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# TRIVARIATE RESEARCH

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ADAM S. PARKER, Ph.D., FOUNDER
adam@trivariateresearch.com
646-734-7070

COLIN COONEY, HEAD OF SALES
colin@trivariateresearch.com
617-910-7934

JONATHAN GILL, SR. ANALYST
jonathan@trivariateresearch.com
203-461-5110

MAXWELL ARNOLD, ANALYST
maxwell@trivariateresearch.com
347-514-1234

# PURPOSE

This document is meant for those who want to sit down for 60-90 minutes, once a month, and take full stock of major issues impacting US equities. It includes:

- Four Charts You Can't Miss
- An Overview of US Equities, Today's Macro Regime, Earnings and Multiples
- 100 Year of Context on This Year's Sell-off, Impact of S&P Index Changes on Earnings / Multiples
- Notes on Melting Ice Cubes, and Performance after CEO Changes
- Capital Use and Its Consequences – Buybacks, Dividends, Buybacks, Capx / R&D, Leverage
- Interest Rate Perceptions
- Sizing and Risk Management
- Sector Bets

Please contact us or log into our website www.trivariateresearch.com for access. To trade our baskets – like long compounders and short melting ice cubes, or long SP additions and short potential deletions, please contact us.


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For further information on our Quantitative Frameworks or to view our full collection of research, data, bespoke services, visit our website www.trivariateresearch.com for access or contact our Head or Sales, Colin Cooney at colin@trivariateresearch.com



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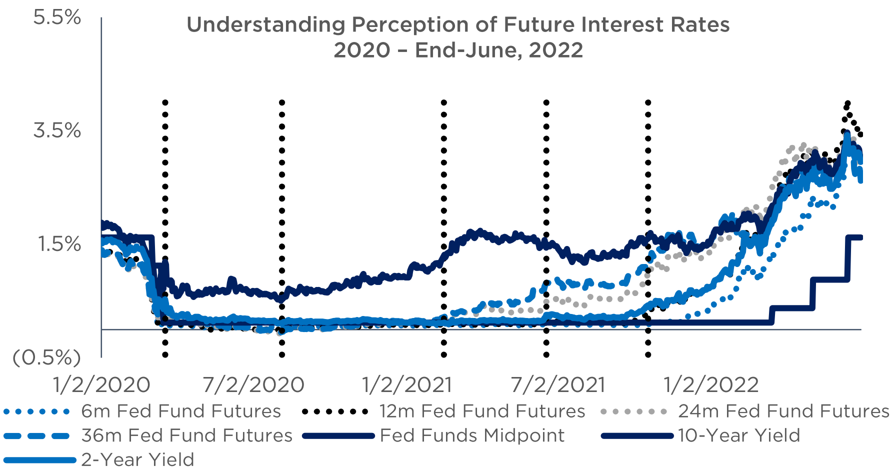
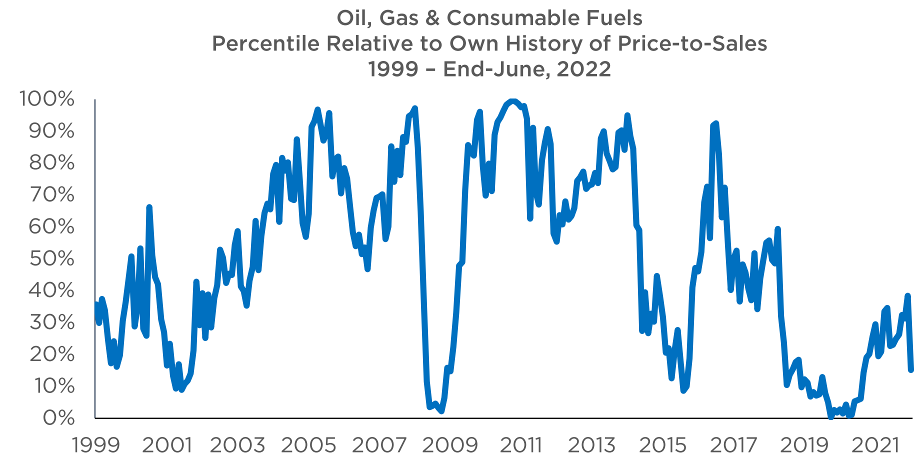
# FOUR CHARTS YOU SHOULD NOT MISS

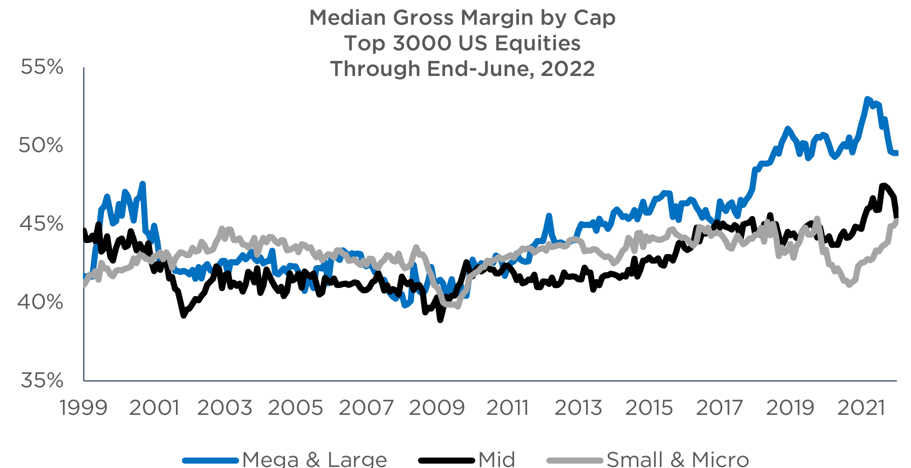
Changes to perceptions about interest rates will be crucial for short-term market multiples (upper left). Despite the rally, energy is still cheap (upper right). We like materials, energy, and healthcare, and are cautious communication services, industrials, and staples (bottom left). Gross margins will likely trough 2000-2008 levels (bottom right). Relative estimate achievability is the key for stock selection.




**Trivariate Sector Recommendations**

| Sector | Recommendation | Comments |
|---|---|---|
| Materials | Overweight | Buy the cheap stocks with upward revisions |
| Energy | Overweight | Supply won't catch up for awhile and we do not see substantial demand destruction yet |
| Health Care | Overweight | Healthcare services have cheap growth, pharma is incredibly cheap vs. staples, |
| Information Technology | Equal-Weight | Focus on positive FCF, pricing power – avoid profitless software |
| Utilities | Equal-Weight | Some idiosyncratic investments are sensible |
| Real Estate | Equal-Weight | Metrics for stock selection are becoming more effective, commercial remains challenged |
| Financials | Equal-Weight | Prefer large cap banks to small |
| Consumer Discretionary | Equal-Weight | Margins are at risk with rising input costs |
| Communication Services | Underweight | Makes sense to keep market-weight FAANGM |
| Industrials | Underweight | Industrial activity is rolling over, but earnings expectation are very high |
| Consumer Staples | Underweight | Plenty of short ideas in idiosyncratic staples, and valuation of large-caps is stretched |





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# PILOTS TURN THE SEATBELT SIGN ON AFTER THE TURBULENCE STARTS

**Short-term outlook: We clearly have a more negative outlook about corporate earnings now than we did at the beginning of the year.**

**Macro conditions directionally negative:** Oil and commodities are higher, and the dollar is stronger YTD, which is in aggregate negative for US corporate earnings. GDP expectations are now lower than they were at the beginning of the year. Financial conditions have tightened. Trivariate's proprietary gauges of economic, industrial, and consumer activity have all deteriorated since the beginning of the calendar year.

**Expectations higher:** Nonetheless, sell-side consensus earnings expectations are now $230.57 for 2022, up 3% from the $224.45 consensus bottom-up earnings expectations at the beginning of the year. Hence, we feel worse about relative estimate achievability now than we did at the beginning of the year, and **we expect July earnings season to be a catalyst for material downward revisions.** Post-Labor Day, when most sell-side analysts emerge from their summer vacation and sharpen their pencils for the first time on 2023 estimates, we expect further downward revisions to the current $251.19 earnings expectations for 2023 (8.9% growth above the overly optimistic 2022 estimates). Downward revisions themselves do not have to be accompanied by lower equity markets, however, the estimates embedded in the forecasts for the second half of the 2022 seem particularly at-risk considering macro developments year-to-date. Like most pilots, the analysts turn the seat belt sign on after the turbulence starts, even though the radar shows the storm just ahead. We see that as the case for analysts during July.


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# INVESTMENT CONCLUSIONS

**Long-term outlook:** Our longer-term algorithm for US equities is that we expect a 2% total yield (net buyback plus dividend), nearly a 2% mix shift from new companies added to the SP500, and 3-5% "organic" EPS growth, totaling to a 7-9% total return, which is attractive vs. all other major asset classes in our judgment.

**Margins and Multiples:** Pushback from investors is usually around high margins or the elevated market multiple. The long-term average is 17x for price-to-forward earnings and 15x price-to-trailing earnings, meaning today's valuation is slightly below the long-term average. The constitution of the market has changed with less capital-intensive businesses and more high gross margin biotech / software, meaning margins will likely not dip down to long-term average levels. This likely augers multiples will not go meaningfully below long-term averages. The biggest challenge is monetary policy.

**Elevated CPI:** Because CPI is roughly 33% owners equivalent rent, and rents are rising at the rate of 1% per month, we see upward pressure on CPI as likely for several more quarters. The math of getting to a 2% CPI would require massive deflation elsewhere, meaning a giant recession. Hence, we see it as most likely that the Fed will communicate that above 2% CPI is likely for several quarters or years and will get directionally dovish over time. Stagflation is the risk / certainty in the interim, and most investors are trying to time when the Fed will get more dovish as a potential inflection for multiple expansion.

**It is not in the price:** In the interim, we have not seen any "trading" evidence that a recession is "in the price" as most stocks are strongly underperforming when they miss on margins or lower the outlook (TGT, NKE, MU, etc.).


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# BUY IDEAS

1) **Buy oil-sensitive energy stocks:** The risk-reward skewed to the upside for oil. We have been pushing this for over one year, but our main thesis of upward revisions, cheap valuation, positive price momentum, and negative aggregate positioning all exist.
2) **Buy metals:** We continue to like aluminum and copper and think these stocks are discounting massive negative earnings declines in 2023 and beyond. On the contrary, we think long-term demand growth will exceed GDP, and is likely to exceed supply growth for sustained periods. Given the recent pullback, and what appears to be 50-75% downward revisions as "in the price" these are among the most attractively valued cyclicals.
3) **Buy mid-cap biotechnology:** Innovation has been overly discounted with all-time lows on price-to-sales now achieved. Over 85% of biotechnology companies never generate positive cumulative free cash flow so rising does not crush the long-term value for most.
4) **Buy healthcare services:** They have above average revenue growth, lower volatility of growth, yet lower valuation. We like UNH – pricing power, inflation beneficiary, value, and growth and CNC (Medicaid so counter-cyclical, margin expansion, shareholder return).
5) **Buy pharmaceuticals:** With all-time low valuation vs. consumer staples with the same dividend yield, and better than average estimate achievability, we like using pharma as a defensive sector.
6) **High quality semiconductors:** We know estimates will be downwardly revised and that backlogs will be cancelled but the quality businesses grow above GDP in the long-term and merit above market multiples (i.e. -ASML, KLAC, LRCX, AMAT, ADI, TXN, SNPS, CDNS).


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# STOCKS TO SELL

1) **Short "junk" work-from-home and reopening stocks:** High quality reopening has lagged low quality work-from-home since the beginning of COVID. While this has sharply corrected in the last few months, we think this trend will continue. NFLX is a good example on the work-from-home side, CCL on the reopening side. We can provide a list of junk stocks with high correlation to our baskets upon request.
2) **Short profitless software:** Following growth stock sell-offs, growth-stock outperformers have positive free cash flow and gross margin expansion. We recommend investors short those with contracting or stagnating margins and negative free cash flow. BILL is one we highlighted as having negative FCF, decelerating forecasted revenue growth, and high valuation (and it is down over 50% YTD).
3) **Short machinery / capital goods:** Industrials with high incremental gross margin expectations will continue to underperform because industrial economic activity has moderated yet the estimates remain very elevated. We would avoid capital goods / machinery stocks with incremental gross margin expectations.
4) **Short expensive staples:** Some staples are over-earning due to COVID behavioral shifts, and now embed continued high growth and elevated valuation, creating potential downside as growth eventually disappoints. CLX, SMPL, BGS are examples of expensive staples.
5) **Short regional banks:** Some rate-sensitive banks have seen strong price-to-tangible book expansion on a changed perception of rates that may ultimately prove to be overly optimistic. SBNY was one we recommend shorting because it is loved (16 buys, 0 holds, 0 sells) and that is a contrarian signal in bans. For other bank short ideas, please contact us.


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# SUMMARY OF KEY RESEARCH

**Assessing macro conditions:** We analyze over 150 macro variables and it is now clear that economic activity has rolled-over. The consumer (wages, jobs) data remain relatively stronger, but housing is peaking, consumer confidence is impaired, and industrial activity has softened (where transportation prices have declined).  A strong dollar (nearing parity against the Euro) and higher oil and commodities are accompanied by tighter financial conditions.  Perceptions about interest rates are what matter now, but CPI will remain elevated. Any incrementally dovish commentary is the key to multiple expansion as estimates are downwardly revised.

**If risks did not change, anyone could do risk management.** The importance of measuring "work from home" vs. "reopening" exposure crossed with quality and junk, inflation exposure, and the unprecedented correlation of signals in certain segments like industrials are all huge risks that grew after COVID-19 roiled markets in Q1 2020. When considering risk, investors should consider signal correlation, correlation convexity and negative asymmetric beta.

**Growth managers should avoid expensive stocks with new CEOs**, as 65% of these stocks underperform over the next 4 to 8 months.  They also should question whether buybacks are prudent, as in aggregate this has destroyed value since the financial crisis.  The initial reaction to deals is prescient, as acquirers buying more than 20% of their market capitalization that lag the market for the first week of trading post the announcement tend to lag for nearly two years.  Buybacks have recently failed, where as dividend growth is a sustainably good strategy as interest rates rise.  Avoiding rising capital and R&D intensity in growth stocks is typically sensible.  Leverage could be an issue for the first time in years, as refinancing at higher rates will impair interest expense.


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# WE ARE AT 15.2X THE 12-MONTH FORWARD EARNINGS EXPECTATIONS

Taking earnings and multiples together, the below chart shows today's price, and a range of multiples and earnings outlooks relative to the current consensus forecasts. We assume 10-15% downside to the consensus 2023 numbers as a starting point, and a range of outcomes on the relative multiple are shown vertically.

**2023 Growth Expectations Implied from Consensus 2022E Expectations**

| | Growth | (25%) | (20%) | (15%) | (10%) | (5%) | 0% | 5% | 10% | 15% |
|---|---|---|---|---|---|---|---|---|---|---|
| Multiple | PE Ratio | 172.93 | 184.456 | 195.98 | 207.51 | 219.04 | 230.57 | 242.1 | 253.63 | 265.16 |
| 80% | 12.7 | 2193.0 | 2339.2 | 2485.4 | 2631.6 | 2777.8 | 2924.0 | 3070.2 | 3216.4 | 3362.6 |
| 85% | 13.5 | 2330.1 | 2485.4 | 2640.7 | 2796.1 | 2951.4 | 3106.8 | 3262.1 | 3417.4 | 3572.8 |
| 90% | 14.3 | 2467.1 | 2631.6 | 2796.1 | 2960.6 | 3125.0 | 3289.5 | 3454.0 | 3618.5 | 3782.9 |
| 95% | 15.1 | 2604.2 | 2777.8 | 2951.4 | 3125.0 | 3298.6 | 3472.3 | 3645.9 | 3819.5 | 3993.1 |
| Current | 15.9 | 2741.3 | 2924.0 | 3106.8 | 3289.5 | 3472.3 | 3655.0 | 3837.8 | 4020.5 | 4203.3 |
| 105% | 16.6 | 2878.3 | 3070.2 | 3262.1 | 3454.0 | 3645.9 | 3837.8 | 4029.6 | 4221.5 | 4413.4 |
| 110% | 17.4 | 3015.4 | 3216.4 | 3417.4 | 3618.5 | 3819.5 | 4020.5 | 4221.5 | 4422.6 | 4623.6 |
| 115% | 18.2 | 3152.4 | 3362.6 | 3572.8 | 3782.9 | 3993.1 | 4203.3 | 4413.4 | 4623.6 | 4833.7 |


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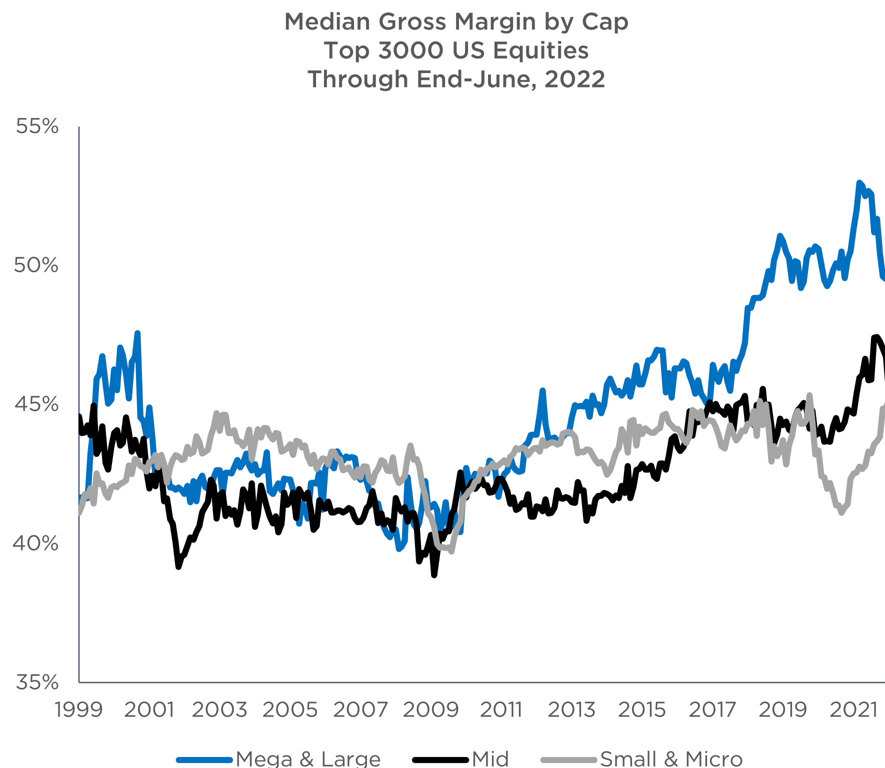
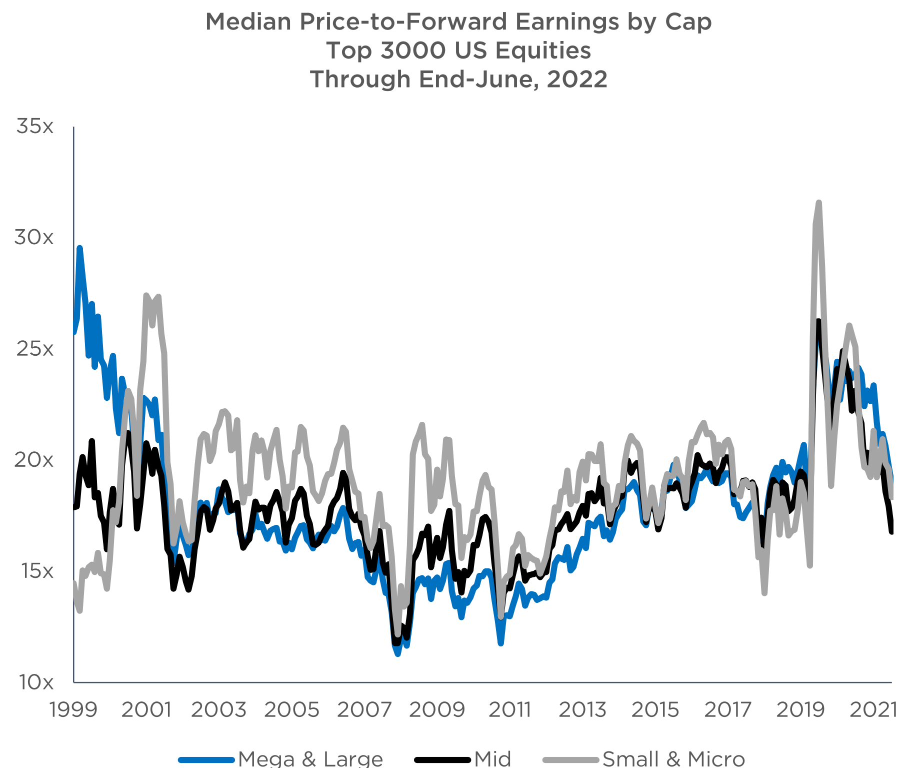
# MID-CAP VALUATION IS NOW AT A DECADE LOW

The median gross margin of large caps didn't dip during COVID but has started to rollover recently (left chart), potentially at least partially justifying above average price-to-forward earnings multiples for the median large cap stocks (right side). Mid-cap valuation is now at a decade low. Small and micro-cap profitability still has more room for expansion, thought multiples remain elevated for the median smaller stock. Bears argue mega / large cap margins will collapse, but we see it as unlikely that gross margins will dip below 2011 levels.





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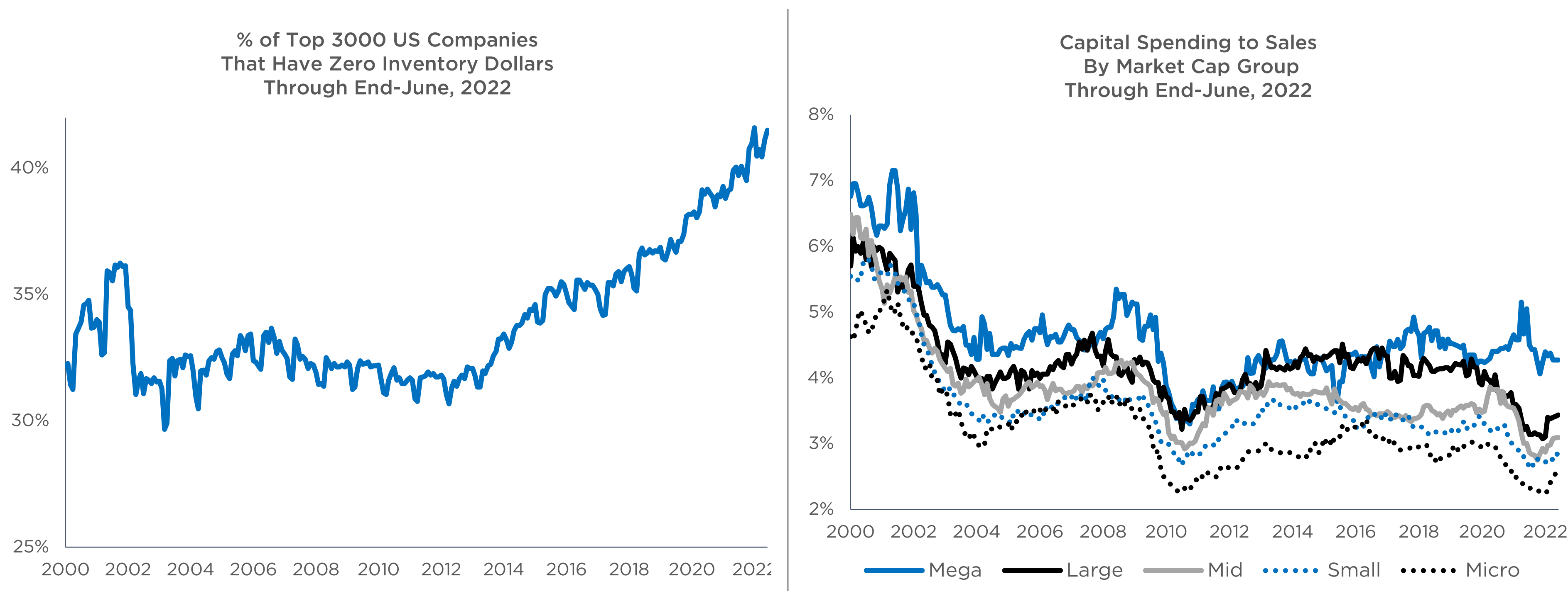
# INVENTORY AND CAPITAL SPENDING ARE NOT BURDENS TO PROFITS

We do not believe that margins for US companies will mean-revert to a long-term average. Overall inventory is less of a risk than it was in the past, because over 40% of the top 3000 US equities now do not even have inventory (left chart). That is roughly 300 more stocks than 20 years ago. While an inventory burn off and backlog cancellations are likely to hurt margins in the coming couple of quarters, there are fewer manufacturing companies today than in the past. Excessive capital spending can also be bad as it puts a depreciation burden on cost of good sold. Recently, we have seen small increases in capital intensity (right chart), however levels remain well below longer-term averages because the constitution of businesses has increasingly skewed away from manufacturing towards services.





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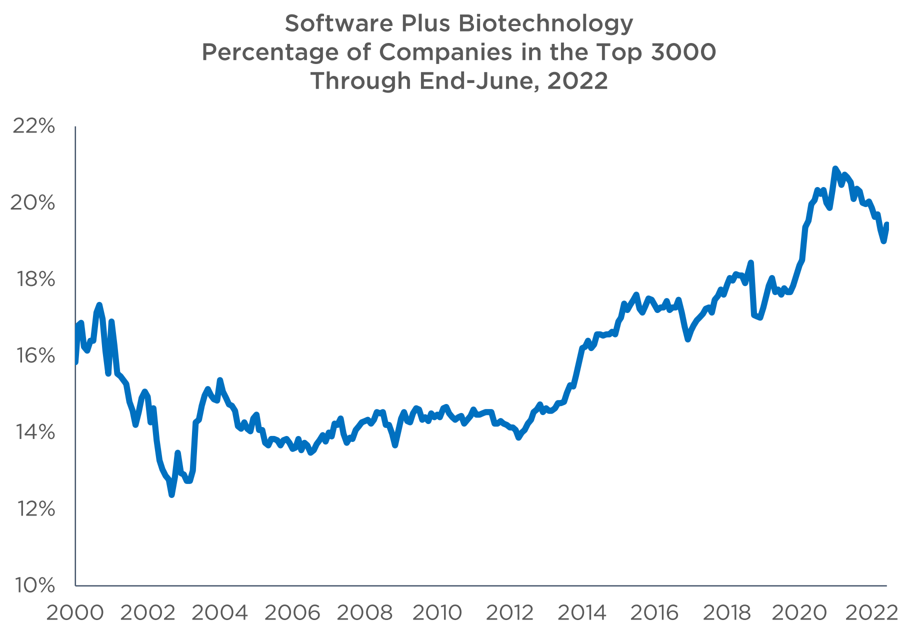
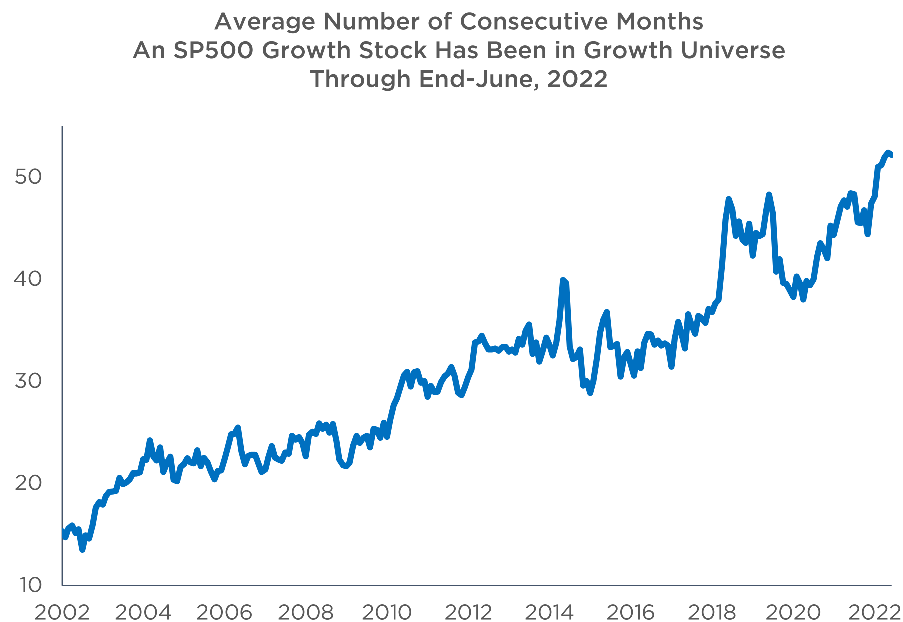
# IS VALUATION DEFENSIBLE? CONSTITUENTS HAVE SHIFTED

Nearly 20%, or 600 of the biggest 3000 public US equities are currently in the Software & Services or Pharmaceuticals, Biotechnology, and Life Sciences industries (left). This has declined recently with their dramatic underperformance, but nonetheless that is substantially more than 20 years ago. Investors are buying long-dated potential growth, not current profitability. We don't think the market's overall valuation will dip way below long-term averages because there are these faster-growing businesses that are maintaining their growth status for close to the longest amount of time ever (right chart).





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# 2022 FULL YEAR EARNINGS ESTIMATES ARE UP FOR THE S&P500 YTD

Earnings expectations are higher now 3.1% higher than they were on January 1st, despite the obvious roll-over in macro data. Energy estimates are up the most, over 80%, and earnings estimates for consumer discretionary, communication services and industrials are down the most since the start of the year.

**2022 EPS Revisions: July 1, 2022 vs. December 31, 2021**

| Sector | 1Q22 | 2Q22E | 3Q22E | 4Q22E | 2022E |
|---|---|---|---|---|---|
| S&P 500 | 5.4% | (0.6%) | 3.2% | 4.4% | 3.1% |
| Energy | 39.2% | 101.1% | 95.4% | 87.7% | 80.8% |
| Financials | 6.1% | (4.7%) | (0.4%) | 0.3% | 0.3% |
| Health Care | 5.8% | (4.8%) | (2.4%) | (2.8%) | (1.0%) |
| Materials | 7.1% | (2.4%) | 18.4% | 23.2% | 10.8% |
| Info Tech | 7.2% | (2.7%) | 0.5% | 4.4% | 2.4% |
| REITS | 10.7% | 12.0% | 12.4% | 9.4% | 11.1% |
| Utilities | 17.0% | (0.6%) | (1.0%) | (3.7%) | 3.2% |
| Communication Services | (4.7%) | (12.9%) | (9.1%) | (7.6%) | (8.6%) |
| Consumer Staples | 2.4% | (4.7%) | (3.4%) | 0.5% | (1.4%) |
| Consumer Discretionary | (7.1%) | (23.6%) | (10.0%) | (5.1%) | (11.7%) |
| Industrials | (8.3%) | (5.2%) | (1.6%) | (0.9%) | (3.7%) |


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# EARNINGS EXPECTATIONS ARE EXCESSIVELY OPTIMISTIC

Current bottom-up earnings expectations are for 10.1% growth for the SP500 for 2022. Expectations are that earnings will rise through 2022, except for in financials and communications services.  We still see estimates as far too optimistic overall, and in particular in the industrial sector, with over 20% earnings growth embedded in each quarter and 18% additional growth in 2023.  Obviously, the energy and materials sectors will see strong growth as underlying commodities have materially risen – but both are forecasted to have declining earnings in 2023.

**Bottom-Up Analyst Earnings Growth Expectations**
**July 1, 2022**

| Sector | 2021 | 1Q22 | 2Q22E | 3Q22E | 4Q22E | 2022E | 2023E |
|---|---|---|---|---|---|---|---|
| S&P 500 | 47.0% | 12.5% | 4.0% | 10.8% | 13.0% | 10.1% | 8.9% |
| S&P ex-Financials | 42.3% | 20.5% | 10.8% | 14.5% | 16.2% | 15.4% | 8.2% |
| Consumer Discretionary | 70.3% | (8.8%) | (7.7%) | 23.1% | 34.2% | 9.5% | 25.9% |
| Consumer Staples | 6.5% | 7.2% | (0.6%) | 9.2% | 5.9% | 5.4% | 8.1% |
| Energy | N/A | 283.1% | 221.9% | 107.1% | 52.7% | 130.5% | (12.6%) |
| Financials | 71.9% | (16.3%) | (23.5%) | (7.0%) | (2.4%) | (12.8%) | 13.2% |
| Health Care | 22.6% | 17.9% | 3.9% | (0.2%) | 2.0% | 5.7% | 0.3% |
| Industrials | 78.6% | 36.9% | 22.8% | 33.7% | 49.2% | 35.1% | 17.7% |
| Info Tech | 32.2% | 14.9% | 2.8% | 7.0% | 12.4% | 9.4% | 12.7% |
| Materials | 75.3% | 48.0% | 0.3% | 13.9% | 19.2% | 18.0% | (2.4%) |
| Communication Services | 38.7% | (5.0%) | (13.0%) | (4.1%) | 4.9% | (4.3%) | 15.3% |
| Utilities | 5.0% | 26.1% | (11.9%) | (1.8%) | 15.2% | 5.7% | 5.1% |
| REITS | 24.7% | 20.9% | 16.4% | 20.7% | (3.6%) | 12.5% | 6.9% |


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# SP500 INDEX CHANGES HAVE A BIG IMPACT ON ITS PERFORMANCE

We analyzed the additions and drops to the SP500 over the last 20+ years. We found that on average 5.5% of the stocks change each year and the cumulative impact is substantial. Few investors focus on the importance of their key benchmark being a constantly enhanced moving target.

**Valuation boost:** The overall impact of constantly adding companies that grow faster and have higher profitability ultimately impacts the valuation of the market. Over the last 20 years, the average price-to-sales for a stock added to the SP500 is 3.2x at the time of inclusion vs. only 1.5x sales for the average stock at the time of being dropped, with much of that enormous differential created in the last decade.

**Aggregate impact:** Over the last decade, the impact of the of these add / drops alone has boosted earnings growth by 2.2% annually, and the market multiple by 0.18x. This partially explains higher market valuations today than history, and the challenges of beating the SP500, which is really a constantly enhanced moving target.

**Investment conclusion:** In order to capture some of the performance of the additions and avoid that of the deletions, we created two proprietary “potential add and potential drop” baskets to the SP500. This is not a predictive model where we back-test whether names were ultimately included, and names in both baskets could already be in the official index. The point is to capture names that are just smaller than the SP500 cut-off on market capitalization that are not melting ice cubes as longs, and short those that are melting ice cubes. Our “potential add” basket strongly outperforms the SP500, whereas our “potential drops” basket underperforms. We think adding these basket is a good structural alpha- generative hedge. Please let us know if you are interested.


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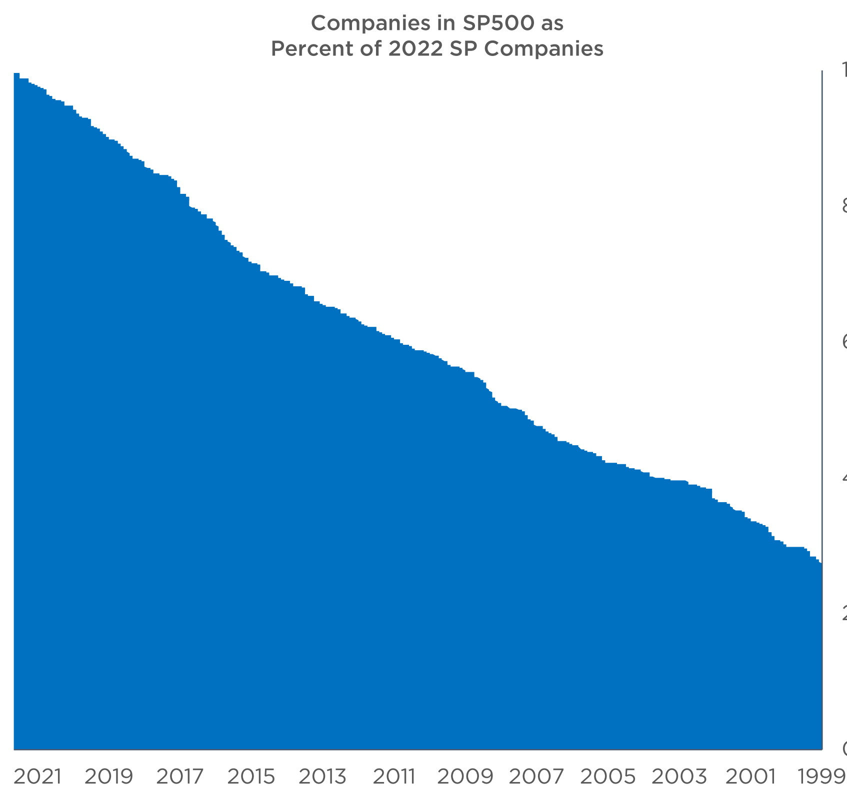
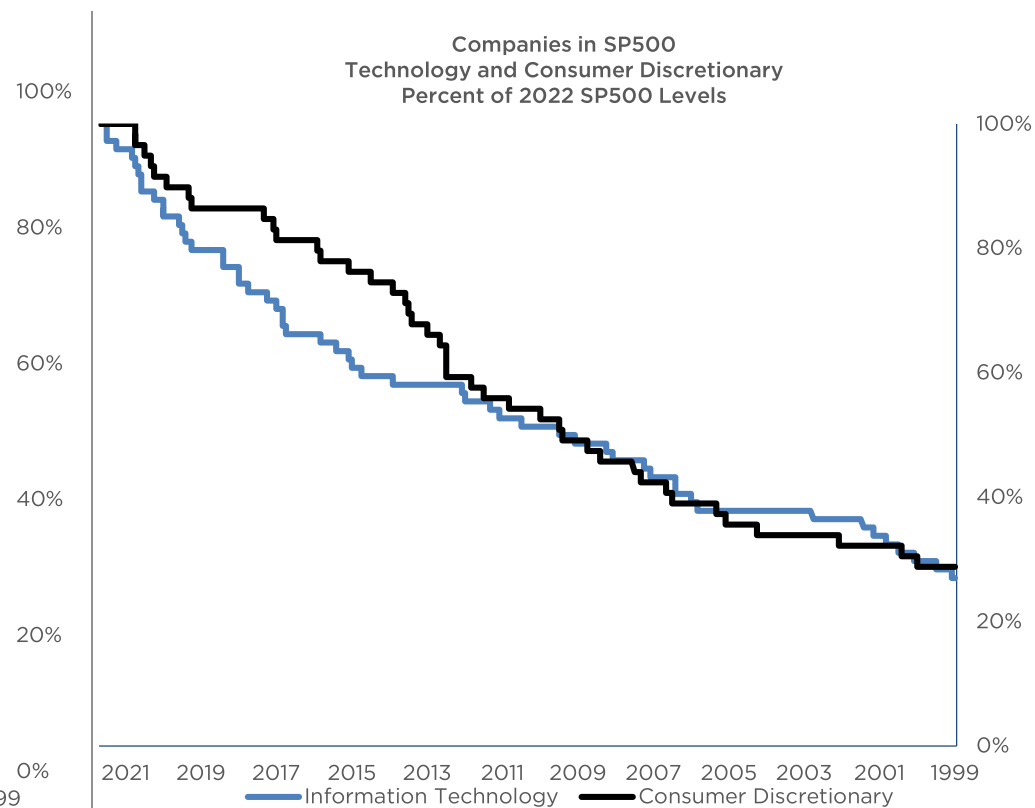
# 75% OF THE SP500'S CONSTITUENTS WERE NOT THERE 20 YEARS AGO

The impact of this constant replacement of existing / poorer companies with new / stronger companies has a massive impact on the market constituents over time. In fact, only 25% of the companies in the SP500 today were in the SP500 in 1999, and about half are new since 2007 (left chart). In certain more idiosyncratic sectors where many managers purposely go to generate alpha, like technology and consumer discretionary, nearly 80% of the companies in the index today were not there 20 years ago (right chart). We have heard some more experienced portfolio managers bemoan how experience sometimes seems anti-correlated with success in recent years, and perhaps this is partially merited by the massive turnover in companies since these investors originally formulated their investment heuristics.



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# SUMMARY OF VIEWS ON CYCLICALS - INVESTMENT CONCLUSIONS

**Valuation and margins:** On valuation – specifically price-to-forward earnings relative to the broader SP500 - building products, chemicals, homebuilders, metals, oil, gas & consumable fuels, and specialty retail are very cheap vs. their own history. On profitability, chemicals, machinery, homebuilders, metals & mining, semiconductors and semiconductor capital equipment, building products, and specialty retail have near peak or record net margins. Machinery and building products are now expensive on price-to-sales, with machinery at multi-decade highs.

**Earnings scenario analysis:** In aggregate, it appears the three most severe prior troughs reduced earnings for these cyclical industries between one-third and one half, though in most cases earnings typically strongly grow following these declines. If we assume an earnings decline of 33% for each industry, and a 10% decline in earnings for the overall market, then oil, gas & consumables, homebuilders, specialty retail, metals & mining, chemicals and building products all still look cheap. Hotels, restaurants & leisure, electrical equipment, and machinery do not look attractive, while semiconductors (which we would argue merit a premium to the market for other reasons) would still trade at a slight discount to the market in that scenario. Oil and gas stocks would trade at 8.6x forward earnings if their estimates are cut by a third. **Machinery stocks would trade near 20x under the same assumptions. We continue to recommend buying energy and selling machinery.**

Except for airfreight & logistics, estimates are forecasted to rise for the other 12 cyclical industries. A reset is likely as recessionary fears grow. Our judgment is that the potential for a material earnings decline in the near-term (between now and year end) and the medium-term (2023-2024) varies by industry. We think **autos, electrical equipment, hotels, restaurants & leisure, machinery and specialty retail are more likely to see a 33% earnings hit earlier than the other industries. As such, we prefer chemicals, metals & mining, oil, gas, & consumable fuels, and semiconductors & semi caps believing they have lower risk of an earnings hit this year.**


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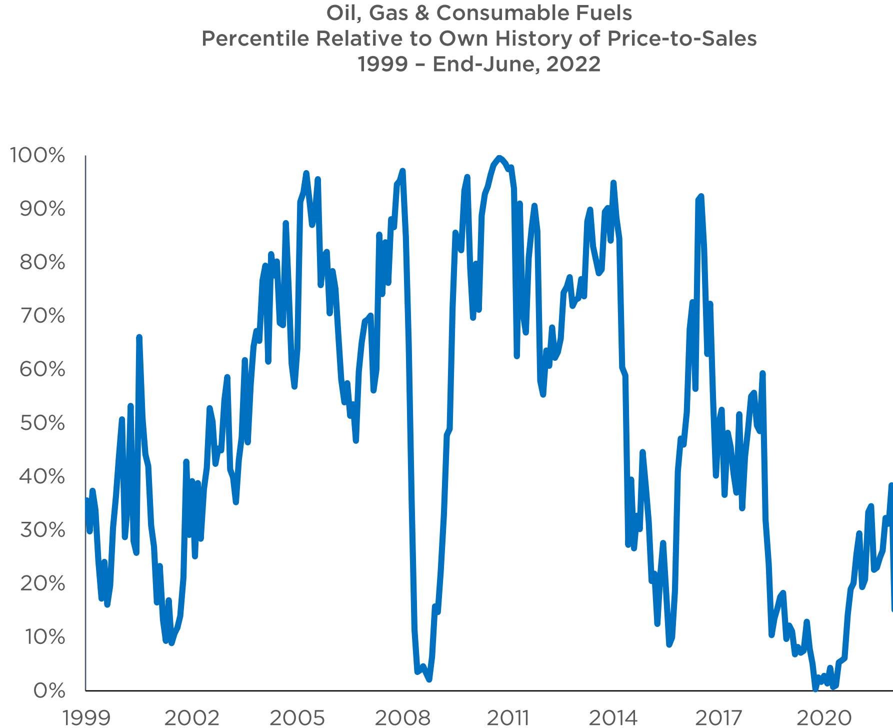
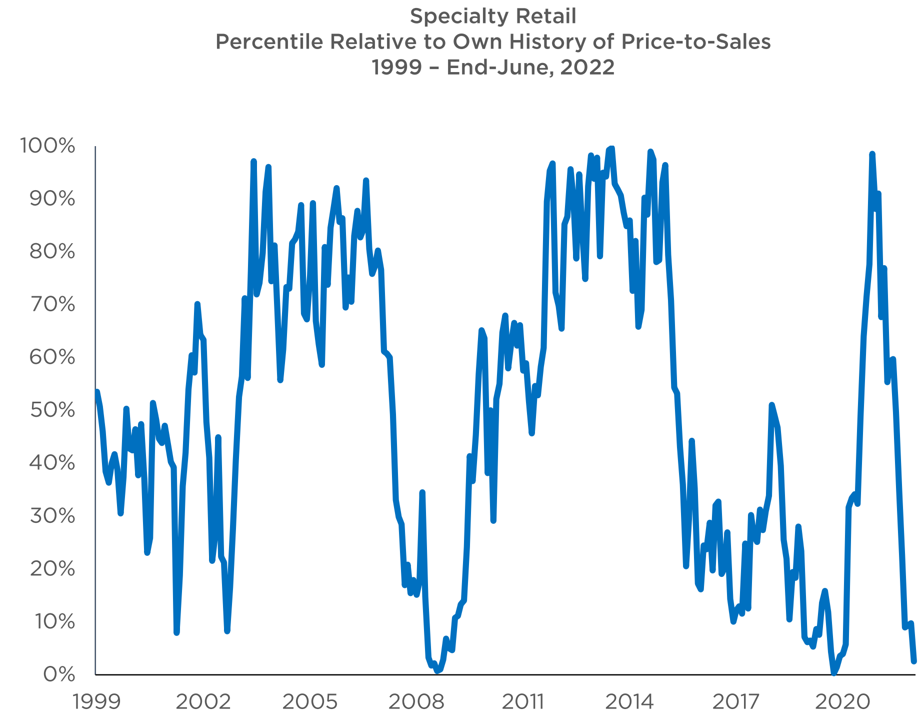
# ENERGY AND SPECIALTY RETAIL ARE CHEAP ON SALES

Despite the outperformance of energy stocks, they remain cheap, currently valued at the 15th percentile of the last 20 years on price-to sales (left). For specialty retail (right) valuation is at a trough, though macro conditions and industry challenges likely make this more structural than cyclical in many cases.





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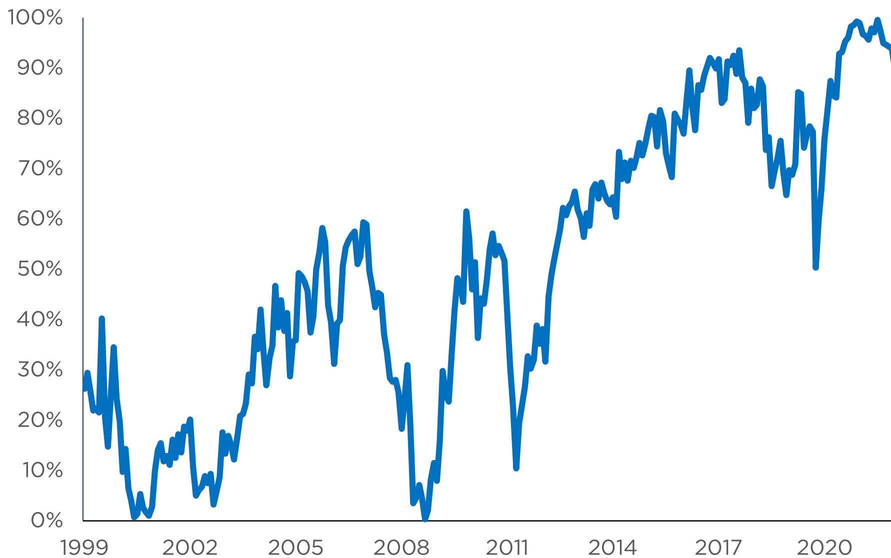
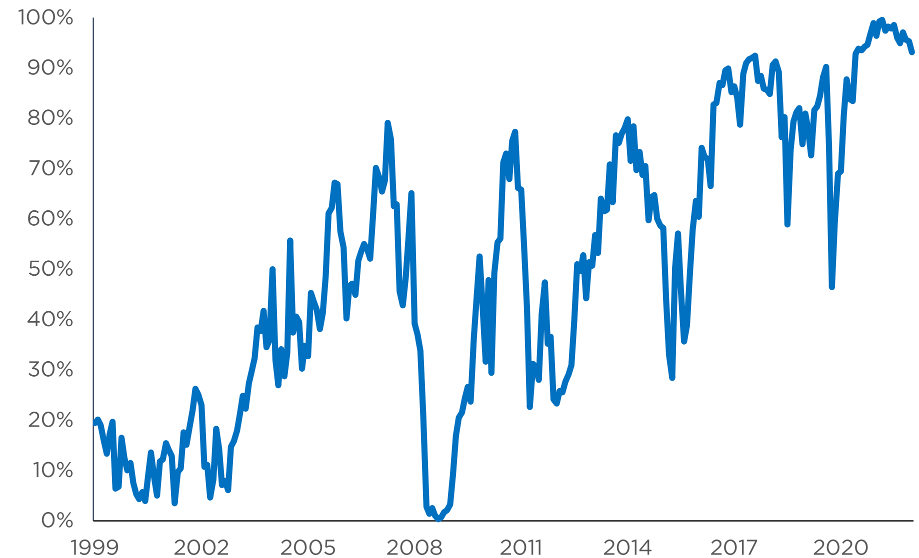
# BUILDING PRODUCTS AND MACHINERY ARE EXPENSIVE ON SALES

On price-to-sales, building products look relatively more expensive (left) and machinery stocks have never been more expensive (right). It seems like a disconnect to us that energy and metals remain so cheap while machinery is so expensive, given many machinery companies will face margin pressure as their costs rise.





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# PRIOR CYCLICAL DOWNTURNS ARE USEFUL FOR CONTEXT

The most severe prior cyclical downturns reduced earnings between one-third and one-half. If we assume an earnings decline of 33% for each cyclical industry, and a 10% decline in earnings for the overall market, then oil, gas & consumables, homebuilders, specialty retail, metals & mining, chemicals and building products all still appears cheap in that scenario. Hotels, restaurants & leisure, electrical equipment, and machinery do not look attractive, while semiconductors (which we would argue merit a premium to the market for other reasons) would still trade at a slight discount to the market in that scenario. This supports our long energy / materials and short industrials calls based on relative estimate achievability and risk to forward estimates. Oil, Gas and Consumable fuels would be at only 9.2x forward earnings if their estimates are cut by a third whereas machinery would be at 25.7x under the same assumptions.

**Historical Average Price-to-Forward Earnings**
**Vs. Current Price-to-Forward Earnings**
**Vs. Price-to-Forward Earnings Assuming Earnings/Price Declines**

| Industry | Avg. Price-to-Forward Earnings At Historical Troughs | Current Price-to-Forward Earnings | Price-to-Forward Earnings Fixed Price 33% Earnings Decline | Price-to-Forward Earnings 33% Earnings Decline 10% Price Decline |
|---|---|---|---|---|
| Oil, Gas & Consumable Fuels | 18.0x | 6.2x | 9.2x | 8.3x |
| Household Durables | 16.9x | 7.6x | 11.5x | 10.3x |
| Specialty Retail | 25.1x | 7.6x | 11.4x | 10.3x |
| Metals & Mining | 22.6x | 11.4x | 17.1x | 15.4x |
| Chemicals | 16.3x | 13.5x | 20.3x | 18.2x |
| Building Products | 18.6x | 12.6x | 18.9x | 17.0x |
| Automobiles & Auto Components | 39.2x | 15.0x | 22.4x | 20.2x |
| Machinery | 21.0x | 17.1x | 25.7x | 23.1x |
| Semis & Semis Equipment | 24.6x | 18.0x | 27.1x | 24.4x |
| Electrical Equipment | 21.2x | 25.8x | 38.7x | 34.8x |
| Hotels, Restaurants & Leisure | 29.9x | 22.8x | 34.2x | 30.8x |
| Energy Equipment & Services | 10.3x | 27.2x | 40.7x | 36.7x |


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# THE NEXT 2 YEARS: OUR JUDGMENT VS. THE SELL-SIDE CONSENSUS

Except for airlines / airfreight & logistics, analysts are still projecting earnings growth for all 13 cyclical industries. We show our judgment about a near-term (between now and year end) and medium-term (2023-2024) collapse in earnings below. Our view is autos, electrical equipment, hotels, restaurants and leisure, machinery and specialty retail are more likely to see a 33% earnings hit earlier than the other industries. We prefer chemicals, metals & mining, oil, gas, & consumable fuels, and semiconductors & semi caps as having lower risk of a major earnings hit this year.

**Consensus and Trivariate Views**
**By Cyclical Sector**

| | | | Is a 33% or More Earnings Decline Likely? | |
|---|---|---|---|---|
| Industry | Consensus View | Comment on Consensus | Trivariate Judgment Next 12 Months | Trivariate Judgment 2023-2024 |
| Airlines & Airfreight & Logistics | Negative to Positive | (30B) a year ago to 15B now | Unlikely | Likely |
| Automobiles & Auto Components | 119.7% | From 15b to 33B, but peak of 36B was 2/22 | Possible | Likely |
| Building Products | 56.1% | From 10b to 16b in last year | Unlikely | Likely |
| Chemicals | 90.2% | 1-year expectations have doubled in last year | Unlikely | Possible |
| Electrical Equipment | 18.8% | Estimates are down 10% in last month | Possible | Likely |
| Energy Equipment & Services | Less Negative | More than (50b) in 2020 to (3b) and improving now | Unlikely | Likely |
| Hotels, Restaurants & Leisure | Negative to Positive | (27B) a year ago to 7b now | Possible | Likely |
| Household Durables | 44.6% | Expectations continue to expand | Unlikely | Likely |
| Machinery | 38.4% | 27B to 37B YoY but down from 40B 3 months ago | Possible | Likely |
| Metals & Mining | 362.3% | Estimates have doubled YoY and still rising | Unlikely | Possible |
| Oil, Gas & Consumable Fuels | Negative to Positive | (110B) in March 2021 to 105B now and risng | Unlikely | Possible |
| Semiconductors & Semiconductor Equipment | 53.8% | Estimates continue to rise | Unlikely | Possible |
| Specialty Retail | 43.2% | Flattish last few months | Possible | Likely |


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# SUMMARY OF VIEWS ON GROWTH STOCKS

- We analyzed 20-,10-,5-,3-, and 1-year revenue growth trends, as well as the forward revenue estimates for every stock surviving those horizons and grossed up the bottom-up data for every sub-industry, industry, and sector over time. Over the trailing 10-years, biotech, media, internet retail, software, and health care technology were the fastest growing sub-industries. Energy equipment and services, gas, electric utilities, multi-utilities, and airlines were the slowest growing. When we assess the 12-month forward revenue growth estimates vs. these 10-year trends, airlines, oil, gas & consumable fuels, energy equipment & services, hotels, restaurants, and leisure, and semiconductors are forecasted to grow most quickly vs. history. Our judgment is that the low 10-year growth in airlines and energy correlated to underinvestment that is now the reason these industries are likely to grow above trend for the foreseeable future. We also analyzed prior revenue growth corrections to see where valuations are more defensible if this occurs.
- There is a non-linear relationship between revenue growth and relative price-to-sales multiples – the "Double Whammy" is identifying stocks that will not only grow faster (slower) but also begin to command a higher (lower) multiple – long / short stock can be provided upon request.
- New CEOs for expensive growth stocks typically underperform.


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# A 20-YEAR HISTORICAL VIEW OF REVENUE GROWTH BY INDUSTRY

**Peak-to-trough:** We analyzed the last five peak-to-trough revenue declines for every industry in the last 25 years for context.  Autos, energy, and food, beverages & tobacco historically have the biggest declines, while commercial services, capital good and retailing the lowest.  We were surprised to see this for food, beverages & tobacco, an area we see high valuation, rising input costs, and a strong dollar as directional negatives. We could see autos capital goods, software, and retailing have revenue pullbacks as severe as the last five biggest declines, but most industries will fare better this cycle.

**Valuation:** Expectations about future revenue growth rates and profitability drive price-to-sales levels and changes. We compared trailing and forward price-to-sales multiples to provide context around today's valuation levels and "implied" multiples various scenarios.  Biotech and pharma look cheap, and autos expensive in this scenario.  While obviously this is an academic exercise and underlying trends evolve, we think the future about growth is particularly uncertain right now, and the context around historical growth and peak-to-trough declines is instructive.

**Conclusion:** When canvassing historical growth rates, expectations, peak-to-trough declines and current valuations, we see some investment opportunities.

**Buys:** Airlines, biotech, metal and mining, and energy.

**Sells:** Machinery, food, beverages & household products, autos, software

**If you are interested in the underlying stock ideas or data, please email us.**


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# RELATIVE TO HISTORY, BIOTECH EXPECTATIONS LOW, AIRLINES HIGH

We analyzed long-term revenue growth trends on a bottom-up basis. Biotech expectations are low vs. history, and airlines and energy are high. These industries have the lowest 10-year trailing revenue growth of any sub-industries, and that translated to underinvestment that now drives growth. Biotech expectations now seem depressed.

**Historical Revenue Growth Over Various Horizons**
**Versus 1y Fwd. Revenue Growth**
**Sub-Industries With Largest and Smallest Differentials**

| Sub-Industry | 10y | 5y | 3y | 1y | 1y Fwd. | Delta of Fwd Estimate vs. 10y Revenue Growth |
|---|---|---|---|---|---|---|
| Biotechnology | 19.6% | 21.2% | 23.1% | 27.8% | 6.9% | (12.7%) |
| Transportation Infrastructure | 7.2% | (1.0%) | (10.7%) | (27.4%) | 0.0% | (7.2%) |
| Tobacco | 3.5% | 5.6% | 4.8% | 7.6% | (3.2%) | (6.6%) |
| Pharmaceuticals | 14.3% | 9.5% | 10.6% | 14.5% | 8.0% | (6.3%) |
| Paper & Forest Products | 3.4% | 4.1% | 3.8% | 15.3% | (2.1%) | (5.5%) |
| Independent Power & Renewable Electricity Producers | 12.8% | 5.6% | 5.3% | 10.2% | 11.0% | (1.8%) |
| Air Freight & Logistics | 8.2% | 10.3% | 9.8% | 20.4% | 6.5% | (1.7%) |
| Electric Utilities | 2.1% | 2.6% | 2.2% | 7.4% | 0.5% | (1.6%) |
| Interactive Media & Services | 19.4% | 19.4% | 18.2% | 25.2% | 18.1% | (1.2%) |
| Diversified Telecommunication Services | 4.2% | 4.4% | 2.8% | 4.0% | 3.3% | (1.0%) |
| Specialty Retail | 5.7% | 5.7% | 6.8% | 19.6% | 4.8% | (0.9%) |
| Software | 15.8% | 17.2% | 18.4% | 19.1% | 18.9% | 3.1% |
| Machinery | 4.3% | 5.2% | 2.9% | 7.6% | 8.8% | 4.5% |
| Metals & Mining | 3.8% | 8.5% | 4.1% | 18.4% | 8.7% | 4.9% |
| Entertainment | 8.4% | 8.4% | 8.5% | 10.8% | 17.6% | 9.2% |
| Semiconductors & Semiconductor Equipment | 7.4% | 11.7% | 10.2% | 23.4% | 16.6% | 9.2% |
| Hotels, Restaurants & Leisure | 4.6% | 3.1% | 0.8% | 8.8% | 20.0% | 15.3% |
| Energy Equipment & Services | 0.9% | 0.1% | -8.3% | -16.6% | 19.3% | 18.4% |
| Oil, Gas & Consumable Fuels | 6.9% | 11.5% | 5.3% | 17.3% | 27.8% | 21.0% |
| Airlines | 2.7% | -2.4% | -7.8% | 2.3% | 33.7% | 31.0% |


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# WHAT'S IN THE PRICE IF THERE'S REVENUE GROWTH MEAN-REVERSION

Expectations about the future revenue growth rate and the profitability drive the price-to-sales levels and changes. We compared the long-term price-to-sales and forward price-to-sales to unemotionally evaluate today's valuation levels vs. history for each industry and get an "implied" multiple under the conditions that history's growth rates are more accurate than the current estimates.  Biotech and pharma looks cheap, and autos expensive in this scenario.  Investors can use any historical time frame they want to gauge the "normal" growth rates by contacting us.

**Implied Price-to-Sales Growth Over Various Horizons of Long-Term Revenue Growth**
**Versus 1y Fwd. Price-to-Sales**
**Sub-Industries With Largest and Smallest Deltas**

| Sub-Industry | Long Term Implied (20y) Price-to-Sales | Medium Term Implied (5yr) Price-to-Sales | Forward Price-to-Sales | 20y Implied Minus Forward Delta | 5y Implied Minus Forward Delta |
|---|---|---|---|---|---|
| Biotechnology | 15.84x | 15.90x | 23.36x | (7.56x) | (7.46x) |
| Automobiles | 5.32x | 5.07x | 8.13x | (2.81x) | (3.06x) |
| Pharmaceuticals | 6.68x | 7.15x | 7.87x | (1.19x) | (0.72x) |
| Water Utilities | 5.59x | 5.69x | 5.81x | (0.22x) | (0.12x) |
| Tobacco | 4.16x | 4.12x | 4.27x | (0.11x) | (0.15x) |
| Multi-Utilities | 2.45x | 2.54x | 2.51x | (0.06x) | 0.03x |
| Diversified Telecommunication Services | 1.30x | 1.33x | 1.35x | (0.05x) | (0.02x) |
| Electric Utilities | 2.30x | 2.35x | 2.29x | 0.01x | 0.06x |
| Life Sciences Tools & Services | 5.57x | 5.46x | 5.56x | 0.01x | (0.10x) |
| Transportation Infrastructure | 1.80x | 2.08x | 1.75x | 0.05x | 0.33x |
| Communications Equipment | 1.68x | 1.74x | 1.59x | 0.09x | 0.15x |
| Airlines | 0.62x | 0.68x | 0.51x | 0.11x | 0.17x |
| Semiconductors & Semiconductor Equipment | 3.98x | 3.91x | 3.83x | 0.15x | 0.08x |
| Wireless Telecommunication Services | 1.10x | 1.25x | 0.93x | 0.17x | 0.32x |
| Electrical Equipment | 2.65x | 2.70x | 2.43x | 0.22x | 0.27x |
| Hotels, Restaurants & Leisure | 1.80x | 1.87x | 1.37x | 0.43x | 0.50x |
| Software | 5.61x | 5.51x | 5.11x | 0.50x | 0.40x |
| Entertainment | 2.53x | 2.53x | 1.99x | 0.54x | 0.54x |
| Oil, Gas & Consumable Fuels | 2.15x | 2.23x | 1.56x | 0.59x | 0.67x |
| Construction Materials | 2.92x | 2.90x | 2.27x | 0.65x | 0.63x |


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# WHAT IS A MELTING ICE CUBE?

**Accruals and price momentum are best:** Our analysis clearly shows that these two variables identify relative underperformers far better than the others. This works confirms some work we had done years ago on short-selling, and while the result is not surprising to us, we found many in the past who were philosophically resistant to the conclusion. Analysts should focus on disconnects between earnings and free cash flow and should not try to short stocks at highs.

**Other metrics do not incrementally help:** No other major fundamental attribute comes close to achieving the level of success at predicting subsequent underperformers as either accruals or momentum. **We are not saying that resource allocators should not hire shorting experts, we are only saying that if you focus on bigger companies that repeatedly exhibit negative attributes, i.e., steady melting ice-cubes, then accruals and momentum are far better signals than the common fundamental ones most bottom-up stock pickers focus on like share loss and margin contraction.** Moreover, if you do not have a dedicated short seller, but industry experts, they should start with stocks with high relative accruals that have lagged and size those stocks larger than those with other negative attributes. **Downward analyst earnings revisions, often an investor focus, is not fruitful, as these stocks go on to outperform the market on average over the next quarter.**

**Conclusion and short ideas:** Stocks repeatedly in the top quintile of the market on accruals are an inferior asset class. These "high accrual" stocks that have also underperformed their peer group (market cap and industry medians) form a cohort that substantially lags the S&P500 over time. Our list of short ideas (i.e., the melting ice cubes) are shown on page 29.


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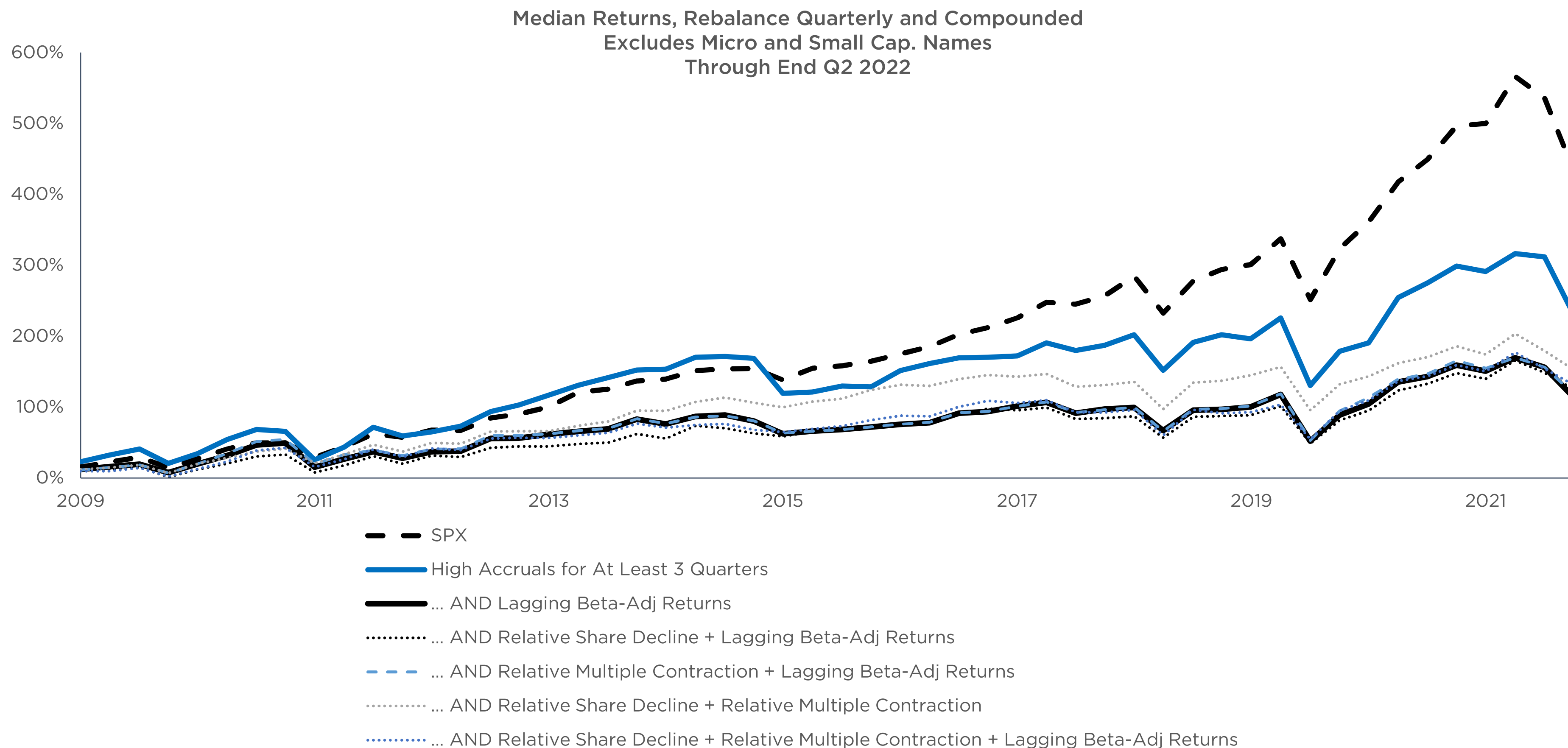
# HIGH ACCRUALS WITH BAD MOMENTUM ARE GOOD SHORTS

The combination of high accruals and relative prior underperformance is compelling. By selecting only those names with high accruals for the previous three quarters that also have returns lagging their industry group and similarly-sized peers, performance can be cut nearly in half (solid blue line to solid black line compared to the SP500 returns that are the dotted black line). Further sub-setting, using changes in valuation or share, for example, have proven detrimental (in the case of forecasted share decline and prior relative contraction) or not accretive.





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# TODAY'S MELTING ICE CUBES OR CANDIDATE SHORT IDEAS

Below are companies with high accruals for the past three quarters that have had relatively poor stock performance in the last quarter.

**Select Names with High Accruals**
**At Least Three Consecutive Quarters & Lagged Peers This Past Quarter**
**Through End-June, 2022**

| Ticker | Company | Industry Group | Market Cap. (US$ Bil.) |
|---|---|---|---|
| TMUS | T-Mobile US, Inc. | Telecommunication Services | 168.66 |
| AMT | American Tower Corporation | Real Estate | 118.99 |
| EQIX | Equinix, Inc. | Real Estate | 59.80 |
| CMG | Chipotle Mexican Grill, Inc. | Consumer Services | 36.55 |
| SBAC | SBA Communications Corporation | Real Estate | 34.51 |
| IFF | International Flavors & Fragrances Inc. | Materials | 30.36 |
| CPRT | Copart, Inc. | Commercial & Professional Services | 25.83 |
| ARE | Alexandria Real Estate Equities, Inc. | Real Estate | 23.67 |
| DHI | D.R. Horton, Inc. | Consumer Durables & Apparel | 23.30 |
| DRE | Duke Realty Corporation | Real Estate | 21.15 |
| SUI | Sun Communities, Inc. | Real Estate | 19.38 |
| SWKS | Skyworks Solutions, Inc. | Semiconductors & Semiconductor Equipment | 14.91 |
| ELS | Equity LifeStyle Properties, Inc. | Real Estate | 13.11 |
| BEN | Franklin Resources, Inc. | Diversified Financials | 11.65 |
| MKTX | MarketAxess Holdings Inc. | Diversified Financials | 9.66 |


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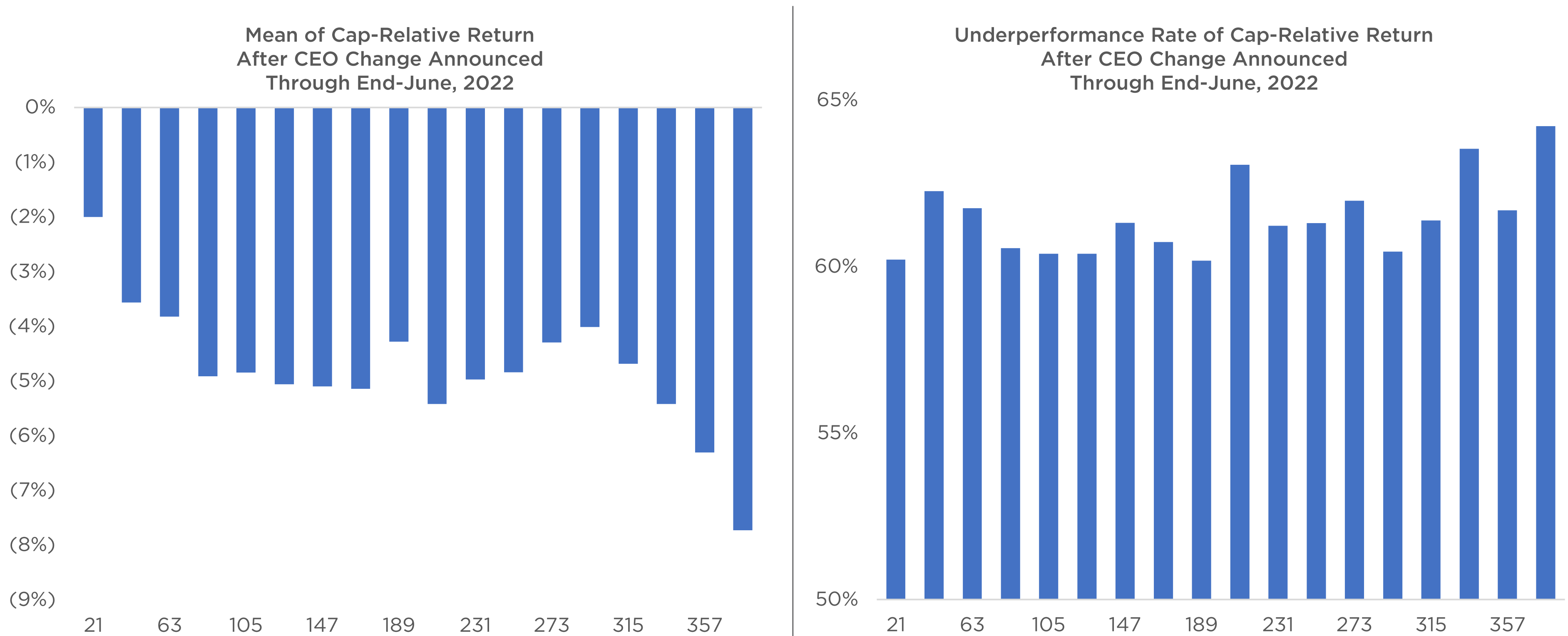
# EXPENSIVE GROWTH STOCKS LAG WHEN THE CEO CHANGES

We analyzed the performance of the expensive growth universe that have new CEOs. Expensive growth stocks underperform the most dramatically of any sub-group and should on average be sold / shorted following the announcement for three-to for months (left chart). This strategy has a hit rate well over 60% for the first year (right chart).





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# EXPENSIVE GROWTH STOCKS WITH NEW CEOS IN THE LAST YEAR

Below we show expensive growth stocks with CEO changes. Since the announcement, absolute performance, and performance of each stock relative to the average stock in their market cap cohort, shows this underperformance trend has continued this year.

**Performance After CEO Change Announced**
**Expensive Growth Stocks**
**Through End-June, 2022**

| Ticker | Company Name | Industry | Date Announced | Return | Cap-Relative Return | Market Cap ($ US. Bil) |
|---|---|---|---|---|---|---|
| CRM | Salesforce, Inc. | Software | 12/1/2021 | (34.4%) | (18.6%) | 164.21 |
| MAR | Marriott International, Inc. | Hotels, Restaurants & Leisure | 2/23/2021 | (8.9%) | (3.3%) | 44.52 |
| TWTR | Twitter, Inc. | Interactive Media & Services | 11/30/2021 | (14.9%) | 1.2% | 28.53 |
| PODD | Insulet Corporation | Health Care Equipment & Supplies | 5/6/2022 | 6.0% | 14.7% | 15.11 |
| HUBS | HubSpot, Inc. | Software | 3/1/2021 | (42.9%) | (31.3%) | 14.36 |
| SPLK | Splunk Inc. | Software | 3/3/2022 | (27.4%) | (11.3%) | 14.24 |
| TW | Tradeweb Markets Inc. | Capital Markets | 2/16/2022 | (18.5%) | (0.3%) | 13.96 |
| DOCU | DocuSign, Inc. | Software | 6/21/2022 | (3.6%) | (4.7%) | 11.47 |
| DT | Dynatrace, Inc. | Software | 11/15/2021 | (44.2%) | (20.7%) | 11.31 |
| PATH | UiPath Inc. | Software | 4/27/2022 | (0.9%) | 10.4% | 9.91 |
| PCTY | Paylocity Holding Corporation | Software | 3/15/2022 | (8.0%) | 4.9% | 9.61 |
| RCL | Royal Caribbean Cruises Ltd. | Hotels, Restaurants & Leisure | 11/9/2021 | (61.8%) | (38.3%) | 8.90 |
| AAL | American Airlines Group Inc. | Airlines | 12/7/2021 | (29.1%) | (8.5%) | 8.24 |
| CDAY | Ceridian HCM Holding Inc. | Software | 2/10/2022 | (38.7%) | (20.6%) | 7.19 |
| WYNN | Wynn Resorts, Limited | Hotels, Restaurants & Leisure | 11/10/2021 | (38.1%) | (15.3%) | 6.56 |
| ESTC | Elastic N.V. | Software | 1/13/2022 | (30.9%) | (10.1%) | 6.42 |
| GH | Guardant Health, Inc. | Health Care Providers & Services | 8/6/2021 | (64.6%) | (46.3%) | 4.11 |
| NEWR | New Relic, Inc. | Software | 5/14/2021 | (15.6%) | 4.7% | 3.35 |
| IRTC | iRhythm Technologies, Inc. | Health Care Equipment & Supplies | 9/13/2021 | 66.3% | 87.3% | 3.22 |
| SEAS | SeaWorld Entertainment, Inc. | Hotels, Restaurants & Leisure | 5/6/2021 | (16.8%) | 3.8% | 3.21 |


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# CAPITAL USE AND ITS CONSEQUENCES

Over the past several months we have researched the implications of corporate decision-making, by analyzing various capital uses and their consequences.

**Buybacks:** Since the financial crisis, the market has not rewarded buybacks / punished diluters – even large buybacks of 2.5% or more of net outstanding shares in nine months.

**Deals:** The initial reaction to a deal matters - $10b cap or larger companies doing deals that are 20% or more of their market cap lag for up to two years if the initial five-day reaction to a deal is negative.

**Dividends:** Dividend decisions create more disparate alpha outcomes than buyback decisions – dividend growth is a high effective strategy during rising rates.

**Capital spending and R&D:** Vary widely by industry, but generally high and increasing capital intensity is punished. Avoiding high R&D-intensity growth and small caps has historically been prudent.

**Leverage:** Heavily indebted companies have strongly outperformed of late. Moreover, debt-related metrics have not really been effective at picking winners from losers in the last 20 years. We think that will change going forward, and we are cautious on business with high interest expense, poor bond ratings and imminent refinancing events.


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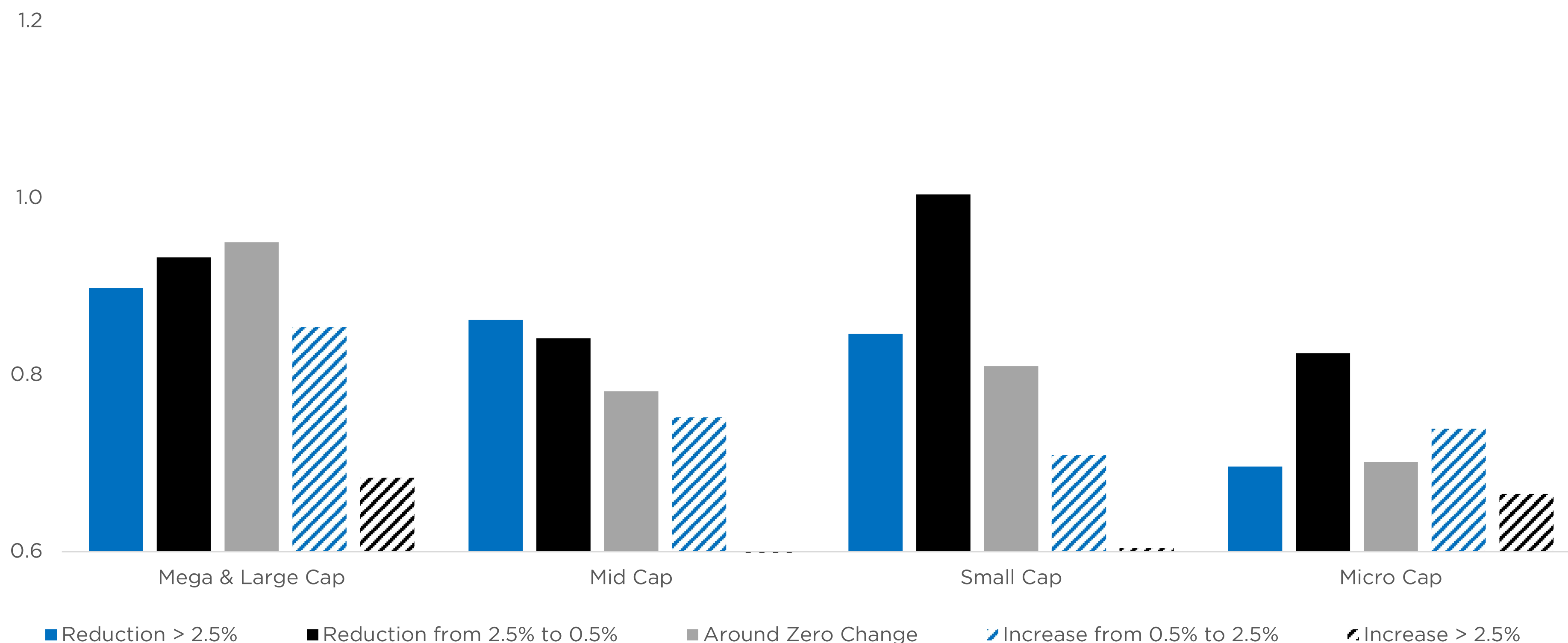
# LARGE CAP STOCKS DOING BUYBACKS HAVE WASTED THE MONEY

Management teams of mega / large cap companies should be questioning whether large buybacks are prudent. On average, they were not rewarded, as big share reductions over a 9-month period resulted in similar subsequent performance to those companies doing substantial dilution over the same period (left set of bars). Diluters in mid-cap and micro-cap seem to lag companies doing buybacks, but that relationship did not hold for small-caps.





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# MANAGEMENT TEAMS THAT SHOULD PIVOT TO DIVIDENDS?

Below are stocks that have done large buybacks and have not performed well.

**Short Mega or Large Cap High Quality Value Names That Bought Back 1% or More Shares From 2019 to End-June, 2022**

| Ticker | Company | Industry Group | Market Cap. (US$ Bil.) |
|---|---|---|---|
| MDT | Medtronic plc | Health Care Equipment & Services | 119.25 |
| COP | ConocoPhillips | Energy | 113.97 |
| LOW | Lowe's Companies, Inc. | Retailing | 111.64 |
| MO | Altria Group, Inc. | Food, Beverage & Tobacco | 75.63 |
| TRV | The Travelers Companies, Inc. | Insurance | 40.28 |
| CTVA | Corteva, Inc. | Materials | 39.18 |
| SBAC | SBA Communications Corporation | Real Estate | 34.51 |
| YUM | Yum! Brands, Inc. | Consumer Services | 32.37 |
| TSN | Tyson Foods, Inc. | Food, Beverage & Tobacco | 31.11 |

**Short Names that Bought Back 10% or More of Shares & Underperformed From 2019 to End-June, 2022**

| Ticker | Company | Industry Group | Market Cap. (US$ Bil.) |
|---|---|---|---|
| INTC | Intel Corporation | Semiconductors & Semiconductor Equipment | 152.96 |
| WFC | Wells Fargo & Company | Banks | 148.47 |
| C | Citigroup Inc. | Banks | 89.31 |
| BK | The Bank of New York Mellon Corporation | Diversified Financials | 33.69 |
| BIIB | Biogen Inc. | Pharmaceuticals, Biotechnology & Life Sciences | 29.87 |
| DD | DuPont de Nemours, Inc. | Materials | 28.26 |
| TPR | Tapestry, Inc. | Consumer Durables & Apparel | 7.69 |
| UHS | Universal Health Services, Inc. | Health Care Equipment & Services | 7.49 |
| LII | Lennox International Inc. | Capital Goods | 7.42 |
| DXC | DXC Technology Company | Software & Services | 6.96 |
| RL | Ralph Lauren Corporation | Consumer Durables & Apparel | 6.25 |
| M | Macy's, Inc. | Retailing | 4.94 |
| KSS | Kohl's Corporation | Retailing | 4.58 |
| ATUS | Altice USA, Inc. | Media & Entertainment | 4.21 |
| TDC | Teradata Corporation | Software & Services | 3.87 |
| PVH | PVH Corp. | Consumer Durables & Apparel | 3.81 |


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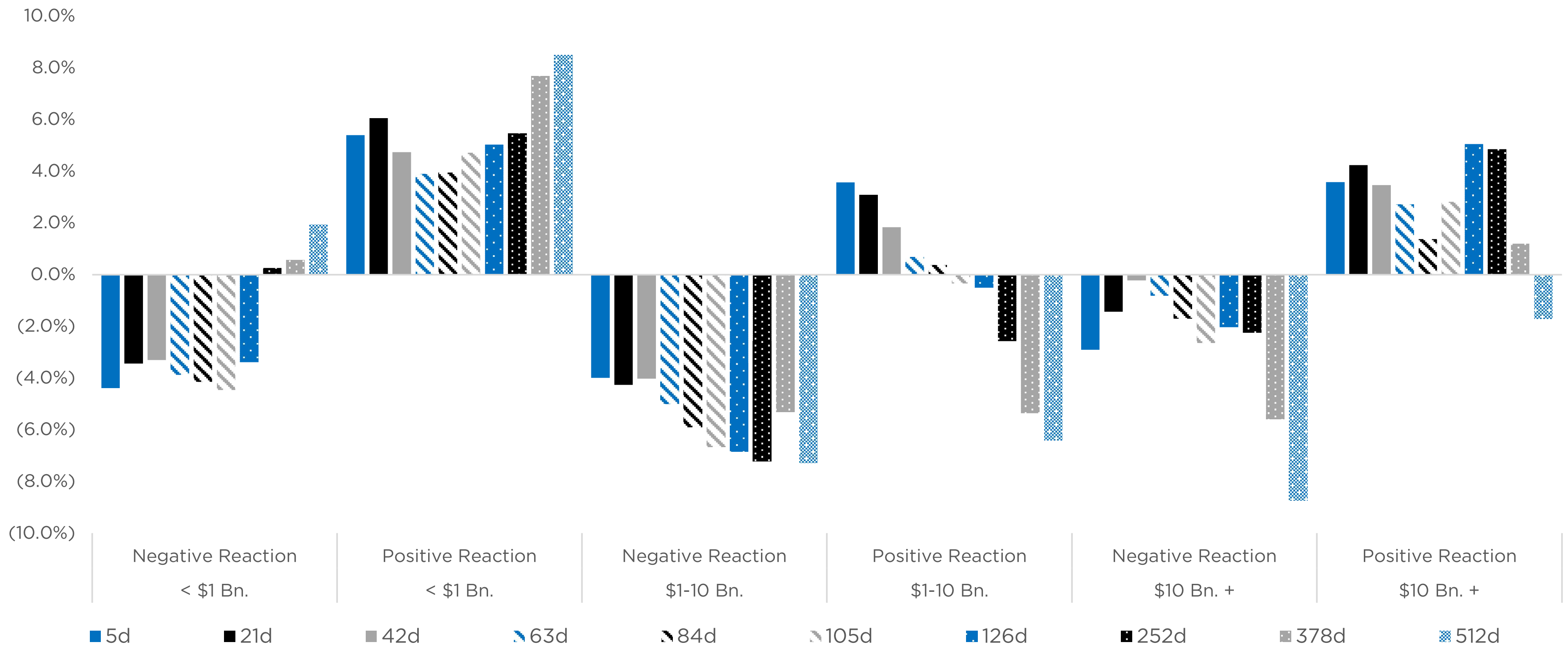
# FIRST IMPRESSIONS MATTER

We evaluated the subsequent performance over multiple horizons (one week, and each months 1-6, as well as 12, 18, and 24 months) to see if the initial market reaction to a deal announcement matters. It does. The middle shows deals for companies $1 to $10 billion market capitalization. Here we can see particularly weak subsequent performance for stocks where the initial reaction is negative. Moreover, unlike for other sized companies doing deals, even positive initial reactions fade after 5 months for the acquirers. On the right side of the chart below we show deals for companies bigger than $10 billion. The initial reaction carries the day for nearly 18 months if it is positive.





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# RECENT DEAL STOCKS WITH INITIAL / SUSTAINED POSITIVE REACTION

**Select Recent Deals with Initial Positive Reaction**
**Buyer Market Cap. Between $0.5-10 bn. (at time of announcement)**
**End-June, 2022**

| Ticker | Company | Industry Group | Target Company | Announcement Date | Beta-Adjusted Return | Market Cap. (US$ Bil.) |
|---|---|---|---|---|---|---|
| AMD | Advanced Micro Devices, Inc. | Semis & Semi Equipment | Xilinx, Inc. | 10/27/2020 | 4.3% | 165.06 |
| DVN | Devon Energy Corporation | Energy | WPX Energy, Inc. | 9/28/2020 | 705.2% | 49.47 |
| APO | Apollo Global Management, Inc. | Diversified Financials | The Michaels Companies, Inc. | 3/3/2021 | 8.6% | 33.11 |
| ABC | AmerisourceBergen Corporation | Health Care Equip. & Serv. | Alliance Healthcare | 1/6/2021 | 36.5% | 32.42 |
| MTB | M&T Bank Corporation | Banks | People's United Financial, Inc. | 2/22/2021 | 12.4% | 32.29 |
| AEM | Agnico Eagle Mines Limited | Materials | Kirkland Lake Gold Ltd. | 9/28/2021 | 12.9% | 24.08 |
| EQT | EQT Corporation | Energy | Alta Resources, LLC | 5/6/2021 | 161.6% | 17.63 |
| KIM | Kimco Realty Corporation | Real Estate | Weingarten Realty Investors | 4/15/2021 | 21.7% | 14.62 |
| ALLY | Ally Financial Inc. | Diversified Financials | CardWorks, Inc. | 2/18/2020 | 18.9% | 14.23 |
| SWN | Southwestern Energy Company | Energy | Indigo Natural Resources, LLC | 6/2/2021 | 63.8% | 10.18 |
| HII | Huntington Ingalls Industries, Inc. | Capital Goods | Alion Science and Technology Corp. | 7/6/2021 | 8.3% | 8.43 |
| RCM | R1 RCM Inc. | Health Care Equip. & Serv. | Cloudmed | 1/10/2022 | 4.4% | 6.01 |
| HGV | Hilton Grand Vacations Inc. | Consumer Services | Diamond Resorts International, Inc. | 3/10/2021 | 5.8% | 5.5 |
| FIBK | First Interstate BancSystem, Inc. | Banks | Great Western Bancorp, Inc. | 9/16/2021 | 8.2% | 4.17 |
| ABM | ABM Industries Incorporated | Commercial & Prof. Serv. | Crown Building Maintenance Co. Inc. | 8/25/2021 | 7.7% | 3.23 |
| GPI | Group 1 Automotive, Inc. | Retailing | Prime Automotive Group, Inc. | 9/13/2021 | 16.7% | 2.89 |
| MGPI | MGP Ingredients, Inc. | Food, Bev., & Tobacco | Luxco, Inc. | 1/25/2021 | 70.1% | 2.13 |
| NPO | EnPro Industries, Inc. | Capital Goods | NxEdge Inc. | 11/5/2021 | 7.6% | 1.99 |
| ARCB | ArcBest Corporation | Transportation | MoLo Solutions, LLC | 9/29/2021 | 3.1% | 1.85 |
| CEIX | CONSOL Energy Inc. | Energy | CONSOL Coal Resources LP | 10/23/2020 | 979.6% | 1.8 |
| PFS | Provident Financial Services, Inc. | Banks | SB One Bancorp | 3/12/2020 | 18.3% | 1.72 |
| CODI | Compass Diversified | Diversified Financials | Marucci Sports, LLC | 3/9/2020 | 8.7% | 1.59 |


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# RECENT DEAL STOCKS WITH INITIAL / SUSTAINED NEGATIVE REACTION

**Select Recent Deals with Initial Negative Reaction**
**Buyer Market Cap. Between $0.5-10 bn. (at time of announcement)**
**End-June, 2022**

| Ticker | Company | Industry Group | Target Company | Announcement Date | Beta-Adjusted Return | Market Cap. (US$ Bil.) |
|---|---|---|---|---|---|---|
| TDY | Teledyne Technologies Incorporated | Capital Goods | FLIR Systems, Inc. | 1/4/2021 | -2.2% | 18.98 |
| PKI | PerkinElmer, Inc. | Pharma, Biotech, & Life Sciences | BioLegend, Inc. | 7/26/2021 | -7.5% | 18.88 |
| SNX | TD SYNNEX Corporation | Tech Hardware & Equip. | Tech Data Corporation | 3/22/2021 | -11.1% | 9.98 |
| NFE | New Fortress Energy Inc. | Energy | Hygo Energy Transition Ltd | 1/13/2021 | -27.0% | 9.67 |
| PFGC | Performance Food Group Company | Food & Staples Retailing | Core-Mark Holding Company, Inc. | 5/18/2021 | -12.3% | 6.72 |
| QDEL | QuidelOrtho Corporation | Health Care Equip. & Serv. | Ortho Clinical Diagnostics Holdings | 12/23/2021 | -18.8% | 6.34 |
| SSB | SouthState Corporation | Banks | CenterState Bank Corporation | 1/27/2020 | -24.0% | 6.09 |
| RUN | Sunrun Inc. | Capital Goods | Vivint Solar, Inc. | 7/6/2020 | -11.3% | 5.49 |
| ATUS | Altice USA, Inc. | Media & Entertainment | Cogeco Inc. | 9/2/2020 | -78.7% | 5.17 |
| CLH | Clean Harbors, Inc. | Commercial & Professional Services | HydroChemPSC | 8/4/2021 | -0.4% | 5.08 |
| SAIC | Science Applications International Corporation | Software & Services | Unisys Federa | 2/6/2020 | -34.3% | 4.83 |
| NCR | NCR Corporation | Tech Hardware & Equip. | Cardtronics | 1/7/2021 | -18.9% | 4.74 |
| ONB | Old National Bancorp | Banks | First Midwest Bancorp, Inc. | 6/1/2021 | -12.0% | 4.66 |
| GT | The Goodyear Tire & Rubber Company | Autos & Components | Cooper Tire & Rubber Company | 2/22/2021 | -31.7% | 3.65 |
| DBRG | DigitalBridge Group, Inc. | Real Estate | DigitalBridge Investment Management, LLC | 4/18/2022 | -8.8% | 3.6 |
| ETRN | Equitrans Midstream Corporation | Energy | EQM Midstream Partners, LP | 2/27/2020 | -18.5% | 3.41 |
| WSFS | WSFS Financial Corporation | Banks | Bryn Mawr Bank Corporation | 3/1/2021 | -25.3% | 2.77 |
| AHCO | AdaptHealth Corp. | Health Care Equip. & Serv. | AeroCare Holdings, Inc. | 12/1/2020 | -64.6% | 2.42 |
| MSGE | Madison Square Garden Entertainment Corp. | Media & Entertainment | MSG Networks Inc. | 3/26/2021 | -25.7% | 2.32 |
| FTAI | Fortress Transportation and Infrastructure Investors LLC | Capital Goods | Transtar LLC. | 6/8/2021 | -29.4% | 1.99 |
| FBK | FB Financial Corporation | Banks | Franklin Financial Network, Inc. | 1/21/2020 | -16.0% | 1.98 |
| VCTR | Victory Capital Holdings, Inc. | Diversified Financials | WestEnd Advisors, LLC | 11/4/2021 | -13.6% | 1.94 |


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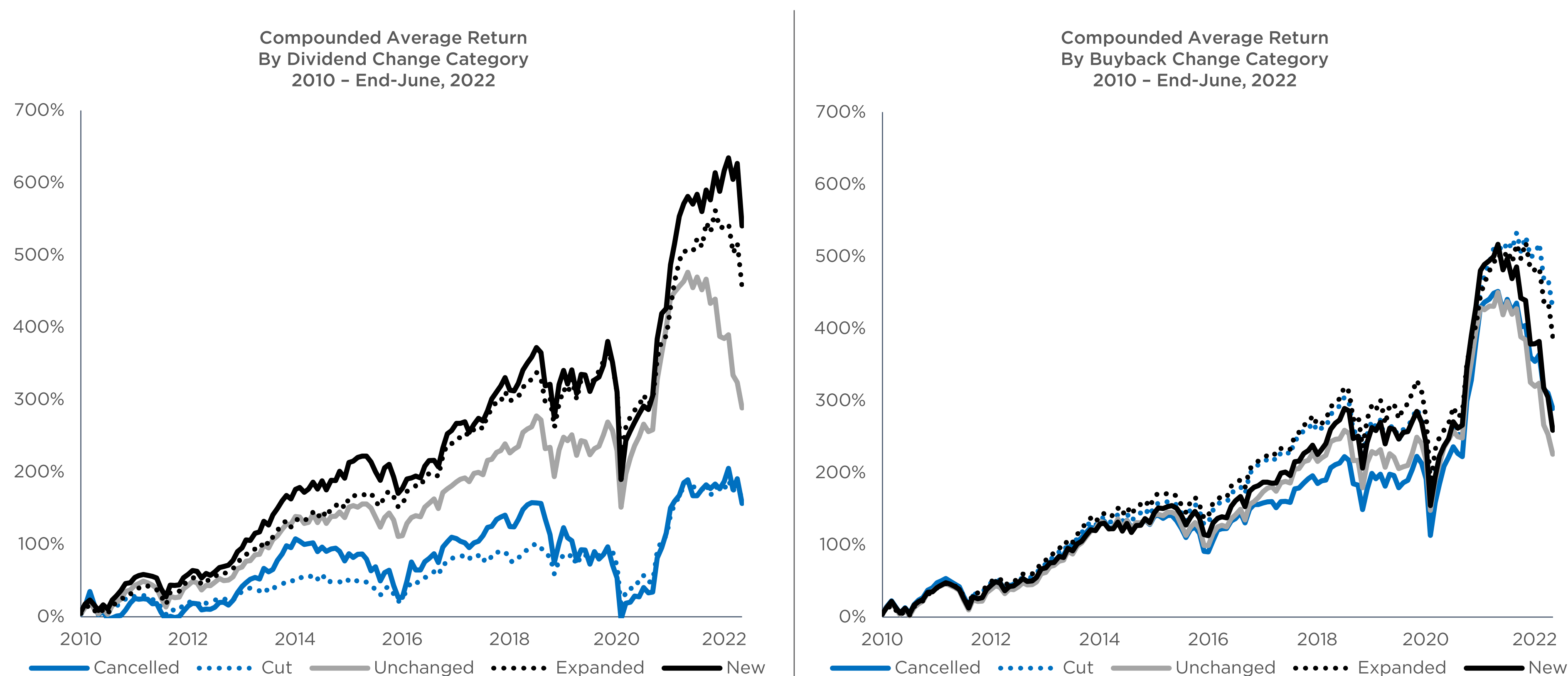
# YIELD AND BUYBACK RETURNS – BUYBACKS DON'T SEPARATE

The market rewards initiating or expanding a dividend more than those cutting or cancelling (left). However, as we observed in our prior work on buybacks (right) the market does not materially reward or penalize companies for their buyback behavior in the aggregate. Companies that reduce their buyback or even stop it do not have cumulative performance that is substantially different than those that expand their buyback. Hence, while buybacks might be a great strategy for a company with truly cheap shares or an inflecting business, in aggregate the market seems to differentiate between companies much more on dividend than on buybacks.





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# YOU MUST EXPAND YOUR DIVIDEND WHILE THE FED'S HIKING

It is challenging to provide the perfect historical analog to evaluate. Nonetheless, many investors ask us what happened in and around the previous set of lift-off and hikes, so we evaluated the various strategies one-month before and 3-months after each Fed hike since the Financial crisis. Growing the dividend through the hiking cycle seems by far the best strategy. Having your yield above your peer-group (level) did not generally help. If you have no dividend now, initiating one is not a bad idea. Cutting, or even leaving the dividend unchanged was generally penalized. As history dictated, dividend yielding stocks outperformed during Q1.

**Beta-Adjusted Returns**
**Select Signals**

| Signal | 11/13/2015 to 3/17/2016 | 11/15/2016 to 3/20/2017 | 2/10/2017 to 6/13/2017 | 5/12/2017 to 9/12/2017 | 11/13/2017 to 3/16/2018 | 2/16/2018 to 6/19/2018 | 5/11/2018 to 9/11/2018 | 8/24/2018 to 12/26/2018 | 11/27/2018 to 4/1/2019 | Mean | Median |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Group-Relative Indicated Annual Dividend Yield | 2.1% | (0.7%) | (2.1%) | (3.5%) | (1.2%) | 1.9% | 3.2% | 0.5% | (1.1%) | (0.1%) | (0.7%) |
| Dividend Cancelled | (3.6%) | (5.3%) | (9.1%) | (1.1%) | (2.8%) | 2.9% | (5.9%) | (24.7%) | (11.0%) | (2.3%) | (1.9%) |
| Dividend Cut | 0.4% | (3.5%) | (6.5%) | (6.4%) | (7.7%) | 4.4% | 0.0% | (16.4%) | (7.0%) | (6.3%) | (4.9%) |
| Dividend Expanded | 0.4% | 0.2% | (0.9%) | (0.8%) | 2.0% | 5.2% | (0.4%) | (9.0%) | (1.0%) | 4.0% | 4.0% |
| Dividend Initiated | (3.1%) | 3.6% | (8.1%) | (0.5%) | 0.5% | 6.7% | 3.5% | (11.0%) | 1.3% | 1.4% | (0.1%) |
| Dividend Unchanged | (4.4%) | (4.4%) | (4.3%) | (1.4%) | 1.7% | 9.9% | 1.3% | (12.0%) | (0.5%) | (3.6%) | (4.0%) |
| Hyper Growth & Dividend Expander Portfolio | (6.3%) | (2.4%) | (0.9%) | (2.8%) | 1.3% | 8.4% | 0.5% | (11.5%) | (1.0%) | (0.5%) | (0.4%) |


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# QUANTITATIVELY-DERIVED HIGH DIVIDEND YIELD STOCK IDEAS

Buy ideas below are in the top 20% of our high yield or high yield junk models and are dividend expanders. Short ideas are in the bottom quintile of the models and are not growing their dividends (or cut / cancelled).

**Buy Dividend Expanders in Top 20% of High Yield Models**
**Short non-Dividend Expanders in Bottom 20% of High Yield Models or Non-Growth Cutters/Cancellers in Bottom 20% of Overall Model**
**End-June, 2022**

| Longs | | | | Shorts | | | |
|---|---|---|---|---|---|---|---|
| Ticker | Company Name | Industry Group | Market Cap ($ US. Bil) | Ticker | Company Name | Industry Group | Market Cap ($ US. Bil) |
| AMGN | Amgen Inc. | Pharma, Biotech. & Life Sciences | 129.97 | GILD | Gilead Sciences, Inc. | Pharma, Biotech. & Life Sciences | 77.53 |
| F | Ford Motor Company | Automobiles & Components | 44.74 | NEM | Newmont Corporation | Materials | 47.55 |
| DVN | Devon Energy Corporation | Energy | 36.40 | SRE | Sempra | Utilities | 47.23 |
| PCAR | PACCAR Inc | Capital Goods | 28.63 | KMI | Kinder Morgan, Inc. | Energy | 38.00 |
| PKG | Packaging Corporation of America | Materials | 12.77 | PEG | Public Service Enterprise Group Incorporated | Utilities | 31.59 |
| ALLY | Ally Financial Inc. | Diversified Financials | 10.83 | EVRG | Evergy, Inc. | Utilities | 14.97 |
| TPR | Tapestry, Inc. | Consumer Durables & Apparel | 7.69 | NTAP | NetApp, Inc. | Technology Hardware & Equip. | 14.43 |
| IVZ | Invesco Ltd. | Diversified Financials | 7.34 | BEN | Franklin Resources, Inc. | Diversified Financials | 11.65 |
| HUN | Huntsman Corporation | Materials | 5.95 | HAS | Hasbro, Inc. | Consumer Durables & Apparel | 11.42 |
| ZIM | ZIM Integrated Shipping Services Ltd. | Transportation | 5.66 | OGE | OGE Energy Corp. | Utilities | 7.72 |
| M | Macy's, Inc. | Retailing | 4.94 | RL | Ralph Lauren Corporation | Consumer Durables & Apparel | 6.25 |
| OMF | OneMain Holdings, Inc. | Diversified Financials | 4.68 | SON | Sonoco Products Company | Materials | 5.56 |
| IGT | International Game Technology PLC | Consumer Services | 3.77 | SMG | The Scotts Miracle-Gro Company | Materials | 4.38 |
| TRTN | Triton International Limited | Capital Goods | 3.38 | EVA | Enviva Inc. | Energy | 3.81 |
| TNL | Travel + Leisure Co. | Consumer Services | 3.31 | FTI | TechnipFMC plc | Energy | 3.07 |
| CRI | Carter's, Inc. | Consumer Durables & Apparel | 2.84 | OMI | Owens & Minor, Inc. | Health Care Equip. & Services | 2.39 |
| ARCH | Arch Resources, Inc. | Energy | 2.59 | XRX | Xerox Holdings Corporation | Technology Hardware & Equip. | 2.30 |
| SBLK | Star Bulk Carriers Corp. | Transportation | 2.57 | TRN | Trinity Industries, Inc. | Capital Goods | 2.02 |
| BCC | Boise Cascade Company | Capital Goods | 2.35 | WRE | Washington Real Estate Investment Trust | Real Estate | 1.86 |
| KTB | Kontoor Brands, Inc. | Consumer Durables & Apparel | 1.87 | NWN | Northwest Natural Holding Company | Utilities | 1.82 |


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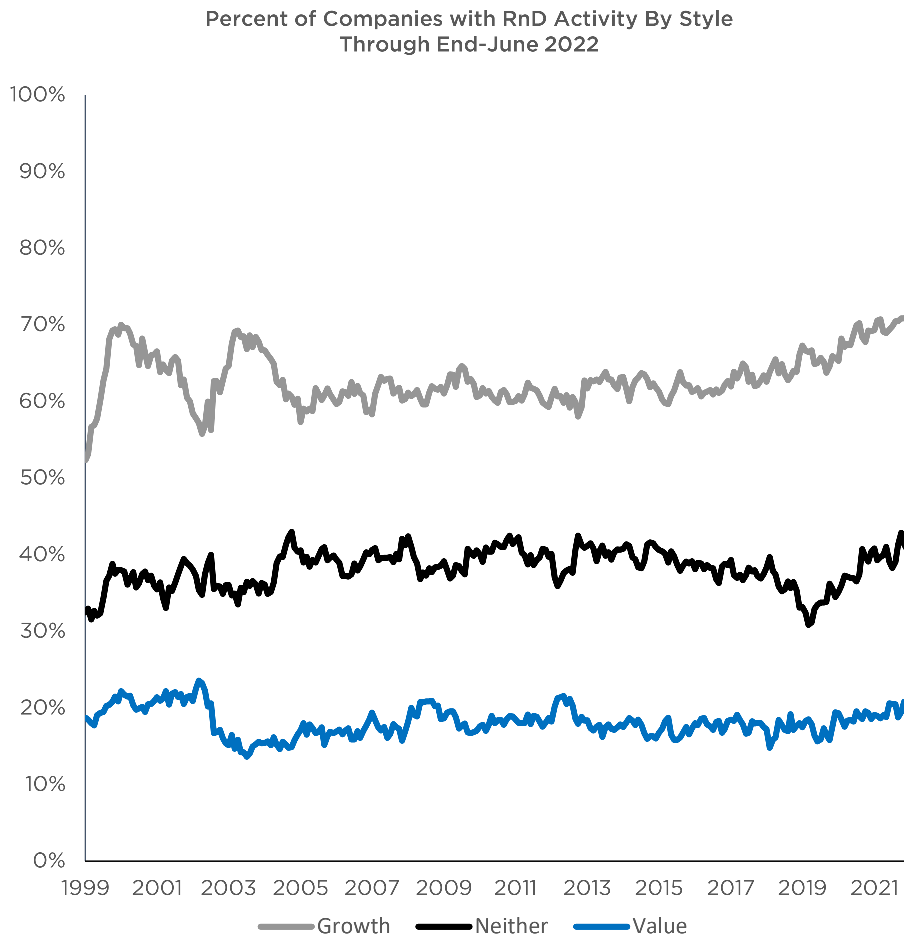
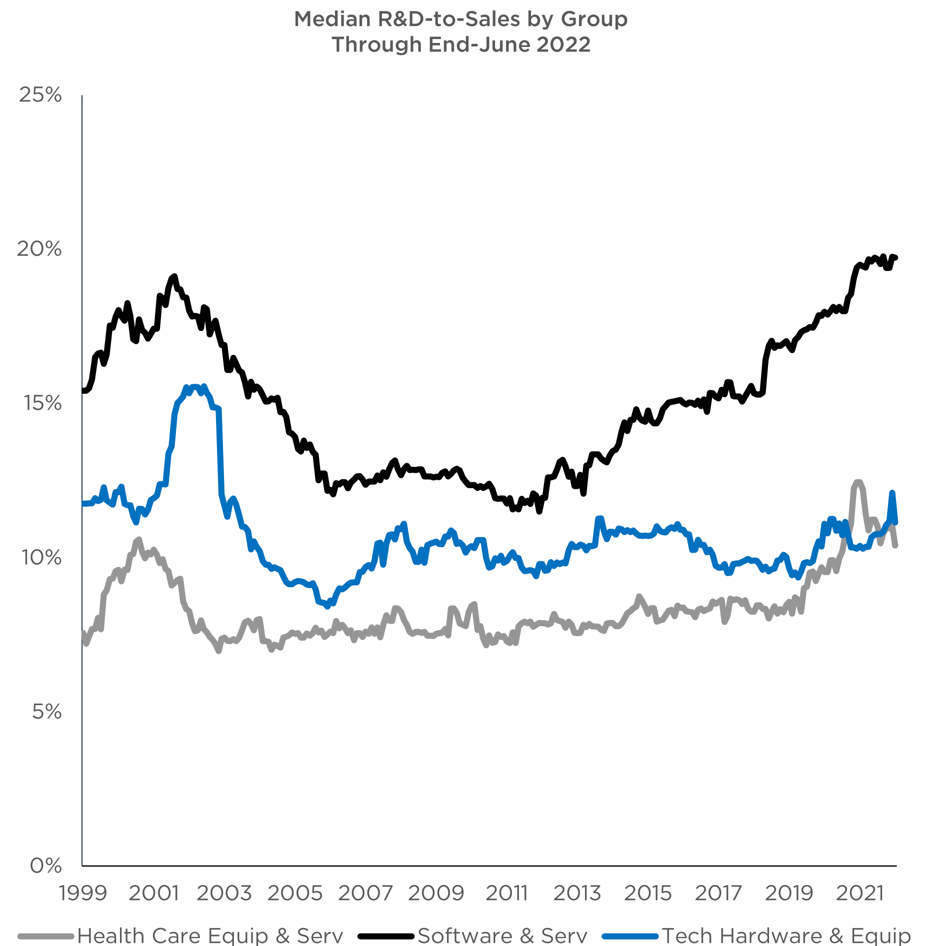
# ONLY 20% OF VALUE STOCKS EVEN DO R&D

Research and development is obviously designed for growth, with patent creation, software, and drugs among the biggest areas of spend. In fact, 70% of growth companies report R&D on their income statement, but only 20% of value stocks even have R&D as part of their reported P&L (left). Even among the businesses that report R&D, there is a substantial dispersion in intensity, ranging from mid-single digits to nearly 20% for software.





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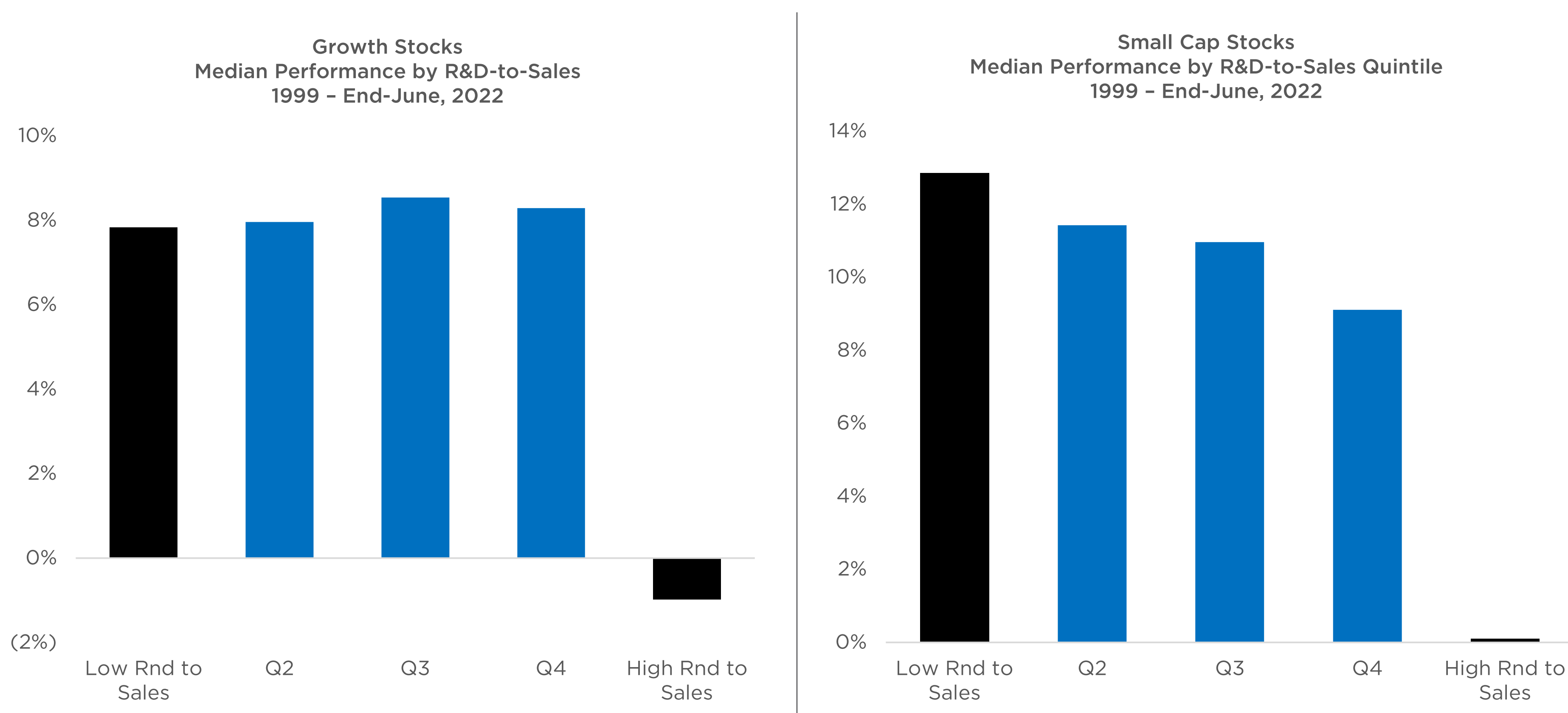
# AVOIDING HIGH SPENDING SMALL CAPS IS PRUDENT

We analyzed whether level of R&D-to-sales is a good predictor of return by size, style, and substance. We found growth stocks with high R&D intensity (left) lag, but otherwise growth has obviously been good for the last 20 years. Small caps with low R&D-to-sales beat those with high R&D-to-sales by 12% per annum over the last 20 years (right), perhaps a sign that it is more a “home run” than a “batting average” for small companies.





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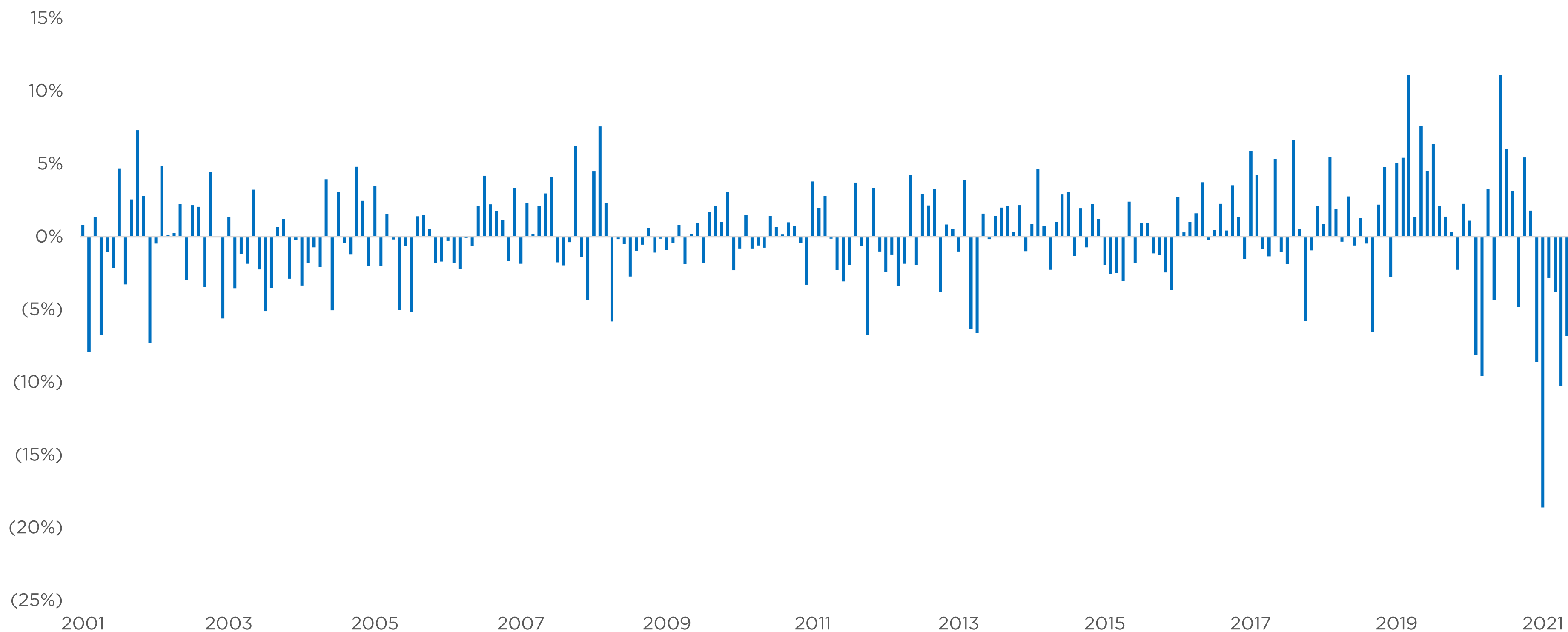
# TOTAL DEBT HAS RECENTLY FAILED TREMENDOUSLY AS A SIGNAL

We analyzed the monthly performance of the least levered quintile (total debt-to-market capitalization) relative to the most levered quintile over the last twenty years. All you had to do this year to be up 50% is to long levered companies and short companies with no leverage! This is obviously a function of the growthiest businesses (which typically have little or no debt) performing poorly and typically levered businesses like energy, metals, and utilities performing well.



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# TOTAL AND NET DEBT TO MARKET CAP SIGNAL EFFICACY

We analyzed the Q1-Q5 spread of level and change of total and net debt on a beta-adjusted basis since 2002. In aggregate these signals have not worked well for picking winners from losers. For instance, for “junk” stocks (the lowest quartile of our quality model), that have relatively lower debt, or reduce it (on total debt or net debt) don’t outperform those junk stocks that have high debt and / or increase their debt burden!

**Sharpe Ratio of Q1 vs. Q5 Spread, Beta Adjusted to Q1**
**January 2002 to End-June, 2022**

| | Long Term Debt | | Total Debt | | Net Debt | |
|---|---|---|---|---|---|---|
| **Sector** | Level | % Change | Level | % Change | Level | % Change |
| Communication Services | 0.10 | 0.07 | 0.17 | 0.14 | 0.14 | 0.15 |
| Consumer Discretionary | 0.14 | (0.06) | 0.22 | (0.14) | 0.22 | 0.10 |
| Consumer Staples | (0.36) | (0.67) | (0.26) | (0.67) | (0.07) | (0.59) |
| Energy | (0.54) | 0.08 | (0.57) | 0.14 | (0.47) | (0.11) |
| Health Care | (0.25) | (0.39) | (0.28) | (0.56) | (0.08) | (0.46) |
| Industrials | (0.13) | (0.12) | (0.12) | (0.08) | (0.15) | (0.11) |
| Information Technology | 0.16 | (0.25) | 0.02 | (0.28) | 0.23 | (0.25) |
| Materials | 0.02 | 0.05 | 0.10 | 0.13 | 0.21 | 0.31 |
| Utilities | (0.06) | 0.19 | (0.04) | 0.28 | (0.09) | 0.31 |
| **Substance** | | | | | | |
| High | (0.45) | (0.11) | (0.51) | (0.16) | (0.50) | (0.19) |
| Mid | (0.48) | (0.30) | (0.42) | (0.30) | (0.40) | (0.11) |
| Low | (0.42) | (0.04) | (0.41) | 0.03 | (0.34) | 0.25 |
| Junk | (0.01) | (0.00) | (0.03) | 0.04 | 0.02 | 0.18 |
| **Style** | | | | | | |
| Growth | 0.19 | (0.04) | 0.13 | (0.10) | 0.03 | (0.04) |
| Value | 0.10 | (0.28) | 0.21 | (0.20) | 0.23 | (0.15) |
| Neither | (0.02) | 0.22 | 0.08 | 0.30 | 0.12 | 0.39 |
| **Overall** | | | | | | |
| | 0.02 | 0.07 | 0.02 | 0.07 | 0.03 | 0.19 |


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# COMPANIES WITH JUNK DEBT & IMMINENT REFINANCING MAY LAG

Below are stocks with a BB or worse credit rating, with high interest expense to net income and an imminent refinancing event. We view this group as at risk. Many are down materially YTD, but probably have more downside as their interest expense burden grows. Additional names with smaller capitalization or alternate criterion can be provided upon request.

**Companies with Junk-Rated Debt & Imminent Refinancing**
**Through End-June, 2022**

| Ticker | Company Name | Sector | Market Cap ($ US. Bil) |
|---|---|---|---|
| PCG | PG&E Corporation | Utilities | 19.83 |
| NLOK | NortonLifeLock Inc. | Information Technology | 12.55 |
| MGM | MGM Resorts International | Consumer Discretionary | 12.33 |
| RRC | Range Resources Corporation | Energy | 6.16 |
| THC | Tenet Healthcare Corporation | Health Care | 5.66 |
| VAC | Marriott Vacations Worldwide Corporation | Consumer Discretionary | 4.81 |
| AVNT | Avient Corporation | Materials | 3.66 |
| TNL | Travel + Leisure Co. | Consumer Discretionary | 3.31 |


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# BAD CROWDING IS AN UNDERPERFORMING ASSET CLASS

- We defined a subset of managers, the Trivariate universe (TV managers) of 60 fundamental hedge fund managers that we believe do deep fundamental research, run relatively concentrated portfolios, and do not trade quarterly results as the core part of their strategy. We then systematically accessed the high conviction long ideas from this group of TV managers and evaluated whether adding information about high conviction from this subset could help when used in conjunction with high conviction from the broader universe. We found that there is information in the high conviction positions of our subset. **Contrary to outcomes observed from a general universe of 500 managers, when *none* of our 60 TV managers have high conviction, this is bad crowding - the returns on these stocks are inferior. On the other hand, when the TV managers do have high conviction in a stock, the performance is superior to the market and to basket of high conviction stocks from the general universe.** Therefore, there is not only information when none of the TV managers have conviction ("bad" crowding), but also when these managers do have high conviction ("good" crowding).
- Our quantitative framework ranks stocks on common attributes like valuation, sentiment, accounting, balance sheet, income statement, cash flow statement and other key metrics. We evaluated whether these models added incremental information to the fundamental high conviction ideas from our TV universe of fund managers - again, the answer is yes. **Our models, when combined with high conviction names from the TV universe, add incremental value.** When our models disagree with the TV managers, our models are on average correct.


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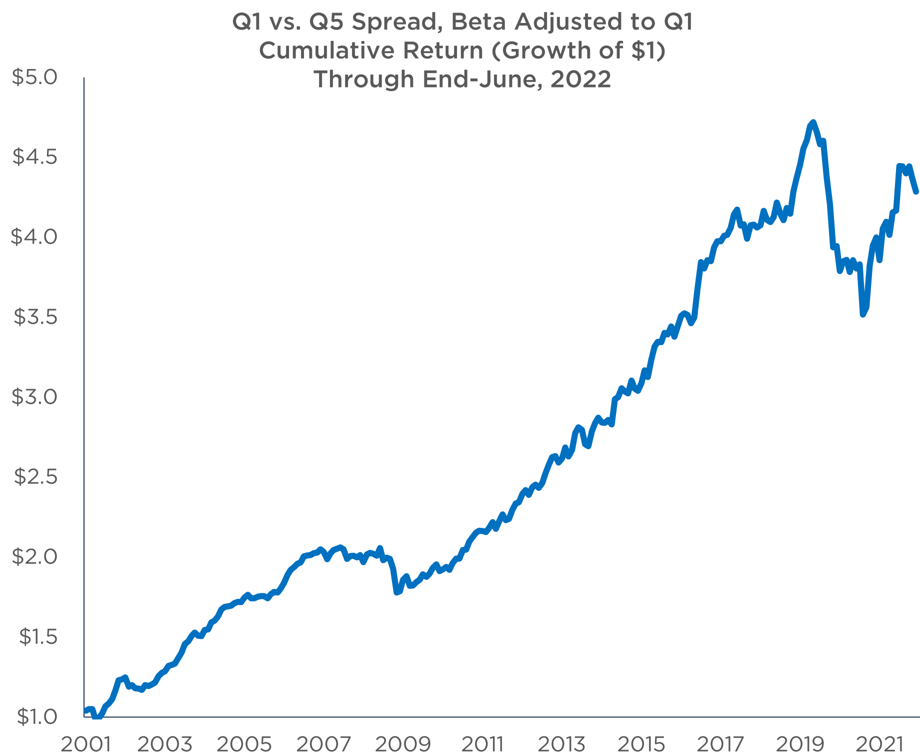
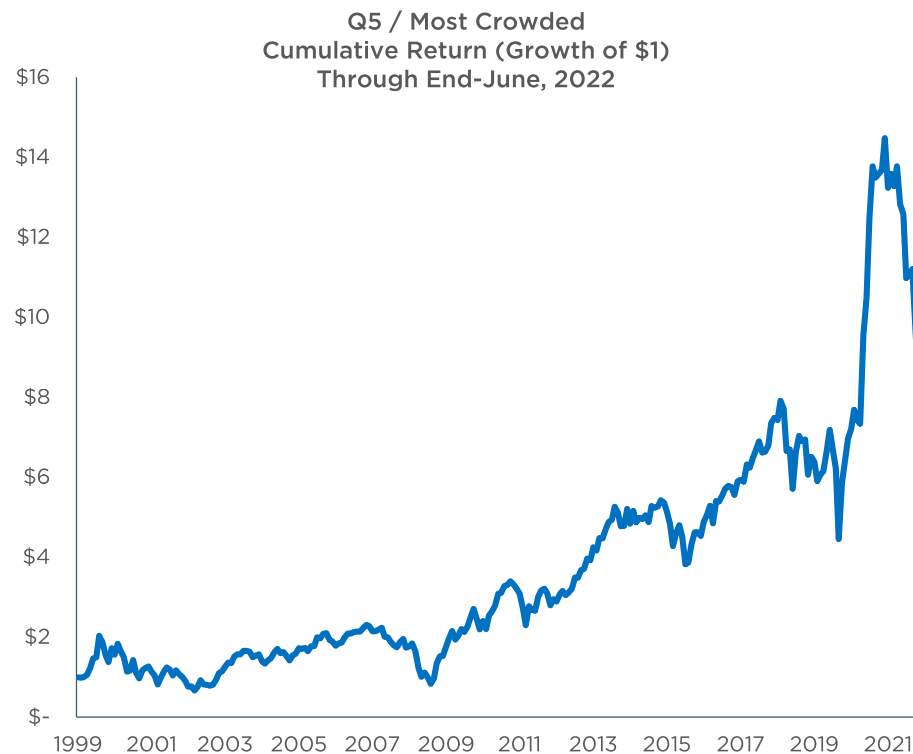
# WHY ARE INVESTORS INTERESTED IN CROWDED STOCKS TODAY?

We created a proprietary crowding score, and the least crowded names have outperformed the most crowded names over the last twenty years (left chart). **Crowded stocks are an inferior asset class over time.** The challenge is that investors need to buy stocks when they are a little crowded and sell them when they are maximally crowded. Historically, the ability to time that is often challenging. We think measuring performance on a volatility-adjusted basis is crucial. The bottom quintile of the model (the most crowded names) had incredibly strong performance from the bottom of COVID in March of 2020 through the middle of 2021 (up over 3x) but is now down 43% since the peak (right chart). Likely, this is the reason for the plethora of incoming questions we have received on crowding of late, and the catalyst for us to create a proprietary crowding score.



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# OUR CROWDING SCORE WORKS BEST FOR GROWTH AND SMALL CAPS

Across all the cohorts and sectors, our crowding score is more effective for growth stocks, and micro-to-small-caps, than it is for value or mega caps. It is notably better among quality stocks, than our lowest quality quartile, we call "junk". Model efficacy is relatively strong for consumer staples and financials, and quite weak in consumer discretionary and communication services.

**Performance of Various Sector/Style/Size/Substance Top vs. Bottom Crowding Quintile Spread Portfolios**
**Equal Weight vs. 2x Higher Weight Conviction vs. 2x Higher Weight Liquidity**
**Mid-1999 – End-June, 2022**

| Portfolio | Sharpe, Equal-Weighted Portfolio | Sharpe, 2x Higher Weight on Conviction | Sharpe, 2x Higher Weight on Liquidity |
|---|---|---|---|
| Style: Growth | 0.91 | 0.74 | 0.99 |
| Cap: Mid | 0.89 | 0.87 | 0.90 |
| Cap: Small/Micro | 0.87 | 0.83 | 1.01 |
| Consumer Staples | 0.84 | 0.86 | 0.67 |
| Substance: High | 0.81 | 0.78 | 0.86 |
| Substance: Mid | 0.78 | 0.68 | 0.78 |
| Financials | 0.69 | 0.72 | 0.64 |
| Style: Value | 0.69 | 0.76 | 0.79 |
| Style: Neither Growth/Value | 0.66 | 0.74 | 0.80 |
| Substance: Low | 0.66 | 0.55 | 0.76 |
| Industrials | 0.63 | 0.68 | 0.56 |
| Utilities | 0.61 | 0.68 | 0.74 |
| Energy | 0.60 | 0.58 | 0.52 |
| Information Technology | 0.58 | 0.47 | 0.60 |
| Health Care | 0.57 | 0.41 | 0.47 |
| Cap: Mega/Large | 0.55 | 0.55 | 0.68 |
| Materials | 0.53 | 0.63 | 0.43 |
| Substance: Junk | 0.48 | 0.58 | 0.52 |
| Communication Services | 0.39 | 0.42 | 0.19 |
| Consumer Discretionary | 0.32 | 0.32 | 0.43 |


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# SHORT IDEAS – THE MOST CROWDED GROWTH STOCKS

These are the most badly crowded growth stocks.

**Most Crowded, Trivariate Proprietary Score**
**Growth Stocks**
**End-June 2022**

| Ticker | Company | Sector | Market Cap ($B) |
|---|---|---|---|
| SNAP | Snap Inc. | Communication Services | 21.54 |
| ROKU | Roku, Inc. | Communication Services | 11.17 |
| COIN | Coinbase Global, Inc. | Financials | 10.44 |
| PLUG | Plug Power Inc. | Industrials | 9.58 |
| ETSY | Etsy, Inc. | Consumer Discretionary | 9.31 |
| GTLB | GitLab Inc. | Information Technology | 7.85 |
| AMC | AMC Entertainment Holdings, Inc. | Communication Services | 7.00 |
| AFRM | Affirm Holdings, Inc. | Information Technology | 5.17 |
| CRSP | CRISPR Therapeutics AG | Health Care | 4.71 |
| W | Wayfair Inc. | Consumer Discretionary | 4.58 |
| DNA | Ginkgo Bioworks Holdings, Inc. | Materials | 4.23 |
| NVAX | Novavax, Inc. | Health Care | 4.02 |
| TPTX | Turning Point Therapeutics, Inc. | Health Care | 3.75 |
| HPK | HighPeak Energy, Inc. | Energy | 2.80 |
| UPST | Upstart Holdings, Inc. | Financials | 2.68 |
| CVNA | Carvana Co. | Consumer Discretionary | 2.39 |
| MSTR | MicroStrategy Incorporated | Information Technology | 1.86 |
| IOVA | Iovance Biotherapeutics, Inc. | Health Care | 1.74 |
| APPS | Digital Turbine, Inc. | Information Technology | 1.72 |
| FCEL | FuelCell Energy, Inc. | Industrials | 1.45 |


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# ANY RELATIVE DOVISHNESS WILL CHANGE THE MARKET STRUCTURE

The anticipation of rate hikes leads actual rate hikes. There is not a statistically significant relationship between changes in the level and slope of interest rates (2-year yield, 10-year yield, 10-year minus 2-year yield) and beta-adjusted growth stock returns. However, there was a strong relationship between changes in perceptions about interest rates (the Fed Fund Futures Curve) and growth stock investing from late 2021 through earlier this year. Our judgment is that the key to growth stocks working appears to be a moderation in the perception about Fed hawkishness.

Within the growth universe, performance of the software, biotechnology, IT services, and healthcare technology industries all had a statistically significant and negative relationship to changes in perceptions about the Fed Funds rate when the street was getting much more hawkish. While semiconductors performed poorly earlier this year, their performance is not statistically significantly associated with perception about rate changes. Perhaps semis are a good place to look for long ideas.

Among the stocks with a high and significant negative relationship to perceptions about inflation, we think the biotechnology sell-off is overdone, with mid-cap. biotechnology at a ten-year low on relative price-to-sales. Only 15% of all biotechnology companies EVER generate cumulative positive free cash flow and most biotechnology companies that do eventually generate cash take on average five years to do so. Perceptions about Fed Fund futures likely will dramatically change several times in the interim. For stocks with high and positive relationships to the perception of rising Fed Fund rates, we prefer materials to select staples.


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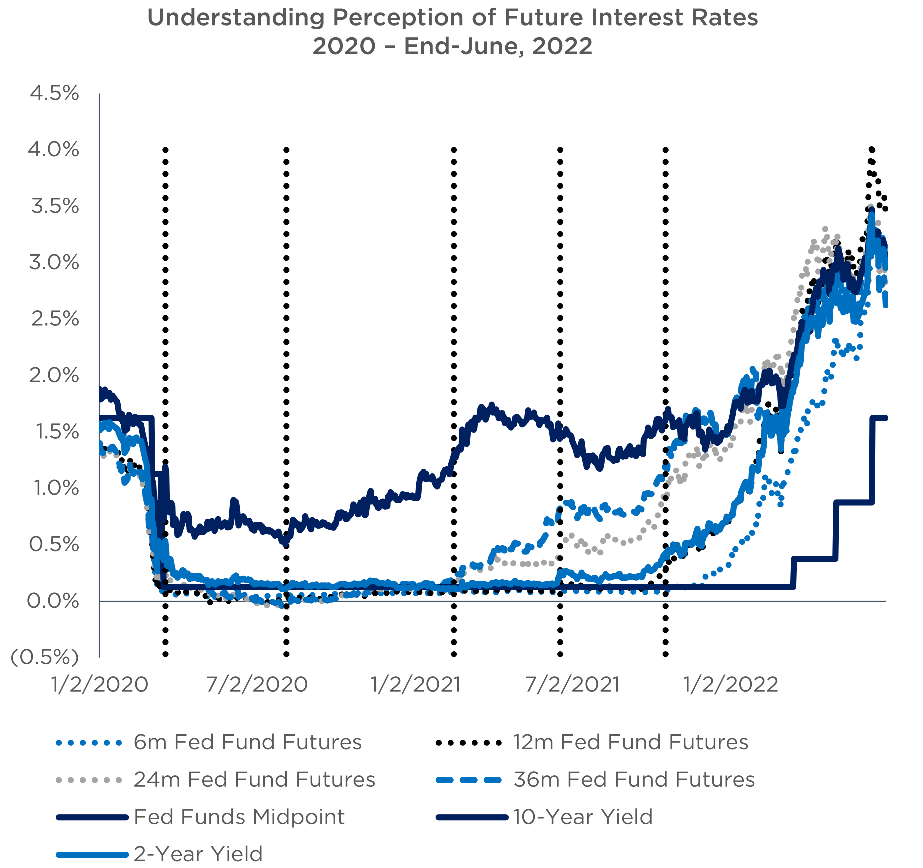
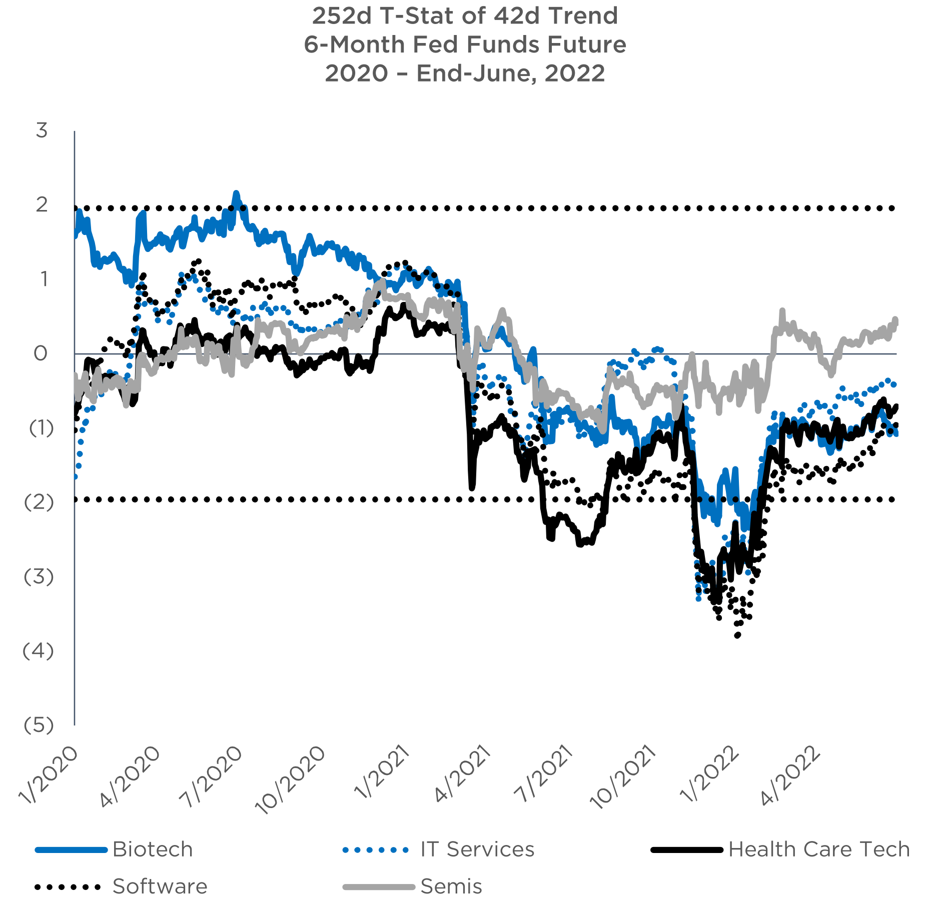
# PERCEPTIONS OF INTEREST RATES LED ACTUAL INTEREST RATES

We show the Fed Fund futures moves for 6-,12-,24-, and 36-months over the last two years (left chart). The five vertical lines are 3/18/2020 (Initial COVID crash), 8/5/2020 (10-year yield bottoms), 2/15/2021 (longer-term Fed Fund Futures start to rise), 6/18/2021 (longer-term Fed funds slow), and 10/18/21 (an anticipation of the Fed pivot). Perception about Future Fed Funds Rates is clearly distinct from the actual rates (particularly the 24-and 36-month horizons) and has moderated of late. Additionally, (right chart) biotech, software, and healthcare tech's returns were statistically significantly correlated to the Fed Fund Futures, though today there is zero correlation.





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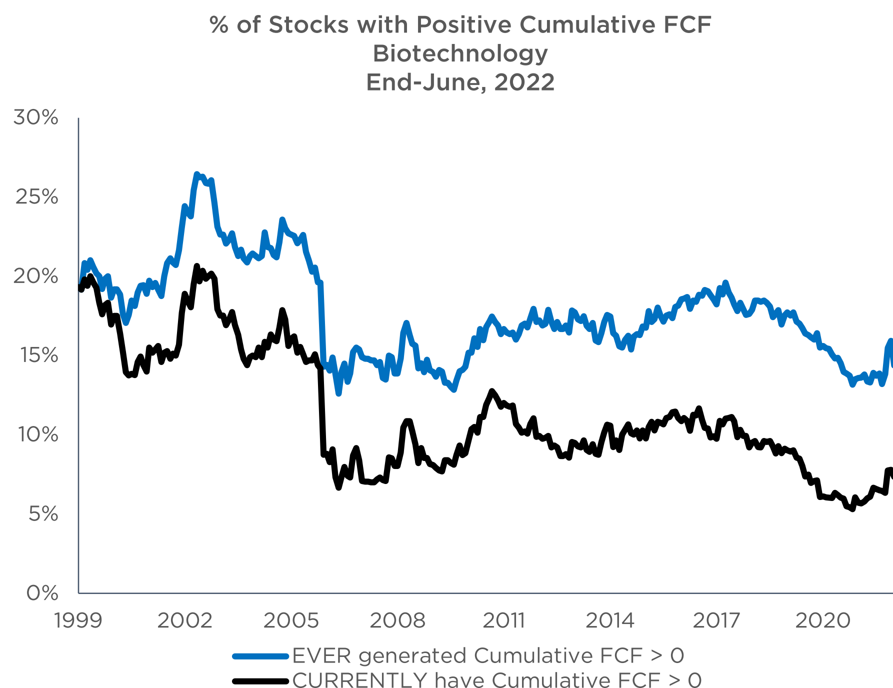
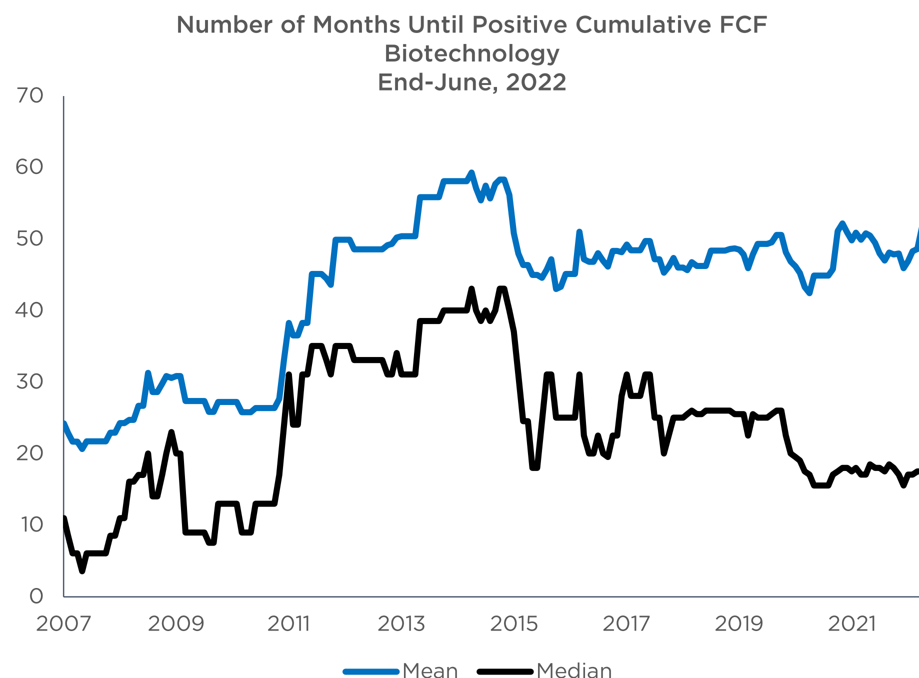
# IS THE BIOTECH SELL-OFF OVERDONE?

We suspect that any perception of dovishness will cause a rebound in the most negatively impacted areas. We think the biotech sell-off is overdone (as we pointed out in our December healthcare note, mid-cap. biotechnology is at a ten-year low on relative price-to-sale after a ~50% correction – that turned out to be way too early). First, only 15% of all biotechnology companies EVER generate cumulative positive free cash flow (left chart). So what terminal value is even impaired? The best argument is that these companies will have a higher cost of capital, but that merits a correction of 5-15% at most, not ~70%! If most of the value is in the terminal value, then rising short-term rates should not impair something more than ten years out, as at that point, we will probably be onto the next rate cycle. Secondly, most companies that do eventually generate cash take on average five years to do so – and perceptions about Fed Fund futures likely dramatically change several times in the interim (right).





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# HOW DO WE ASSESS WHERE ARE WE ARE TODAY?

We created twelve proprietary indices using over 100 variables that systematically process "macro" data. The macro data have various frequencies, ranging from daily through monthly and are downloaded from Bloomberg, except for corporate profitability and company-specific risk data, which we compute. We smooth and transform the data to create twelve indices or gauges of where we are in the investing world today. Our proprietary gauges include:

1. Economic activity
2. Consumer activity
3. Corporate profitability
4. Financial conditions
5. Currency
6. The slope and level of the US Treasury yield curve
7. Industrial activity
8. China activity
9. European activity
10. Oil
11. Commodities
12. Company-specific risk


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# MACRO IS MATTERING MORE, AND PEAKING IN MANY AREAS

Many of our signals have multiple inputs (right side of below chart) and are designed to capture larger and longer-term trends, not shorter-term / smaller counter-trend movements. When we look at our 12 gauges (listed alphabetically below) most are generally deteriorating. Financial conditions are tightening. The dollar is strengthening. Commodities and oil are generally rising and company-specific risk is falling. Economic, industrial, and consumer activity has rolled over.

**Current Regime for Each Macro Signal**

| Macro Signal | Current Regime | Examples of Components |
|---|---|---|
| China | Decreasing | Fiscal Expenditures, New Auto Registrations, Electricity Consumption, Exports, Consumer Confidence, Financial Conditions, Residential Property Sales, 10-Year Yield |
| Commodities | Increasing | Aluminum, Corn, Cotton, Copper, Lumber, Natural Gas, Soybeans, Sugar, Silver |
| Consumer Activity | Level | Credit Card Delinquency, Retail Sales, Consumer Confidence, Wage Growth, Unemployment |
| Corporate Profitability | Decreasing | Operating Margin, 1-Year FWD Earnings Expectations, 2-Year FWD Earnings Expectations |
| Company-Specific Risk | Decreasing | The amount unexplained by our 7-factor model |
| Currency | Dollar Strengthening | AUD, CAD, CHF, DXY, EUR, GBP, INR, JPY, SEK |
| Economic Activity | Decreasing | CEO Confidence, Inflation, Philly Fed Business Outlook, Small Business Optimism, Leading Indicators |
| Europe | Increasing | Financial Conditions, 5y5y Forward Break-evens, Unemployment, Consumer Confidence, CDS Spreads |
| Financial Conditions | Tightening | Credit Spreads, US Treasury Implied Volatility, 30-Year Fixed Mortgage Rates |
| Industrial Activity | Level | Dry Van Rate per Mile, Baker Hughes Total Rig Count, AAR N. America Total Carloads, US Capacity Utilization, Private Non-Residential Construction, US C&I Loans |
| Oil | Increasing | WTI, Brent |
| Yield Curve 63d | Level | US 2-Year Yield, US 10-Year Yield |
| Yield Curve 126d | Bear Flattening | US 2-Year Yield, US 10-Year Yield |
| Yield Curve 252d | Bear Flattening | US 2-Year Yield, US 10-Year Yield |


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# WHAT SHOULD WE DO ABOUT IT?

1. We define macro regimes and see whether our quantitative models work better or worse during different regimes. Because of substantial moves in financial conditions, currency, commodities, oil, and rollover in economic, consumer, and industrial activity, we see lots of conflicting data that does not permit us to make as many high conviction gross exposure recommendations as in the past.
2. At present, we recommend grossing up exposure to consumer discretionary, where our quantitative models typically perform well when company-specific risk is rising, and the dollar is strengthening. We would gross down exposure to durables – our ability to pick winners from losers is impaired when China's economy is weak and US corporate profitability has peaked. We would gross up exposure to high-yield junk stocks –those with a high dividend yield but low-quality balance sheets. Our models perform well at separating longs from shorts when consumer and economic activity has rolled over and there's a flattening yield curve.
3. Compared to last month, there are no changes – the same exposure recommendations persist.


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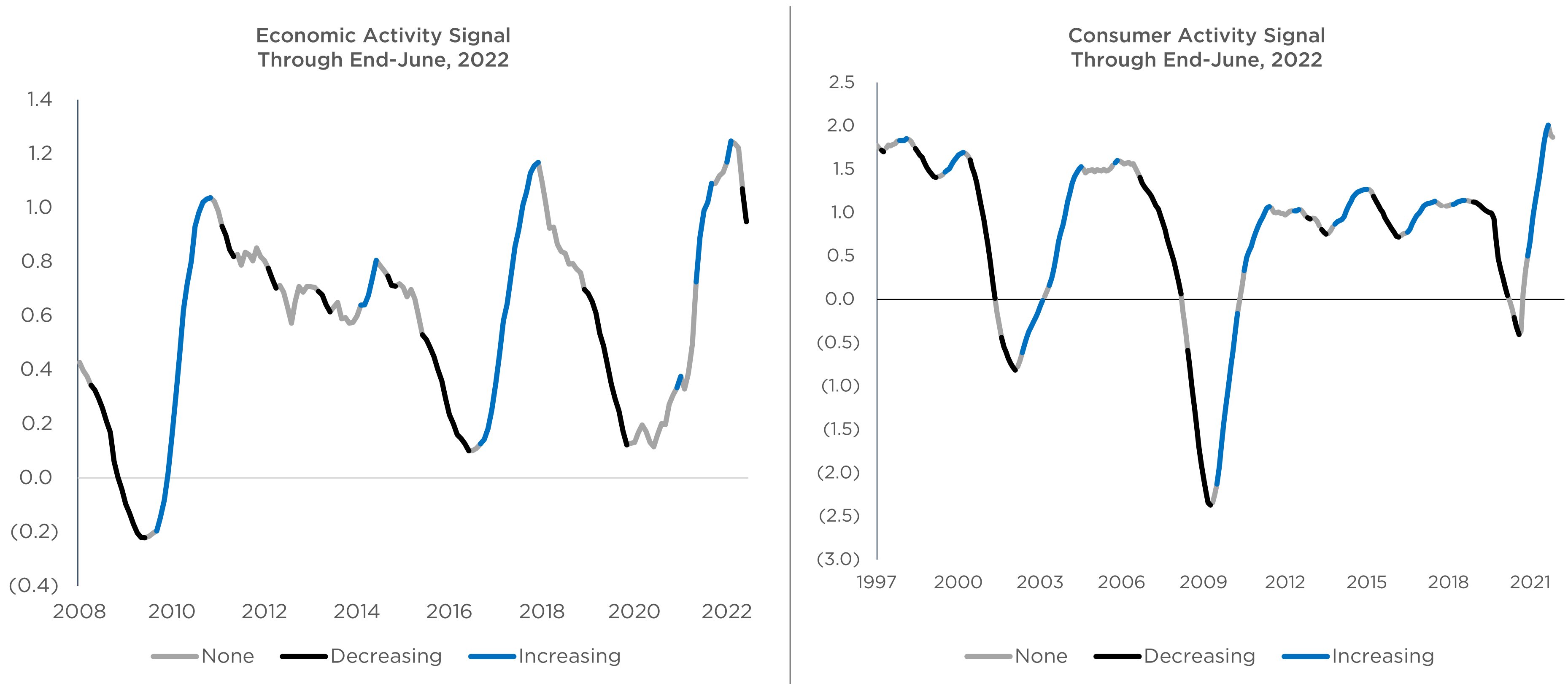
# ECONOMIC ACTIVITY IS DECREASING, CONSUMER PAST PEAK

We show the economic and consumer activity gauges below. We evaluate where we are in the economic activity cycle by looking at variables like CEO Confidence, Philly Fed Business Outlook, Small Business Optimism, US Economic Surprise, US LEI, US 5y5y Forward Breakeven, etc. The economic gauge had been rolling over for four months and now is officially decreasing (left chart). Our consumer activity, driven by jobs, wages, retail sales, and consumer confidence, among other macro variables rolled over in May and continues to weaken as consumer confidence has suffered with the market crash and 30-year mortgage rates rising. (right chart).





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# GROSS DOWN BOTH TMT AND CONSUMER DISCRETIONARY

Our economic activity gauge is decreasing, and that caused us to recommend reducing gross exposure to TMT stocks a few months ago. The left chart shows that our quantitative models perform far better in the TMT cohort at picking winners from losers when economic activity is increasing. Our consumer discretionary quantitative model (right) performs better when our consumer activity gauge is positive-valued and increasing, with a hit rate of 71.9% vs. 61.3% when activity is not increasing (activity leveled off starting in May). We create our 12 gauges for two purposes – one to unemotionally evaluate conditions, and two, is to use the regime shifts as timing gauges for our quant models, which ultimately aid in sizing recommendations.

**TMT Model Performance Through End-June, 2022**

| Stat (Beta-Adjusted) | Economic Activity Increasing | Economic Activity Not Increasing | Difference |
|---|---|---|---|
| Weighted Mean | 14.7% | 6.1% | 8.6% |
| Weighted Median | 16.8% | 4.9% | 11.9% |
| Weighted Information Ratio | 1.66 | 0.65 | 1.01 |
| Hit Rate | 65.7% | 53.9% | 11.8% |

**Discretionary Model Performance Through End-June, 2022**

| Stat (Beta-Adjusted) | Consumer Activity Positive/Increasing | Consumer Activity Not Pos/Increasing | Difference |
|---|---|---|---|
| Weighted Mean | 14.6% | 11.4% | 4.2% |
| Weighted Median | 19.9% | 19.0% | 0.9% |
| Weighted Information Ratio | 1.25 | 0.99 | 0.26 |
| Hit Rate | 71.9% | 61.3% | 10.6% |


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# IF RISKS DID NOT CHANGE, ANYONE COULD DO RISK MANAGEMENT

Four key risks worth monitoring:

1. **High signal correlation:** Variables both fundamental managers and quants use to pick winners from losers are highly correlated in industrials – REITS were but this has moderated
2. **COVID:** Quality "reopening" stocks have still massively underperformed "junk" "work from home" stocks – monitor exposure of "substance" and "work from home" / "reopening".
3. **Correlations during downturns:** Many stocks become more correlated to other names during market sell-offs than during "normal" times, and an assessment of drawdowns can help locate better hedges.
4. **Asymmetric betas:** Measure beta during downturns as there appears to be a consistent group of stocks that have much higher betas during market corrections than "normal" times –many of these are REITS.


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# RISK ONE: HIGHLY CORRELATED SIGNALS IN INDUSTRIALS

We analyzed all 21 of our quantitative models to see if signals have become increasingly correlated recently.  The two biggest risks we see are the increased correlation in REITS and industrials. For both, we have a model comprised of eight signals to predict subsequent 18-month returns for stocks in that industry. There were sustained periods during our model development (2012-2017) where the average pairwise correlation of these signals was near zero (even briefly negative). While REITS signals have now reverted closer to average, industrials signals have not, meaning variables used to pick winners from losers in the past will likely not be effective today.

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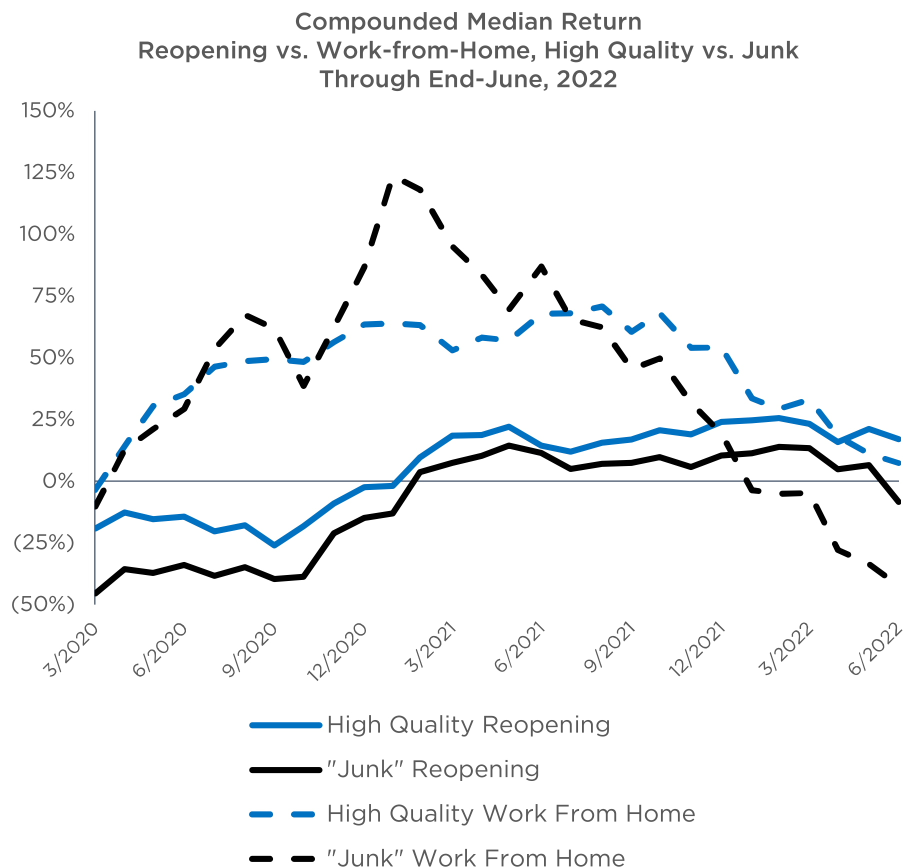
# RISK TWO: QUALITY / JUNK AND REOPENING / WORK-FROM-HOME

We created “work from home” and “reopening” baskets and looked at the correlation of every stock in our universe to both baskets – clearly this was a major new risk to monitor that formed last year. Given the simultaneous move in “junk” and “reopening”, we looked at performance of work from home quality and junk and reopening quality and junk since March of 2020 (left exhibit). Investors should monitor each stock’s exposure. We think quality reopening should outperform junk work from home and junk reopening from here (right exhibit for ideas).




**Buy High Quality Reopening, Sell “Junk” Work-from-Home Names and “Junk” Reopening Names in Top/Bottom Trivariate Model Quartile with Market Cap. of at least $1 Bil.**
**End-June, 2022**

**Long**

| Ticker | Company Name | Industry Group | Market Cap ($ US. Bil) |
|---|---|---|---|
| CVX | Chevron Corporation | Oil, Gas & Consumable Fuels | 284.47 |
| HTLF | Heartland Financial USA, Inc. | Banks | 1.76 |
| EGBN | Eagle Bancorp, Inc. | Banks | 1.52 |
| PFBC | Preferred Bank | Banks | 1.01 |

**Short**

| Ticker | Company Name | Industry Group | Market Cap ($ US. Bil) |
|---|---|---|---|
| APP | AppLovin Corporation | Software | 13.02 |
| DKNG | DraftKings Inc. | Hotels, Restaurants & Leisure | 4.88 |
| OSH | Oak Street Health, Inc. | Health Care Providers & Services | 3.96 |
| PTON | Peloton Interactive, Inc. | Leisure Products | 3.10 |
| AZEK | The AZEK Company Inc. | Building Products | 2.60 |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# RISK THREE: BEAR CASE CORRELATIONS THAT RISE

We analyzed stock performance during market drawdowns of 10% or more and noticed that some stocks become increasingly correlated during market pullbacks. We like to monitor "bear case" correlations so we are not misled about the portfolio being hedged or defensive when there is a measurable phenomena during downturns.

**Names with Higher 126d Correlations to Peers During SPX Drawdowns of at Least 10%**
**End-June, 2022**

| Ticker | Company | Industry Group | Market Cap. (US$ Bil.) |
|---|---|---|---|
| WMT | Walmart Inc. | Food & Staples Retailing | 333.27 |
| PFE | Pfizer Inc. | Pharmaceuticals | 294.18 |
| VZ | Verizon Communications Inc. | Diversified Telecommunication Services | 213.13 |
| COST | Costco Wholesale Corporation | Food & Staples Retailing | 212.33 |
| ORCL | Oracle Corporation | Software | 186.2 |
| T | AT&T Inc. | Diversified Telecommunication Services | 150.05 |
| TGT | Target Corporation | Multiline Retail | 65.49 |
| PSA | Public Storage | REITs | 54.88 |
| AZO | AutoZone, Inc. | Specialty Retail | 41.88 |
| ORLY | O'Reilly Automotive, Inc. | Specialty Retail | 41.52 |
| DLR | Digital Realty Trust, Inc. | REITs | 36.96 |
| CTSH | Cognizant Technology Solutions Corporation | IT Services | 35.17 |
| EQR | Equity Residential | REITs | 27.16 |
| AVB | AvalonBay Communities, Inc. | REITs | 27.13 |
| K | Kellogg Company | Food Products | 24.1 |
| EFX | Equifax Inc. | Professional Services | 22.36 |
| BALL | Ball Corporation | Containers & Packaging | 21.99 |
| CTRA | Coterra Energy Inc. | Oil, Gas & Consumable Fuels | 20.78 |
| PCG | PG&E Corporation | Electric Utilities | 19.83 |
| CLX | The Clorox Company | Household Products | 17.35 |
| EVRG | Evergy, Inc. | Electric Utilities | 14.97 |
| CPT | Camden Property Trust | REITs | 14.32 |
| ELS | Equity LifeStyle Properties, Inc. | REITs | 13.11 |
| LSI | Life Storage, Inc. | REITs | 9.41 |
| ERIE | Erie Indemnity Company | Insurance | 8.88 |
| SWN | Southwestern Energy Company | Oil, Gas & Consumable Fuels | 6.97 |
| DNB | Dun & Bradstreet Holdings, Inc. | Professional Services | 6.52 |
| USM | United States Cellular Corporation | Wireless Telecommunication Services | 2.48 |


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# RISK FOUR: NEGATIVE ASYMMETRIC BETA

We analyzed the beta of stocks during periods where the market is down 10% or more. Many of these stocks with the highest negative asymmetric betas are REITS (left side). Non-REITs are shown on the right. This list represents names where we expect high underperformance in a market drawdown.

**Names with Higher 252d Betas During SPX Drawdowns of at Least 10%**
**End-June, 2022**

| REITs | | | | Non-REITs | | | |
|---|---|---|---|---|---|---|---|
| Ticker | Company Name | Industry Group | Market Cap ($ US. Bil) | Ticker | Company Name | Industry Group | Market Cap ($ US. Bil) |
| PSA | Public Storage | REITs | 54.88 | ABBV | AbbVie Inc. | Biotechnology | 270.65 |
| O | Realty Income Corporation | REITs | 41.07 | VZ | Verizon Communications Inc. | Diversified Telecom Serv. | 213.13 |
| DLR | Digital Realty Trust, Inc. | REITs | 36.96 | CME | CME Group Inc. | Capital Markets | 73.57 |
| SBAC | SBA Communications Corporation | REITs | 34.51 | ICE | Intercontinental Exchange, Inc. | Capital Markets | 52.7 |
| SPG | Simon Property Group, Inc. | REITs | 31.20 | EXC | Exelon Corporation | Electric Utilities | 44.42 |
| EQR | Equity Residential | REITs | 27.16 | ORLY | O'Reilly Automotive, Inc. | Specialty Retail | 41.52 |
| AVB | AvalonBay Communities, Inc. | REITs | 27.13 | NDAQ | Nasdaq, Inc. | Capital Markets | 25.12 |
| ARE | Alexandria Real Estate Equities, Inc. | REITs | 23.67 | YUMC | Yum China Holdings, Inc. | Hotels, Rest. & Leisure | 20.44 |
| EXR | Extra Space Storage Inc. | REITs | 22.84 | LEN | Lennar Corporation | Household Durables | 20.42 |
| MAA | Mid-America Apartment Comm. | REITs | 20.16 | CMS | CMS Energy Corporation | Multi-Utilities | 19.58 |
| ESS | Essex Property Trust, Inc. | REITs | 17.09 | LYV | Live Nation Entertainment, Inc. | Entertainment | 18.78 |
| UDR | UDR, Inc. | REITs | 14.66 | TWLO | Twilio Inc. | IT Services | 15.23 |
| CPT | Camden Property Trust | REITs | 14.32 | MKTX | MarketAxess Holdings Inc. | Capital Markets | 9.66 |
| PEAK | Healthpeak Properties, Inc. | REITs | 13.98 | DECK | Deckers Outdoor Corporation | Textiles, App. & Luxury Gds. | 6.84 |
| BXP | Boston Properties, Inc. | REITs | 13.94 | GPK | Graphic Packaging Holding Company | Containers & Packaging | 6.32 |
| ELS | Equity LifeStyle Properties, Inc. | REITs | 13.11 | TDOC | Teladoc Health, Inc. | Health Care Technology | 5.35 |
| KIM | Kimco Realty Corporation | REITs | 12.22 | EXLS | ExlService Holdings, Inc. | IT Services | 4.9 |
| LSI | Life Storage, Inc. | REITs | 9.41 | ALKS | Alkermes plc | Biotechnology | 4.89 |
| NNN | National Retail Properties, Inc. | REITs | 7.56 | UBSI | United Bankshares, Inc. | Banks | 4.73 |
| ADC | Agree Realty Corporation | REITs | 5.41 | CIVI | Civitas Resources, Inc. | Oil, Gas & Consumable Fuels | 4.44 |


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# TRIVARIATE SECTOR OVERVIEW: SUMMARY RECOMMENDATIONS

We are recommending energy, materials, and healthcare – including healthcare services and pharma. We prefer those sectors to industrials, staples, and communication services.

### Trivariate Sector Recommendations

| Sector | Total S&P 500 Market Cap. (US$ Bil.) | Current S&P 500 Weight | Trivariate-Recommended Weight | Trivariate-Relative Weight | Trivariate Recommendation | Comments |
|---|---|---|---|---|---|---|
| Materials | 850.06 | 2.4% | 7.0% | 4.6% | Overweight | Buy the cheap stocks with upward revisions |
| Energy | 1,431.27 | 4.0% | 8.0% | 4.0% | Overweight | Supply won't catch up for awhile and we do not see substantial demand destruction yet |
| Health Care | 5,010.21 | 14.0% | 17.0% | 3.0% | Overweight | Healthcare services have cheap growth, pharma is incredibly cheap vs. staples, and the biotechnology sell-off appears over-done |
| Information Technology | 8,948.01 | 25.0% | 27.0% | 2.0% | Equal-Weight | Focus on positive FCF, pricing power – avoid profitless software and semis with perishable inventory |
| Utilities | 1,014.70 | 2.8% | 4.0% | 1.2% | Equal-Weight | Some idiosyncratic investments are sensible |
| Real Estate | 968.14 | 2.7% | 2.0% | -0.7% | Equal-Weight | Metrics for stock selection are becoming more effective, commercial remains challenged |
| Financials | 3,786.01 | 10.6% | 10.0% | -0.6% | Equal-Weight | Prefer large cap banks to small |
| Consumer Discretionary | 3,791.78 | 10.6% | 10.0% | -0.6% | Equal-Weight | Margins are at risk with rising input costs |
| Communication Services | 4,702.67 | 13.1% | 10.0% | -3.1% | Underweight | Makes sense to keep market-weight FAANGM |
| Industrials | 2,644.04 | 7.4% | 3.0% | -4.4% | Underweight | Industrial activity is rolling over, but earnings expectation are very high |
| Consumer Staples | 2,624.63 | 7.3% | 2.0% | -5.3% | Underweight | Plenty of short ideas in idiosyncratic staples, and valuation of large-caps is stretched |


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# CAN YOU STILL OWN ENERGY AND MATERIALS?

**Oil and many underlying commodities levelled-off last month after huge moves the preceding six months.**

For energy, rising oil means higher earnings revisions and higher net income for the group, and even with the recent sharp correction the longer-term trajectory has been higher for oil. Earnings revisions are highly effective at picking winners from losers within the cohort for the 6-months following periods when oil is rising, likely meaning energy stocks beating estimates will still perform strongly. In addition, despite the strong rally (energy was the best performing sector last year and again so far this year), the sector remains attractively valued on price-to-book, which historically was the most efficacious valuation metric for picking energy stocks. It is VERY infrequent in the last decade where a sector has positive revisions, positive momentum, and cheap valuation versus history. Despite what seems to be sustained demand growth exceeding supply growth for the sustainable future, there is a lot of negative sentiment, and firms have dropped coverage or don't have analysts. We think oil-sensitive equities have incredibly attractive risk-reward.

For materials, the huge year-over-year move in commodities nearly guarantees the sector is poised to good earnings this year, even if lower than 2021 for many companies. Investors are embedding a recession in earnings in many parts of this sector, and not giving the companies credit for balance sheet repair from this super-cycle. **Valuations embed a collapse in earnings, as they are hovering near 18-year lows vs. the market excluding materials as people assume earnings will collapse.**


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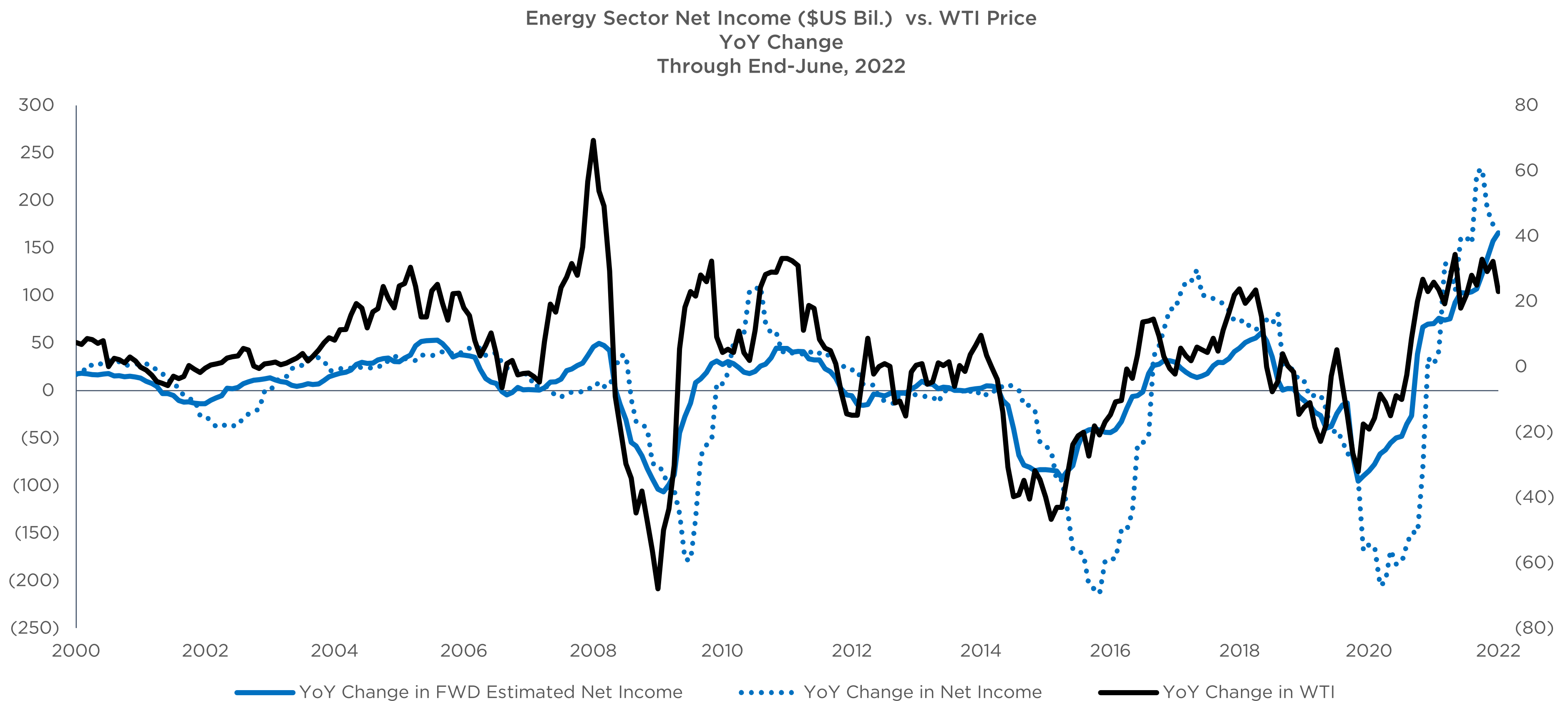
# THERE IS A LAG BETWEEN OIL PRICES, ESTIMATES, AND REPORTS

For energy, oil prices are a leading indicator for net income of the energy sector. The black line below shows the change in WTI , which is typically a 3-to-6-month leading indicator for the dashed blue line, which is reported net income. The analysts typically wait until after oil lags (solid blue line), but right before the companies report earnings, so their forecasts are not particularly anticipatory.



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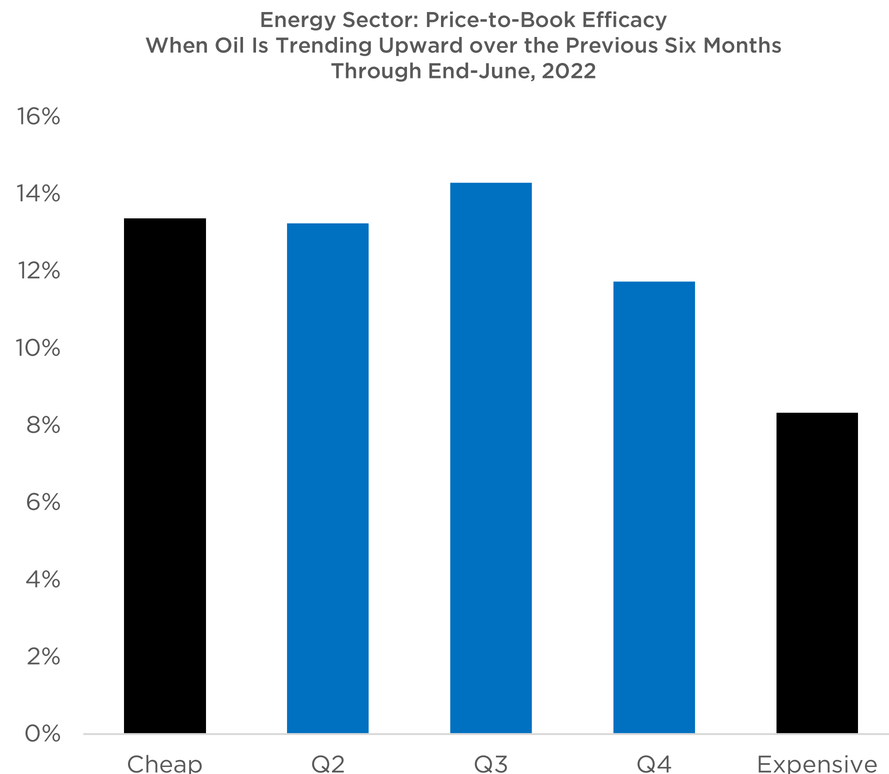
# USE ENERGY EARNINGS REVISIONS & VALUATION WHEN OIL IS RISING

We analyzed whether earnings revisions were efficacious at predicting subsequent energy sector returns when oil is rising.  Given that stock prices are typically anticipatory, we have received several questions about how much more energy stocks could rally.  During a rising oil regime, analyst earnings revisions have historically been a highly effective signal, with the top quintile on revisions beating the bottom by nearly 10% during the average subsequent 6-month period. Valuation has also worked at segmenting winners from losers, with the cheapest quintile on price-to-book outperforming the most expensive by ~5%.





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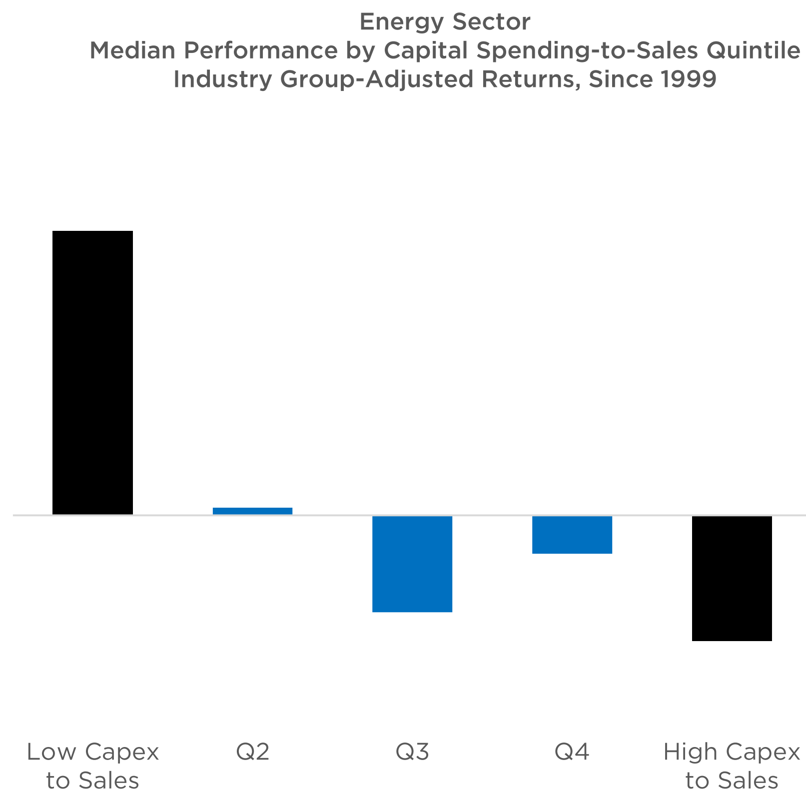
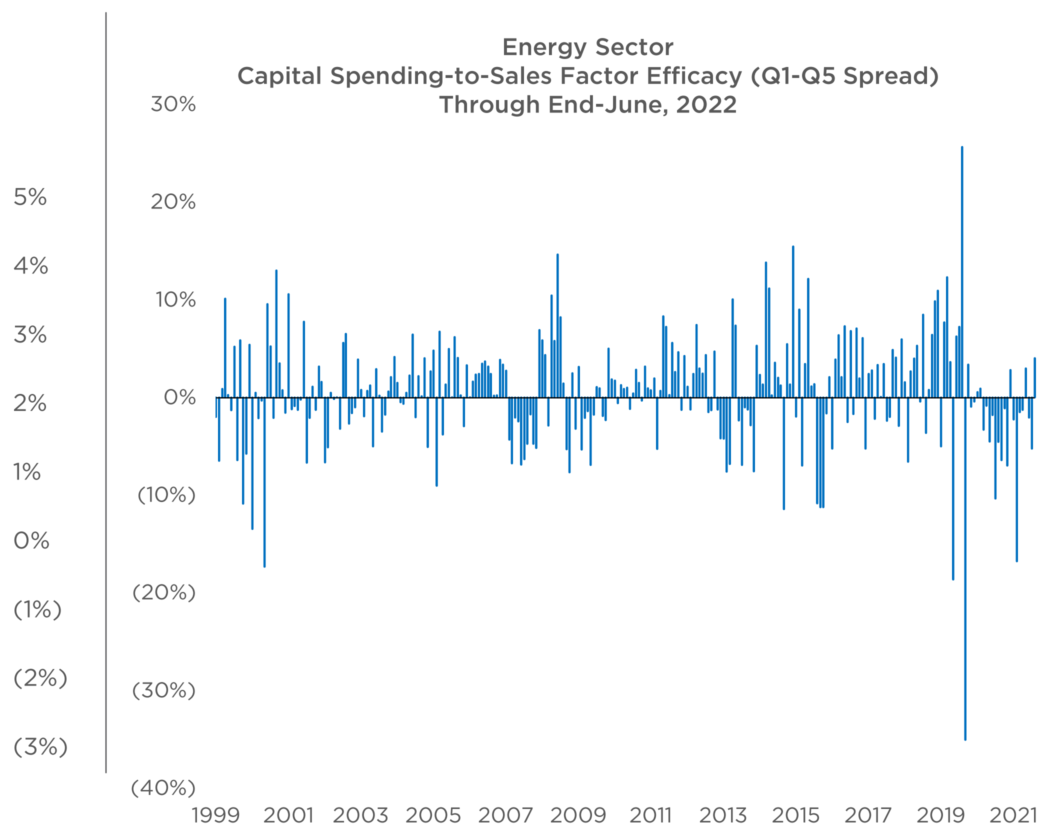
# HISTORICALLY, CAPITAL INTENSITY WAS BAD IN ENERGY, BUT NOT NOW

Within the energy sector, over the last 20 years (left) less capital-intensive companies outperformed their peers, by 6% per annum on average. In fact, many investors mocked the "cowboy" like approach energy CEOs had towards spending. However, the most capital-intensive energy stocks have outperformed the least capital intensive in 15 of the last 21 quarters (right). Given the supply-demand imbalances in oil, we expect increased capital intensity and oil-sensitive stocks to continue to perform well for the foreseeable future.





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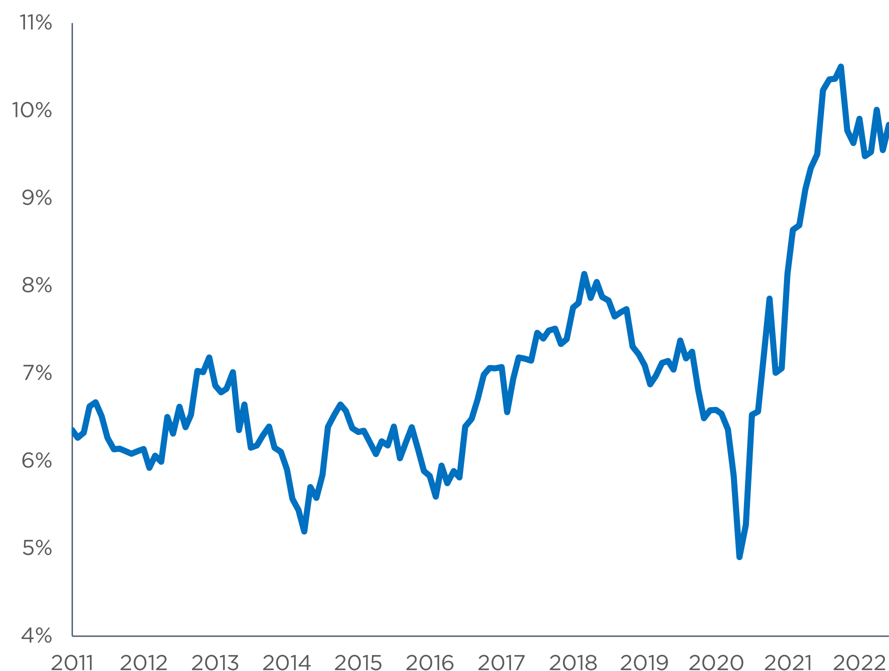
# THERE IS SKEPTICISM OF THE SUSTAINABILITY OF MATERIALS PROFITS

The consensus expectations are that net margins for the materials sector will rollover meaningfully from record highs, driving the relative-to-the market valuation to remain near 18-year lows. Our belief is that many of the companies structurally improved cycle-to-cycle, so while they clearly are over-earning today, there has been substantive balance sheet repair. We like the risk-reward of a sector with high but likely achievable near-term estimates and attractive relative valuation. Among the cyclicals, this sector looks to be the cheapest and have the most negative forecasted earnings, likely meaning more of a recession is embedded here than other parts of the market.



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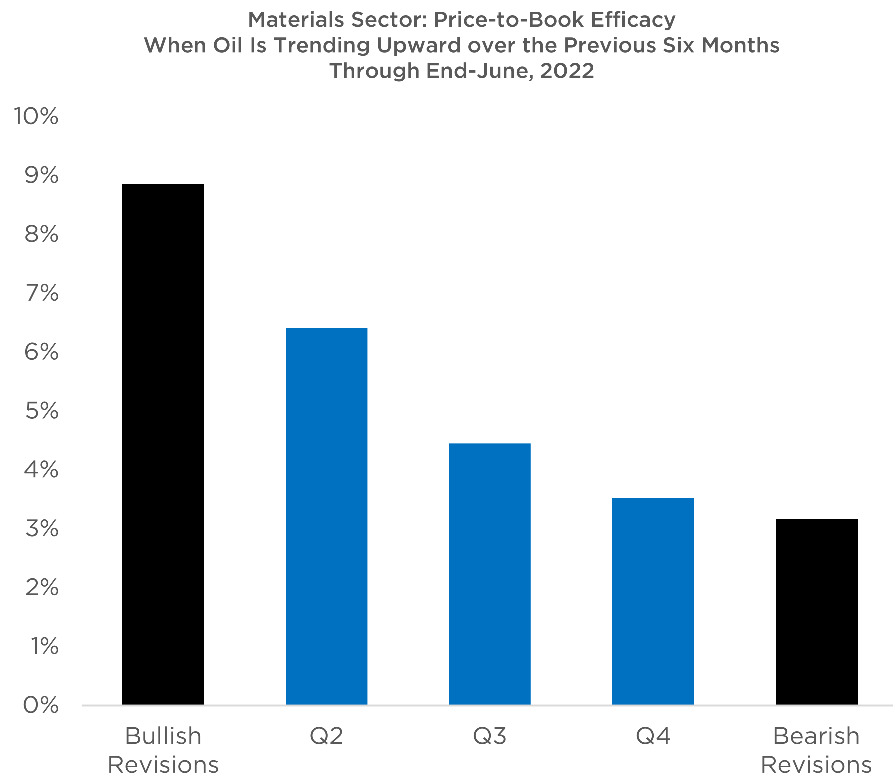
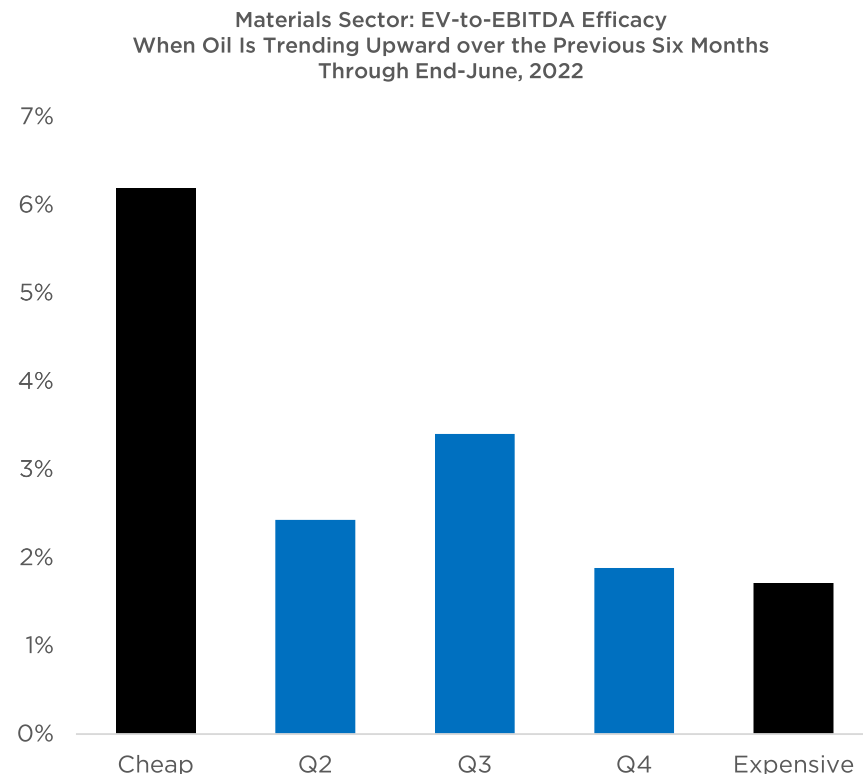
# EARNINGS REVISIONS & VALUATION WORK FOR MATERIALS STOCKS

As was the case in energy, materials stocks with upward analyst earnings revisions and cheaper valuation outperform those with less upward or downward revisions as oil and commodity prices rise.  The top vs. bottom quintile spreads on earnings revisions average 6% on average over the subsequent six months following rising revisions, and the cheapest quintile on EV-to-EBITDA outperforms the most expensive by 7% on average.





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# ENERGY AND MATERIALS STOCKS WE THINK OUTPERFORM

Tying it together, we are bullish on energy and materials given the combination of estimate achievability and valuation. The below screen shows stocks that are in the energy and materials sector and are in the top 25% of both valuation and earnings revisions today – the metrics that historically helped pick winners. Many of these have sharply corrected recently.

**Energy and Materials Sector**
**Top Quartile in Estimate Revisions and Valuation**
**End-June, 2022**

| Ticker | Company | Industry Group | Market Cap. (US$ Bil.) |
|---|---|---|---|
| FCX | Freeport-McMoRan Inc. | Metals & Mining | 42.41 |
| DOW | Dow Inc. | Chemicals | 37.58 |
| LYB | LyondellBasell Industries N.V. | Chemicals | 28.65 |
| NUE | Nucor Corporation | Metals & Mining | 27.78 |
| CF | CF Industries Holdings, Inc. | Chemicals | 17.88 |
| MOS | The Mosaic Company | Chemicals | 17.10 |
| WLK | Westlake Corporation | Chemicals | 12.58 |
| STLD | Steel Dynamics, Inc. | Metals & Mining | 12.48 |
| RS | Reliance Steel & Aluminum Co. | Metals & Mining | 10.52 |
| AA | Alcoa Corporation | Metals & Mining | 8.41 |
| CLF | Cleveland-Cliffs Inc. | Metals & Mining | 8.07 |
| OLN | Olin Corporation | Chemicals | 7.03 |
| MUR | Murphy Oil Corporation | Oil, Gas & Consumable Fuels | 4.69 |
| X | United States Steel Corporation | Metals & Mining | 4.67 |
| CIVI | Civitas Resources, Inc. | Oil, Gas & Consumable Fuels | 4.44 |
| LPX | Louisiana-Pacific Corporation | Paper & Forest Products | 4.30 |
| GLNG | Golar LNG Limited | Oil, Gas & Consumable Fuels | 2.46 |
| AMR | Alpha Metallurgical Resources, Inc. | Metals & Mining | 2.42 |
| STNG | Scorpio Tankers Inc. | Oil, Gas & Consumable Fuels | 1.95 |
| CDEV | Centennial Resource Development, Inc. | Oil, Gas & Consumable Fuels | 1.70 |


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## OPPORTUNITIES IN THE HEALTHCARE SECTOR

1. The biotechnology sell-off has appeared extreme for months, with forecasted sales growth and relative price-to-sales multiples at all-time lows. Adding exposure to biotechnology appears to be good risk-reward particularly if you can short profitless software or another speculative industry against it. Even if rising interest rates hurt the terminal value assumptions, multi-year lows on sales seem overly punitive in our judgment.

2. Healthcare providers and services companies remain the cheapest industry within healthcare, with relative multiple contraction over the last five years, while all the other healthcare industry groups experienced relative multiple expansion on price-to-forward earnings. Interestingly, this contraction happened despite higher revenue growth and lower volatility of the revenue growth. Our prior work shows these stocks can be interest-rate sensitive, so investors looking for businesses with pricing power, good revenue growth, low volatility of revenue growth, and compelling relative valuation should own healthcare providers and healthcare services.

3. The relationship between classic defensive sectors like mega / large cap. pharma / biotechnology and consumer staples has consistently evolved. The relative valuation of the group is just above all-time lows, leaving mega /large biotech / pharma at 63% of the relative multiples when they used to trade at premiums, despite relatively good performance this year. The shareholder return is about constant (dividend plus repurchase yield), a potential sign of the attractiveness of pharma as a defensive play.


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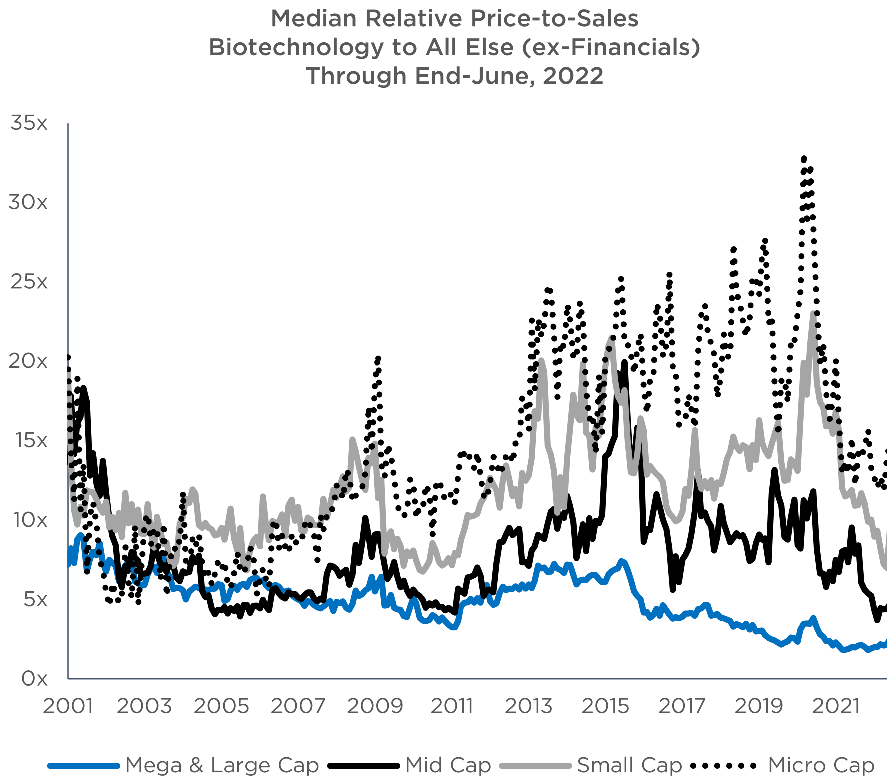
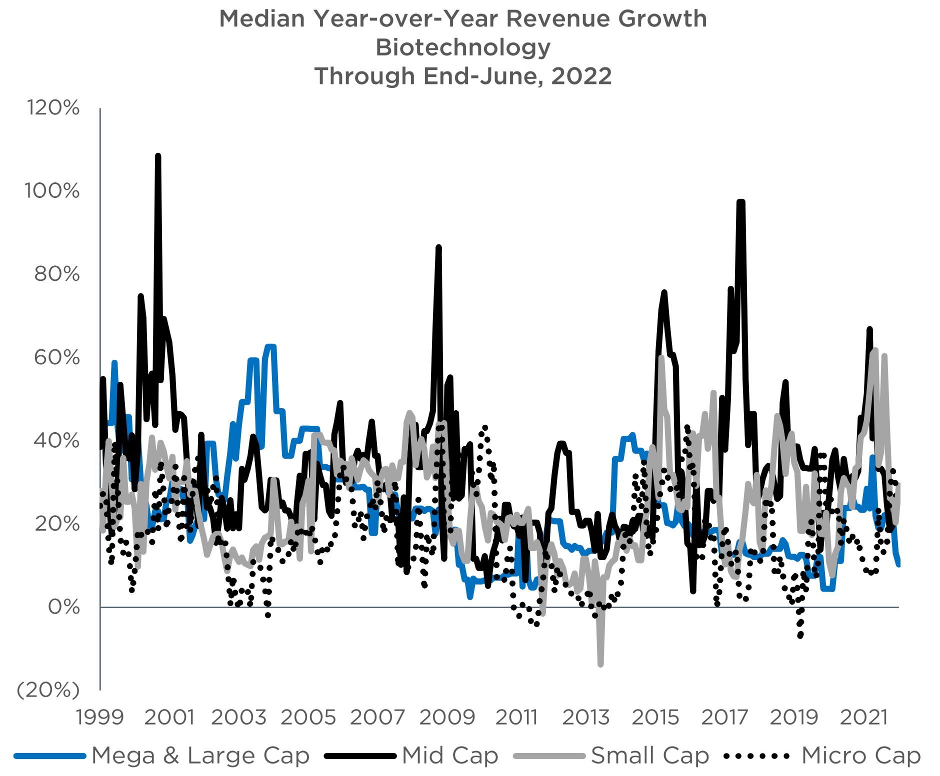
# BIOTECHNOLOGY VALUATION VS. GROWTH OUTLOOK HAS CHANGED

The biotechnology has been too extreme for months in our view (left chart). Meanwhile, the revenue growth rates for companies remain close to the same as they were prior to the sell-off (right chart) implying that this valuation reset has been material. Our judgment is the risk-reward looks positive for biotechnology today, though we would likely hedge by shorting or underweighting another hyper growth group (i.e., profitless software) to avoid interest-rate sensitivity.





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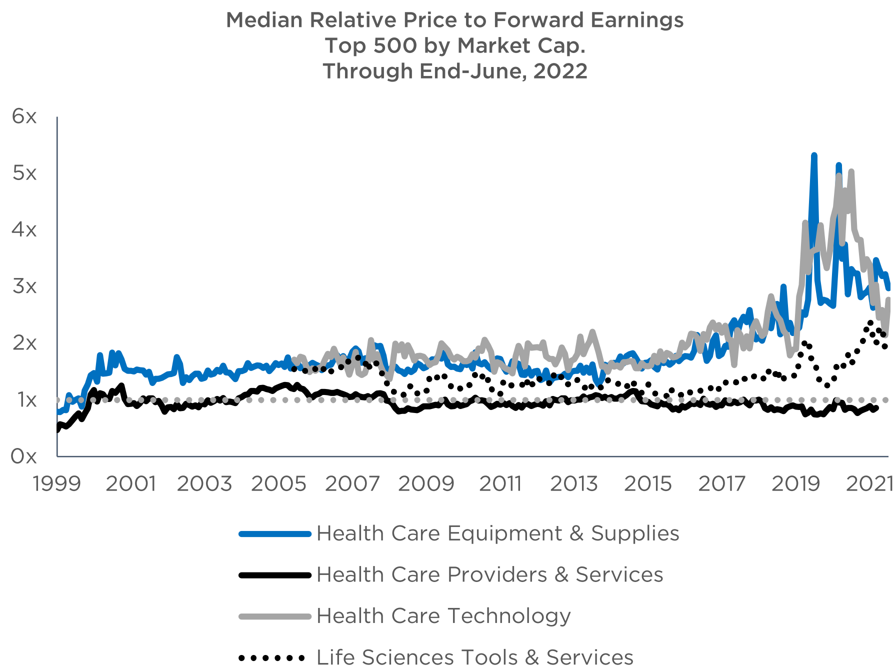
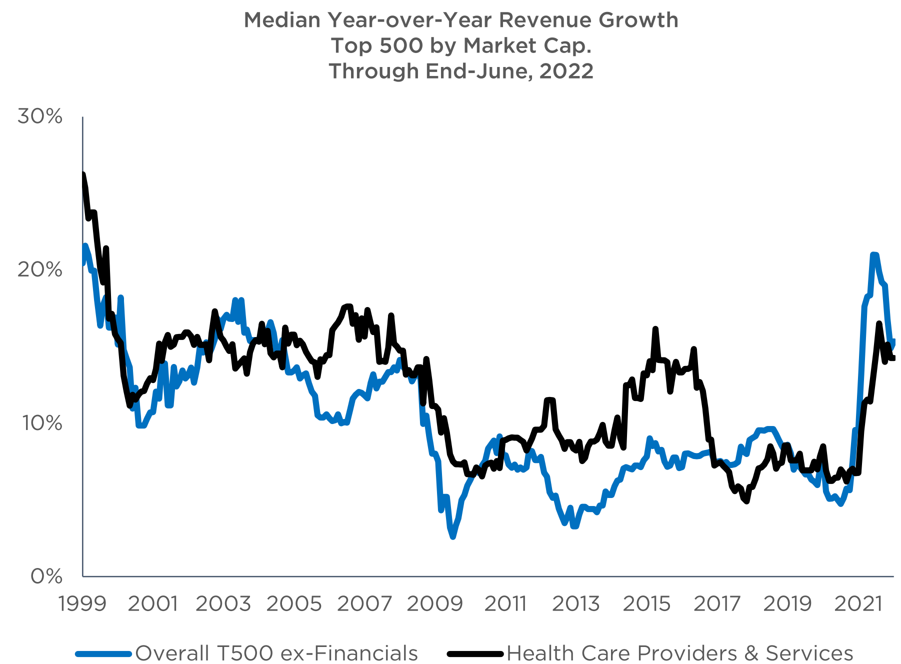
# HEALTHCARE PROVIDERS AND SERVICES LOOK ATTRACTIVE

Healthcare providers and services companies remain the cheapest industry within healthcare, having seen relative multiple contraction over the last five years, while all the other healthcare industry groups experienced relative multiple expansion on price-to-forward earnings (left chart). Interestingly, this contraction happened despite comparable revenue growth (right chart), and lower volatility of the revenue growth. Gross margins contracted for the group this year, and cost pressures are an obvious concern. However, our prior work shows these stocks can be interest-rate sensitive, so investors looking for businesses with pricing power, good revenue growth, low volatility of growth, and compelling relative valuation should look at healthcare providers and services for opportunities.





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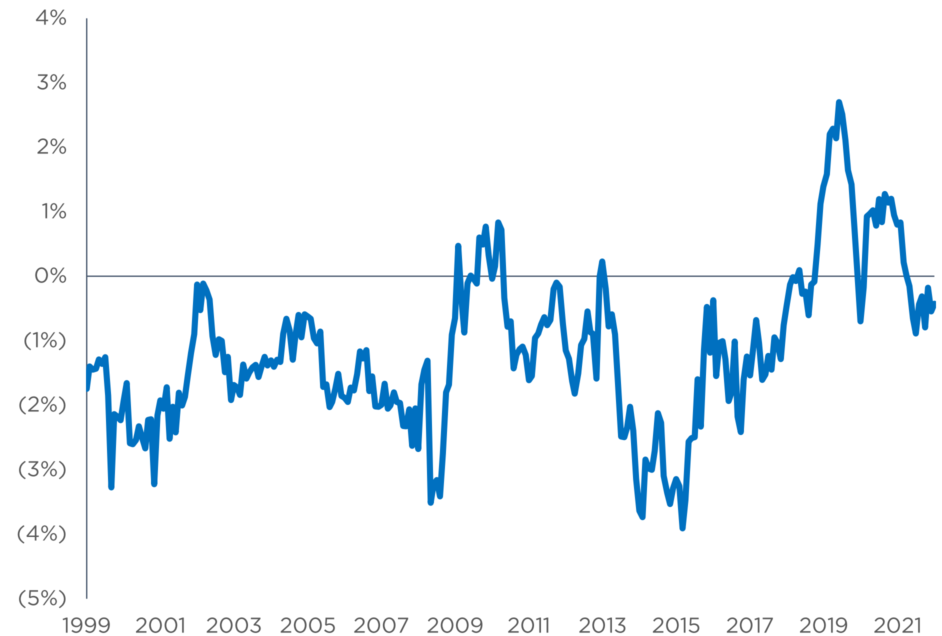
# PHARMA SEEMS TOO CHEAP VS. CONSUMER STAPLES

The relationship between classic defensive sectors like mega / large cap. pharma / biotechnology and consumer staples has consistently evolved. The relative valuation of the group is now at all time lows (left chart), with staples ripping December of 2021 and leaving biotech / pharma at 63% of the relative multiples when they used to trade at premiums. The shareholder return is about constant (dividend plus repurchase yield), a potential sign of the attractiveness of pharma as a defensive play (right chart).





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# UTILITIES - SUMMARY AND CONCLUSIONS

**Over three-quarters of all utility companies have negative free cash flow today - up from only one-third a decade ago.** There is now a meaningful disconnect between earnings and cash flow, and **this dynamic typically points toward more efficacious shorts. Utilities experts have pushed back that negative free cash flow now is a positive for subsequent returns – but that is not what the data show.**

Not only are there a huge number of utilities with negative free cash flow, but roughly 20% of all utility stocks have dividends that are greater than their net income, which obviously increases the probability of a dividend cut or cancellation. Utilities with payout ratios greater than 100% that also have negative free cash flow have historically meaningfully lagged. Despite the consistent underperformance of high payout ratio / negative FCF utilities, and the huge increases in the percentage of utilities with negative FCF, high debt levels, and dividend yields that are no longer attractive relative to US Treasuries - **the percentage of stocks that have high short interest is low relative to history, which we feel is evidence this space is under-examined by investors**. 57 of the 68 utilities we track currently have less than 4% short interest, and only 2 have above 10% short interest. **Short ideas,** all of which have high payout ratios, bad credit ratings, and relatively low short interest.

**Dividend expanders with ample ability to pay their dividend are more expensive in the utilities sector than in other parts of the market, with record high relative price-to-forward earnings multiples – however, there are some exceptions that may be good long ideas.**

Criteria for our buy recommendations are stocks that are disfavored by the sell-side, have positive net income, reasonably low pay out ratios, bonds that are not poorly or downwardly rated, and are not crowded by a proprietary universe of hedge funds we track.


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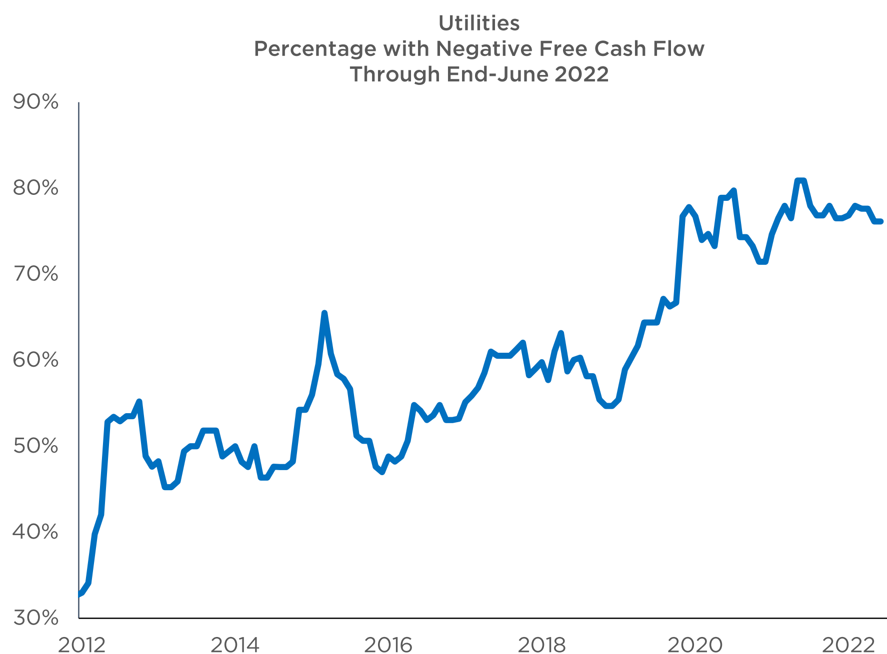
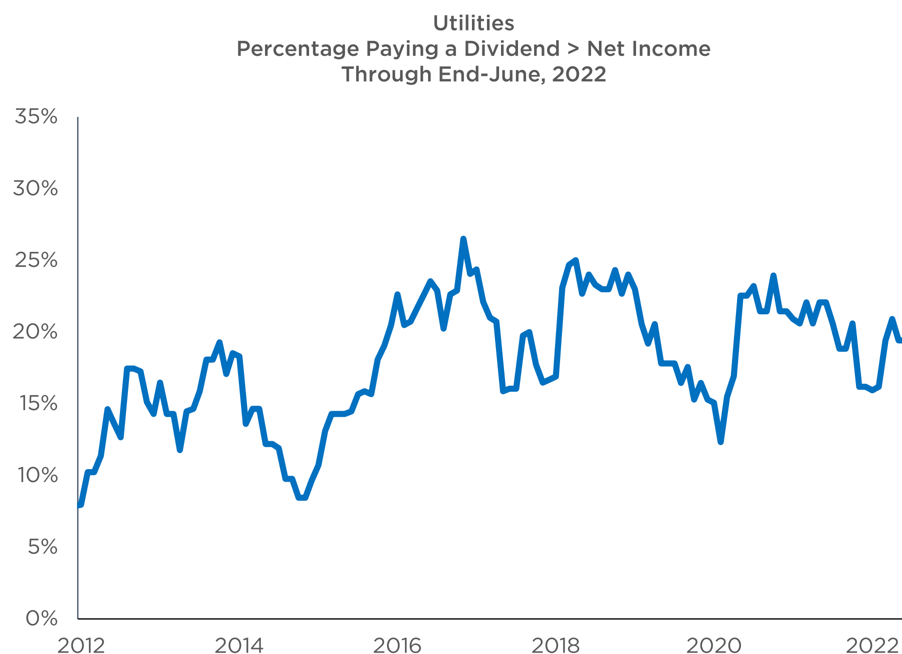
# MOST UTILITIES HAVE NEGATIVE FREE CASH FLOW

Utilities now have meaningful disconnects between earnings and cash flow. **In fact, over three-quarters of all the utilities companies have negative free cash flow today (left), up from only one-third a decade ago. This makes us excited there are some short ideas in the sector!** Not only are there a huge number of utilities with negative free cash flow, but also 20% of them have dividends that are greater than their net income (right), which ultimately increases the probability of a dividend cut or cancellation. Our prior work shows these stocks strongly underperform in a rising rate environment.



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# POTENTIAL SHORT IDEAS IN UTILITIES

Utility stocks that have dividends above their net income, have below investment grade credit, have negative or very low free cash flow, and still have low short interest are shown below.

**Select Quantitatively Derived Utilities Shorts**
**Through End-June 2022**

| Ticker | Company Name | S&P LT Local Issuer Bond Rating | Short Interest to Free-Floated Market Cap. | Price-to-Forward-Earnings | Market Cap ($ US. Bil) |
|---|---|---|---|---|---|
| SO | The Southern Company | BBB+ | 1.2% | 20.09x | 75.77 |
| SRE | Sempra | BBB+ | 1.5% | 17.60x | 47.23 |
| PEG | Public Service Enterprise Group Incorporated | BBB+ | 1.2% | 18.18x | 31.59 |
| EIX | Edison International | BBB | 1.2% | 13.91x | 24.11 |
| DTE | DTE Energy Company | BBB+ | 1.3% | 21.25x | 24.56 |
| AES | The AES Corporation | BBB- | 1.5% | 12.99x | 14.03 |
| VST | Vistra Corp. | BB | 3.7% | 9.93x | 9.87 |
| SJI | South Jersey Industries, Inc. | BBB*- | 4.2% | 20.08x | 4.18 |


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# BUY IDEAS IN UTILITIES – EXPANDING DIVIDENDS AND ABILITY TO PAY

We searched for long ideas in case a defense tape persists. Our prior work shows companies that can consistently expand their dividends do well in rising rate environments, so we compared the valuation of the dividend expanders with positive net income and reasonably low payout ratios (less than 66%) to those same stocks not in the utilities sector. Utilities with these attributes are near all-time highs on price-to-forward earnings (left). Buy ideas (right) are utilities that the sell-side is biased against, have positive net income, reasonably low payout ratios, and investment-grade bonds that are not being downwardly rated (right).

**Price-to-Forward-Earnings**
**Utilities vs. Non-Utilities Dividend Expanders**
**Through End-June, 2022**

**Select Quantitatively Derived Utilities Longs**
**Through End-June 2022**

| Ticker | Company Name | S&P LT Local Issuer Bond Rating | Short Interest/ Floatcap | Price-to-Forward-Earnings | Market Cap ($ US. Bil) |
|---|---|---|---|---|---|
| CMS | CMS Energy Corporation | BBB+ | 1.2% | 33.39x | 27.04 |
| NRG | NRG Energy, Inc. | BB+ | 1.5% | 23.44x | 19.58 |
| AWK | American Water Works Company, Inc. | A | 7.6% | 9.77x | 9.06 |
| SR | Spire Inc. | A- | 6.2% | 18.68x | 4.10 |
| PNM | PNM Resources, Inc. | BBB+ | 4.5% | 17.59x | 3.88 |
| CWT | California Water Service Group | A+ | 2.0% | 30.86x | 2.99 |
| OTTR | Otter Tail Corporation | BBB | 1.2% | 12.48x | 2.79 |
| MSEX | Middlesex Water Company | A | 4.9% | 31.89x | 1.54 |


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# CONSUMER RESEARCH AND CONCLUSIONS

- **Last hiking cycle:** We analyzed the consumer sub-industries returns following the last initial rate hike in December of 2015. Household and personal products and food, beverages and tobacco performed well, whereas autos and retailers were weak. That is the same industry performance to what has unfolded this cycle to-date.
- **Consumer discretionary:** Growth stocks look expensive, as there are more profitless discretionary stocks now than anytime in the last 20 years. Value stocks are trading near all-time lows on price-to-forward earnings, but this is likely merited given the pending consumer rollover.
- **Consumer staples:** Growth stocks remain incredibly expensive, and value stocks are average vs. history on price-to-forward earnings. The profitability gap has widened between high quality and junk, but the multiples have not – indicating junk stocks could be good candidate for relative multiple contraction. We think margins and multiples are too high for staples, and both could be at risk.
- **Consumer long ideas:** Longs include junk and value discretionary that are cheap on price-to-forward earnings and are forecasted to have margin expansion and revenue growth. Value staples with above 3% forecasted revenue growth are also attractive.
- **Consumer short ideas :** Expensive junk staples with low forecasted growth, expensive growth staples where multiple have not been reset, and growth discretionary where forecasted sales is less than 10% YoY.
- Don’t hesitate to contact us for ideas.


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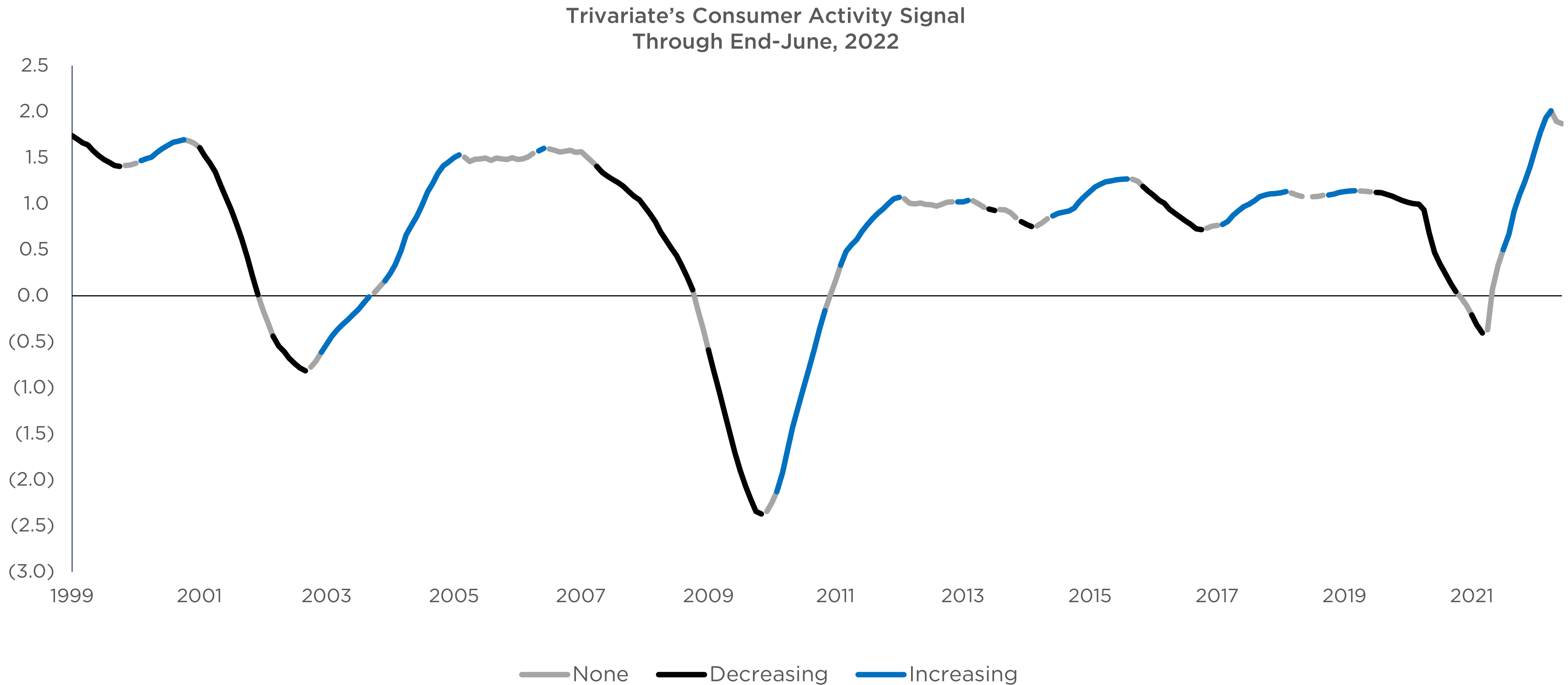
# CONSUMER ACTIVITY HAS ROLLED OVER

We combined the labor, spending, expenses, and other consumer macro variables into our proprietary US consumer gauge. Below shows the consumer activity has rolled over, with consumer confidence among the declining metrics. Analysts should focus on companies with a higher percentage of ex-US wages, as they are likely better positioned to handle this aspect of expenses. Overall, we think a declining consumer activity gauge is likely for the next several months at a minimum – with the positives remaining jobs and wages.



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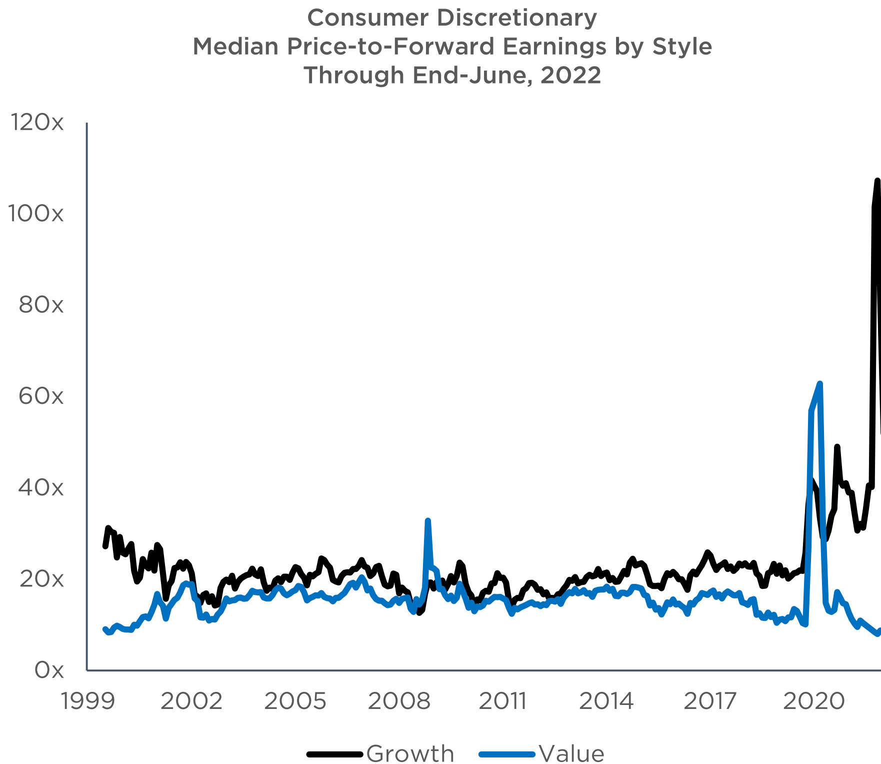
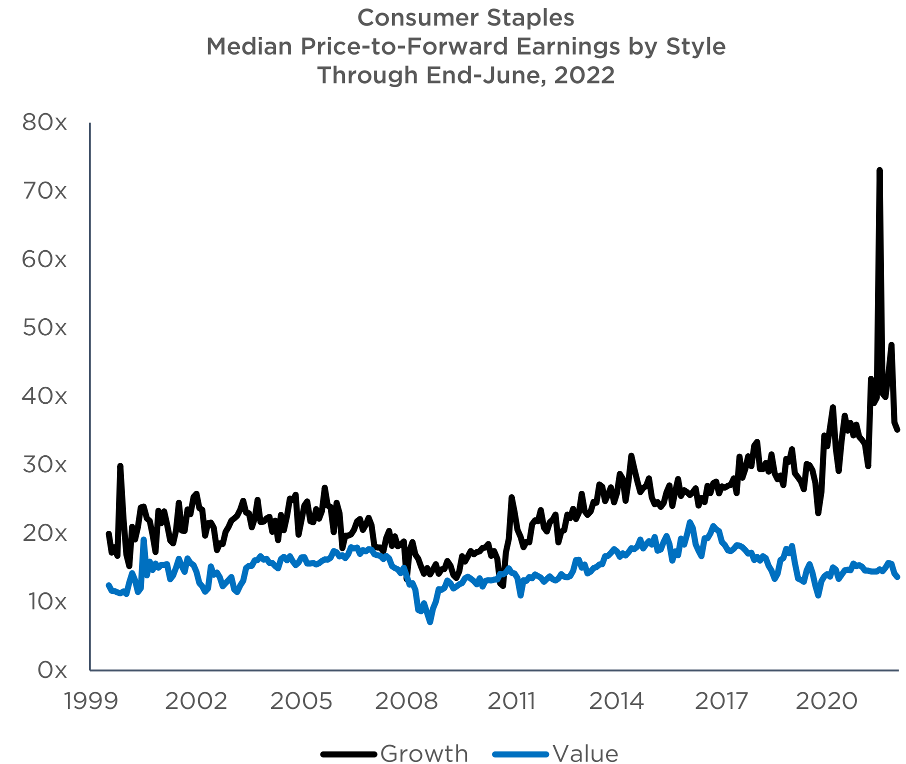
# CONSUMER GROWTH STOCKS STILL EXPENSIVE, VALUE CHEAP

We broke down the consumer discretionary and staples sectors to see margin potential or valuation has been discounted differently than in the past. For discretionary (left) value stocks trade at historically low multiples, and the recent growth stock correction has not caused discretionary growth stocks to see multiples anywhere near historically average levels. For staples (right), price-to-forward earnings levels appear average for value stocks, but the valuation for growth stocks remains elevated.





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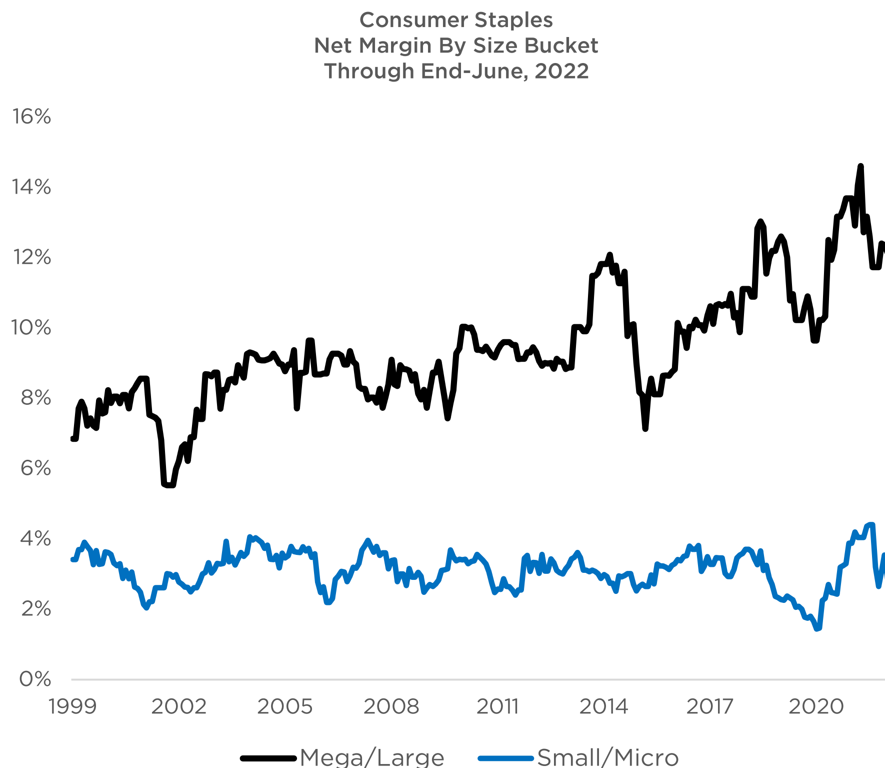
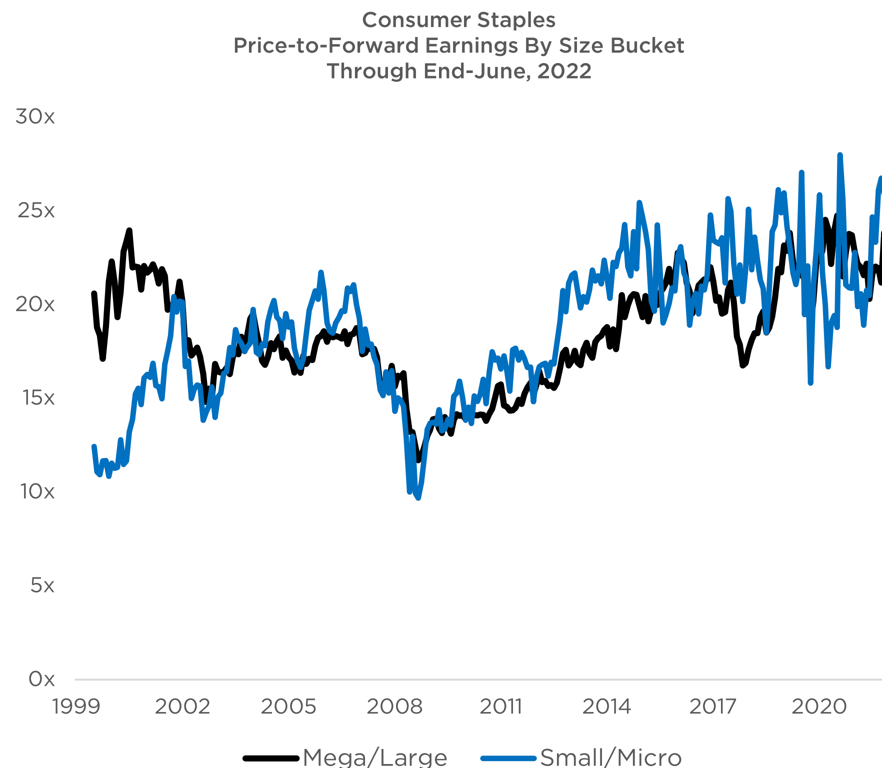
# MEGA CAP STAPLES LIKELY HAVE A PENDING MARGIN CORRECTION

Like the highest quality bucket, the profitability for the mega / large staples has also expanded over time (left). With rising input costs, high US wages, and a stronger dollar, we see margins for mega / large cap staples as at risk of a correction. Despite this, the price-to-forward earnings (right) for the whole complex remains elevated and has not corrected like the overall market year-to-date.





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# LONG IDEAS IN THE CONSUMER SPACE

Select Quantitatively Derived Consumer Longs
End-June, 2022

| Ticker | Company Name | Sector | Industry Group | Market Cap ($ US. Bil) | Comment |
|---|---|---|---|---|---|
| PM | Philip Morris International Inc. | Consumer Staples | Food, Beverage & Tobacco | 153.06 | Value with above 3% rev. growth + margin expansion |
| MDLZ | Mondelez International, Inc. | Consumer Staples | Food, Beverage & Tobacco | 85.93 | Value with above 3% rev. growth + margin expansion |
| TJX | The TJX Companies, Inc. | Consumer Discretionary | Retailing | 65.44 | Junk with margin expansion and revenue growth |
| HRL | Hormel Foods Corporation | Consumer Staples | Food, Beverage & Tobacco | 25.86 | Value with above 3% rev. growth + margin expansion |
| BG | Bunge Limited | Consumer Staples | Food, Beverage & Tobacco | 13.76 | Value with above 3% rev. growth + margin expansion |
| KMX | CarMax, Inc. | Consumer Discretionary | Retailing | 14.40 | Junk with margin expansion and revenue growth |
| CAG | Conagra Brands, Inc. | Consumer Staples | Food, Beverage & Tobacco | 16.43 | Value with above 3% rev. growth + margin expansion |
| DRI | Darden Restaurants, Inc. | Consumer Discretionary | Consumer Services | 14.11 | Junk with margin expansion and revenue growth |
| MGM | MGM Resorts International | Consumer Discretionary | Consumer Services | 12.33 | Junk with margin expansion and revenue growth |
| HAS | Hasbro, Inc. | Consumer Discretionary | Consumer Durables & Apparel | 11.42 | Junk with margin expansion and revenue growth |
| ARMK | Aramark | Consumer Discretionary | Consumer Services | 7.88 | Junk with margin expansion and revenue growth |
| INGR | Ingredion Incorporated | Consumer Staples | Food, Beverage & Tobacco | 5.84 | Value with above 3% rev. growth + margin expansion |
| TNL | Travel + Leisure Co. | Consumer Discretionary | Consumer Services | 3.31 | Cheap Value with forecasted revenue growth |
| AEO | American Eagle Outfitters, Inc. | Consumer Discretionary | Retailing | 1.89 | Cheap Value with forecasted revenue growth |


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# SHORT IDEAS IN THE CONSUMER SPACE

**Select Quantitatively Derived Consumer Shorts**
**End-June, 2022**

| Ticker | Company Name | Sector | Industry Group | Market Cap ($ US. Bil) | Comment |
|---|---|---|---|---|---|
| CLX | The Clorox Company | Consumer Staples | Household & Personal Products | 17.35 | Expensive Junk with Low Revenue Growth |
| GME | GameStop Corp. | Consumer Discretionary | Retailing | 9.26 | > 20x PEF or neg. earning + grows rev. less than 10% |
| BURL | Burlington Stores, Inc. | Consumer Discretionary | Retailing | 8.95 | > 20x PEF or neg. earning + grows rev. less than 10% |
| CHDN | Churchill Downs Incorporated | Consumer Discretionary | Consumer Services | 7.16 | > 20x PEF or neg. earning + grows rev. less than 10% |
| W | Wayfair Inc. | Consumer Discretionary | Retailing | 4.58 | > 20x PEF or neg. earning + grows rev. less than 10% |
| SMPL | The Simply Good Foods Company | Consumer Staples | Food, Beverage & Tobacco | 3.79 | Expensive growth |
| MED | Medifast, Inc. | Consumer Staples | Household & Personal Products | 2.07 | Expensive growth |
| SKIN | The Beauty Health Company | Consumer Staples | Household & Personal Products | 1.94 | Expensive growth |
| BGS | B&G Foods, Inc. | Consumer Staples | Food, Beverage & Tobacco | 1.64 | Expensive Junk with Low Revenue Growth |
| ELF | e.l.f. Beauty, Inc. | Consumer Staples | Household & Personal Products | 1.60 | Expensive growth |
| SPTN | SpartanNash Company | Consumer Staples | Food & Staples Retailing | 1.09 | Expensive Junk with Low Revenue Growth |
| SFIX | Stitch Fix, Inc. | Consumer Discretionary | Retailing | 0.53 | > 20x PEF or neg. earning + grows rev. less than 10% |
| RAD | Rite Aid Corporation | Consumer Staples | Food & Staples Retailing | 0.38 | Expensive Junk with Low Revenue Growth |
| VITL | Vital Farms, Inc. | Consumer Staples | Food, Beverage & Tobacco | 0.36 | Expensive growth |


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# CONTROVERSIES AND VARIABLES TO MONITOR FOR BANKS

We took a detailed look at the banks sector and research key investment controversies:

1. **Gross Exposure:** Our quantitative models work better at discriminating banks stocks when financial conditions are loosening, however, financial conditions have tightened over the past couple of months and at pre-COVID lows. Average pairwise bank stock correlations are near all-time highs, company-specific risk has risen for the banks but is still low –so stock-picking is challenging.
2. **Long-term vs. short-term valuation:** While banks remain relatively cheap vs. their own history on price-to-tangible book, multiples have expanded substantially more than actual book value has grown since the 10-year yield bottomed in August of 2020, meaning investors have been anticipatory of fundamentals.
3. **Growth vs. expenses:** While NIMs have expanded and loan growth is strong, expenses have materially risen. Our conclusion is that **large banks look more attractive than small**, with balance sheets that have improved more without a commensurate improvement in relative valuation particularly given their weakness over the last several months. We would continue to monitor financial conditions, the savings rate, and loan growth as three key variables to see whether growth can improve for the group. Our judgment is to prefer the Big 8 banks to the broader universe of banks, as their improved income statements and balance sheets should command an increasing premium to the regionals – though we retain a cautious overall stance on the group.


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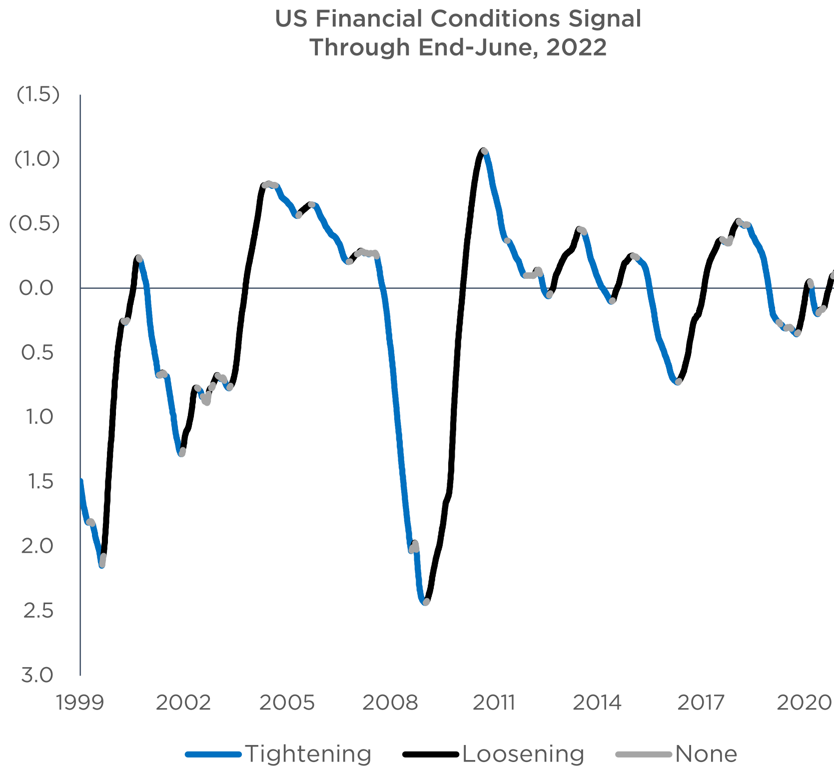
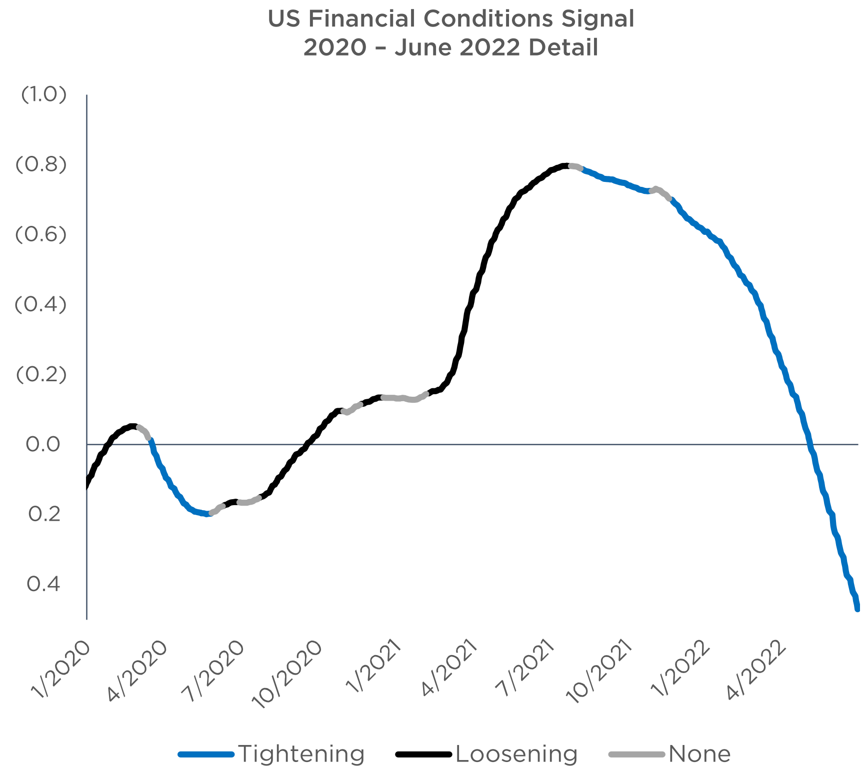
# FINANCIAL CONDITIONS ARE TIGHTENING AGAIN

We evaluate financial conditions by combining credit spreads, mortgage rates, US Treasury volatility, the Bloomberg Financial Conditions Index, and other signals. We intentionally try to create a slower moving signal so that we are not over-reacting to shorter term moves in financial conditions. Today, conditions are tightening to levels last seen near the COVID lows (left). The zoomed in chart of the last two and a half years (right) shows the "risk-off" trend since the Fall of 2021.





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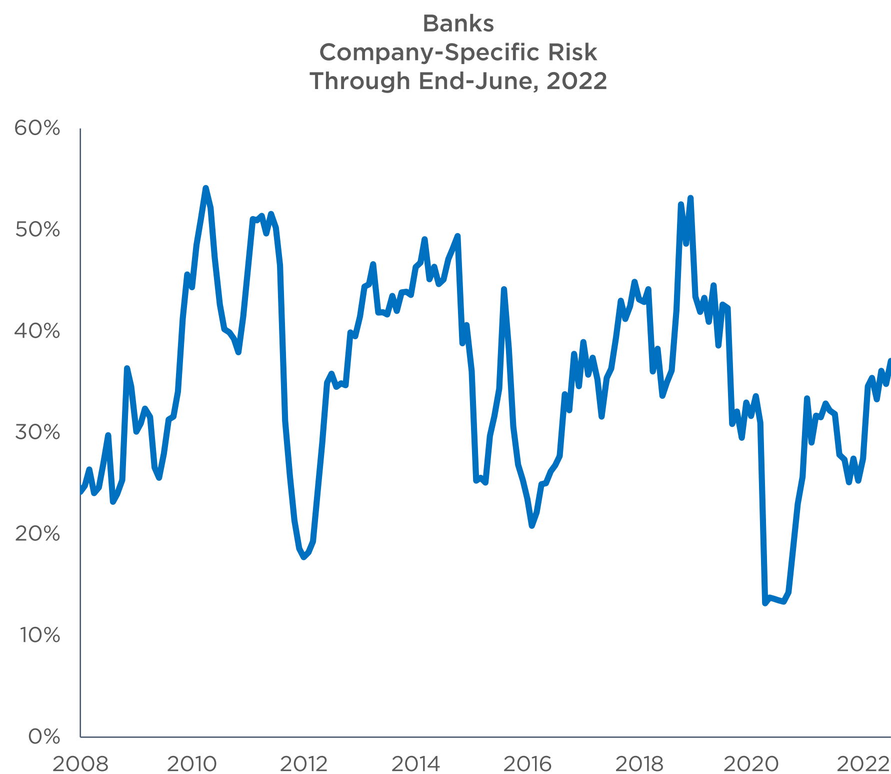
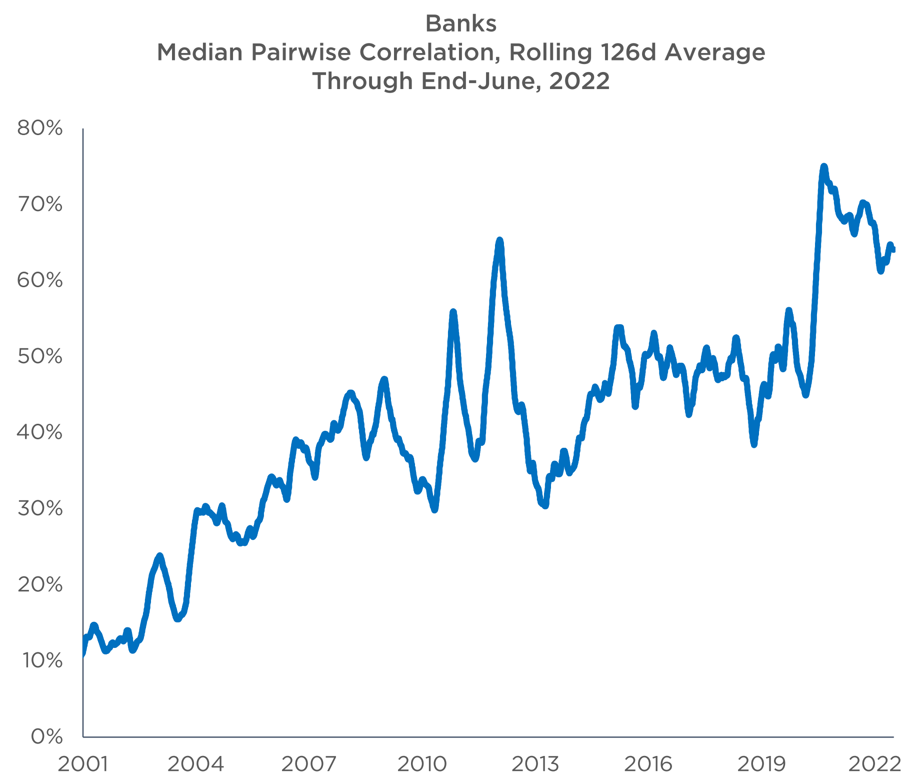
# OTHER DATA SUGGEST STOCK SELECTION IN BANKS IS TOUGH TODAY

Company-specific risk for banks is roughly average for banks, below that of the overall market average (left chart). The average pairwise return correlation of banks is currently 0.6 on a twenty-year trend of higher correlation that was only 0.1 following the TMT crisis (right chart). This makes the group an increasingly macro call.





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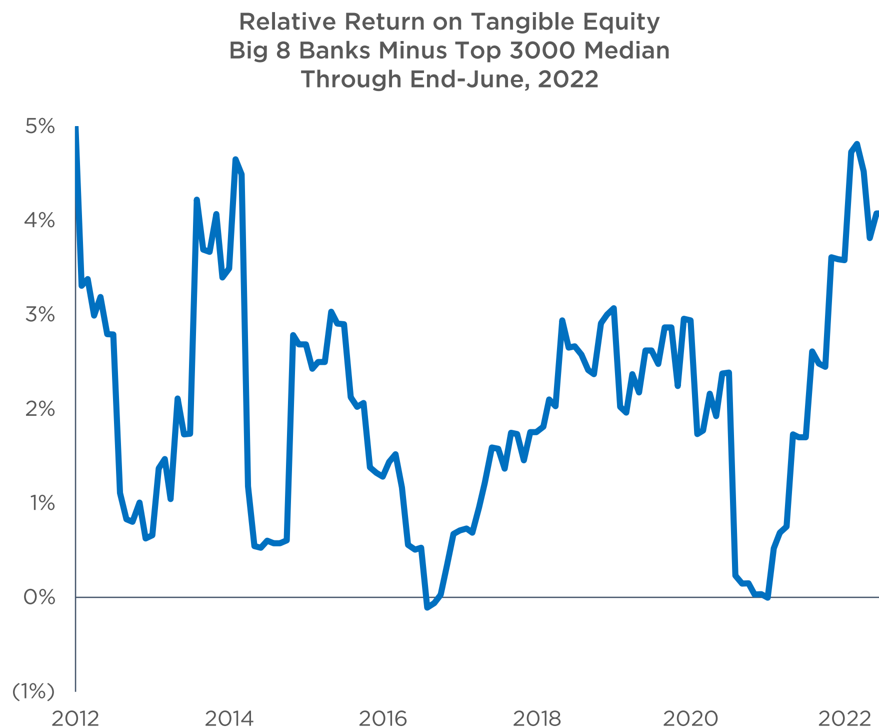
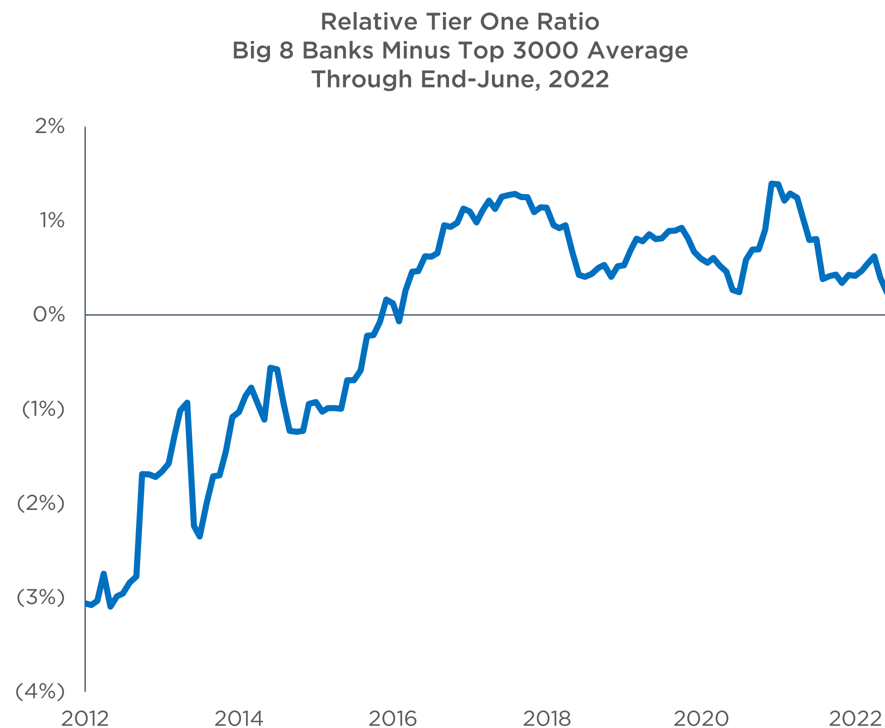
# THE BIG 8: INCOME STATEMENT AND BALANCE SHEET IMPROVEMENT

The largest 8 banks (JPM, WFC, C, BAC, USB, PNC, GS, and MS) have markedly improved both their profitability and balance sheets over the last several years, on average better than the broader bank universe on both metrics – though costs impacted this trend the last two quarters. Nonetheless, return on tangible equity (left chart) is still elevated relative to the rest of banks (median ROTE of the Big 8 is now 18.4% vs 14.5% for the larger universe). The Big 8 have also improved their balance sheets over time, with what appears to be a sustainably higher Tier 1 Ratio than the broader group of banks (right chart). Our work shows relative valuations do not reflect the better financials.





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# STOCK IDEAS BASED ON VALUATION AND GROWTH

Among the large banks (left), WFC, USB, and C are cheap relative to their own history. Stocks with substantial multiple expansion relative to book growth are shown on the right as potential short ideas.

**Big 8 Banks**
**Price-to-Tangible Book Percentile vs. History**
**Through End-June, 2022**

| Ticker | Company Name | Market Cap ($ US. Bil) | Price-to-Tangible Book | Percentile vs. History |
|---|---|---|---|---|
| JPM | JPMorgan Chase & Co. | 330.74 | 1.64 | 39.1% |
| BAC | Bank of America Corporation | 250.81 | 1.47 | 40.6% |
| WFC | Wells Fargo & Company | 148.47 | 1.10 | 4.3% |
| MS | Morgan Stanley | 133.05 | 1.90 | 56.9% |
| GS | The Goldman Sachs Group, Inc. | 97.49 | 0.99 | 17.3% |
| C | Citigroup Inc. | 89.31 | 0.58 | 4.3% |
| USB | U.S. Bancorp | 68.37 | 2.05 | 4.3% |
| PNC | The PNC Financial Services Group, Inc. | 65.25 | 1.96 | 48.2% |

**Banks Stocks with Relatively Weak Tangible Book Growth**
**That Have Also Seen Material Price-to-Tangible Book Multiple Expansion**
**August 4th, 2020 Through End-June, 2022**

| Ticker | Company Name | Market Cap ($ US. Bil) | Book Value Growth | Price-to-Tangible Book Growth |
|---|---|---|---|---|
| TFC | Truist Financial Corporation | 63.15 | (18.3%) | 54.3% |
| FITB | Fifth Third Bancorp | 23.05 | (16.9%) | 99.9% |
| CFG | Citizens Financial Group, Inc. | 17.68 | (4.3%) | 78.8% |
| RF | Regions Financial Corporation | 17.52 | (12.6%) | 95.1% |
| KEY | KeyCorp | 16.07 | (17.0%) | 64.1% |
| CMA | Comerica Incorporated | 9.6 | (11.4%) | 105.7% |
| CBSH | Commerce Bancshares, Inc. | 7.93 | (8.1%) | 34.7% |
| ZION | Zions Bancorporation, National Association | 7.7 | (19.3%) | 80.6% |
| CFR | Cullen/Frost Bankers, Inc. | 7.46 | (11.2%) | 87.3% |
| BPOP | Popular, Inc. | 5.89 | (22.7%) | 148.9% |
| FFIN | First Financial Bankshares, Inc. | 5.57 | (7.2%) | 42.0% |
| SNV | Synovus Financial Corp. | 5.24 | (4.2%) | 86.9% |
| BOKF | BOK Financial Corporation | 5.15 | (5.3%) | 40.9% |
| UMBF | UMB Financial Corporation | 4.17 | (0.8%) | 77.7% |
| CBU | Community Bank System, Inc. | 3.41 | (19.5%) | 46.7% |
| PACW | PacWest Bancorp | 3.07 | (6.0%) | 53.5% |


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# RESEARCH SUMMARY FOR SEMICONDUCTORS AND SOFTWARE

Most of our recent research has led us to believe that gross margin expansion above consensus expectations is crucial for success at this point in the cycle and has been important for identifying compounders over the last decade. Back on October 1, 2002, we initiated as the US Semiconductor analyst at Sanford C. Bernstein & Co, with a note title "Share Gainers and Margin Expanders Are Multiple Expanders". Nearly 20 years later we wanted to research the relevance of share gain and margin expansion in software and semis to identify dislocated stocks that may signal an investment opportunity.

There is clearly some tension in the market on these key areas of technology, with high options activity and recent volatility reflecting supply chain concerns, etc. Going "back to the basics" of revenue growth vs. peers and margin expansion seems timely today. As such, we split each sector into high and low gross margin peer groups to account for substantial business model differences and searched for investment opportunities.

**Semiconductors:** Gross margin expansion is more important than share gain for both high and low gross margin chip makers. Multiple expansion / contraction and price momentum help us further refine the stock ideas. **Given the pullback in semis this year, we think the risk-reward is now getting attractive for many of these essential and high-quality businesses that do not have perishable inventory.**

**Software:** Revenue growth matters more than gross margin expansion among high gross margin companies. The only thing that matters for low gross margin software companies is improving gross margins.

Please contact us for stock ideas.


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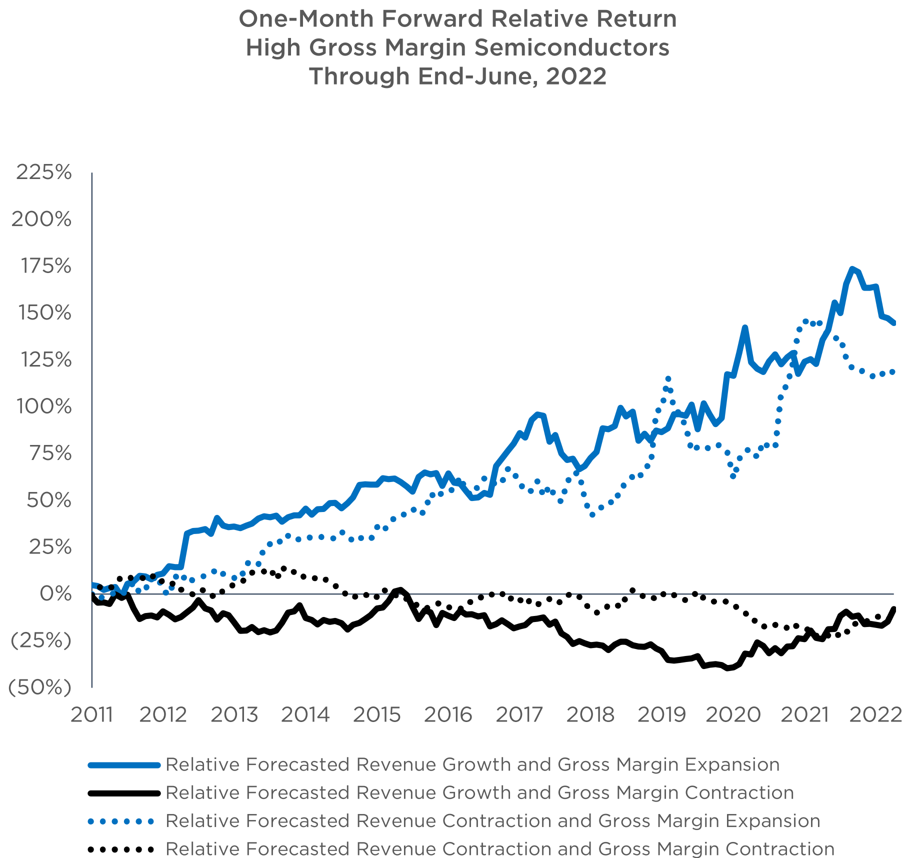
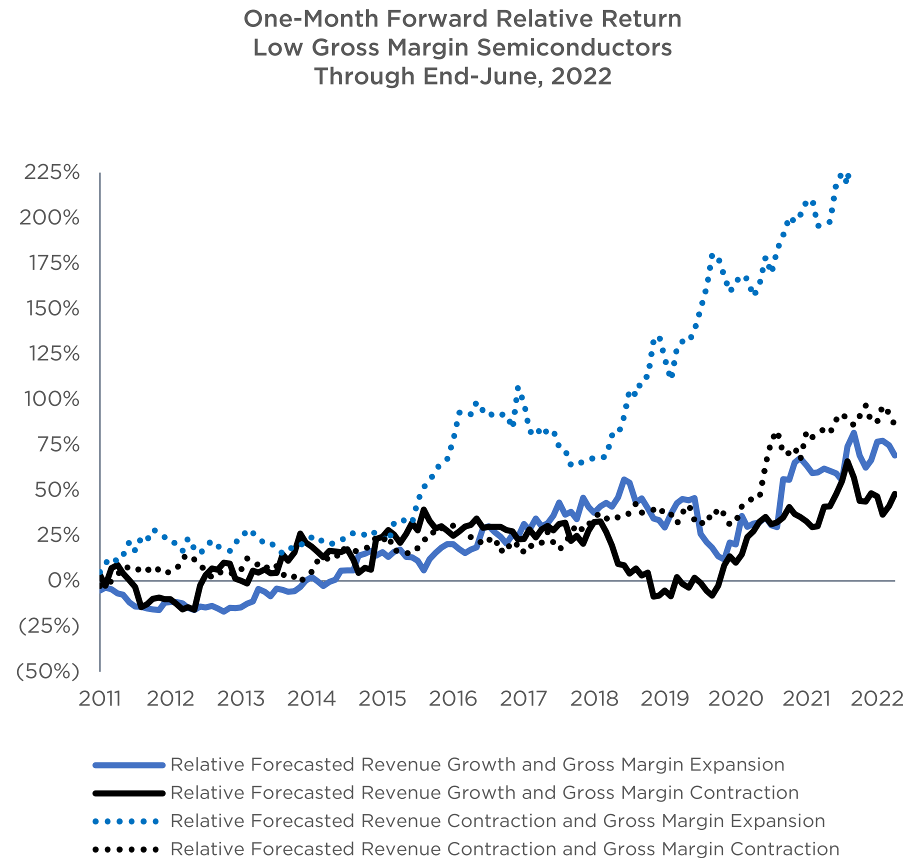
# MARGIN EXPANSION MORE IMPORTANT THAN SHARE GAIN FOR CHIPS

Combining share gain / loss and margin expansion / contraction, we notice that among high margin semis (left chart) margin contraction is punished, independent of the forecasted revenue outlook, and margin expansion is rewarded. For low margin chip makers (right chart), forecasted share loss and gross margin expansion yields by far the best return – meaning the market wants low margin companies to chase higher margin revenue and improve their mix.





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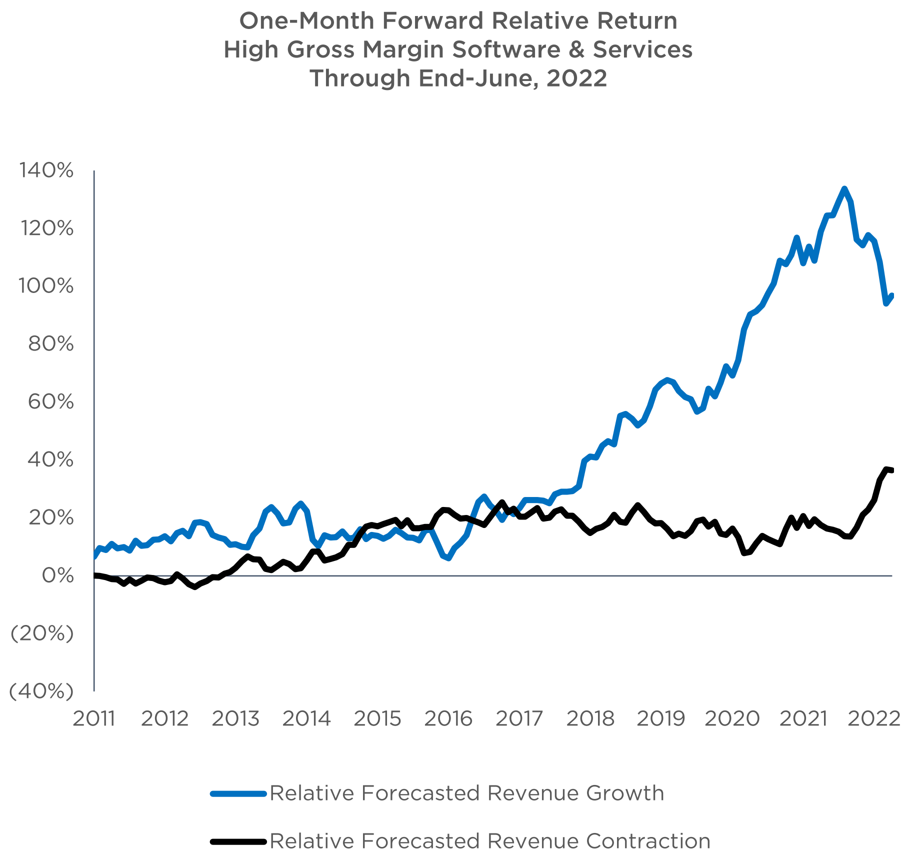
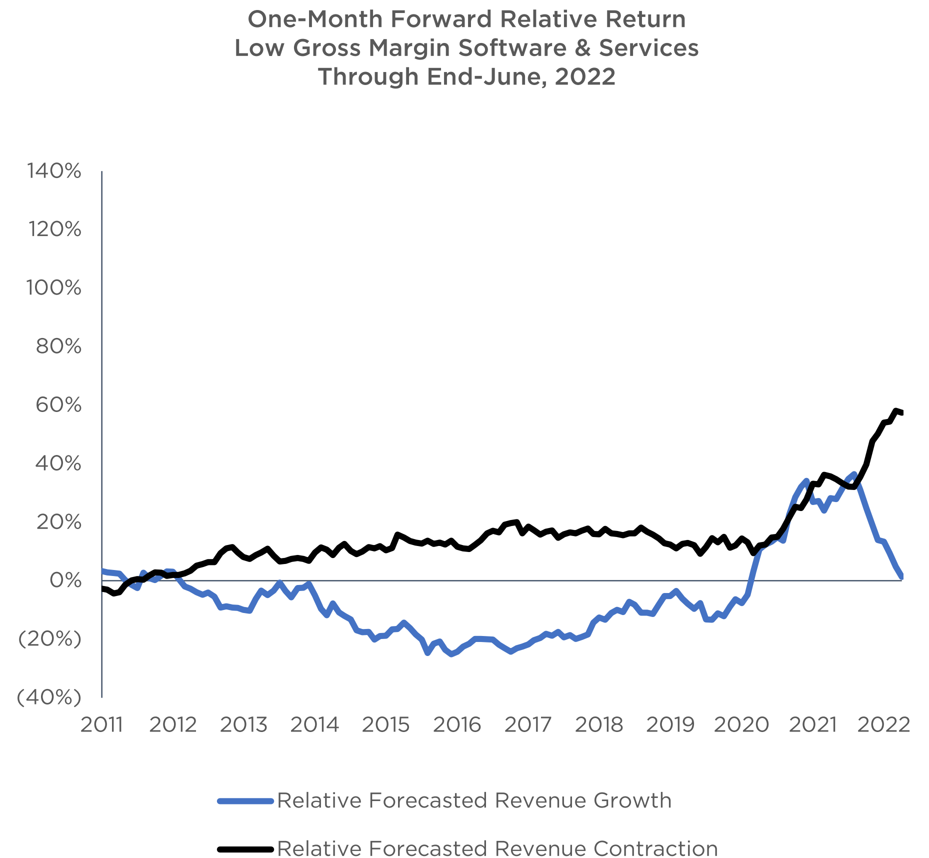
# SHARE GAIN IS IMPORTANT FOR HIGH MARGIN SOFTWARE

For high gross margin software companies, it is extremely important for forecasted revenue growth to be faster than average (left chart), with strong outperformance for share gainers among the high margin software companies relative to those high margin software companies forecasted to be share losers.  The recent growth scare caused a correction. Low gross margin software companies are generally weak stocks, whether forecasted revenue is high or low (right chart).



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# SUMMARY AND CONCLUSIONS FOR INDUSTRIALS

We are negative on the industrials sector relative to the market and would initiate new shorts, or sell down large long positions now

1. **Macro softening:** Our proprietary gauge of macro indicators of industrial activity shows a softening of late after a huge recovery since March of 2020. Transportation metrics have slowed, with truck orders, dry van rate per mile, and total carloads all softer.
2. **Earnings expectations are high:** Despite the softening of macro data, bottom-up analyst earnings estimates for the GICS industrial sector appear to embed sustained economic strength, with above 20% YoY earnings growth forecasted each quarter through 2022, among the highest of any sector.
3. **Inventory not lean:** While there have been ample supply-chain shortages and logistics problems for many manufacturers, our judgment is that inventory levels for the industrials companies themselves are average.
4. **Group is expensive:** Valuations have become elevated, so unlike materials and energy which are cheap on peak earnings, many / most of the industrials' industries are in the 95th percentile or higher vs. their own history on EV-to-EBITDA.
5. **Use margin expectations to find short ideas:** Therefore, it appears that the key to investing today will be further margin expansion. Our judgment is to short stocks where incremental margin expectations are high.


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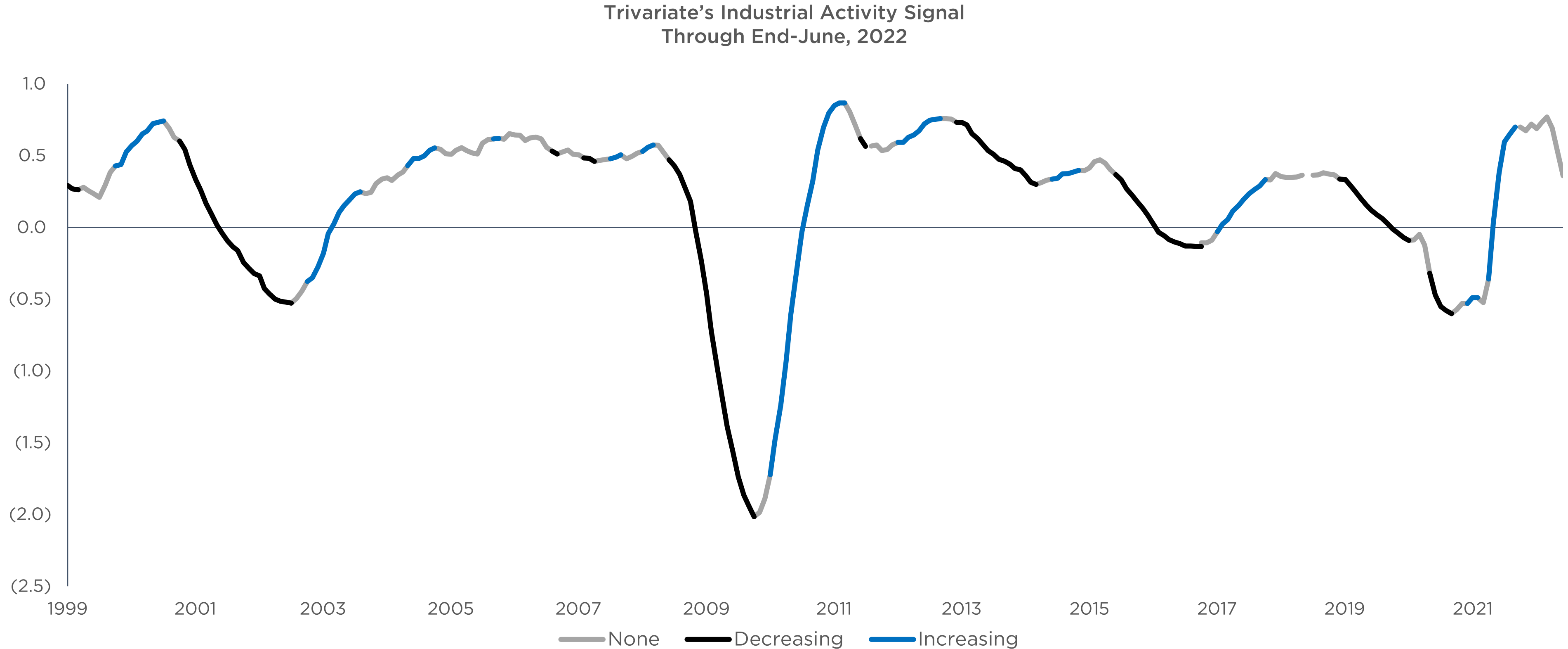
# OUR INDUSTRIAL ACTIVITY GAUGE IS ON THE DECLINE

Our industrial activity gauge, which is a broad-based combination of several metrics like C&I loans, Baker Hughes rig count, private nonresidential construction, capacity utilization, new orders of durable goods, PMI, industrial production, sharply rolled over last Fall. We expect this gauge to move from its neutral “none” state to decreasing shortly.



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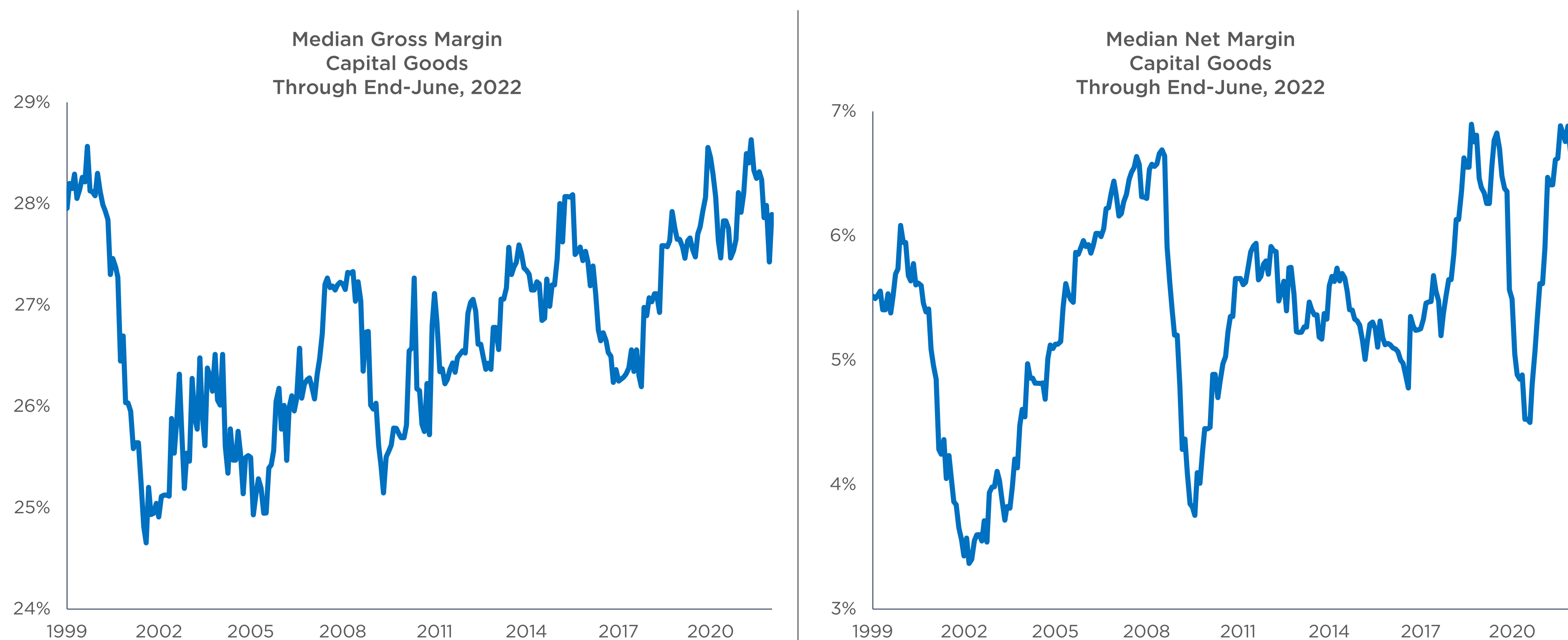
# CAPITAL GOODS PROFITABILITY HAS RECOVERED

Within industrials, profitability (gross margin) had reached 20-year highs for the Capital Goods industry group, which makes up over 65% of industrials names with market capitalization over $1 billion (left chart). Net margins have remained near peaks (right chart). With forward estimates for earnings growth strong even from these peak levels, it seems clear to us that stronger industrial activity and limited headwinds to future profitability will need to emerge for these forecast to be realized – and that does not seem likely to us. In our judgment, industrials have the worst estimate achievability of any part of the market.



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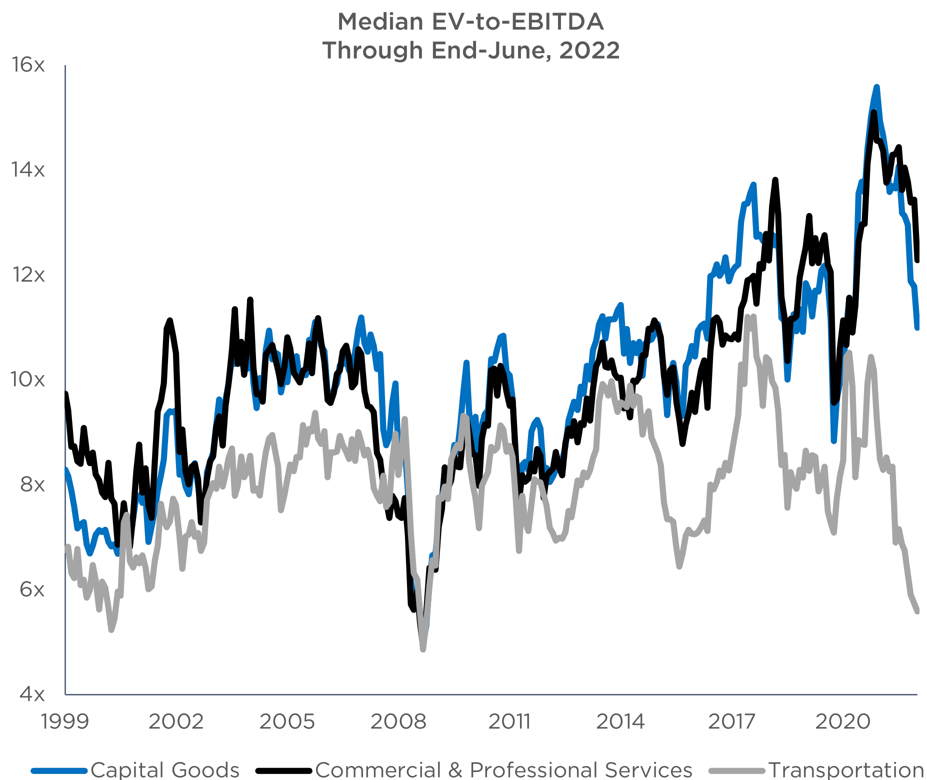
# INDUSTRIALS HAVE BELOW AVERAGE ESTIMATE ACHIEVABILITY

While other cyclicals like materials and energy have seen sharp multiple contraction as there is a view that they are likely dramatically over-earning, we have just started to see this the last few months for industrials. Elevated EV-to-EBITDA (left chart) multiples across capital goods and professional have now started to decline. Conglomerates, commercial and professional services, machinery, and electrical equipment remain expensive vs. their own history (right chart). Airlines are an exception.




**Median EV-to-EBITDA**
**Percentile Rank vs. History**
**End-June, 2022**

| Industrials GICS Industry | Rank |
|---|---|
| Commercial Services & Supplies | 90.6% |
| Machinery | 81.9% |
| Professional Services | 81.2% |
| Aerospace & Defense | 79.7% |
| Industrial Conglomerates | 76.4% |
| Construction & Engineering | 72.5% |
| Trading Companies & Distributors | 53.6% |
| Building Products | 53.3% |
| Transportation Infrastructure | 12.3% |
| Airlines | 7.2% |
| Road & Rail | 6.5% |
| Air Freight & Logistics | 6.5% |
| Electrical Equipment | 1.1% |
| Marine | 0.0% |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# SHORT IDEAS: IT ALL COMES DOWN TO MARGIN EXPECTATIONS

Our conclusion therefore is to underweight non-growth industrials with near-record profit margins that are forecasted to have improved profitability next year despite the industrial activity roll-over (left chart), or those with high incremental gross margin expectations that screen badly in our quantitative models (right chart). We think these are good places to search for short / underweight ideas.

**High 2022 Incremental Margin Forecasts and Already At / Near Record Profitability End-June, 2022**

| Ticker | Company | Industry Group | Market Cap. (US$ Bil.) |
|---|---|---|---|
| DE | Deere & Company | Machinery | 91.53 |
| RSG | Republic Services, Inc. | Commercial Serv. & Supp. | 41.34 |
| CTAS | Cintas Corporation | Commercial Serv. & Supp. | 38.22 |
| PH | Parker-Hannifin Corporation | Machinery | 31.59 |
| FTV | Fortive Corporation | Machinery | 19.49 |
| WAB | Westinghouse Air Brake Tech. | Machinery | 14.99 |
| CSL | Carlisle Companies Incorporated | Building Products | 12.3 |
| WSO | Watsco, Inc. | Trading Companies & Dist. | 8.51 |
| AGCO | AGCO Corporation | Machinery | 7.36 |
| XPO | XPO Logistics, Inc. | Road & Rail | 5.54 |
| WCC | WESCO International, Inc. | Trading Companies & Dist. | 5.43 |
| SSD | Simpson Manufacturing Co., Inc. | Building Products | 4.34 |
| WTS | Watts Water Technologies, Inc. | Machinery | 4.11 |
| AIT | Applied Industrial Tech. | Trading Companies & Dist. | 3.7 |
| AWI | Armstrong World Industries, Inc. | Building Products | 3.52 |
| ABM | ABM Industries Incorporated | Commercial Serv. & Supp. | 2.9 |
| NPO | EnPro Industries, Inc. | Machinery | 1.7 |

**High Forecasted Incremental Margins vs. Current Gross Margins Bottom Half of Trivariate Quantitative Model End-June, 2022**

| Ticker | Company | Industry Group | Market Cap. (US$ Bil.) |
|---|---|---|---|
| CAT | Caterpillar Inc. | Machinery | 95.35 |
| JCI | Johnson Controls International plc | Building Products | 33.31 |
| TT | Trane Technologies plc | Building Products | 30.37 |
| FTV | Fortive Corporation | Machinery | 19.49 |
| IR | Ingersoll Rand Inc. | Machinery | 17.08 |
| SWK | Stanley Black & Decker, Inc. | Machinery | 15.83 |
| CNHI | CNH Industrial N.V. | Machinery | 15.69 |
| WAB | Westinghouse Air Brake Technologies Corporation | Machinery | 14.99 |
| MAS | Masco Corporation | Building Products | 11.94 |


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