Growth	0.5%	↓	↓	0.7%	↓	↑	2.8%	-1.4%	5.5%
High Net Debt-to-Market Cap	0.8%	↓	↓	0.6%	↓	↓	3.6%	0.4%	6.5%
Low Cash Ratio	0.5%	↓	↓	0.5%	↓	↑	3.3%	-2.6%	7.0%
Low Cash-to-Assets	0.5%	↓	↓	0.4%	↓	↑	3.6%	-2.9%	8.1%
Low Reduction in Shares Outstanding	1.0%	↓	↓	0.4%	↓	↑	2.0%	-2.5%	11.4%
Quality	0.7%	↑	↓	0.3%	↓	↑	0.9%	-3.5%	8.9%
High Sales Growth Stability	-0.4%	↓	↓	0.3%	↓	↑	0.9%	-5.8%	3.8%
Low Net Cash Ratio	0.9%	↓	↓	0.2%	↓	↓	2.7%	-0.4%	6.8%
Low Tangible Book/Price	0.3%	↓	↓	0.2%	↓	↑	2.4%	-3.6%	5.1%

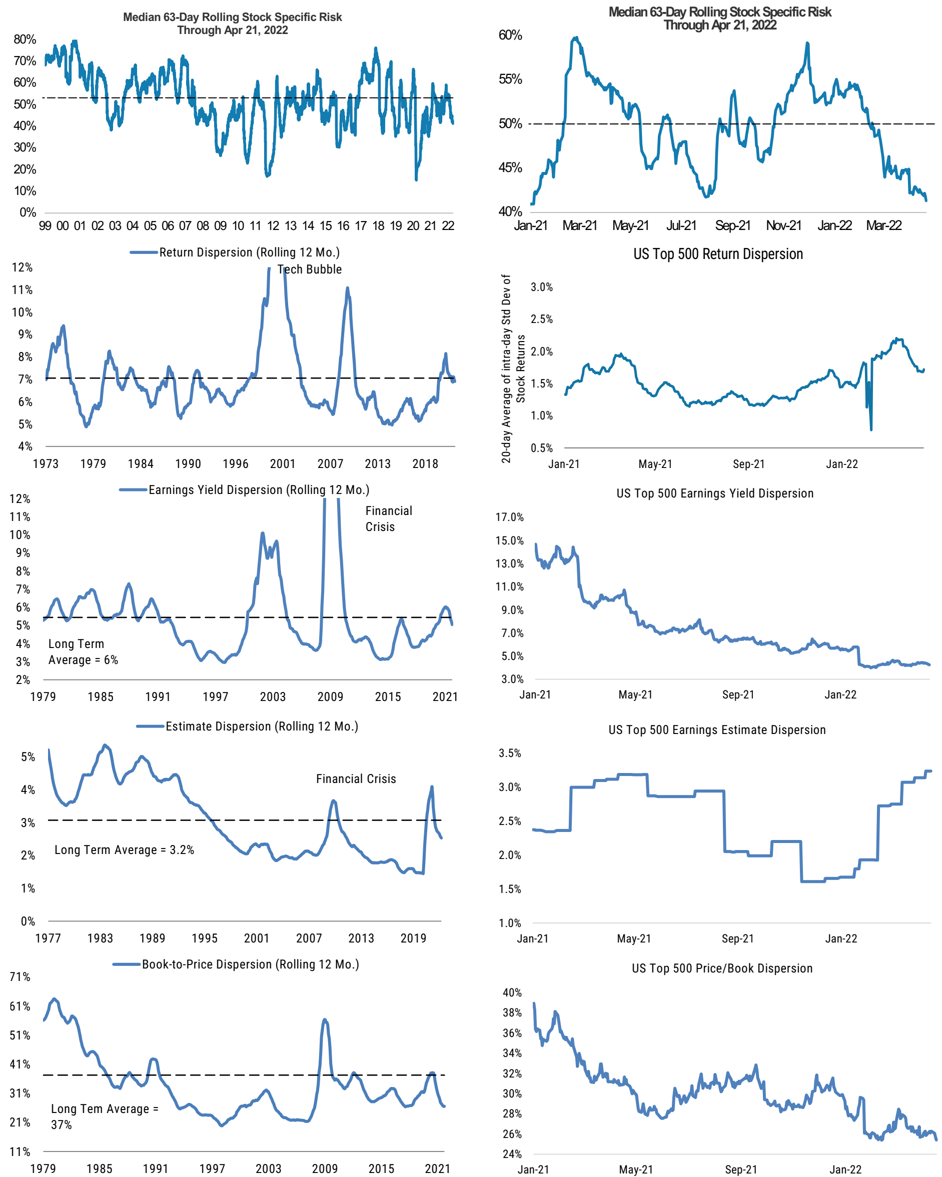
Worst 20 Performing Equal Weighted Group Return in Top 1000 as of Apr 21, 2022

Group	1 Week			1 Month			3M Ret	YTD Ret	12M Ret
	Ret	1W Chg	1M Chg	Ret	1M Chg	3M Chg			
Top 1000 (Equal Weighted)	-0.8%	↓	↓	-2.3%	↓	↑	-0.6%	-7.8%	-0.9%
High Price-to-Forward Earnings	-4.4%	↓	↓	-4.9%	↓	↑	-4.1%	-17.8%	-20.3%
Low Net Debt-to-Market Cap	-3.2%	↓	↓	-4.9%	↓	↑	-3.9%	-16.0%	-14.8%
High Composite Accruals	-2.4%	↓	↓	-4.9%	↓	↑	-3.0%	-14.1%	-11.4%
Low Debt-to-Assets	-2.8%	↓	↓	-5.0%	↓	↑	-3.7%	-15.3%	-10.1%
High CapEx-to-Depreciation	-3.1%	↓	↓	-5.1%	↓	↑	-2.9%	-14.0%	-10.8%
High Gross Profit / Assets	-2.7%	↓	↓	-5.1%	↓	↑	-3.5%	-14.6%	-8.9%
High Net Cash Ratio	-2.9%	↓	↓	-5.2%	↓	↑	-4.0%	-14.4%	-11.9%
High Cash-to-Debt	-2.9%	↓	↓	-5.2%	↓	↑	-4.1%	-14.5%	-13.6%
High Sales Variability	-3.8%	↓	↓	-5.4%	↓	↑	-3.4%	-14.9%	-14.0%
Low 9-Month Price Momentum	-3.4%	↓	↓	-5.4%	↓	↓	-5.2%	-9.9%	-8.6%
High Accruals	-2.3%	↓	↓	-5.4%	↓	↑	-4.3%	-16.0%	-14.6%
Low Operational Efficiency	-3.2%	↓	↓	-5.5%	↓	↑	-5.0%	-15.7%	-12.0%
Growth	-3.2%	↓	↓	-6.0%	↓	↑	-5.6%	-18.0%	-13.6%
Low 3-Month Price Momentum	-3.4%	↓	↓	-6.0%	↓	↓	-4.5%	-11.5%	-8.2%
High 1-Year Sales Growth	-3.5%	↓	↓	-6.1%	↓	↑	-3.5%	-17.5%	-14.0%
Low 6-Month Price Momentum	-3.6%	↓	↓	-6.2%	↓	↓	-5.7%	-12.0%	-10.9%
High 12m Volatility	-3.9%	↓	↓	-6.3%	↓	↑	-1.8%	-12.5%	-13.4%
High Reduction in Shares Outstanding	-3.9%	↓	↓	-6.3%	↓	↑	-5.0%	-15.7%	-15.9%
High Y/Y Change in number of employees	-3.9%	↓	↓	-6.8%	↓	↑	-7.0%	-18.3%	-15.6%
High 5-Year Sales Growth	-4.9%	↓	↓	-8.0%	↓	↑	-6.3%	-19.6%	-19.0%

Source: ClariFi, Morgan Stanley Research

In Exhibit 28, we continue to monitor a number of dispersion metrics on a long-term and short-term basis. For most forms of dispersion, 2021 marked a local peak with these measures now back at or below long-term averages. Stock specific risk continues to fall to 2021 lows as geopolitical uncertainty and macro risk continue to weigh on equities broadly. Return dispersion rose for most of 1Q22 but has declined since mid-March. Earnings estimate dispersion continues to rise as 1Q22 earnings season progresses.

Exhibit 28: US Top 500 Dispersion Metrics: Long-term and Short-Term



Source: ClariFi, Morgan Stanley Research

Lastly, we monitor these dispersion metrics on a percentile basis relative to history (Exhibit 29). Return dispersion remains historically elevated at the S&P 500 level and led by energy, media & entertainment, and retailing. Valuations dispersion per earnings yield are at and below long term averages and see wide dispersion at the industry group level. Lastly, S&P 500 earnings estimate dispersion is historically high across most industries with Utilities and Telecom Services as the outliers at near all-time dispersion lows.

Exhibit 29: Historical Dispersion Metrics by Industry Group

	Percentile Since 2000			
	Return Dispersion	Earning Yield Dispersion	Book/Price Dispersion	Earnings Estimate Dispersion
S&P 500	86%	47%	21%	93%
Energy	88%	6%	22%	86%
Materials	69%	84%	10%	82%
Capital Goods	81%	69%	48%	81%
Commercial & Professional Services	8%	29%	13%	95%
Transportation	32%	69%	11%	88%
Automobiles & Components	96%	85%	79%	75%
Consumer Durables & Apparel	88%	86%	94%	90%
Consumer Services	17%	78%	27%	94%
Retailing	93%	45%	7%	49%
Food & Staples Retailing	34%	88%	91%	96%
Food, Beverage & Tobacco	11%	64%	36%	98%
Household & Personal Products	53%	40%	1%	98%
Health Care Equipment & Services	65%	35%	33%	84%
Pharma, Biotech & Life Sciences	68%	82%	51%	71%
Banks	86%	63%	42%	82%
Diversified Financials	70%	81%	45%	92%
Insurance	12%	50%	57%	90%
Software & Services	92%	43%	50%	81%
Technology Hardware & Equipment	47%	64%	67%	54%
Semiconductors & Semi Equipment	92%	47%	51%	33%
Telecommunication Services	26%	51%	71%	1%
Media & Entertainment	96%	43%	51%	90%
Utilities	68%	20%	35%	4%
Real Estate	37%	38%	34%	83%

Source: ClariFi, Morgan Stanley Research

Fresh Money Buy List

Exhibit 30: Fresh Money Buy List - Stats & Performance

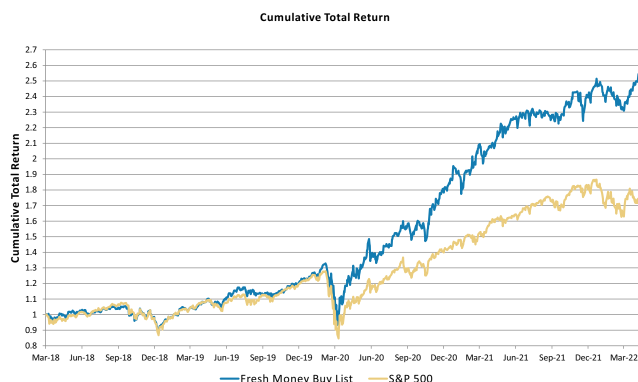
Company Name	Ticker	MS Rating	Sector	Market Cap ($Bn)	Price	MS PT	% to MS PT	MS Analyst	Date Added	Total Return Since Inclusion	
										Absolute	Rel. to S&P
AT&T, Inc.	T	Overweight	Communication Services	$144.7	$20.21	22.00	8.9%	Flannery, Simon	12/20/2021	16.5%	20.9%
CenterPoint Energy Inc	CNP	Overweight	Utilities	$20.3	$32.26	31.00	(3.9%)	Byrd, Stephen	3/21/2022	11.0%	12.5%
Coca-Cola Co.	KO	Overweight	Consumer Staples	$287.0	$66.21	76.00	14.8%	Mohsenian, Dara	3/28/2022	7.6%	10.8%
Exxon Mobil Corporation	XOM	Overweight	Energy	$367.8	$87.03	95.00	9.2%	McDermott, Devin	2/22/2021	75.4%	61.1%
Humana Inc	HUM	Equal-Weight	Health Care	$57.8	$455.92	436.00	(4.4%)	Goldwasser, Ricky	7/19/2018	47.6%	(19.0%)
McDonald's Corporation	MCD	Overweight	Consumer Discretionary	$188.8	$255.25	287.00	12.4%	Glass, John	10/18/2021	6.6%	7.6%
Mondelez International Inc	MDLZ	Overweight	Consumer Staples	$91.1	$65.84	70.00	6.3%	Kaufman, Pamela	7/19/2021	4.2%	1.6%
SBA Communications	SBAC	Overweight	Real Estate	$40.0	$370.16	412.00	11.3%	Flannery, Simon	6/7/2021	19.0%	13.9%
Simon Property Group Inc	SPG	Overweight	Real Estate	$43.0	$130.85	160.00	22.3%	Hill, Richard	2/16/2021	26.7%	13.2%
Welltower Inc.	WELL	Overweight	Real Estate	$44.2	$97.30	100.00	2.8%	Hill, Richard	2/22/2021	46.6%	32.3%
Current List Performance											
Average (Eq. Weight)				$128.5			8.0%			26.1%	15.5%
Median				$74.4			9.0%			17.7%	12.8%
% Positive Returns (Abs. / Rel.)										100%	90%
% Negative Returns (Abs. / Rel.)										0%	10%
Avg. Hold Period (Months)											12.0
All Time List Performance											
Average (Eq. Weight)										32.5%	14.8%
Median										19.2%	12.1%
% Positive Returns (Abs. / Rel.)										81%	62%
% Negative Returns (Abs. / Rel.)										21%	38%
Avg. Hold Period (Months)											13.3

Performance returns shown above and below represent local currency total returns, including dividends and excluding brokerage commission. Returns are calculated using the closing price on the last trading day before the date shown in the "Date Added" column through close on the last trading day prior to publication of this report for stocks currently on the list and through close on the day of removal for stocks formerly on the list. These figures are not audited. Past performance is no guarantee of future results.

++ Rating and other information has been removed from consideration in this report because, under applicable law and/or Morgan Stanley policy, Morgan Stanley may be precluded from issuing such information with respect to this company at this time.

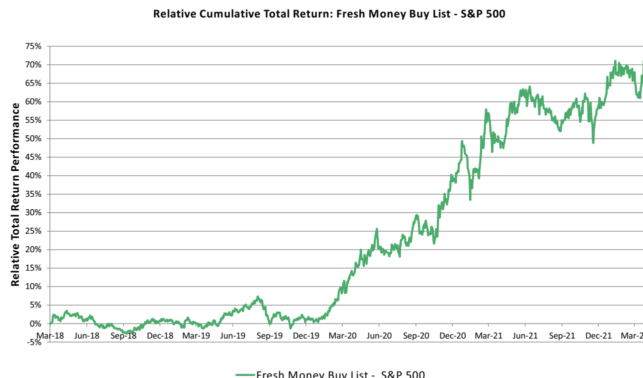
Source: Bloomberg, Morgan Stanley Research estimates.

Exhibit 31: Fresh Money Buy List & S&P 500 Cumulative Total Return



Source: Bloomberg, Morgan Stanley Research.

Exhibit 32: Fresh Money Buy List / S&P 500 Cumulative Relative Return



Source: Bloomberg, Morgan Stanley Research.

AT&T (T), Simon Flannery

- 1Q22 Cross-Asset Review: Back to Basics: AT&T kicks off Telco earnings with a solid print, seeing strength in wireless and fiber, though it works through Business Wireline pressures. We continue to see an opportunity for upside as the business continues to execute on the basics and reiterate our $22 PT. AT&T's results provided a reassuring start to earnings season for the large Telcos, and provides support to the view that 2022 is setting out to be a solid year, with a good if not great, wireless net add environment, stable pricing and well controlled margins. It was good to see AT&T once again beat expectations on wireless net adds, and show good fiber momentum although Business Wireline was soft once again. Longer term questions around the achievability of guidance remain, particularly for 2023, but we believe that is largely reflected in the discounted valuation of the stock. These results also mark the last full quarter of WarnerMedia, clearing the deck going forward for a much more focused company.

- 1Q22 Earnings: Solid Results After Deal Close: (+) EPS beats consensus by 2c. AT&T reported an adjusted EPS of 77c, 2c above consensus estimates. Consolidated revenues of $38.1B (-13.3% Y/Y) came in slightly higher than MSe (-13.7%) and consensus (-14.6%). However, lower adjusted EBITDA margins of 30.5% resulted in a miss that was primarily driven by WarnerMedia. Capital investments of $6.3B came in higher than MSe, resulting in lower FCF of $733M. (+) Wireless KPIs extend momentum. Wireless service revenues grew 4.8% Y/Y, accelerating Q/Q by 20bps. Postpaid phone net adds of +691k handily beat estimates, continuing to impress despite concerns of an industry reversion to lower levels. Phone adds excluded a 438k base adjustment due to the 3G shutdown. 3G shutdown costs were $300M in the quarter. Postpaid churn of 94bps also beat estimates. Postpaid ARPU fell 50bps, better than consensus estimates as the AT&T is expecting more stabilization in ARPU this year.

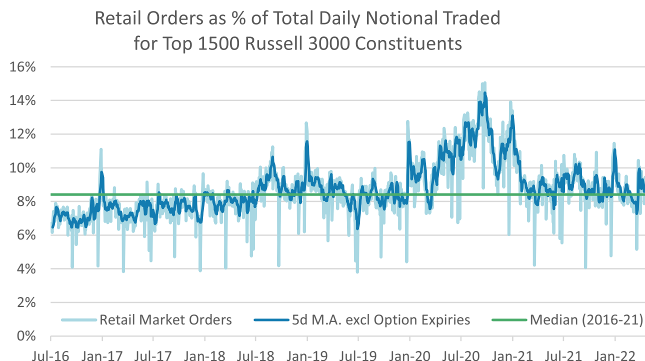
What's Retail Doing?

Our Quantitative Equity Strategy team recently introduced a novel way to track the activity of retail traders using publicly available data. We provide a few updates and key observations on the retail trader using this approach.

A few key observations:

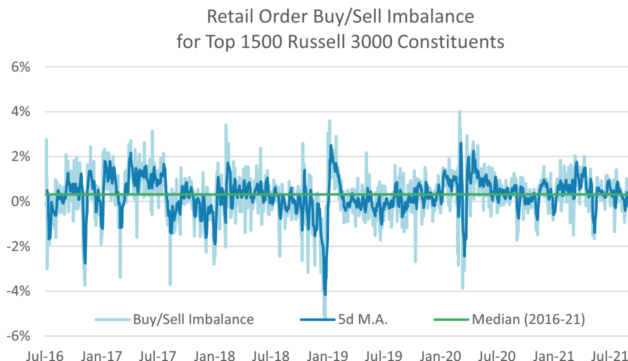
- Retail participation is currently at 8.7% of the total market volume,and at 60th %-ile relative to the last 5 years.
- Order imbalance remains slight positive last week. It currently sits at 0.1% or 39th percentile relative to the last 5 years.
- Imbalance is mixed on sector level. It is most positive relative to sector history in Energy (91st %-ile), and most negative relative to sector history in Health Care (14th %-ile), and Technology (20th %-ile). Health Care and Utilities are most negative in buy/sell imbalance.

Exhibit 33: Retail orders as a % of notional traded now above median



Source: Morgan Stanley Research, Morgan Stanley Quantitative and Derivative Strategies, Compustat

Exhibit 34: ... and slight positive in order imbalance



Source: Morgan Stanley Research, Morgan Stanley Quantitative and Derivative Strategies, Compustat

Exhibit 35: Retail's buy/sell imbalance is most positive in Energy, and negative in Health Care and Utilities

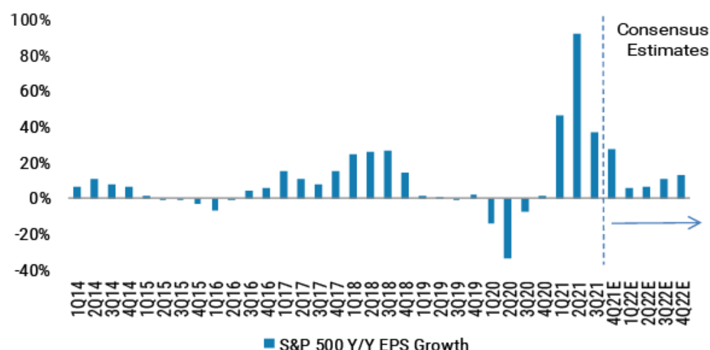
	Retail Participation			Buy/Sell Imbalance		
Sector	**2016-21 Median**	**Current**	**p-tile**	**2016-21 Median**	**Current**	**p-tile**
Energy	6.7%	8.8%	0.91	-0.32%	1.7%	0.91
Materials	5.7%	6.9%	0.83	0.5%	0.8%	0.56
Industrials	6.7%	6.1%	0.28	0.0%	0.1%	0.47
Consumer Discretionary	11.2%	10.3%	0.32	0.7%	0.2%	0.27
Consumer Staples	6.1%	4.8%	0.10	0.5%	0.1%	0.64
Health Care	5.9%	4.3%	0.03	0.4%	1.8%	0.14
Financials	5.6%	5.4%	0.42	0.0%	0.8%	0.71
Information Technology	10.8%	10.9%	0.53	0.5%	0.1%	0.20
Communication Services	8.8%	12.9%	0.89	0.3%	0.7%	0.61
Utilities	3.9%	3.3%	0.15	1.2%	1.6%	0.41
Real Estate	3.5%	3.0%	0.11	0.6%	0.3%	0.33
Model Universe (Top 1500)	**8.5%**	**8.7%**	**0.60**	**0.3%**	**0.1%**	**0.39**

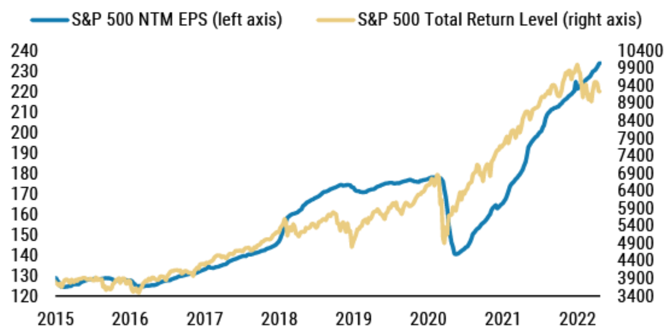
Source: Morgan Stanley Research, Morgan Stanley Quantitative and Derivative Strategies, Compustat

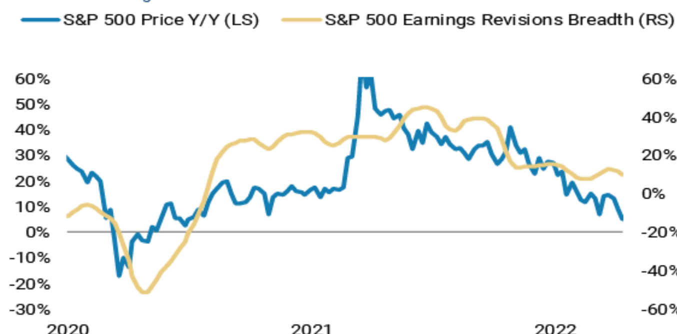
For more on the methodology, please see Quantitative Equity Research: The Rise of the Retail Trader (30 Jun 2021).

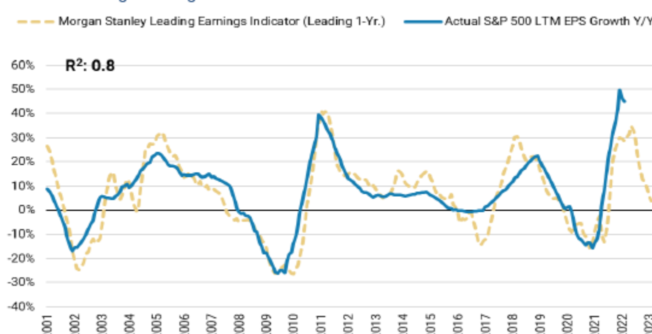
Weekly Charts to Watch

Exhibit 36: US Earnings Snapshot









Source: Refinitiv, FactSet, Morgan Stanley Research. Top and bottom left: As of Apr 21, 2022 Bottom right As of Feb 28, 2021. MS Leading Earnings Indicator is a macro factor based earnings model that leads actual earnings growth by one year with a 0.7 12-month leading correlation. Note: S&P 500 fundamental data used post March 1993; Top 500 by market cap data used before 1993. LTM equity risk premium average is since 1920. ERP based on forward earnings yield and 10-year Treasury Yield.

Exhibit 37: S&P 500 Price Target

Morgan Stanley S&P 500 Year-End 2022 Price Target

Landscape	Earnings	Multiple	Price Target	Upside / Downside
Bull Case	$265	18.8x	5,000	17.0%
Base Case	$245	18.0x	4,400	3.0%
Bear Case	$225	17.2x	3,900	-8.7%
Current S&P 500 Price as of:		4/22/2022	4,272	

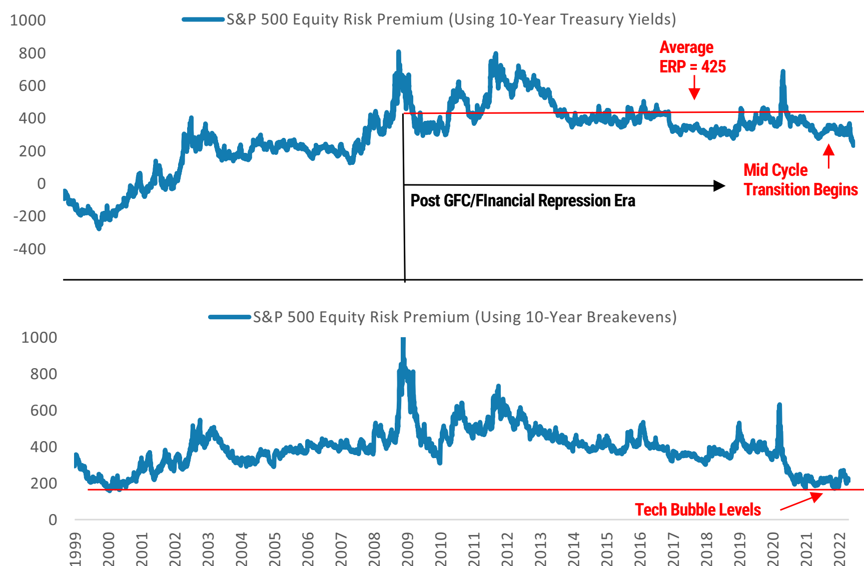
Note: We use 2022YE forward earnings to project our price target which takes into account our 2023YE earnings forecast (currently $245 base case).
Source: Bloomberg, Morgan Stanley Research

Exhibit 38: Sector Ratings

Morgan Stanley Sector Recommendations			
Overweight	Utilities	Health Care	Real Estate
Neutral	Comm. Services	Energy	Industrials
	Materials	Staples	Tech ex Hardware
	Financials		
Underweight	Discretionary	Tech Hardware	

Source: Morgan Stanley Research

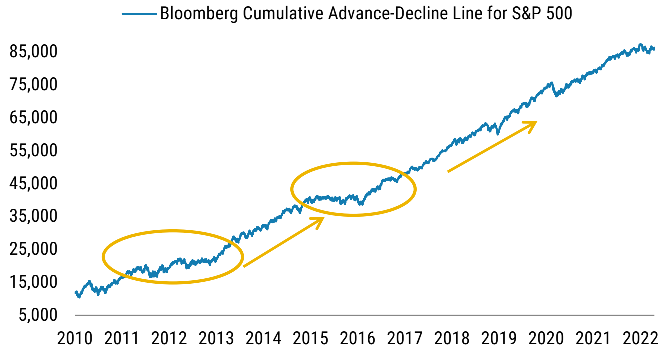
Exhibit 39: S&P 500 Equity Risk Premium using Nominal Rates and Breakevens



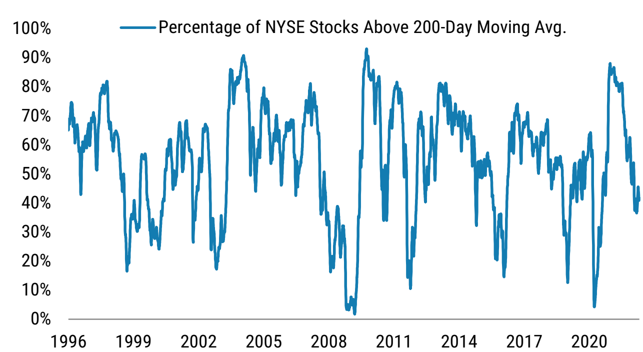
Source: Bloomberg, Morgan Stanley Research. As of Apr 21, 2022

Exhibit 40: US Equity Market Technicals and Financial Conditions

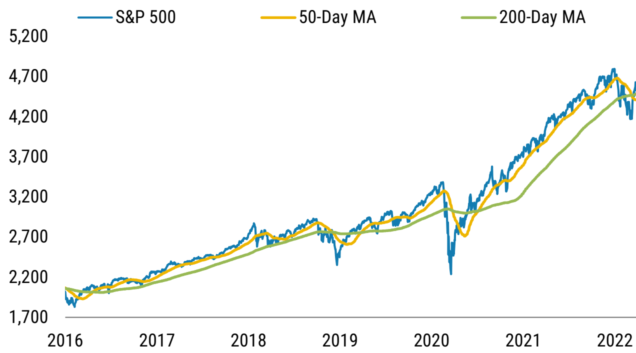
S&P 500 Cumulative Advance-Decline



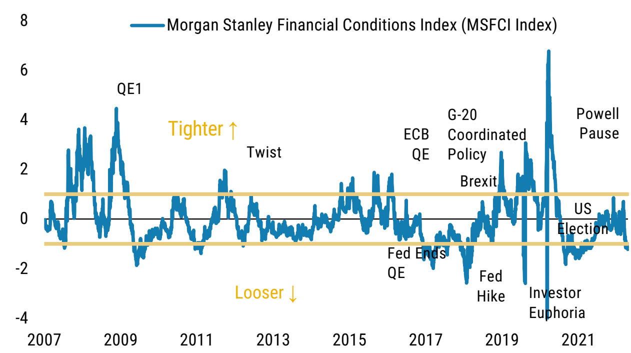
S&P 500 Percent Members Above 200-Day Moving Average



S&P 500 with Moving Averages



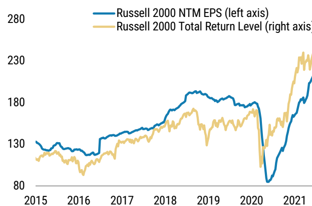
Morgan Stanley Financial Conditions Index



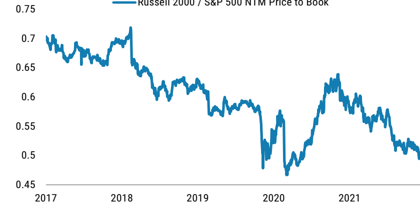
Source: Bloomberg, Morgan Stanley Research. All: As of Apr 21, 2022

Exhibit 41: US Small Cap Equities

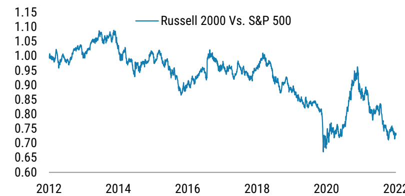
Russell 2000 NTM EPS vs. Total Return Level



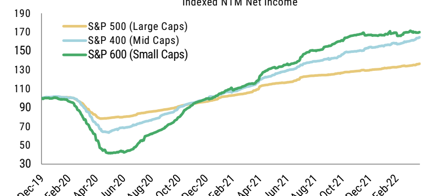
Russell 2000 NTM P/B and Relative NTM P/B vs. S&P 500



Russell 2000 Relative Performance vs. S&P 500

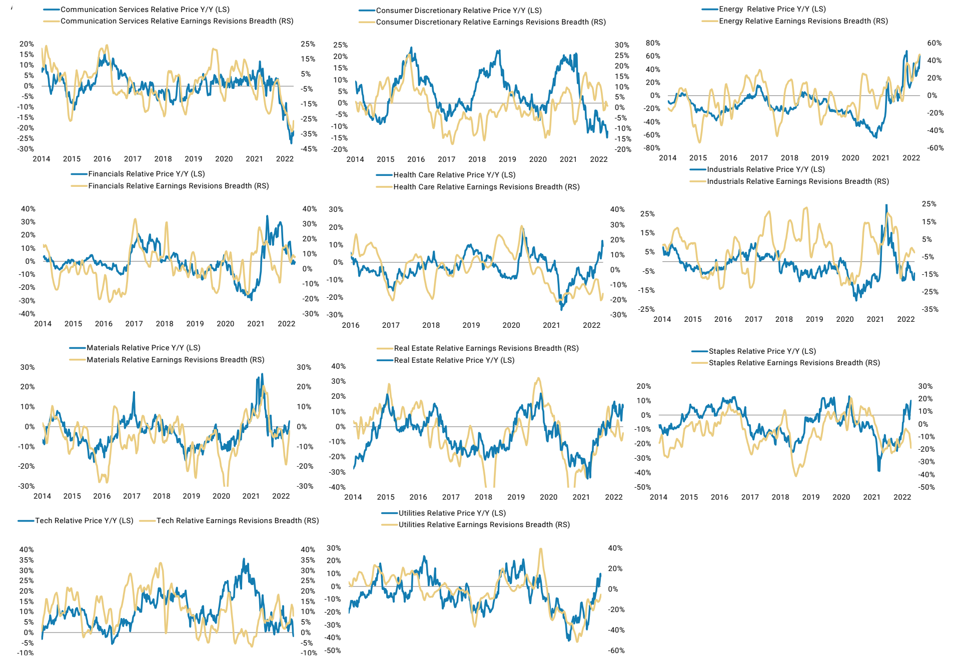


NTM EPS by Cap Size



Source: FactSet, Morgan Stanley Research. As of Apr 21, 2022

Exhibit 42: Earnings Revisions Breadth vs YoY Performance



Source: FactSet, Morgan Stanley Research. As of Apr 14, 2022

For valuation methodology and risks associated with any price targets referenced in this research report, please contact the Client Support Team as follows: US/Canada +1 800 303-2495; Hong Kong +852 2848-5999; Latin America +1 718 754-5444 (U.S.); London +44 (0)20-7425-8169; Singapore +65 6834-6860; Sydney +61 (0)2-9770-1505; Tokyo +81 (0)3-6836-9000. Alternatively you may contact your investment representative or Morgan Stanley Research at 1585 Broadway (Attention: Research Management), New York, NY 10036 USA.

Disclosure Section

The information and opinions in Morgan Stanley Research were prepared by Morgan Stanley & Co. LLC, and/or Morgan Stanley C.T.V.M. S.A., and/or Morgan Stanley Mexico, Casa de Bolsa, S.A. de C.V., and/or Morgan Stanley Canada Limited. As used in this disclosure section, "Morgan Stanley" includes Morgan Stanley & Co. LLC, Morgan Stanley C.T.V.M. S.A., Morgan Stanley Mexico, Casa de Bolsa, S.A. de C.V., Morgan Stanley Canada Limited and their affiliates as necessary.
For important disclosures, stock price charts and equity rating histories regarding companies that are the subject of this report, please see the Morgan Stanley Research Disclosure Website at www.morganstanley.com/researchdisclosures, or contact your investment representative or Morgan Stanley Research at 1585 Broadway, (Attention: Research Management), New York, NY, 10036 USA.
For valuation methodology and risks associated with any recommendation, rating or price target referenced in this research report, please contact the Client Support Team as follows: US/Canada +1 800 303-2495; Hong Kong +852 2848-5999; Latin America +1 718 754-5444 (U.S.); London +44 (0)20-7425-8169; Singapore +65 6834-6860; Sydney +61 (0)2-9770-1505; Tokyo +81 (0)3-6836-9000. Alternatively you may contact your investment representative or Morgan Stanley Research at 1585 Broadway, (Attention: Research Management), New York, NY 10036 USA.

Analyst Certification

The following analysts hereby certify that their views about the companies and their securities discussed in this report are accurately expressed and that they have not received and will not receive direct or indirect compensation in exchange for expressing specific recommendations or views in this report: Diane Ding, Ph.D.; Nicholas Lentini, CFA; Andrew B Pauker; Michelle M. Weaver, CFA; Michael J Wilson.
.

Global Research Conflict Management Policy

Morgan Stanley Research has been published in accordance with our conflict management policy, which is available at www.morganstanley.com/institutional/research/conflictpolicies. A Portuguese version of the policy can be found at www.morganstanley.com.br

Important Regulatory Disclosures on Subject Companies

The analyst or strategist (or a household member) identified below owns the following securities (or related derivatives): Diane Ding, Ph.D. - Simon Property Group Inc(common or preferred stock).
As of March 31, 2022, Morgan Stanley beneficially owned 1% or more of a class of common equity securities of the following companies covered in Morgan Stanley Research: AT&T, Inc., CenterPoint Energy Inc, Coca-Cola Co., Exxon Mobil Corporation, Humana Inc, McDonald's Corporation, Mondelez International Inc, SBA Communications, Simon Property Group Inc, Welltower Inc..
Within the last 12 months, Morgan Stanley managed or co-managed a public offering (or 144A offering) of securities of CenterPoint Energy Inc, Coca-Cola Co., Humana Inc, Mondelez International Inc, Welltower Inc..
Within the last 12 months, Morgan Stanley has received compensation for investment banking services from CenterPoint Energy Inc, Coca-Cola Co., Exxon Mobil Corporation, Humana Inc, McDonald's Corporation, Mondelez International Inc, Simon Property Group Inc, Welltower Inc..
In the next 3 months, Morgan Stanley expects to receive or intends to seek compensation for investment banking services from AT&T, Inc., CenterPoint Energy Inc, Coca-Cola Co., Exxon Mobil Corporation, Humana Inc, McDonald's Corporation, Mondelez International Inc, SBA Communications, Simon Property Group Inc, Welltower Inc..
Within the last 12 months, Morgan Stanley has received compensation for products and services other than investment banking services from AT&T, Inc., CenterPoint Energy Inc, Coca-Cola Co., Exxon Mobil Corporation, Humana Inc, McDonald's Corporation, Mondelez International Inc, Simon Property Group Inc, Welltower Inc..
Within the last 12 months, Morgan Stanley has provided or is providing investment banking services to, or has an investment banking client relationship with, the following company: AT&T, Inc., CenterPoint Energy Inc, Coca-Cola Co., Exxon Mobil Corporation, Humana Inc, McDonald's Corporation, Mondelez International Inc, SBA Communications, Simon Property Group Inc, Welltower Inc..
Within the last 12 months, Morgan Stanley has either provided or is providing non-investment banking, securities-related services to and/or in the past has entered into an agreement to provide services or has a client relationship with the following company: AT&T, Inc., CenterPoint Energy Inc, Coca-Cola Co., Exxon Mobil Corporation, Humana Inc, McDonald's Corporation, Mondelez International Inc, Simon Property Group Inc, Welltower Inc..
An employee, director or consultant of Morgan Stanley is a director of AT&T, Inc.. This person is not a research analyst or a member of a research analyst's household.
Morgan Stanley & Co. LLC makes a market in the securities of AT&T, Inc., CenterPoint Energy Inc, Coca-Cola Co., Exxon Mobil Corporation, McDonald's Corporation, Mondelez International Inc, SBA Communications, Simon Property Group Inc, Welltower Inc..
The equity research analysts or strategists principally responsible for the preparation of Morgan Stanley Research have received compensation based upon various factors, including quality of research, investor client feedback, stock picking, competitive factors, firm revenues and overall investment banking revenues. Equity Research analysts' or strategists' compensation is not linked to investment banking or capital markets transactions performed by Morgan Stanley or the profitability or revenues of particular trading desks.
Morgan Stanley and its affiliates do business that relates to companies/instruments covered in Morgan Stanley Research, including market making, providing liquidity, fund management, commercial banking, extension of credit, investment services and investment banking. Morgan Stanley sells to and buys from customers the securities/instruments of companies covered in Morgan Stanley Research on a principal basis. Morgan Stanley may have a position in the debt of the Company or instruments discussed in this report. Morgan Stanley trades or may trade as principal in the debt securities (or in related derivatives) that are the subject of the debt research report.
Certain disclosures listed above are also for compliance with applicable regulations in non-US jurisdictions.

STOCK RATINGS

Morgan Stanley uses a relative rating system using terms such as Overweight, Equal-weight, Not-Rated or Underweight (see definitions below). Morgan Stanley does not assign ratings of Buy, Hold or Sell to the stocks we cover. Overweight, Equal-weight, Not-Rated and Underweight are not the equivalent of buy, hold and sell. Investors should carefully read the definitions of all ratings used in Morgan Stanley Research. In addition, since Morgan Stanley Research contains more complete information concerning the analyst's views, investors should carefully read Morgan Stanley Research, in its entirety, and not infer the contents from the rating alone. In any case, ratings (or research) should not be used or relied upon as investment advice. An investor's decision to buy or sell a stock should depend on individual circumstances (such as the investor's existing holdings) and other considerations.

Global Stock Ratings Distribution

(as of March 31, 2022)
The Stock Ratings described below apply to Morgan Stanley's Fundamental Equity Research and do not apply to Debt Research produced by the Firm.
For disclosure purposes only (in accordance with FINRA requirements), we include the category headings of Buy, Hold, and Sell alongside our ratings of Overweight, Equal-weight, Not-Rated and Underweight. Morgan Stanley does not assign ratings of Buy, Hold or Sell to the stocks we cover. Overweight, Equal-weight, Not-Rated and Underweight are not the equivalent of buy, hold, and sell but represent recommended relative weightings (see definitions below). To satisfy regulatory requirements, we correspond Overweight, our most positive stock rating, with a buy recommendation; we correspond Equal-weight and

Not-Rated to hold and Underweight to sell recommendations, respectively.

STOCK RATING CATEGORY	COVERAGE UNIVERSE		INVESTMENT BANKING CLIENTS (IBC)			OTHER MATERIAL INVESTMENT SERVICES CLIENTS (MISC)	
	COUNT	% OF TOTAL	COUNT	% OF TOTAL IBC	% OF RATING CATEGORY	COUNT	% OF TOTAL OTHER MISC
Overweight/Buy	**1438**	**41%**	**366**	**45%**	**25%**	**630**	**41%**
Equal-weight/Hold	**1539**	**44%**	**365**	**45%**	**24%**	**712**	**46%**
Not-Rated/Hold	**0**	**0%**	**0**	**0%**	**0%**	**0**	**0%**
Underweight/Sell	**552**	**16%**	**87**	**11%**	**16%**	**207**	**13%**
TOTAL	**3,529**		**818**			**1549**	

Data include common stock and ADRs currently assigned ratings. Investment Banking Clients are companies from whom Morgan Stanley received investment banking compensation in the last 12 months. Due to rounding off of decimals, the percentages provided in the "% of total" column may not add up to exactly 100 percent.

Analyst Stock Ratings

Overweight (O). The stock's total return is expected to exceed the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.
Equal-weight (E). The stock's total return is expected to be in line with the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.
Not-Rated (NR). Currently the analyst does not have adequate conviction about the stock's total return relative to the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.
Underweight (U). The stock's total return is expected to be below the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.
Unless otherwise specified, the time frame for price targets included in Morgan Stanley Research is 12 to 18 months.

Analyst Industry Views

Attractive (A): The analyst expects the performance of his or her industry coverage universe over the next 12-18 months to be attractive vs. the relevant broad market benchmark, as indicated below.
In-Line (I): The analyst expects the performance of his or her industry coverage universe over the next 12-18 months to be in line with the relevant broad market benchmark, as indicated below.
Cautious (C): The analyst views the performance of his or her industry coverage universe over the next 12-18 months with caution vs. the relevant broad market benchmark, as indicated below.
Benchmarks for each region are as follows: North America - S&P 500; Latin America - relevant MSCI country index or MSCI Latin America Index; Europe - MSCI Europe; Japan - TOPIX; Asia - relevant MSCI country index or MSCI sub-regional index or MSCI AC Asia Pacific ex Japan Index.

Important Disclosures for Morgan Stanley Smith Barney LLC & E*TRADE Securities LLC Customers

Important disclosures regarding the relationship between the companies that are the subject of Morgan Stanley Research and Morgan Stanley Smith Barney LLC or Morgan Stanley or any of their affiliates, are available on the Morgan Stanley Wealth Management disclosure website at www.morganstanley.com/online/researchdisclosures. For Morgan Stanley specific disclosures, you may refer to www.morganstanley.com/researchdisclosures.
Each Morgan Stanley research report is reviewed and approved on behalf of Morgan Stanley Smith Barney LLC and E*TRADE Securities LLC. This review and approval is conducted by the same person who reviews the research report on behalf of Morgan Stanley. This could create a conflict of interest.

Other Important Disclosures

Morgan Stanley & Co. International PLC and its affiliates have a significant financial interest in the debt securities of AT&T, Inc., CenterPoint Energy Inc, Coca-Cola Co., Exxon Mobil Corporation, Humana Inc, McDonald's Corporation, Mondelez International Inc, Welltower Inc..
Morgan Stanley Research policy is to update research reports as and when the Research Analyst and Research Management deem appropriate, based on developments with the issuer, the sector, or the market that may have a material impact on the research views or opinions stated therein. In addition, certain Research publications are intended to be updated on a regular periodic basis (weekly/monthly/quarterly/annual) and will ordinarily be updated with that frequency, unless the Research Analyst and Research Management determine that a different publication schedule is appropriate based on current conditions.
Morgan Stanley is not acting as a municipal advisor and the opinions or views contained herein are not intended to be, and do not constitute, advice within the meaning of Section 975 of the Dodd-Frank Wall Street Reform and Consumer Protection Act.
Morgan Stanley produces an equity research product called a "Tactical Idea." Views contained in a "Tactical Idea" on a particular stock may be contrary to the recommendations or views expressed in research on the same stock. This may be the result of differing time horizons, methodologies, market events, or other factors. For all research available on a particular stock, please contact your sales representative or go to Matrix at http://www.morganstanley.com/matrix.
Morgan Stanley Research is provided to our clients through our proprietary research portal on Matrix and also distributed electronically by Morgan Stanley to clients. Certain, but not all, Morgan Stanley Research products are also made available to clients through third-party vendors or redistributed to clients through alternate electronic means as a convenience. For access to all available Morgan Stanley Research, please contact your sales representative or go to Matrix at http://www.morganstanley.com/matrix.
Any access and/or use of Morgan Stanley Research is subject to Morgan Stanley's Terms of Use (http://www.morganstanley.com/terms.html). By accessing and/or using Morgan Stanley Research, you are indicating that you have read and agree to be bound by our Terms of Use (http://www.morganstanley.com/terms.html). In addition you consent to Morgan Stanley processing your personal data and using cookies in accordance with our Privacy Policy and our Global Cookies Policy (http://www.morganstanley.com/privacy_pledge.html), including for the purposes of setting your preferences and to collect readership data so that we can deliver better and more personalized service and products to you. To find out more information about how Morgan Stanley processes personal data, how we use cookies and how to reject cookies see our Privacy Policy and our Global Cookies Policy (http://www.morganstanley.com/privacy_pledge.html).

If you do not agree to our Terms of Use and/or if you do not wish to provide your consent to Morgan Stanley processing your personal data or using cookies please do not access our research.
Morgan Stanley Research does not provide individually tailored investment advice. Morgan Stanley Research has been prepared without regard to the circumstances and objectives of those who receive it. Morgan Stanley recommends that investors independently evaluate particular investments and strategies, and encourages investors to seek the advice of a financial adviser. The appropriateness of an investment or strategy will depend on an investor's circumstances and objectives. The securities, instruments, or strategies discussed in Morgan Stanley Research may not be suitable for all investors, and certain investors may not be eligible to purchase or participate in some or all of them. Morgan Stanley Research is not an offer to buy or sell or the solicitation of an offer to buy or sell any security/instrument or to participate in any particular trading strategy. The value of and income from your investments may vary because of changes in interest rates, foreign exchange rates, default rates, prepayment rates, securities/instruments prices, market indexes, operational or financial conditions of companies or other factors. There may be time limitations on the exercise of options or other rights in securities/instruments transactions. Past performance is not necessarily a guide to future performance. Estimates of future performance are based on assumptions that may not be realized. If provided, and unless otherwise stated, the closing price on the cover page is that of the primary exchange for the subject company's securities/instruments.
The fixed income research analysts, strategists or economists principally responsible for the preparation of Morgan Stanley Research have received compensation based upon various factors, including quality, accuracy and value of research, firm profitability or revenues (which include fixed income trading and capital markets profitability or revenues), client feedback and competitive factors. Fixed Income Research analysts', strategists' or economists' compensation is not linked to investment banking or capital markets transactions performed by Morgan Stanley or the profitability or revenues of particular trading desks.
The "Important Regulatory Disclosures on Subject Companies" section in Morgan Stanley Research lists all companies mentioned where Morgan Stanley owns 1% or more of a class of common equity securities of the companies. For all other companies mentioned in Morgan Stanley Research, Morgan Stanley may have an investment of less than 1% in securities/instruments or derivatives of securities/instruments of companies and may trade them in ways different from those discussed in Morgan Stanley Research. Employees of Morgan Stanley not involved in the preparation of Morgan Stanley Research may have investments in securities/instruments or derivatives of securities/instruments of companies mentioned and may trade them in ways different from those discussed in Morgan Stanley Research. Derivatives may be issued by Morgan Stanley or associated persons.
With the exception of information regarding Morgan Stanley, Morgan Stanley Research is based on public information. Morgan Stanley makes every effort to use reliable, comprehensive information, but we make no representation that it is accurate or complete. We have no obligation to tell you when opinions or information in Morgan Stanley Research change apart from when we intend to discontinue equity research coverage of a subject company. Facts and views presented in Morgan Stanley Research have not been reviewed by, and may not reflect information known to, professionals in other Morgan Stanley business areas, including investment banking personnel.
Morgan Stanley Research personnel may participate in company events such as site visits and are generally prohibited from accepting payment by the company of associated expenses unless pre-approved by authorized members of Research management.
Morgan Stanley may make investment decisions that are inconsistent with the recommendations or views in this report.
To our readers based in Taiwan or trading in Taiwan securities/instruments: Information on securities/instruments that trade in Taiwan is distributed by Morgan Stanley Taiwan Limited ("MSTL"). Such information is for your reference only. The reader should independently evaluate the investment risks and is solely responsible for their investment decisions. Morgan Stanley Research may not be distributed to the public media or quoted or used by the public media without the express written consent of Morgan Stanley. Any non-customer reader within the scope of Article 7-1 of the Taiwan Stock Exchange Recommendation Regulations accessing and/or receiving Morgan Stanley Research is not permitted to provide Morgan Stanley Research to any third party (including but not limited to related parties, affiliated companies and any other third parties) or engage in any activities regarding Morgan Stanley Research which may create or give the appearance of creating a conflict of interest. Information on securities/instruments that do not trade in Taiwan is for informational purposes only and is not to be construed as a recommendation or a solicitation to trade in such securities/instruments. MSTL may not execute transactions for clients in these securities/instruments.
Morgan Stanley is not incorporated under PRC law and the research in relation to this report is conducted outside the PRC. Morgan Stanley Research does not constitute an offer to sell or the solicitation of an offer to buy any securities in the PRC. PRC investors shall have the relevant qualifications to invest in such securities and shall be responsible for obtaining all relevant approvals, licenses, verifications and/or registrations from the relevant governmental authorities themselves. Neither this report nor any part of it is intended as, or shall constitute, provision of any consultancy or advisory service of securities investment as defined under PRC law. Such information is provided for your reference only.
Morgan Stanley Research is disseminated in Brazil by Morgan Stanley C.T.V.M. S.A. located at Av. Brigadeiro Faria Lima, 3600, 6th floor, São Paulo - SP, Brazil; and is regulated by the Comissão de Valores Mobiliários; in Mexico by Morgan Stanley México, Casa de Bolsa, S.A. de C.V which is regulated by Comision Nacional Bancaria y de Valores. Paseo de los Tamarindos 90, Torre 1, Col. Bosques de las Lomas Floor 29, 05120 Mexico City; in Japan by Morgan Stanley MUFG Securities Co., Ltd. and, for Commodities related research reports only, Morgan Stanley Capital Group Japan Co., Ltd; in Hong Kong by Morgan Stanley Asia Limited (which accepts responsibility for its contents) and by Morgan Stanley Asia International Limited, Hong Kong Branch; in Singapore by Morgan Stanley Asia (Singapore) Pte. (Registration number 199206298Z) and/or Morgan Stanley Asia (Singapore) Securities Pte Ltd (Registration number 200008434H), regulated by the Monetary Authority of Singapore (which accepts legal responsibility for its contents and should be contacted with respect to any matters arising from, or in connection with, Morgan Stanley Research) and by Morgan Stanley Asia International Limited, Singapore Branch (Registration number T11FC0207F); in Australia to "wholesale clients" within the meaning of the Australian Corporations Act by Morgan Stanley Australia Limited A.B.N. 67 003 734 576, holder of Australian financial services license No. 233742, which accepts responsibility for its contents; in Australia to "wholesale clients" and "retail clients" within the meaning of the Australian Corporations Act by Morgan Stanley Wealth Management Australia Pty Ltd (A.B.N. 19 009 145 555, holder of Australian financial services license No. 240813, which accepts responsibility for its contents; in Korea by Morgan Stanley & Co International plc, Seoul Branch; in India by Morgan Stanley India Company Private Limited; in Canada by Morgan Stanley Canada Limited, which has approved of and takes responsibility for its contents in Canada; in Germany and the European Economic Area where required by Morgan Stanley Europe S.E., authorised and regulated by Bundesanstalt fuer Finanzdienstleistungsaufsicht (BaFin) under the reference number 149169; in the US by Morgan Stanley & Co. LLC, which accepts responsibility for its contents. Morgan Stanley & Co. International plc, authorized by the Prudential Regulatory Authority and regulated by the Financial Conduct Authority and the Prudential Regulatory Authority, disseminates in the UK research that it has prepared, and approves solely for the purposes of section 21 of the Financial Services and Markets Act 2000, research which has been prepared by any of its affiliates. RMB Morgan Stanley Proprietary Limited is a member of the JSE Limited and A2X(Pty) Ltd. RMB Morgan Stanley Proprietary Limited is a joint venture owned equally by Morgan Stanley International Holdings Inc. and RMB Investment Advisory (Proprietary) Limited, which is wholly owned by FirstRand Limited. The information in Morgan Stanley Research is being disseminated by Morgan Stanley Saudi Arabia, regulated by the Capital Market Authority in the Kingdom of Saudi Arabia , and is directed at Sophisticated investors only.
The information in Morgan Stanley Research is being communicated by Morgan Stanley & Co. International plc (DIFC Branch), regulated by the Dubai Financial Services Authority (the DFSA), and is directed at Professional Clients only, as defined by the DFSA. The financial products or financial services to which this research relates will only be made available to a customer who we are satisfied meets the regulatory criteria to be a Professional Client.
The information in Morgan Stanley Research is being communicated by Morgan Stanley & Co. International plc (QFC Branch), regulated by the Qatar Financial Centre Regulatory Authority (the QFCRA), and is directed at business customers and market counterparties only and is not intended for Retail Customers as defined by the QFCRA.
As required by the Capital Markets Board of Turkey, investment information, comments and recommendations stated here, are not within the scope of

investment advisory activity. Investment advisory service is provided exclusively to persons based on their risk and income preferences by the authorized firms. Comments and recommendations stated here are general in nature. These opinions may not fit to your financial status, risk and return preferences. For this reason, to make an investment decision by relying solely to this information stated here may not bring about outcomes that fit your expectations.
The trademarks and service marks contained in Morgan Stanley Research are the property of their respective owners. Third-party data providers make no warranties or representations relating to the accuracy, completeness, or timeliness of the data they provide and shall not have liability for any damages relating to such data. The Global Industry Classification Standard (GICS) was developed by and is the exclusive property of MSCI and S&P.
Morgan Stanley Research, or any portion thereof may not be reprinted, sold or redistributed without the written consent of Morgan Stanley.
Indicators and trackers referenced in Morgan Stanley Research may not be used as, or treated as, a benchmark under Regulation EU 2016/1011, or any other similar framework.
The issuers and/or fixed income products recommended or discussed in certain fixed income research reports may not be continuously followed. Accordingly, investors should regard those fixed income research reports as providing stand-alone analysis and should not expect continuing analysis or additional reports relating to such issuers and/or individual fixed income products.
Morgan Stanley may hold, from time to time, material financial and commercial interests regarding the company subject to the Research report.

© 2022 Morgan Stanley