September 12, 2022 04:01 AM GMT

US Equity Strategy | North America

Weekly Warm-up: Thoughts from the Road

Clients largely agree bottom-up EPS estimates are too high, but are generally more optimistic than we are on earnings; there's less agreement on our call for ERP expansion, and there's reluctance to embrace the bearish view because of recent positioning-driven squeezes.

Thoughts from the road…We spent this past week marketing our views with clients in London which provided a fresh reaction to our earnings cuts and feedback on how best to trade them. As detailed last week, our base case point estimate for 2023 S&P 500 EPS is now $212 which is 13% below bottom-up consensus. We think the buyside is closer to $225 on '23 EPS. The bulk of the disagreement centers on the argument that inflation will protect nominal profits for many companies, while we point out that we expect margins to be the primary driver of downside to EPS. We continued to get pushback on our call for equity risk premium expansion with some arguing that we're in a new, lower ERP regime due to higher inflation. Finally, we fielded the most questions on Energy, Financials and Consumer, while there was generally a lack of questions on Tech.

We recently published another wave of our AlphaWise Consumer Survey…The majority of consumers surveyed continue to say they are likely to cut back on spending over the next 6 months because of inflation, albeit this is trending down from the peak in mid-July (64% vs. 65% last month and 69% mid-July). Consumers have continued trading down in order to save money. Overall, 70% of consumers continue to report at least some trading down to their typical shopping and eating out preferences. Consumers report having, on average, 4-5 months worth of expenses in savings; this skews higher among the upper income cohort. Even with most consumers reporting to have at least some savings, the amount of savings tends to be lower compared to 2019 for 44% of consumers.

Our recurring meeting with lead industry analysts across US research…We focused the session around inventory, cost pressures, pricing and the health of the consumer. At a high level: e-commerce has help up better than expected but we are seeing trade down; the ad market has been choppy with relative strength coming through in experience-related spending; enterprise tech demand is slowing as companies call out a difficult macro environment; nominal consumer spending is elevated while real spending is slowing; hardlines/broadlines/food retail companies saw a better late July/August than June driven by back to school though inventories remain extended; specialty retailers and brands have seen sequential top line deceleration over the last several months; demand in the industrials space remains more stable; for restaurants, the availability of labor is now better- expect less onerous wage increases through year end.

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.

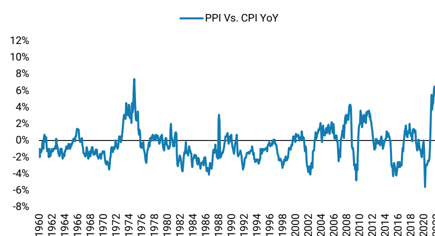
What to Focus on This Week

Thoughts From the Road

Last week, we published meaningful cuts to our earnings forecasts that leave us 13% below the bottom-up consensus for 2023 S&P 500 EPS in our base case. While we have been more bearish than most all year on growth, we waited to make these cuts until a week ago to try and time when these forecasts are likely to begin falling in earnest. In our experience, getting too far ahead of the actual cuts isn't all that helpful as the market typically will not trade big earnings revisions until they actually begin. As we noted last week, we think that risk is now particularly elevated as we enter 3Q earnings season. We also noted that it may take until October for stocks to trade lower because more investors now share our view on growth going into a busy conference season and are somewhat positioned for it.

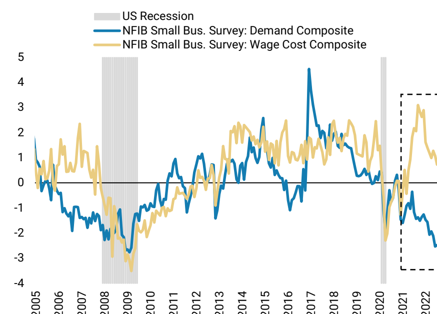
We spent this past week marketing our views with clients in London which provided a fresh reaction to our earnings cuts and feedback on how best to trade them. First, on the earnings cuts, most clients agree the consensus numbers are too high. That said, there is a wide range of views on how much the estimates need to come down. As noted, our base case point estimate for 2023 is $212 for S&P 500 EPS which is 13% below the bottoms up consensus. Based on our meetings, that is lower than what most are currently thinking. Without taking a formal survey, we think the buyside is closer to $225 on '23 EPS or about half as bad as our forecasted cut. The bulk of the disagreement continues to be centered on the argument that inflation will protect nominal profits for many companies and lead to smaller downward EPS revisions than what usually happens during a meaningful earnings correction. As a result, we spend much of our meetings discussing our view that inflationary periods do lead to higher operating leverage but that operating leverage cuts both ways. Most importantly, given the fact that costs are now rising faster than end point pricing, that operating leverage is now starting to work against profitability, and so there is a good chance the higher inflationary world we live in could lead to worse profit erosion than normal, not better (Exhibit 1 and Exhibit 2). This is probably the key differentiated view we have based on our interactions with clients, and many were more in our camp after our meetings.

Exhibit 1: PPI Continues to Outpace CPI at a Historic Rate...



Source: Bloomberg, Morgan Stanley Research.

Exhibit 2: Small Businesses Reporting a Wide Gap Between Worsening Demand and Still Elevated Wage Costs-- Margin Pressure



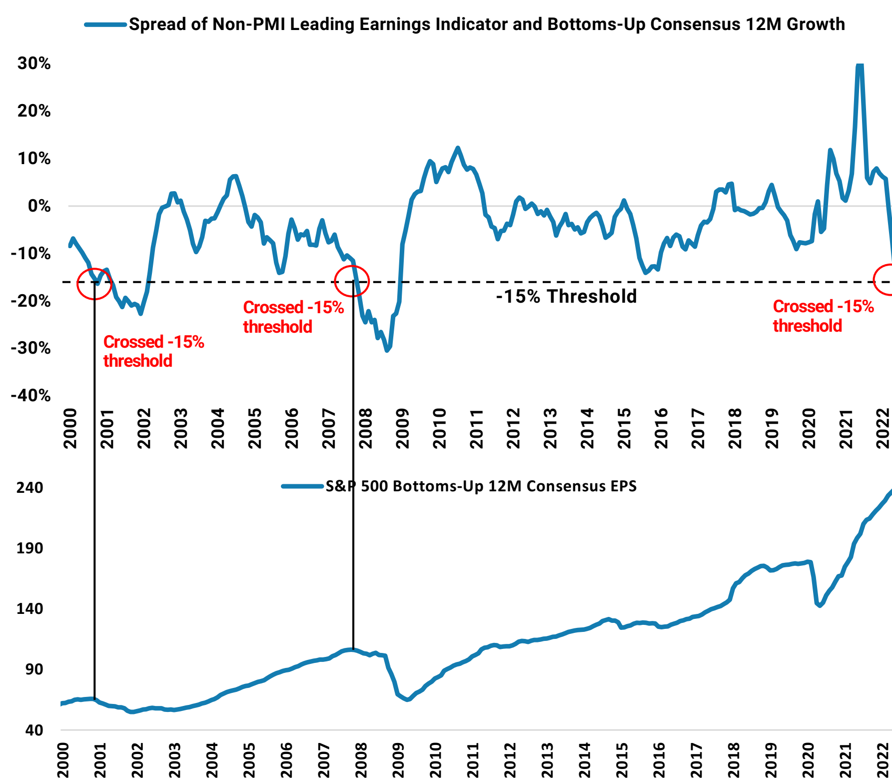
Source: Haver Analytics, Morgan Stanley Research, NFIB. Demand=Avg. z-score of economy to improve, higher real sales, higher earnings, raising prices. Wage Cost=Avg. z-score of planning to raise worker comp and cost of labor is most important problem.

After the discussion around earnings trajectory for the S&P 500, the focus then typically turned to how to trade it. Here, we have some sympathy for the view that markets may potentially hold up very tactically until the EPS cuts actually happen. As already noted, conference season is upon us and investors are ready for some bad news at least with regard to how 3Q is progressing. However, the degree of that deterioration is more debated now given the recently announced $500 billion student debt forgiveness and extended moratorium on loan payments until December, combined with the energy subsidy announced this past week in the UK to help consumers through the winter. Both of these are rather large fiscal stimulus packages that could keep the "tone" of company commentary less bearish than feared, and potentially delay the eventual cuts. Nonetheless, we have high conviction that EPS cuts will play out in earnest over the next 2-3 months, and as a reminder from our note last week, mid-September through October is a particularly challenging seasonal period for EPS revisions.

Valuation also remains an important topic in our meetings, but not to the extent it was when we visited Europe in May. This lines up with our recent calls and meetings with US investors as well. Like us, most equity clients feel like the Fed is largely priced into multiples via higher back end rates. This leaves equity risk premium as the key variable that will determine P/Es until earnings are reset. Here, we ran into more push back to our view the ERP is too low and that it's likely to reset higher as the earnings risk becomes more imminent. Truth be told, this is the single biggest miss for us this year. Part of our P/E compression call was predicated on a higher ERP, not just rates; and that has yet to happen. Instead, the ERP has actually fallen this year, and last week's rally has left the S&P 500 even richer on this basis than it was at the highs in August. More specifically, the ERP is now 252bps which is ~10bps lower than it was in August when the S&P 500 topped at 4,325. Not only is the ERP ~150bps below the average of the past 15 years, but this is occurring at a time when our forward NTM EPS model is at one of its largest spreads to the consensus forward estimates (Exhibit 3)—i.e., a time when the ERP should be elevated. The bull case here is that the S&P 500 ERP may be entering a newer lower range given the higher inflation most expect going forward. The argument is that stocks are a better asset to own than bonds in such a regime and therefore deserve a lower risk premium. While we agree with the premise of that argument and, in fact, used that exact statement to go all in on stocks in late March 2020, we don't think it's an appropriate rationale today if one believes we are entering a significant cyclical downturn for earnings forecasts (our view). Further, we note that it's

typically margin compression that's the early/more material driver of EPS downside in periods of negative earnings growth, not nominal top line which could be aided by higher inflation (a view that's reflected in our forecasts). Nevertheless, until proven otherwise, stocks may hold up until it's no longer deniable we are entering a steep earnings contraction. Another driver of lower ERPs for the S&P 500 is that virtually every other equity market is in a worse cyclical backdrop, and so it will likely continue to garner a lower risk premium until either the rest of the world offers a better alternative or the S&P disappoints materially on growth. Once again, markets often need the engraved invitation.

Exhibit 3: Spread Between Our Non-PMI Leading Earnings Model and Bottom-Up Consensus Forward 12-Month EPS Growth Is Near Historic Lows--ERP Should Be Higher to Reflect this Risk; Further, A Breach of -15% in this Spread Typically Marks Major Fwd. EPS Tops



Source: Haver, Bloomberg, Morgan Stanley Research

Finally, from a sector standpoint there was less conviction than usual. Compared to US investors the disparity on Tech was palpable. 75% of our interactions did not involve one question on leading Tech stocks. In fact, very few conversations centered around Tech at all, whereas in the US, 75% of all meetings still involve heavy discussion of Tech stocks with strong opinions. Suffice it to say the love affair with Tech we still see in the US is not present in London, and the investors we spoke with were US market focused for the most part. Instead, we got more questions on Energy, Financials and consumer sectors with more interest in the first two and less in the latter.

The bottom line, we remain laser focused on earnings as the key driver of stocks from here. While the Fed is important, it will likely not be the main driver of stocks on either the downside or the upside given the narrow path of options it has, in our view. We remain highly convicted that our well below consensus EPS forecasts for the S&P 500

will prove to be correct and possibly even optimistic as our models may be underestimating the negative operating leverage. Having said that, our experience suggests stocks can stay elevated until the out year numbers come down and that may not begin in earnest until October. But make no mistake, with every point the index rises from here, the risk-reward gets worse, not better on a 3-6 month horizon.

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. We focused the session around inventory and the health of the consumer. One theme that came up repeatedly was weakness broadening out from low income consumers to middle income consumer although high income consumers have continued to hold up.

- **Internet:** Online ecommerce has held up better than expected and the consumer has held in across the board especially for AMZN. The ad markets are not great but holding in. It sounds like August was better than July and 4Q is shaping up to be better than 3Q even though the comp is harder. This comes despite trade down.

- **Media:** DIS said ad market has remained choppy – seeing strength in experiential advertising. Consumer spend on entertainment remains robust across our coverage and in general, commentary from companies does not point to slowing spend from the consumer side yet. Theme park spend continues to outpace expectations on per caps and attendance. Comcast's Universal parks delivered record ebitda despite international tourism to the US parks in FL and CA still at half of pre-pandemic levels. At Disney, domestic parks continue to deliver record revenue and margins with no signs of a slowing consumer. 70% of guests who have purchased Genie+ and Lightning Lane are saying they're buying again when they come back; current trends from 2q earnings remain robust; have seen more advanced booking on international dates coming back, not yet back to historical though so more opportunity there. Consistent with results we've seen elsewhere in premium live experiences, EDR highlighted return of concerts, comedy touring driving outperformance while Live Nation, bookings are up over 30% and fan attendance grew 13% over '19 levels at operated venues. August box office came in ahead of expectations. The main message within cable/move activity here is that move activity continues to be below pre-covid levels and continues to generally be very low but seasonality has started to come back into the business; Charter has called out that voluntary churn was flat YoY and in-line with lowest levels ever seen; move and non-pay churn continue to be below covid levels.

- **Software:** We have seen a deceleration in IT spending growth intentions. Software companies are calling out the more difficult macro environment. The dynamic we are seeing is not what investors expected. You would expect small businesses to see it first and for nice to have projects get cut first while large enterprises hold in. What we have actually seen is deal cycle elongation for the biggest/most expensive projects. This is a step one response to a more uncertain environment. There is probably another shoe to drop and for IT budgets to actually get cut. You are likely to get indications on that when companies set 2023 budgets in Oct/Nov.

- **Semiconductors:** There is still an idiosyncratic supply disruption problem within semiconductors. Even though companies are seeing capacity freeing up, we are still seeing shortages from China lockdowns and substantial double ordering. That being said, with the current pace of supply and demand corrections, we will probably be done talking about shortages by Q4.

- **Tech Hardware:** Tech hardware companies had a challenging 2Q – consumer segments did poorly and guided down results for the remainder of CY22 while enterprise results were more mixed but started to show cracks in demand. We have already seen discounting occurring on the consumer side – those discounts are accelerating and now starting to bleed into the enterprise side, with Dell and HP recently highlighting PC demand deterioration in commercial markets could drive more aggressive pricing. We saw significant margin compression in 2Q. We are seeing a slowing in spending/hiring - we aren't seeing hiring cuts yet, but slowdown across the board and widespread opex management (i.e. cost cuts) as demand worsens.

- **Banks:** Consumer spend running at about 10% YOY. REAL spending is coming down but nominal is high. Wages have kept up with spend requirements so losses remain low with prime customers but sub-prime is having trouble. Loan growth is running at 11% while deposit growth is running at 3% due to QT.

- **Hardlines/Broadlines/Food Retail:** June was a very bad month for consumption but mid to late July and August back to school spending helped bail these companies out. Some of the momentum is likely to slow but companies feel a bit better now. Companies are seeing pressure and trade down at both the high AND low end. Inventories are still enormous and yet companies are saying this is not a problem. We think there is about one to two standard deviations of too much stuff. We haven't seen promotions come back with a vengeance YET. The consumer is okay and hanging in but the risks are higher than the opportunity.

- **Specialty Retail:** In 2Q22, the vast majority of retailers & brands missed topline & gross margin estimates. This reflected a sequential monthly topline deceleration, with May the peak followed by a material step-down in 2H June that only remained depressed or worsened in July & into August. And perhaps even more telling, retailers did not offer positive back-to-school commentary, unlike many in Simeon Gutman's space. We also saw consumer pressure expand into the middle income group in 2Q22, suggesting weakness is no longer isolated to lower income consumers. However, luxury has held in. Additionally, we have not seen any trade down benefit yet, as evidenced by the Off-Pricers' still-pressured results. However, we continue to expect this materializes, though the timing is the key debate. Moving down the P&L, revenue softness only exacerbated the inventory problem we've been highlighting all year, leading to broad-based 2Q22 gross margin misses as retailers increased their promotional & discounting levels in an attempt to clear through extremely bloated Spring/Summer inventory stock. We think inventory will remain elevated through year end, making for an incredibly competitive promotional/discounting environment, which doesn't bode well given there is no pricing power in this industry (as evidenced by the collapse in AUR this year). Finally, retailers & brands were able to partially offset some of this revenue & GM pressure by taking another look at SG&A expenses & implementing a variety of actions – hiring freezes, less store payroll hours, headcount reductions, among others. The good news is cost pressures are abating as retailers lap LY's high wage & freight expenses.

- **Electrical Equipment/Multi-Industry:** We're entering a key seasonal point for working capital and inventory positioning into year end. Inventories appear to be higher in the channel after mostly sitting in manufacturing WIP for the past several quarters. Improving supply chain should start to convert WIP to finished inventory and then drive the decision process on order vs. cancel over the next several months. Overall, demand across markets looks resilient, including in Europe, and

we don't expect negative updates for another month or two as the final ingredients for a short-cycle slowdown come together. Capex, productivity, infrastructure, and efficiency spending remain solid demand drivers while price/cost is starting to be a major tailwind for names with high exposure to metals (e.g., steel).

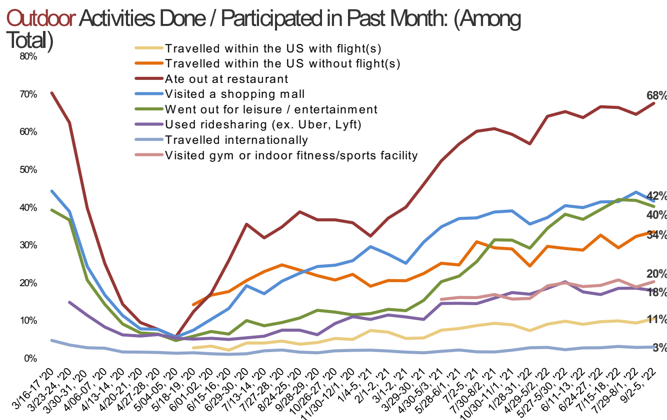
- **Restaurants:** Restaurant sales decelerated this summer, but it wasn't that bad on a 3 year stack. This has been a strange summer- some of this change is because seasonality is going back to normal. Food inflation is running about mid teens and is generally being viewed as peak inflation. We won't get into deflation but expect the rate of inflation to fall. The availability of labor is good but labor is expensive. Wage increases should be less onerous in back half of the year.

- **Packaged Food:** Pricing has been up low double digits to mid teens. Volume elasticity has been better than expected. In 2Q volumes were only down 3%. However, consumers are starting to trade down more within packaged food. Private label started gaining share in March. Private label hasn't raised prices to the same degree as brands. Food companies realize cost inflation on a 6 month lag.

What Are Consumers Telling Us?

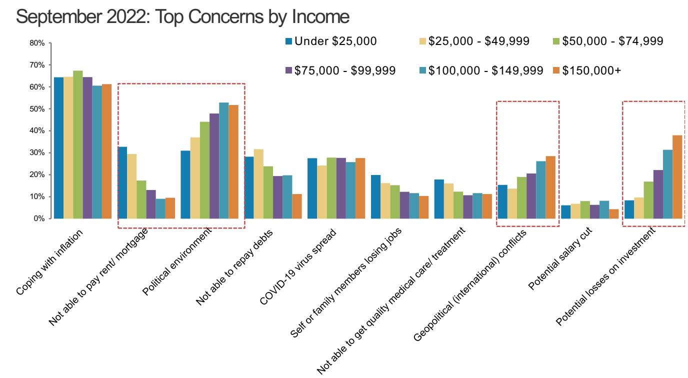
We recently published another wave of our AlphaWise Consumer Survey. Consumers' primary concern is still inflation but the proportion of consumers listing it as their top concern is down slightly vs the last wave (64% now vs 67% mid-July) (Exhibit 4). This lines up with what is likely to be the peak in inflation. Apart from inflation, low-income consumers are generally more worried about the inability to pay rent and other debts, while upper income consumers over index on concerns over investments, the political environment in the U.S. and geopolitical conflicts (Exhibit 5).

Exhibit 4: Consumers' Top Concern



Source: AlphaWise, Morgan Stanley Research

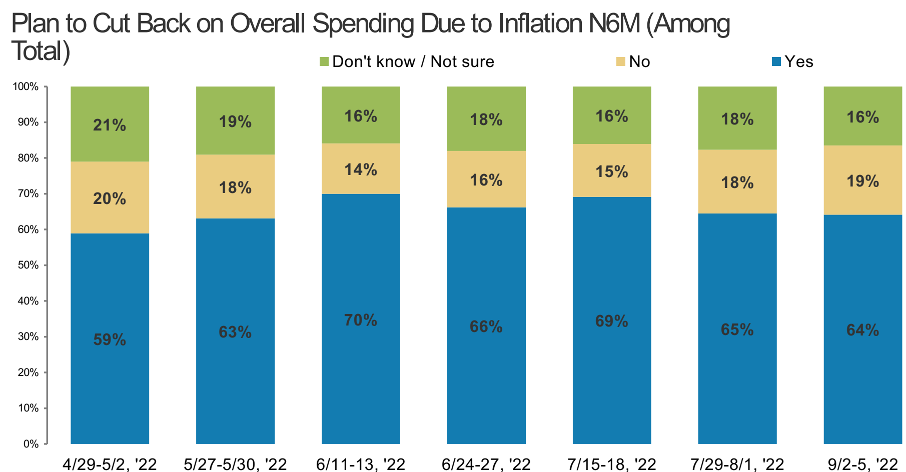
Exhibit 5: Concerns by Income



Source: AlphaWise, Morgan Stanley Research

The majority of consumers surveyed continue to say they are likely to cut back on spending over the next 6 months because of inflation, albeit this is trending down from the peak in mid-July (64% vs. 65% last month and 69% mid-July) (Exhibit 6). Only 19% of consumers say they are not planning to cut back on spending.

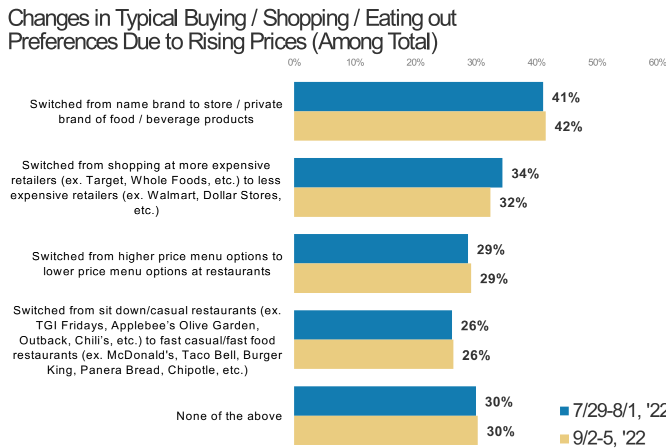
Exhibit 6: Spending Plans



Source: AlphaWise, Morgan Stanley Research

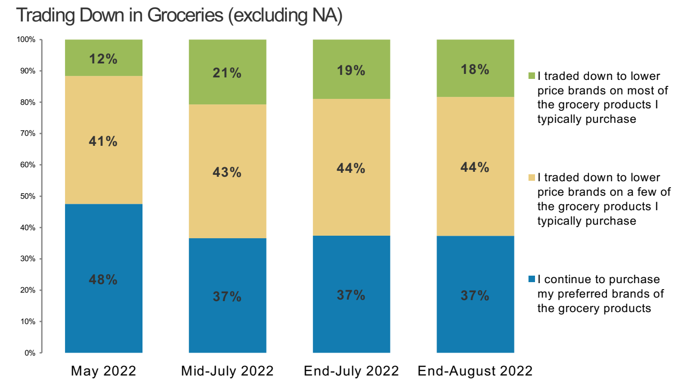
Consumers have continued trading down in order to save money. Overall, 70% of consumers continue to report at least some trading down to their typical shopping and eating out preferences. Switching from name brands to private label brands (42%) and from more expensive to less expensive retailers (32%) is most common (Exhibit 7). Switching from higher priced menu options to lower ones was also a popular way to save money with 29% of consumers engaging in this behavior. Consumers continue to be price conscious when shopping for groceries. In-line with the previous wave, consumers tend to pay more attention to prices when grocery shopping, use coupons/offers, and shop at retailers with lower prices (Exhibit 8).

Exhibit 7: Trade Down in Shopping/Dining



Source: AlphaWise, Morgan Stanley Research

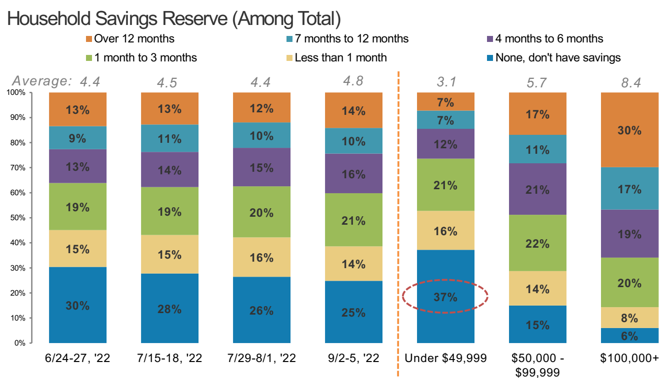
Exhibit 8: Grocery Trade Down



Source: AlphaWise, Morgan Stanley Research

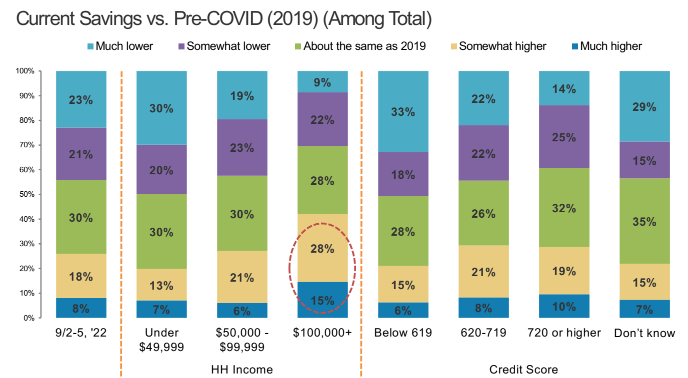
Consumers report having, on average, 4-5 months worth of expenses in savings; this skews higher among the upper income cohort (Exhibit 9). Even with most consumers reporting to have at least some savings, the amount of savings tends to be lower compared to 2019 (pre-COVID) for 44% of consumers (Exhibit 10). Overall, a third of consumers report a missed or late payment on any bill/loan in the past three months, skewing higher among lower income. Cell phone and mortgage bills tend to be paid on time more compared to personal and student loans (Exhibit 11).

Exhibit 9: Household Savings Reserve



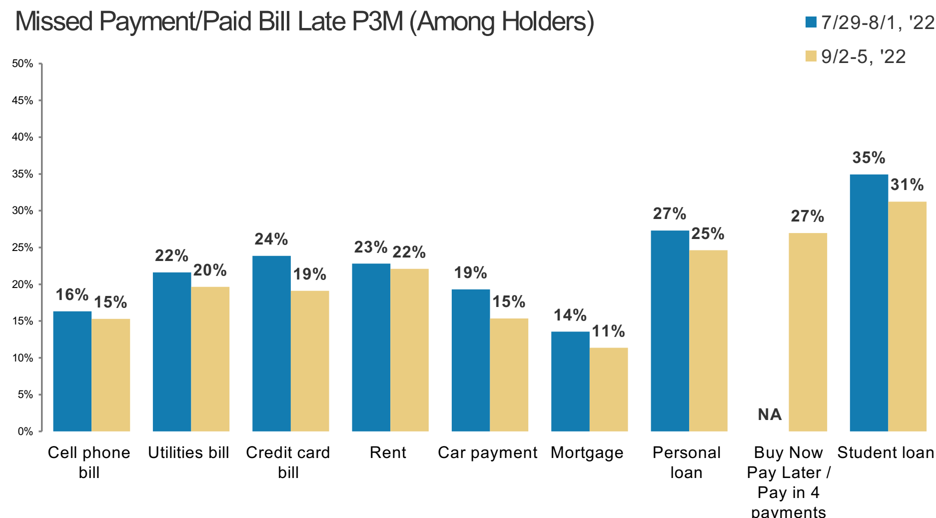
Source: AlphaWise, Morgan Stanley Research

Exhibit 10: Current Savings vs Pre COVID



Source: AlphaWise, Morgan Stanley Research

Exhibit 11: Missed/Late Bill Payments



Source: AlphaWise, Morgan Stanley Research

Factor Update

We select a few key factors to monitor in Exhibit 12 and Exhibit 13 to help study market drivers from a factor standpoint. These Exhibits focus on factors within the US Top 1,000 by market cap universe. Some key takeaways on performance in the last month:

- Quality has outperformed Junk (+1.3% relative return) and the overall market (+0.8% relative return versus the overall Top 1,000 universe).
- Value has outperformed Growth (+2.4%) and the overall market (+0.9% relative return).
- Cyclicals are down -1.8% in absolute terms, underperforming Defensives (-0.1%); but that performance spread widens when we exclude Energy from Cyclicals, which has seen recent outperformance; Cyclicals-Ex Energy have underperformed Defensives by -1.0%.
- High Momentum stocks have outperformed low momentum stocks (+4.1% relative return), and the overall market (+1.8% relative return).
- Small Caps have underperformed Large Caps.

Exhibit 12: Top 1,000 Factor Returns

Top 1000 Factor Return as of Sep 08, 2022

Factor	1 Week Ret	1 Week 1W Chg	1 Week 1M Chg	1 Month Ret	1 Month 1M Chg	1 Month 3M Chg	YTD Ret	12M Ret
Quality / Junk	0.6%	↑	↑	1.3%	↑	↑	9.2%	14.7%
Quality	2.1%	↑	↑	-1.1%	↓	↓	-8.9%	-3.4%
Junk	1.4%	↑	↑	-2.4%	↓	↓	-18.2%	-18.1%
Value / Growth	0.1%	↓	↑	2.4%	↑	↑	18.6%	24.6%
Value	1.8%	↑	↑	-1.0%	↓	↓	-6.4%	-1.7%
Growth	1.7%	↑	↑	-3.3%	↓	↓	-25.0%	-26.3%
Cyclical / Defensive	-0.3%	↑	↓	-0.1%	↓	↓	-4.4%	-3.9%
Cyclical	1.5%	↑	↑	-1.8%	↓	↓	-15.2%	-12.0%
Defensive	1.8%	↑	↑	-1.8%	↓	↓	-10.8%	-8.1%
Cyclical xEnergy / Defensive	0.1%	↑	↓	-1.0%	↓	↓	-9.1%	-9.8%
Cyclical xEnergy	1.9%	↑	↑	-2.7%	↓	↓	-20.0%	-17.8%
12M Momentum	-0.6%	↓	↑	4.1%	↑	↑	1.8%	6.7%
High Momentum	1.5%	↑	↑	0.0%	↓	↓	-16.2%	-14.3%
Low Momentum	2.0%	↑	↑	-4.2%	↓	↓	-18.0%	-21.0%
Size (Small / Large)	-1.3%	↓	↓	-1.8%	↓	↓	-2.3%	-7.6%
Small Cap	0.7%	↑	↓	-3.2%	↓	↓	-16.1%	-16.9%
Large Cap	2.0%	↑	↑	-1.4%	↓	↓	-13.8%	-9.3%

Source: ClariFi, Morgan Stanley Research

Exhibit 13: Excess Return Versus Broader Top 1,000 Universe

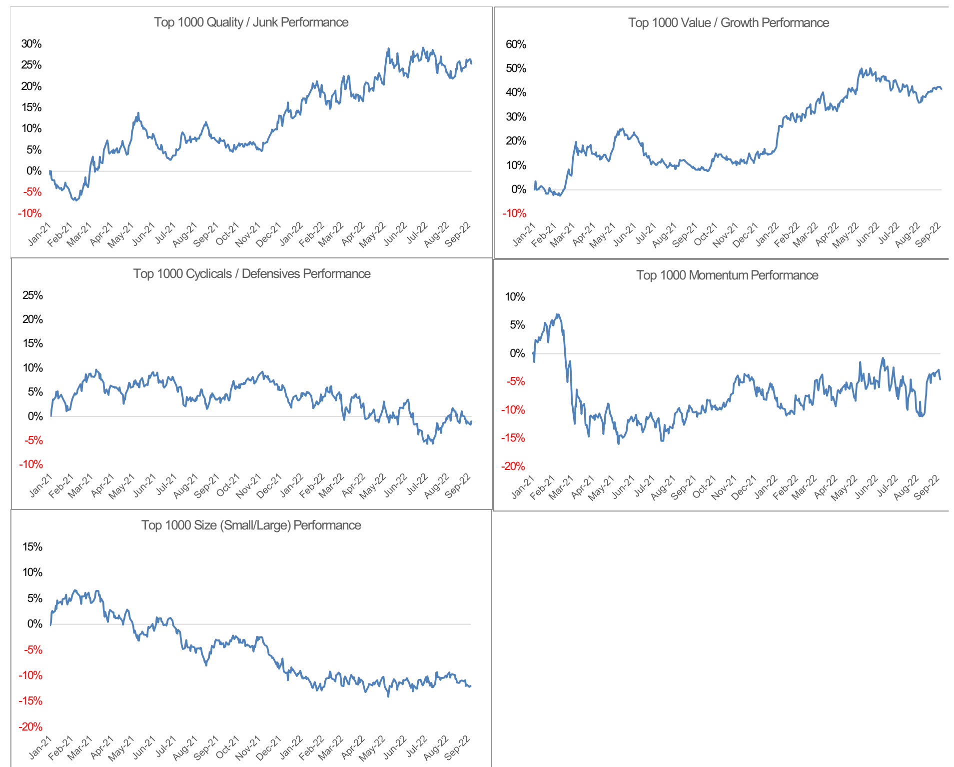
Top 1000 Excess Factor Return versus Broader Top 1000 Return as of Sep 08, 2022

Factor	1 Week Ret	1 Week 1W Chg	1 Week 1M Chg	1 Month Ret	1 Month 1M Chg	1 Month 3M Chg	YTD Ret	12M Ret
Quality / Junk								
Quality	0.5%	↑	↑	0.8%	↑	↑	5.8%	9.5%
Junk	-0.2%	↓	↓	-0.5%	↓	↓	-3.4%	-5.2%
Value / Growth								
Value	0.2%	↓	↑	0.9%	↑	↑	8.4%	11.2%
Growth	0.1%	↑	↓	-1.5%	↓	↓	-10.2%	-13.4%
Cyclical / Defensive								
Cyclical	-0.2%	↑	↑	0.0%	↓	↓	-0.4%	0.9%
Defensive	0.2%	↓	↑	0.1%	↑	↑	4.0%	4.8%
Cyclical xEnergy / Defensive								
Cyclical xEnergy	0.3%	↑	↑	-0.9%	↓	↓	-5.2%	-4.9%
Momentum								
High Momentum	-0.1%	↓	↑	1.8%	↑	↑	-1.4%	-1.4%
Low Momentum	0.4%	↑	↓	-2.3%	↓	↓	-3.2%	-8.1%
Size (Small / Large)								
Small Cap	-0.9%	↓	↓	-1.3%	↓	↓	-1.3%	-4.0%
Large Cap	0.4%	↑	↑	0.5%	↑	↑	1.0%	3.6%

Source: ClariFi, Morgan Stanley Research

Exhibit 14 shows performance of these pairs in time series graph form.

Exhibit 14: Cumulative Factor Performance Since 2021



Source: ClariFi, Morgan Stanley Research

We include an extensive list of factors and their returns in Exhibit 15. 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 16.

Exhibit 15: Full List of Factor Spread Returns (Long - Short)

Equal Weighted Factor Return (Spread) in Top 1000 as of Sep 8, 2022

Factor Name	1 Week			1 Month			3M Ret	YTD Ret	12M Ret
	Ret	1W Chg	1M Chg	Ret	1M Chg	3M Chg			
12-Month Price Momentum (High vs Low)	-0.6%	↓	↑	4.1%	↑	↑	2.3%	1.8%	6.7%
6-Month Price Momentum (High vs Low)	0.4%	↓	↑	4.1%	↑	↑	-0.2%	2.9%	5.2%
9-Month Price Momentum (High vs Low)	-0.4%	↓	↓	4.0%	↑	↑	-1.0%	-1.5%	2.4%
12m-1m Residual Momentum (High vs Low)	-0.4%	↓	↓	3.4%	↓	↑	5.4%	1.4%	5.3%
Reduction in Shares Outstanding (Low vs High)	-0.2%	↓	↑	2.4%	↑	↑	-2.4%	13.5%	23.9%
Value vs Growth	0.1%	↓	↑	2.4%	↑	↑	-1.9%	18.6%	24.6%
Sales Revisions (High vs Low)	1.1%	↓	↑	2.3%	↑	↑	1.1%	-4.2%	-1.2%
3-Month Price Momentum (High vs Low)	0.9%	↑	↑	2.2%	↑	↑	-2.4%	-3.2%	-1.8%
Sales Estimate Revisions (High vs Low)	1.2%	↑	↑	2.1%	↑	↑	1.3%	-2.6%	0.4%
Up vs Down Sales Revisions (High vs Low)	1.1%	↑	↑	2.0%	↑	↑	1.0%	-6.3%	-4.4%
Smoothed Estimate Revisions (%) (High vs Low)	-0.2%	↓	↓	1.9%	↓	↑	4.7%	0.4%	3.2%
Y/Y %Change in number of employees (Low vs High)	-0.1%	↓	↑	1.7%	↑	↑	-1.7%	16.9%	24.1%
Return on Invested Capital (High vs Low)	-0.2%	↑	↑	1.6%	↑	↑	-0.8%	10.3%	21.6%
Composite Sentiment (High vs Low)	-0.8%	↓	↓	1.6%	↓	↓	4.2%	-1.8%	2.0%
ROA (High vs Low)	-0.2%	↑	↑	1.5%	↑	↑	-0.8%	7.7%	18.4%
Price-to-Forward Earnings (Cheap vs Expensive)	-1.0%	↓	↑	1.4%	↑	↑	-7.6%	17.5%	28.9%
Cash Flow / Debt (High vs Low)	-0.3%	↓	↑	1.3%	↑	↑	-0.3%	4.7%	13.5%
Quality vs Junk	0.6%	↑	↑	1.3%	↑	↑	3.3%	9.2%	14.7%
Sales Variability (Low vs High)	-0.2%	↓	↑	1.2%	↑	↑	-1.2%	12.3%	17.4%
Interest Coverage (High vs Low)	-0.3%	↓	↑	1.2%	↑	↑	-0.1%	4.4%	13.8%
Total Yield (High vs Low)	-0.2%	↓	↑	1.1%	↑	↑	-2.0%	5.2%	6.5%
5-Year Dividend per share growth (High vs Low)	0.1%	↓	↑	1.1%	↑	↑	3.0%	0.1%	3.7%
Operational Efficiency (High vs Low)	-0.4%	↓	↑	1.0%	↑	↑	-2.8%	12.1%	17.9%
Long-Term Operating Leverage (High vs Low)	0.5%	↑	↑	1.0%	↑	↑	-1.3%	1.7%	4.6%
Estimate Dispersion (Low vs High)	-0.6%	↓	↑	0.9%	↑	↑	-0.7%	7.7%	16.1%
1-Year Dividend per share growth (High vs Low)	0.4%	↑	↑	0.9%	↓	↑	2.5%	1.2%	2.1%
Price-to-EBITDA (Cheap vs Expensive)	-0.7%	↓	↑	0.9%	↑	↑	-6.9%	17.7%	28.5%
Price-to-Operating Income (Cheap vs Expensive)	-1.2%	↓	↑	0.8%	↑	↑	-6.6%	15.8%	27.1%
Enterprise Value-to-EBITDA (Low vs High)	-1.0%	↓	↑	0.8%	↑	↑	-6.7%	18.4%	31.5%
Up-to-Down Revisions (High vs Low)	-0.2%	↓	↓	0.7%	↑	↑	-0.9%	-1.8%	3.9%
Asset Turnover (High vs Low)	-0.3%	↓	↑	0.7%	↑	↑	-2.3%	4.5%	11.1%
Earnings Estimate Revisions (High vs Low)	0.0%	↓	↓	0.7%	↓	↓	0.7%	0.0%	7.3%
Free Cash Flow-to-Debt (High vs Low)	-0.3%	↓	↑	0.7%	↑	↑	-1.9%	3.3%	12.9%
Incremental Margin (High vs Low)	0.0%	↑	↑	0.7%	↑	↓	-2.1%	4.4%	8.0%
Enterprise Value-to-Operating Income (Low vs High)	-1.0%	↓	↑	0.7%	↑	↑	-5.7%	16.7%	30.3%
12m Volatility (Low vs High)	-0.6%	↓	↑	0.6%	↑	↑	-2.2%	9.6%	19.3%
Forecast long term growth (High vs Low)	-0.1%	↓	↑	0.5%	↓	↓	1.3%	-3.1%	-1.0%
Composite Growth (High vs Low)	-0.2%	↑	↑	0.5%	↓	↑	-1.2%	-0.7%	2.9%
Enterprise Value-to-Free Cash Flow (Low vs High)	-0.4%	↑	↑	0.5%	↑	↑	-6.6%	13.9%	27.0%
Free Cash Flow Yield (High vs Low)	-0.4%	↓	↑	0.5%	↑	↑	-6.6%	13.6%	25.2%
Accruals (Low vs High)	-0.1%	↓	↓	0.5%	↑	↑	-3.0%	7.8%	11.6%
Earnings Revisions (High vs Low)	-0.4%	↓	↓	0.4%	↑	↑	-0.4%	-1.3%	4.7%
1-Month Estimate Revisions (%) (High vs Low)	0.0%	↓	↓	0.4%	↓	↓	2.3%	-5.3%	-5.0%
Price-to-Earnings (Cheap vs Expensive)	-1.0%	↓	↑	0.4%	↑	↑	-6.2%	11.2%	20.6%
Industry Cyclical vs Defensive	-0.7%	↑	↓	0.4%	↓	↓	-2.5%	-3.3%	4.6%
Sales Growth Stability (High vs Low)	0.1%	↓	↓	0.3%	↑	↑	3.6%	3.5%	4.3%
Composite Value (Cheap vs Expensive)	-1.0%	↓	↑	0.3%	↑	↑	-6.0%	11.3%	21.3%
Net Cash Ratio (High vs Low)	0.0%	↓	↓	0.3%	↑	↓	3.4%	-10.0%	-14.2%
Y/Y Change in Inventory/Sales (Low vs High)	0.1%	↓	↓	0.3%	↓	↓	-1.9%	1.3%	2.1%
Earnings Stability (High vs Low)	-0.5%	↓	↓	0.2%	↑	↑	2.7%	6.9%	10.9%
Net Margin (High vs Low)	-0.3%	↑	↑	0.1%	↑	↑	-1.7%	6.5%	16.4%
ROE (High vs Low)	-0.9%	↓	↑	0.1%	↑	↑	-1.3%	3.7%	11.8%
Operating Income Variability (Low vs High)	-0.1%	↓	↓	0.1%	↑	↑	1.8%	-3.3%	-7.8%
Operating Margin (High vs Low)	-0.3%	↑	↑	0.1%	↑	↑	-2.4%	6.0%	15.1%
Analyst Coverage (High vs Low)	0.8%	↑	↓	0.1%	↓	↑	-0.5%	-1.2%	2.2%
Debt-to-Assets (Low vs High)	-0.7%	↓	↑	0.1%	↑	↓	-0.6%	-5.2%	-3.8%
Composite Free Cash Flow (High vs Low)	-0.6%	↓	↑	0.1%	↑	↑	-7.0%	12.6%	24.7%
Composite Accruals (Low vs High)	-0.2%	↓	↓	0.1%	↑	↑	-4.3%	4.4%	6.0%
1-Year EPS Growth (High vs Low)	-0.2%	↑	↑	0.0%	↓	↑	-4.9%	0.6%	5.9%
Net Cash Variability (Low vs High)	-0.2%	↑	↑	0.0%	↓	↑	-3.2%	-2.1%	3.2%
Short-Term Accruals (Low vs High)	0.4%	↑	↑	0.0%	↑	↑	-2.2%	-0.5%	-2.5%
Tangible Book/Price (Cheap vs Expensive)	-0.7%	↓	↓	0.0%	↓	↓	-1.6%	0.3%	0.8%
Cyclical vs Defensive	-0.3%	↑	↓	-0.1%	↓	↓	-5.0%	-4.4%	-3.9%
Net Debt-to-Market Cap (Low vs High)	-0.3%	↓	↓	-0.1%	↑	↓	3.6%	-11.8%	-17.0%
Cash-to-Debt (High vs Low)	0.3%	↓	↓	-0.1%	↓	↓	-0.2%	-10.1%	-17.2%
Cash-to-Assets (High vs Low)	0.0%	↓	↓	-0.3%	↓	↓	1.1%	-12.7%	-21.3%
Dividend Payout Ratio (High vs Low)	-0.3%	↓	↑	-0.3%	↑	↑	0.8%	3.6%	5.0%
Trailing Dividend Yield (High vs Low)	-0.9%	↓	↓	-0.3%	↑	↑	-3.2%	10.4%	9.0%
EPS Variability (Low vs High)	-0.3%	↓	↓	-0.4%	↑	↑	3.5%	3.1%	3.4%
Operating Leverage (High vs Low)	-0.2%	↑	↑	-0.5%	↓	↓	-2.3%	4.5%	9.6%
Cash Flow Coverage (High vs Low)	-0.4%	↓	↓	-0.5%	↓	↓	-0.2%	-0.9%	-4.6%
Composite Quality (High vs Low)	-0.8%	↓	↑	-0.6%	↑	↓	-2.7%	2.4%	6.3%
Price-to-Sales (Cheap vs Expensive)	-1.0%	↓	↑	-0.7%	↑	↑	-8.6%	13.2%	24.3%
ROE Variability (Low vs High)	-0.3%	↓	↑	-0.7%	↑	↑	2.9%	-0.8%	2.0%
1-Year Sales Growth (High vs Low)	0.2%	↑	↓	-0.7%	↓	↓	-1.0%	-18.3%	-24.0%
Financial Leverage (Low vs High)	-0.7%	↑	↑	-0.7%	↓	↓	-2.6%	0.1%	2.8%
Debt-to-Capital (Low vs High)	-0.8%	↓	↓	-0.8%	↓	↓	-1.1%	-5.9%	-6.9%
Reinvestment Rate (High vs Low)	-0.4%	↓	↑	-0.8%	↑	↑	0.3%	1.4%	2.2%
CapEx-to-Sales (Low vs High)	-1.4%	↓	↓	-0.8%	↑	↓	-1.1%	4.4%	6.7%
CapEx-to-Assets (Low vs High)	-0.9%	↓	↓	-0.9%	↑	↓	-1.3%	2.8%	-0.2%
Inventory Turnover (High vs Low)	0.2%	↓	↓	-0.9%	↓	↑	0.4%	6.5%	8.7%
Inventory-to-Sales (Low vs High)	0.0%	↓	↑	-0.9%	↑	↑	-0.1%	1.1%	1.4%
Price-to-Book (Cheap vs Expensive)	-0.8%	↓	↑	-1.0%	↑	↓	-6.6%	9.4%	13.8%
CapEx-to-Depreciation (Low vs High)	-0.6%	↓	↑	-1.1%	↑	↓	-5.2%	7.3%	9.8%
1-Month Reversal (Low vs High)	-0.8%	↓	↓	-1.1%	↓	↓	4.0%	-3.4%	-6.0%
Debt-to-Equity (Low vs High)	-0.9%	↓	↑	-1.2%	↓	↓	0.8%	-3.9%	-4.0%
Profitability (High vs Low)	-0.9%	↓	↓	-1.2%	↑	↓	-0.2%	-3.9%	-3.9%
Cash Ratio (High vs Low)	-0.3%	↓	↓	-1.2%	↓	↓	0.9%	-12.9%	-20.2%
Cash-to-Market Cap (High vs Low)	-0.4%	↓	↓	-1.3%	↓	↓	-4.4%	-3.3%	-5.2%
Gross Profit / Assets (High vs Low)	-0.6%	↓	↑	-1.3%	↑	↓	-2.3%	-9.4%	-11.5%
Debt-to-EBITDA (Low vs High)	-1.1%	↓	↓	-1.3%	↓	↓	-0.5%	-11.1%	-17.1%
Gross Margin (High vs Low)	-0.1%	↓	↓	-1.4%	↓	↓	-0.8%	-7.4%	-11.2%
5-Year EPS Growth (High vs Low)	-0.6%	↑	↓	-1.4%	↓	↓	-0.2%	-7.3%	-6.4%
Price-to-Cash Flow (Cheap vs Expensive)	0.0%	↑	↓	-1.5%	↓	↓	0.1%	-4.8%	-10.4%
Receivables Turnover (High vs Low)	0.5%	↑	↓	-1.5%	↓	↑	1.8%	0.3%	0.2%
Sales per Employee (High vs Low)	-1.2%	↓	↓	-1.6%	↓	↓	-2.9%	2.1%	7.5%
Size (Small vs Large)	-1.3%	↓	↓	-1.8%	↓	↓	-1.6%	-2.3%	-7.6%
5-Year Sales Growth (High vs Low)	0.3%	↑	↓	-2.3%	↓	↓	-0.8%	-18.7%	-25.5%

Source: ClariFi, Morgan Stanley Research

Exhibit 16: Best and Worst Performing Factor Leg Returns

Best 20 Performing Equal Weighted Group Return in Top 1000 as of Sep 8, 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)	1.6%	↑	↑	-1.8%	↓	↓	-2.0%	-14.8%	-12.9%
High 6-Month Price Momentum	2.0%	↑	↑	0.1%	↓	↓	-2.1%	-15.4%	-14.2%
High Total Yield	1.5%	↑	↑	0.0%	↓	↓	-3.9%	-6.5%	-0.5%
High 12-Month Price Momentum	1.5%	↑	↑	0.0%	↓	↓	-1.3%	-16.2%	-14.3%
High 9-Month Price Momentum	1.5%	↑	↑	-0.1%	↓	↓	-2.5%	-17.9%	-16.6%
High 1-Year Dividend per share growth	1.9%	↑	↑	-0.3%	↓	↓	-1.7%	-8.8%	-2.4%
High 3-Month Price Momentum	2.5%	↑	↑	-0.3%	↓	↓	-3.1%	-17.8%	-17.2%
Low Reinvestment Rate	2.0%	↑	↑	-0.3%	↓	↓	-1.3%	-9.9%	-5.4%
High 12m-1m Residual Momentum	1.4%	↑	↑	-0.4%	↓	↓	-0.1%	-17.1%	-14.8%
Low Inventory Turnover	1.6%	↑	↑	-0.7%	↓	↓	-0.6%	-13.1%	-10.8%
Low Dividend Payout Ratio	2.0%	↑	↑	-0.8%	↓	↓	-2.4%	-10.6%	-6.9%
High 5-Year Dividend per share growth	1.6%	↑	↑	-0.9%	↓	↓	-2.0%	-10.4%	-2.7%
High Up-to-Down Revisions	1.9%	↑	↑	-0.9%	↓	↓	-2.0%	-16.1%	-10.4%
Low Trailing Dividend Yield	1.8%	↑	↑	-0.9%	↓	↓	-1.2%	-14.6%	-8.6%
Low Gross Margin	1.8%	↑	↑	-0.9%	↓	↓	-0.2%	-9.0%	-5.3%
High Composite Sentiment	1.3%	↑	↓	-0.9%	↓	↓	0.0%	-16.1%	-13.3%
Value	1.8%	↑	↑	-1.0%	↓	↓	-3.0%	-6.4%	-1.7%
Low Reduction in Shares Outstanding	1.5%	↑	↑	-1.0%	↓	↓	-3.9%	-10.4%	-4.9%
High EPS Variability	2.0%	↑	↑	-1.0%	↓	↓	-3.3%	-13.2%	-9.2%
High 1-Month Reversal	2.3%	↑	↑	-1.1%	↓	↓	-3.5%	-14.2%	-13.4%
Low Total Yield	1.7%	↑	↑	-1.1%	↓	↓	-1.8%	-11.7%	-7.0%

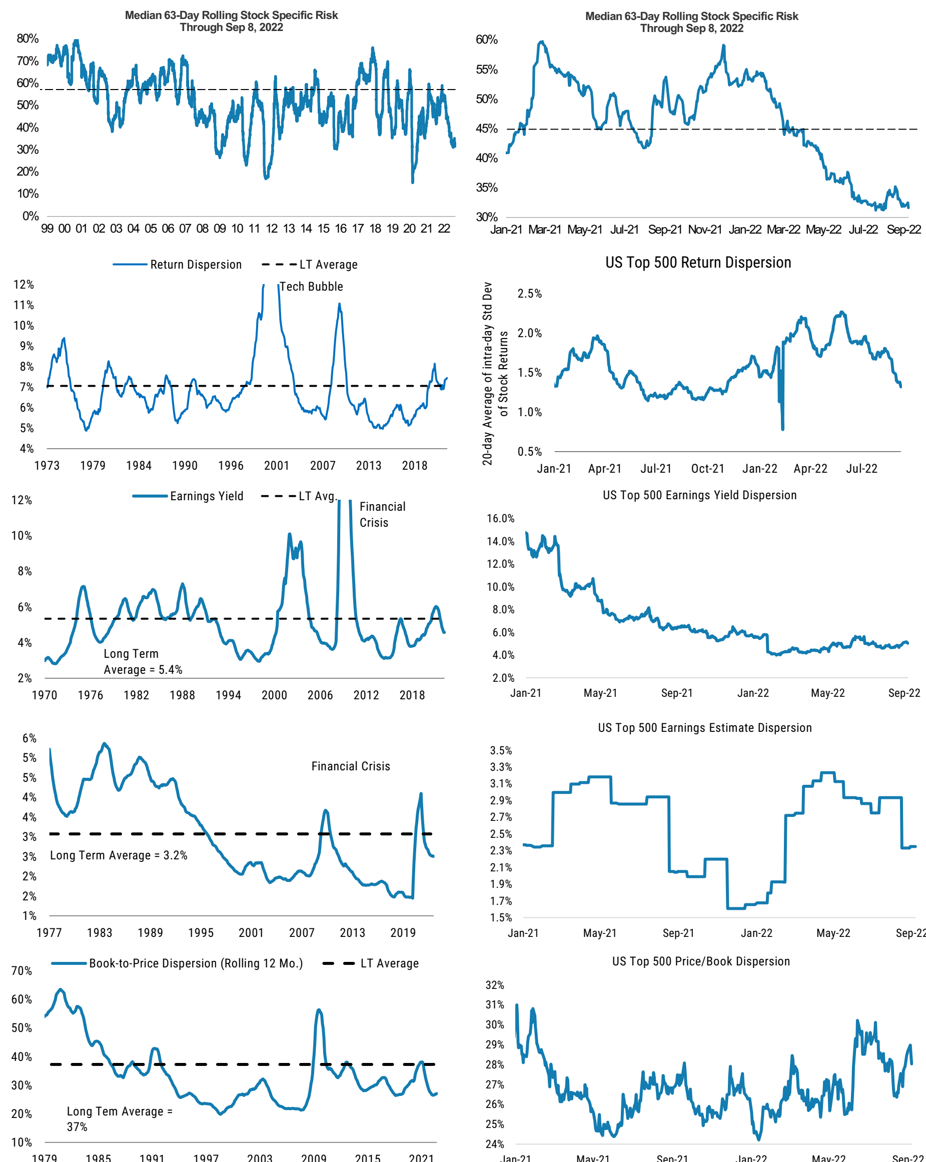
Worst 20 Performing Equal Weighted Group Return in Top 1000 as of Sep 8, 2022

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)	1.6%	↑	↑	-1.8%	↓	↓	-2.0%	-14.8%	-12.9%
High Sales Variability	1.5%	↑	↓	-3.2%	↓	↓	-2.3%	-24.1%	-25.5%
Low Cash Flow / Debt	1.5%	↑	↓	-3.3%	↓	↓	-1.4%	-21.6%	-28.0%
Low Smoothed Estimate Revisions (%)	1.6%	↑	↑	-3.3%	↓	↓	-3.4%	-17.3%	-20.1%
High Enterprise Value-to-Operating Income	1.6%	↑	↓	-3.3%	↓	↓	-0.2%	-26.1%	-33.2%
Growth	1.7%	↑	↑	-3.3%	↓	↓	-1.1%	-24.9%	-26.3%
High Enterprise Value-to-EBITDA	1.6%	↑	↓	-3.3%	↓	↓	0.4%	-26.7%	-34.0%
High Reduction in Shares Outstanding	1.7%	↑	↓	-3.3%	↓	↓	-1.5%	-24.0%	-28.7%
High Price-to-EBITDA	1.7%	↑	↓	-3.4%	↓	↓	0.4%	-26.7%	-32.8%
High Sales Estimate Revisions	2.2%	↑	↑	-3.4%	↓	↓	-5.0%	-18.5%	-13.5%
Low ROA	1.7%	↑	↓	-3.5%	↓	↓	-1.5%	-23.1%	-29.5%
Low Return on Invested Capital	1.5%	↑	↓	-3.5%	↓	↓	-1.4%	-24.5%	-31.8%
High 5-Year Sales Growth	1.6%	↑	↓	-3.7%	↓	↓	-2.8%	-28.0%	-31.3%
Low Debt-to-EBITDA	0.8%	↑	↓	-3.8%	↓	↓	-2.6%	-25.9%	-32.2%
Low 12m-1m Residual Momentum	1.8%	↑	↑	-3.8%	↓	↓	-5.5%	-18.5%	-20.1%
Low 6-Month Price Momentum	1.6%	↑	↑	-4.0%	↓	↓	-1.9%	-18.4%	-19.4%
Low 9-Month Price Momentum	2.0%	↑	↑	-4.1%	↓	↓	-1.5%	-16.4%	-19.0%
Low 12-Month Price Momentum	2.0%	↑	↑	-4.2%	↓	↓	-3.6%	-18.0%	-21.0%
Low Up vs Down Sales Revisions	1.2%	↑	↑	-5.1%	↓	↓	-4.8%	-13.9%	-13.7%
Low Sales Revisions	1.0%	↑	↑	-5.4%	↓	↓	-5.6%	-15.3%	-14.7%
Low Sales Estimate Revisions	1.0%	↑	↑	-5.5%	↓	↓	-6.2%	-15.9%	-14.0%

Source: ClariFi, Morgan Stanley Research

In Exhibit 17, we 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 has rebounded slightly post 2Q earnings but remains historically low (7th percentile) as geopolitical uncertainty and macro risk continue to weigh on equities broadly. Return dispersion remains elevated relative to the post-GFC cycle but has ticked lower since mid-year. Earnings estimate dispersion remains elevated as forward guidance from 2Q earnings is baked into forecasts.

Exhibit 17: US Top 500 Dispersion Metrics: Long-term and Short-Term



Source: ClariFi, Morgan Stanley Research

We also monitor these dispersion metrics on a percentile basis relative to history (Exhibit 18). Return dispersion is near historical average levels while earnings yield dispersion is slightly above. While S&P 500 dispersion metrics remain close to median levels, industry groups show wide variance among the various metrics. There's high dispersion in Food, Beverage & Tobacco, BioPharma, and Media & Entertainment while lower dispersion

levels in Household & Personal Products and Utilities.

Exhibit 18: Historical Dispersion Metrics by Industry Group

	Return Dispersion	Earning Yield Dispersion	Book/Price Dispersion	Earnings Estimate Dispersion
S&P 500	53%	68%	42%	67%
Energy	73%	73%	32%	45%
Materials	66%	93%	58%	55%
Capital Goods	52%	75%	68%	21%
Commercial & Professional Services	35%	36%	23%	71%
Transportation	41%	70%	24%	87%
Automobiles & Components	68%	85%	79%	66%
Consumer Durables & Apparel	40%	89%	97%	89%
Consumer Services	17%	85%	18%	52%
Retailing	12%	82%	14%	51%
Food & Staples Retailing	62%	90%	98%	56%
Food, Beverage & Tobacco	86%	71%	55%	94%
Household & Personal Products	14%	30%	17%	10%
Health Care Equipment & Services	53%	47%	47%	26%
Pharma, Biotech & Life Sciences	66%	83%	91%	73%
Banks	59%	58%	44%	63%
Diversified Financials	29%	87%	52%	56%
Insurance	6%	72%	34%	74%
Software & Services	47%	78%	86%	58%
Technology Hardware & Equipment	16%	79%	88%	12%
Semiconductors & Semi Equipment	58%	68%	85%	11%
Telecommunication Services	12%	63%	35%	32%
Media & Entertainment	66%	59%	85%	84%
Utilities	65%	26%	28%	4%
Real Estate	73%	44%	69%	61%

Source: ClariFi, Morgan Stanley Research

Fresh Money Buy List

Exhibit 19: Fresh Money Buy List - Stats & Performance

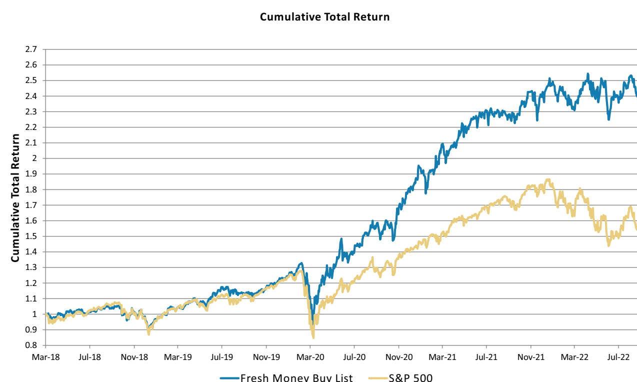
Company Name	Ticker	MS Rating	Sector	Market Cap ($Bn)	Price	MS PT	% to MS PT	MS Analyst	Date Added	Total Return Since Inclusion	
										Absolute	Rel. to S&P
AT&T, Inc.	T	Overweight	Communication Services	$121.0	$16.99	22.00	29.5%	Flannery, Simon	12/20/2021	(0.8%)	10.6%
CenterPoint Energy Inc	CNP	Overweight	Utilities	$20.6	$32.71	34.00	3.9%	Arcaro, David	3/21/2022	13.8%	22.4%
Coca-Cola Co.	KO	Overweight	Consumer Staples	$268.7	$62.13	74.00	19.1%	Mohsenian, Dara	3/28/2022	1.7%	11.9%
Exxon Mobil Corporation	XOM	Overweight	Energy	$399.1	$95.75	113.00	18.0%	McDermott, Devin	2/22/2021	96.8%	90.7%
Humana Inc	HUM	Equal-Weight	Health Care	$61.6	$486.70	494.00	1.5%	Ha, Michael	7/19/2018	57.8%	3.3%
McDonald's Corporation	MCD	Overweight	Consumer Discretionary	$190.4	$258.83	285.00	10.1%	Glass, John	10/18/2021	9.2%	17.4%
Mondelez International Inc	MDLZ	Overweight	Consumer Staples	$83.8	$61.18	70.00	14.4%	Kaufman, Pamela	7/19/2021	(2.6%)	2.2%
SBA Communications	SBAC	Overweight	Real Estate	$35.5	$329.18	361.00	9.7%	Flannery, Simon	6/7/2021	6.3%	8.8%
Simon Property Group Inc	SPG	Overweight	Real Estate	$33.9	$103.53	131.00	26.5%	Kamdem, Ronald	2/16/2021	3.6%	(1.8%)
Current List Performance											
Average (Eq. Weight)				$135.0			14.8%			20.7%	18.4%
Median				$83.8			14.4%			6.3%	10.6%
% Positive Returns (Abs. / Rel.)										78%	89%
% Negative Returns (Abs. / Rel.)										22%	11%
Avg. Hold Period (Months)											16.5
All Time List Performance											
Average (Eq. Weight)										31.3%	15.9%
Median										15.1%	10.6%
% Positive Returns (Abs. / Rel.)										76%	62%
% Negative Returns (Abs. / Rel.)										24%	38%
Avg. Hold Period (Months)											14.5

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.

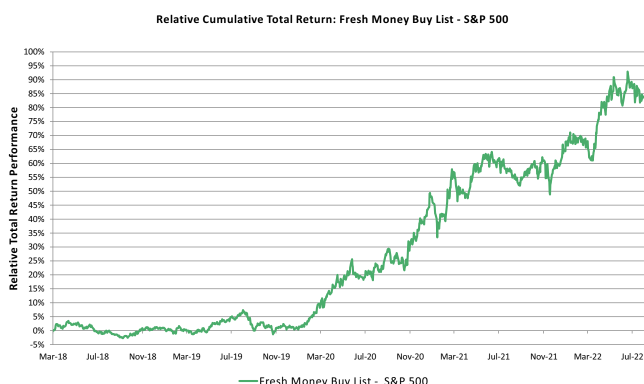
Source: Bloomberg, Morgan Stanley Research estimates.

Exhibit 20: Fresh Money Buy List & S&P 500 Cumulative Total Return



Source: Bloomberg, Morgan Stanley Research.

Exhibit 21: Fresh Money Buy List / S&P 500 Cumulative Relative Return



Source: Bloomberg, Morgan Stanley Research.

CenterPoint Energy (CNP), David Arcaro

- Highlighting four key themes that will drive utility value creation: 1) We see underappreciated renewables growth driving further upside for developers and utilities with ambitious decarbonization plans. 2) Climate risk will be a persistent source of discounts for companies in challenging regions. 3) Attractive Independent Power Producer (IPP) cash flow is stronger and lower risk than appreciated, offering appealing investment cases and financial flexibility across the group. 4) Combination of bill affordability + regulatory backdrop will together be important factors influencing growth prospects.

- Regulated utilities. We divide our Overweight ratings into three categories that frame the thesis: Core holdings where we see above-average, low-risk growth and constructive regulation at an attractive price — ATO, CNP, DTE, EXC. Renewables plays where solar, wind, storage, and hydrogen growth are poised to accelerate further on the heels of the Inflation Reduction Act — AEP, AES, NEE. Discount names with a path to recovery — FE and PEG.

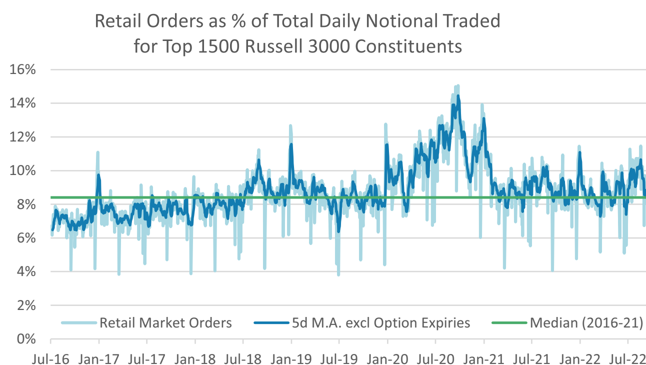
What's Retail Doing?

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:

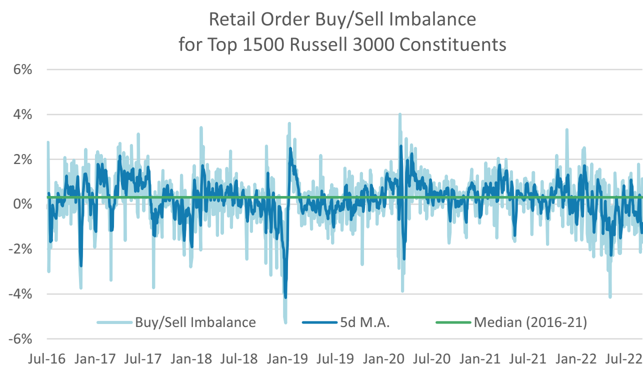
- Retail participation is currently at 8.8% of the total market volume,and at 63rd %-ile relative to the last 5 years.
- Order imbalance remains negative last week. It currently sits at -0.9% or 7th percentile relative to the last 5 years.
- Imbalance is negative on sector level, except Industrials. It is most Negative relative to history in Tech (3rd %-ile). Staples and Real Estate is muted.

Exhibit 22: Retail orders as a % of notional traded above median



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

Exhibit 23: ... and negative in order imbalance



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

Exhibit 24: Retail's buy/sell imbalance is most negative in Tech

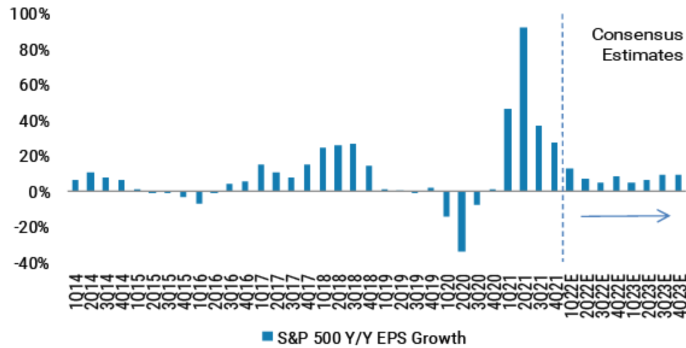
	Retail Participation			Buy/Sell Imbalance		
Sector	**2016-22 Median**	**Current**	**p-tile**	**2016-22 Median**	**Current**	**p-tile**
Energy	6.8%	8.2%	0.80	-0.28%	-1.0%	0.29
Materials	5.6%	5.3%	0.37	0.5%	-0.7%	0.14
Industrials	6.6%	5.1%	0.02	0.0%	0.2%	0.59
Consumer Discretionary	11.3%	12.4%	0.69	0.6%	-0.3%	0.12
Consumer Staples	6.0%	4.4%	0.04	-0.5%	0.0%	0.61
Health Care	5.9%	4.0%	0.03	-0.4%	-0.5%	0.48
Financials	5.6%	5.2%	0.30	0.0%	-0.7%	0.29
Information Technology	10.9%	12.3%	0.82	0.5%	-1.4%	0.03
Communication Services	9.0%	10.3%	0.60	0.3%	-0.7%	0.19
Utilities	3.8%	3.2%	0.18	-1.2%	-0.3%	0.71
Real Estate	3.5%	3.0%	0.15	0.5%	0.0%	0.39
Model Universe (Top 1500)	**8.5%**	**8.8%**	**0.63**	**0.3%**	**-0.9%**	**0.07**

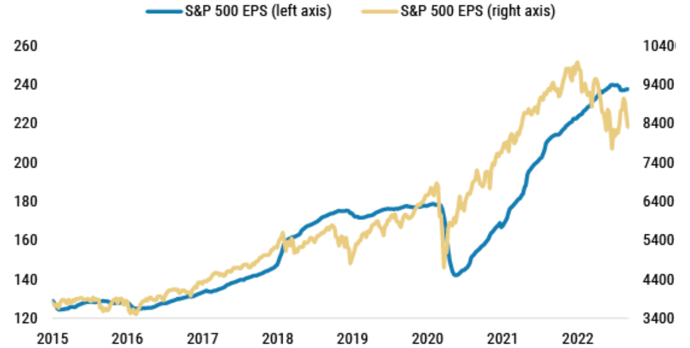
Source: Morgan Stanley Research, Morgan Stanley Quantitative and Derivative Strategies, Compustat

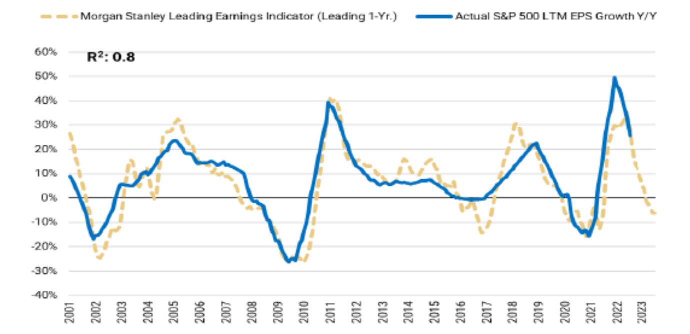
For more on the methodology, please see Quantitative Equity Research: The Rise of the Retail Trader (30 Jun 2021).

Weekly Charts to Watch

Exhibit 25: US Earnings Snapshot







Source: Refinitiv, FactSet, Morgan Stanley Research. Top and bottom left: As of September 9, 2022 Bottom right As of August 1, 2022. 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 26: S&P 500 Price Target

Morgan Stanley S&P 500 June 2023 Price Target

Landscape	Earnings	Multiple	Price Target	Upside / Downside
Bull Case	$244	18.2x	4,450	9.4%
Base Case	$220	17.7x	3,900	-4.1%
Bear Case	$205	16.3x	3,350	-17.6%
Current S&P 500 Price as of:	9/9/2022		4,067	

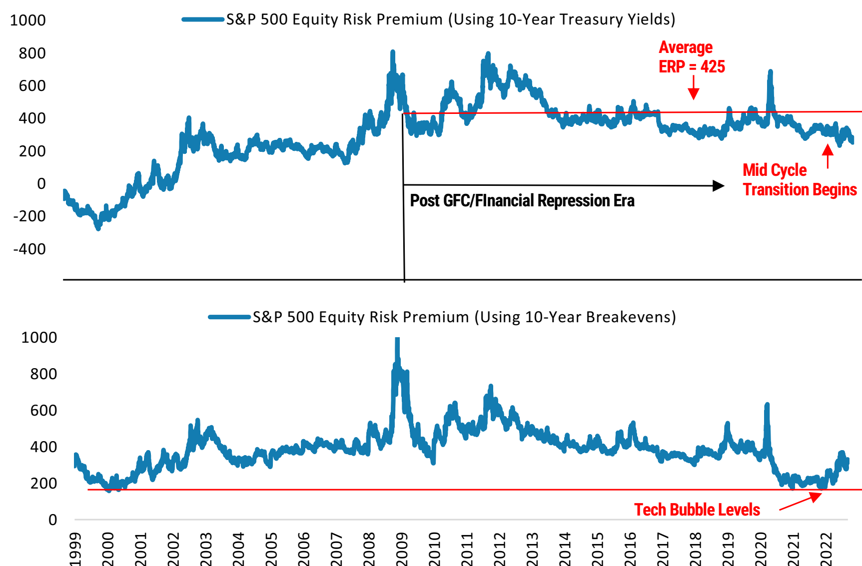
Note: We use June 2023 forward earnings to project our price target which takes into account our June '24 earnings forecast (currently $220 base case).
Source: Bloomberg, Morgan Stanley Research

Exhibit 27: 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	

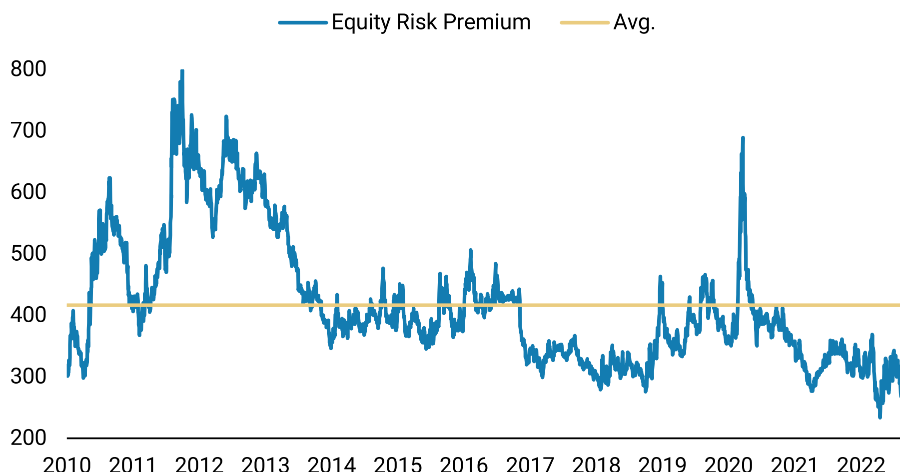
Source: Morgan Stanley Research

Exhibit 28: S&P 500 Equity Risk Premium using Nominal Rates and Breakevens



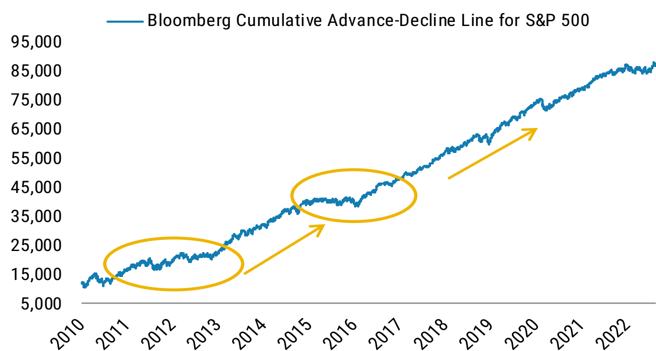
Source: Bloomberg, Morgan Stanley Research. As of September 9, 2022

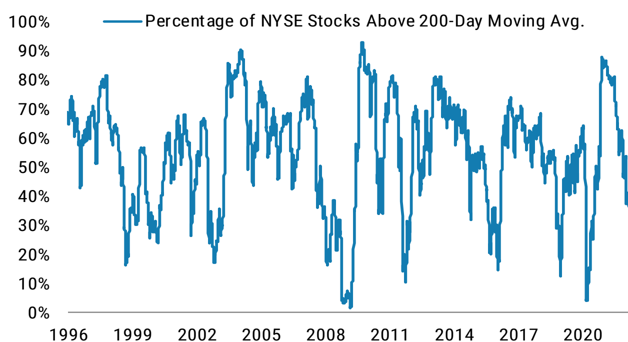
Exhibit 29: Equity Risk Premium is Below Post-GFC Average

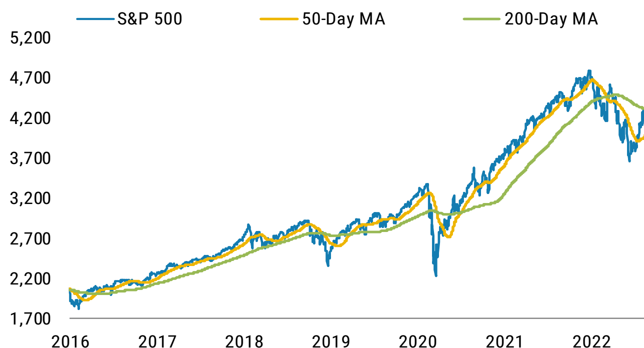


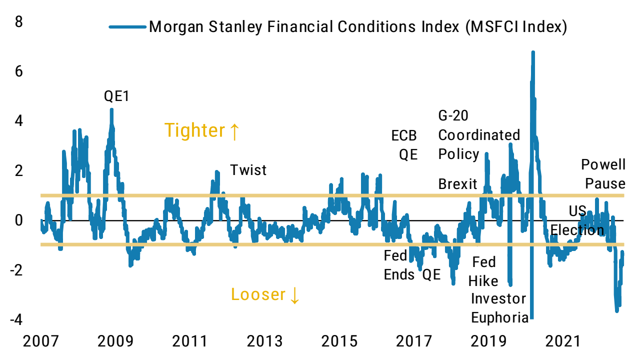
Note: Equity risk premium is calculated as the S&P 500 forward 12M earnings yield minus the nominal 10-Year Treasury.
Source: Bloomberg, Morgan Stanley Research

Exhibit 30: US Equity Market Technicals and Financial Conditions



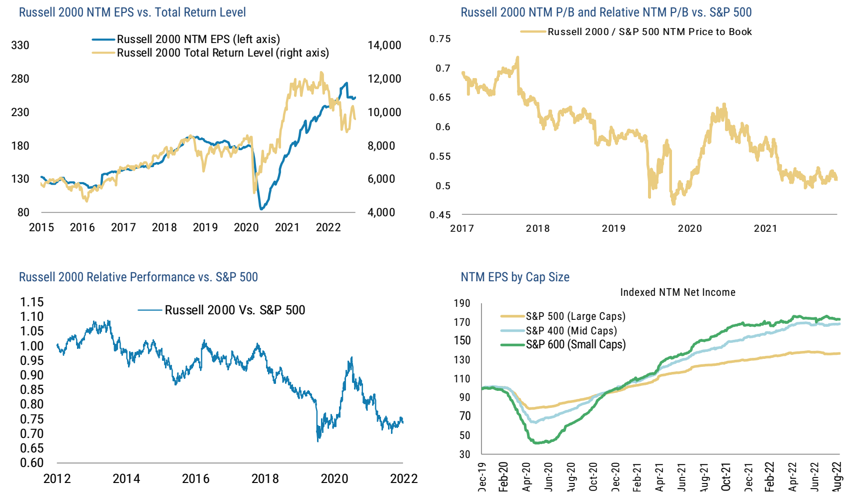






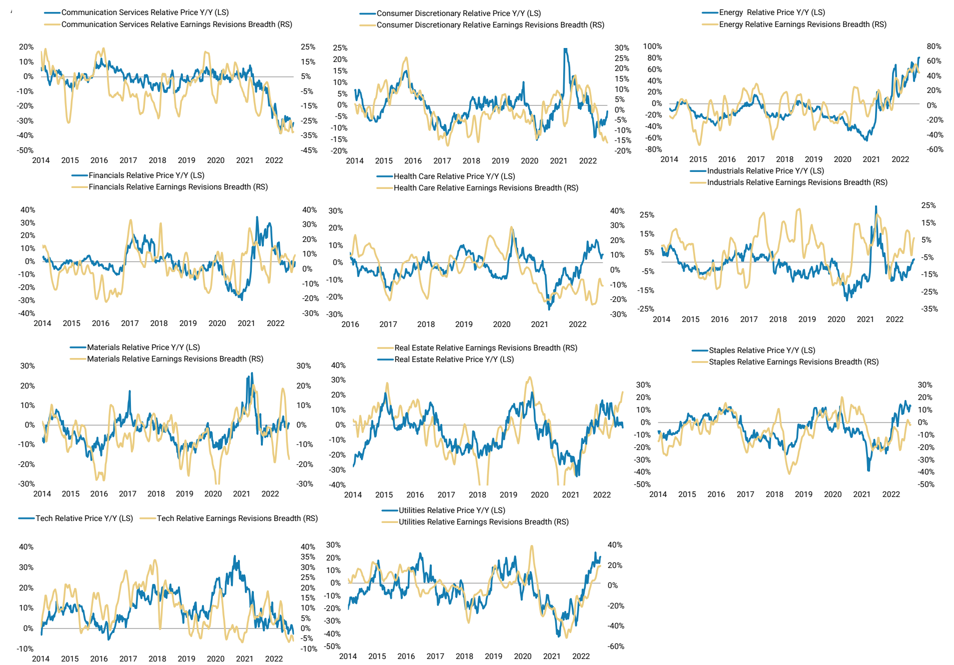
Source: Bloomberg, Morgan Stanley Research. All: As of September 9, 2022

Exhibit 31: US Small Cap Equities



Source: FactSet, Morgan Stanley Research. As of September 9, 2022

Exhibit 32: Earnings Revisions Breadth vs YoY Performance



Source: FactSet, Morgan Stanley Research. As of September 9, 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 August 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.
Within the last 12 months, Morgan Stanley managed or co-managed a public offering (or 144A offering) of securities of CenterPoint Energy Inc, Humana Inc, McDonald's Corporation, Mondelez International Inc.
Within the last 12 months, Morgan Stanley has received compensation for investment banking services from CenterPoint Energy Inc, Coca-Cola Co., Humana Inc, McDonald's Corporation, Mondelez International Inc, Simon Property Group 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.
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.
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.
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.
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.
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 August 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	**1356**	**38%**	**304**	**41%**	**22%**	**596**	**39%**
Equal-weight/Hold	**1589**	**45%**	**349**	**47%**	**22%**	**716**	**47%**
Not-Rated/Hold	**0**	**0%**	**0**	**0%**	**0%**	**0**	**0%**
Underweight/Sell	**610**	**17%**	**90**	**12%**	**15%**	**225**	**15%**
TOTAL	**3,555**		**743**			**1537**	

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, SBA Communications.
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 Bank Asia Limited; 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 Bank Asia Limited, Singapore Branch (Registration number T14FC0118J); 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. A distribution of the different MS Research ratings or recommendations, in percentage terms for Investments in each sector covered, is available upon request from your sales representative.
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