TRIVARIATE RESEARCH

WHAT REALLY HAPPENED IN Q2

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A MUST READ TO UNDERSTAND TODAY'S US STOCK MARKET

At the start of each quarter, we compile a detailed summary of the recently completed quarter with the goal of helping investors make better investment decisions, in addition to insights that will facilitate investor communications, client conversations, and quarterly letters. Furthermore, this report seeks to identify and monitor emerging risk management concerns. We created this methodology to inform the letters we wrote while previously running our hedge fund. We have organized today's work into six distinct areas to facilitate understanding:

1. **Performance facts:** Indices, cohorts, sectors and industries, specialty baskets, biggest performers and contributors
2. **Factor efficacy:** Overall, within sector, and any substantial changes or reversals
3. **Opportunity set:** Which areas of the market were increasingly better for potential alpha generation, insights generated by assessing changes to company-specific risk, valuation dispersion, and pairwise correlations
4. **Corporate profitability:** Where were the biggest changes to the earnings outlook from the beginning to end of the quarter by sector, and how do we gauge estimate achievability
5. **Macro / Economic:** What happened to level and change for US economic activity, consumer activity, financial conditions / interest rates, industrial activity, commodities / oil, the dollar, Chinese and European economigies during the previous quarter
6. **13F filings & insider transactions:** Which managers increased / decreased ownership stakes in high conviction stocks, and which stocks saw increased/decreased open market insider buys/sells

A HISTORICALLY BAD Q2 WHERE THE TYPICAL PLAYBOOK FAILED

Historically bad quarter: Q2 was volatile, with the SP500 down 16.1%, the Russell 2000 down 17.2% and the Nasdaq down 22.4%. We looked at the last 95 years – 370 quarters – of SP500 stock returns. Only about 4% of quarters were worse than Q2, and other than one quarter in TMT, one in GFC, and one in COVID, this was the worst quarter since the October 87 crash. This was the fifth worst quarter in the last 200 quarters.

Avoiding hyper-growth didn't help: Many investors thought if they owned growth stocks that were profitable and avoided the hyper-growth (the fastest growing revenue and earnings part of that universe) where much of the value is long-dated, that would offer protection. The growth universe was down 27.5% in the quarter on an equally-weighted basis, and hyper growth was down 26.9%. So, avoiding the faster growers where more of the value is in the terminal value, did not offer protection.

Avoiding junk didn't help: High quality was down 15% vs. junk down 20%, less protection than we would have expected in a historic risk-off tape.

Avoiding smaller companies didn't help: Mega / large beat mid-cap by 0.8% during Q2. The SP500 strongly outperformed the R2K in 2021 and in Q1, but nonetheless we normally would have expected mega / large caps to have offered more safety in this environment.

Extremely cheap large cap was good: While value beat growth by 16.4% on an equal-weighted basis, only extremely cheap large-cap stocks – we call cheap for a reason – were close to flat (down 1.6%) while smaller extremely cheap stocks were down 11.9%.

STAPLES, UTILITIES, AND ENERGY LED, CONSUMER AND TECH LAGGED

At the sector level, staples, utilities, and energy performed best, consumer discretionary, technology, and comm. services worst on a cap-weighted basis. For industries, the only cap-weighted industry group up in absolute terms was telco services (up 4.1% as T, TMUS, and VZ were all up in absolute terms.) Large cap staples and pharma, and all utilities also performed well. Autos, semiconductors, and retailers were the worst performing industry groups.

Both the sector industry performance and the alpha potential went the wrong way for most traditionally-positioned hedge fund managers again during Q2, following the pattern we saw develop in Q1.

Sectors: The best performing sector was consumer staples (down 4.9% cap-weighted and 7.9% equally-weighted), followed by utilities (down 5.2% cap-weighted, 4.3% equally-weighted) and energy (down 6.1% cap-weighted and 11.1% equally-weighted). The worst performing was consumer discretionary (down 26.4% cap and down 25.0% equally-weighted), information technology (down 21.8% cap-weighted and 24.4% equally-weighted) and communication services (down 21.1% cap-weighted and 27.0% equally-weighted).

Industries: The only cap-weighted industry group up in absolute terms was telco services (up 4.1% as T, TMUS, and VZ were all up in absolute terms). Large cap staples and pharma, and all utilities also performed well. Autos, semiconductors, and retailers were performed poorly. On an equally-weighted basis, utilities and food, beverages, and tobacco performed best, media and entertainment, retailing, and software and services worst.

MEGA CAP TECH WAS BAD, VALUATION AS A SIGNAL REVERSED

While junk stocks did not materially lag quality stocks on a beta-adjusted basis in a down market the way we would have expected, the performance of "reopening" junk stocks was far worse than the performance of quality reopening stocks during Q2. **The market is now discriminating among the reopeners on quality**, with airlines, cruises, select banks all lagging. In fact, during Q2, the top quartile of quality reopening, beat the bottom quartile of reopening by the largest magnitude since COVID.

We show the best and worst performing stocks by return and by change in market cap. on slide 14. The top ten performing stocks by return with a market cap greater than $1 billion included 4 biotech, 3 energy, and HRB (during tax season). The worst performing were crypto-related stocks, former work-from-home darlings and those that were loved and disappointed on the profit outlook. **267 of the top 2000 US equities by market cap were down 33% or more during the quarter.**

The top five performing stocks by contribution (change in market cap.) include LLY, MRK, WBD, XOM, and IBM. Over 2.4 trillion dollars of cap was lost during Q2 between MSFT, AAPL, GOOGL, AMZN and TSLA.

We track the performance of over 250 signals and report the performance between buying the top and shorting the bottom quintile over the subsequent month and quarter. There were some meaningful reversals during the quarter. **Several valuation-based metrics were effective for the quarter overall and in the month of April but materially failed in the month of June.** High volatility stocks or those with high-liquidity consistently lagged. High forecasted revenue growth consistently lagged low forecasted revenue growth each month.

SOFTWARE AND SEMIS ARE THE LEAST IDIOSYNCRATIC INDUSTRIES

As was the case during the first quarter, the alpha environment was challenging for traditional hedge fund managers in Q2. Leading industries like teleco services and staples are low growth, and more often short candidates than core long holdings. Many don't even have an analyst to research utilities and energy – both of which outperformed. Moreover, many fund managers typically look to mega cap, non-hyper growth, and quality to outperform during a down tape, and as we mentioned, this combination failed to protect in Q2.

Valuation dispersion narrowed: We analyzed the dispersion of price-to-forward earnings (cross-sectional standard deviation) for each industry. 19 out of 24 industries saw dispersion narrow, and only 5 of 24 have wider dispersion than their long-term average today. Software saw among the most narrowing on dispersion but is still high vs. pre-COVID levels.

Pairwise correlations rose: Median pairwise correlation levels rose in 22 of 24 industries (excluding energy, utilities) during Q2, and in all 24 industries in June vs. May. For many industries (semis, software, biotech, retail) the rising pairwise correlations were in the top 5% we have seen in 25 years. Typically falling not rising correlations are better for alpha.

Company-specific risk declined: Macro explained more of the averages stock's returns in most areas, as our proprietary gauge of company-specific risk fell in all but 3 of 24 industries. Banks got less macro, but still have low company-specific risk in absolute terms. **On the contrary, semiconductors and software are now the two most macro industries (of the 24 total) in the stock market. The days of growth managers saying they are bottom-up stock pickers and do not do macro are officially over.** Typically, high and rising (not low and falling) company-specific risk is better for bottom-up stock pickers.

MACRO HAS SOFTENED BUT EARNINGS ESTIMATES ARE HIGHER

The main issue that became abundantly obvious in Q2 is that while macro conditions have deteriorated the earnings expectations increased:

Earnings rose for the full year: Due to upward revisions that began in the April earnings season, full year earnings expectations rose another 1.3% during Q2 from ($230.57 vs. $227.58) despite the obvious decline in macro conditions. Energy estimates for 2022 are 37% higher than they were on April 1st, Since the start of Q2, the biggest downward revisions were in consumer discretionary and communication services, the biggest upward revisions in energy, and REITS.

The macro data clearly deteriorated in Q2: Strong economic activity in 2021 moved to a peaking in Q1 and now is declining during the second quarter. Leading Economic Indicators are lower, NFIB Small Business Optimism, CEO confidence and the Philly Fed Business Outlook all declined during Q2. As a result, expectations for 2022 YoY GDP are now 2.5%, down from 3.5% at the start of the quarter. Our consumer activity gauge peaked in Q2 after remaining strong due to jobs and wages in previous quarters. Lower consumer confidence during the quarter was a key driver and is likely due to persistent inflation and higher 30-year fixed mortgages.

Commodities mixed to higher: Brent oil was up 6% during Q2, after rising nearly 40% during Q1. The Daily National Average Gasoline Price rose 15% during Q2. Natural gas finished roughly flat from the start of the quarter, but rose 65% to $9.32 on June 6th, and is now down 42% since the peak. Agricultural commodities are mixed, with soy and corn among those higher QoQ, and sugar and cotton lower.

CONVICTION CHANGED IN SOME WELL-KNOWN NAMES

Conviction changes: During Q2, PRM, EQT, SPGI, UNH, MSFT, BC, HTZ, UNP, AR, TWTR, KURA, CHK, AVTR, SG, MRVL, APO were the stocks where at least two of our proprietary universe of 60 managers added new high conviction positions. The Trivariate definition of high conviction is managers that own more than 3% of their long AuM in a stock but did not three months ago. Among a broad group of over 500 managers, the most popular new high conviction positions include APO, TMUS, HTZ, PANW, ATVI, and HUBS. The most popular sales of formerly high conviction positions for our proprietary universe were CVNA, HUBS, DASH, EXPE, and GOOGL.

Among the broader universe of over 500 funds, SHOP, BHC, OKTA, NVDA, and JPM are a few conviction positions at the beginning of the quarter that were sold by more than five managers during Q2.

Insider activity: TPL, SXT, ED, OPK, CLB, CVNA were the stocks with the most insider buys during Q2. PARR, TALO, LLY, INTA, and AMWL all had more than 20 insider sells with no insider buys in the last three months. DUO (5 insider buys, 4 insider sells in Q2, GCP (4,4), VST (7,5), CHWY (3,5) were among the companies where management seemed conflicted.

ONLY 18 OF THE LAST 370 QUARTERS PERFORMED WORSE THAN Q2

We looked at the last 95 years – 370 quarters – of SP500 stock returns. Only about 4% of quarters were worse than Q2, and other than one quarter in TMT, one in GFC, and one in COVID, this was the worst quarter since the October 87 crash. This was the fifth worst quarter in the last 50 years. We show all the quarters that declined more in the last 100 years below.

SPX Quarters with Returns <= Q2, 2022
End-Q1, 1928 – End-Q2, 2022

Year	Quarter	SPX Return
2022	Q2	(16.1)%
1931	Q4	(16.4)%
1939	Q1	(16.4)%
1930	Q4	(17.5)%
2002	Q3	(17.6)%
1940	Q2	(18.1)%
1930	Q2	(18.6)%
1946	Q3	(18.8)%
1970	Q2	(18.9)%
1938	Q1	(19.4)%
2020	Q1	(20.0)%
1962	Q2	(21.3)%
2008	Q4	(22.6)%
1987	Q4	(23.2)%
1937	Q4	(23.3)%
1974	Q3	(26.1)%
1929	Q4	(28.9)%
1931	Q3	(34.5)%
1932	Q2	(39.4)%

LARGE-CAP, QUALITY, BUT NOT HYPER GROWTH PERFORMED POORLY

Very fast-growing stocks, we call "hyper growth" were down the same amount as the overall growth universe (27.5% vs. 26.9%) so growth managers thinking "I don't own go-go growth but quality growth" were not spared. While value beat growth by 16.4% on an equal-weighted basis, only large-cap extremely cheap stocks – we call cheap for a reason – were close to flat (down 1.6%) while smaller extremely cheap stocks were down 11.9%. High quality was down 15% vs. junk down 20%, perhaps less protection than might be typical in a big risk-off tape particularly since junk are higher beta. Mega / large cap really did not beat mid-cap by much (0.8%) on a cap-weighted basis.

Q2 2022 Portfolio Returns

Portfolio	Cap-Weighted Average Return	Simple Average Return	Difference
Long Value, Short Growth	17.3%	16.4%	1.0%
Cheap for a Reason	(1.6)%	(11.9)%	10.2%
Long Mega/Large, Short Mid Cap.	0.8%	2.5%	(1.7)%
High Dividend Yield	(8.3)%	(11.8)%	3.4%
Junk	(19.8)%	(21.7)%	1.9%
High Quality	(15.4)%	(14.7)%	(0.8)%
Growth	(25.2)%	(27.5)%	2.3%
Hyper Growth	(26.4)%	(26.9)%	0.6%

DEFENSIVE INDUSTRIES BEAT CYCLICAL ONES

At the sector level, staples, utilities, and energy were best, consumer discretionary, technology, and comm. services worst on a cap-weighted basis. For industries, the only cap-weighted industry up in absolute terms was telco services (up 4.1% as T, TMUS, and VZ were all up in absolute terms.) Large cap staples and pharma, and all utilities also performed well. Autos, semiconductors, and retailers were performed poorly. On an equally-weighted basis, utilities and food, beverages, and tobacco performed best, media and entertainment, retailing, and software and services worst.

Q2 2022 Select GICS Industry Group Returns

Industry	Cap-Weighted Average Return	Simple Average Return	Difference
Telecommunication Services	4.1%	(14.4)%	18.5%
Food, Beverage & Tobacco	(0.8)%	(7.0)%	6.2%
Household & Personal Products	(3.8)%	(11.0)%	7.1%
Pharma, Biotech. & Life Sciences	(4.2)%	(19.8)%	15.6%
Utilities	(5.2)%	(4.3)%	(0.9)%
Energy	(6.1)%	(11.1)%	5.0%
Software & Services	(20.1)%	(26.5)%	6.4%
Transportation	(21.3)%	(22.0)%	0.7%
Consumer Services	(21.9)%	(26.0)%	4.1%
Media & Entertainment	(24.7)%	(30.1)%	5.4%
Retailing	(25.5)%	(27.8)%	2.2%
Semiconductors & Semiconductor Equipment	(28.5)%	(24.1)%	(4.3)%
Automobiles & Components	(35.1)%	(21.7)%	(13.4)%

TRIVARIATE RISK METRICS THAT ARE IMPORTANT TO MONITOR

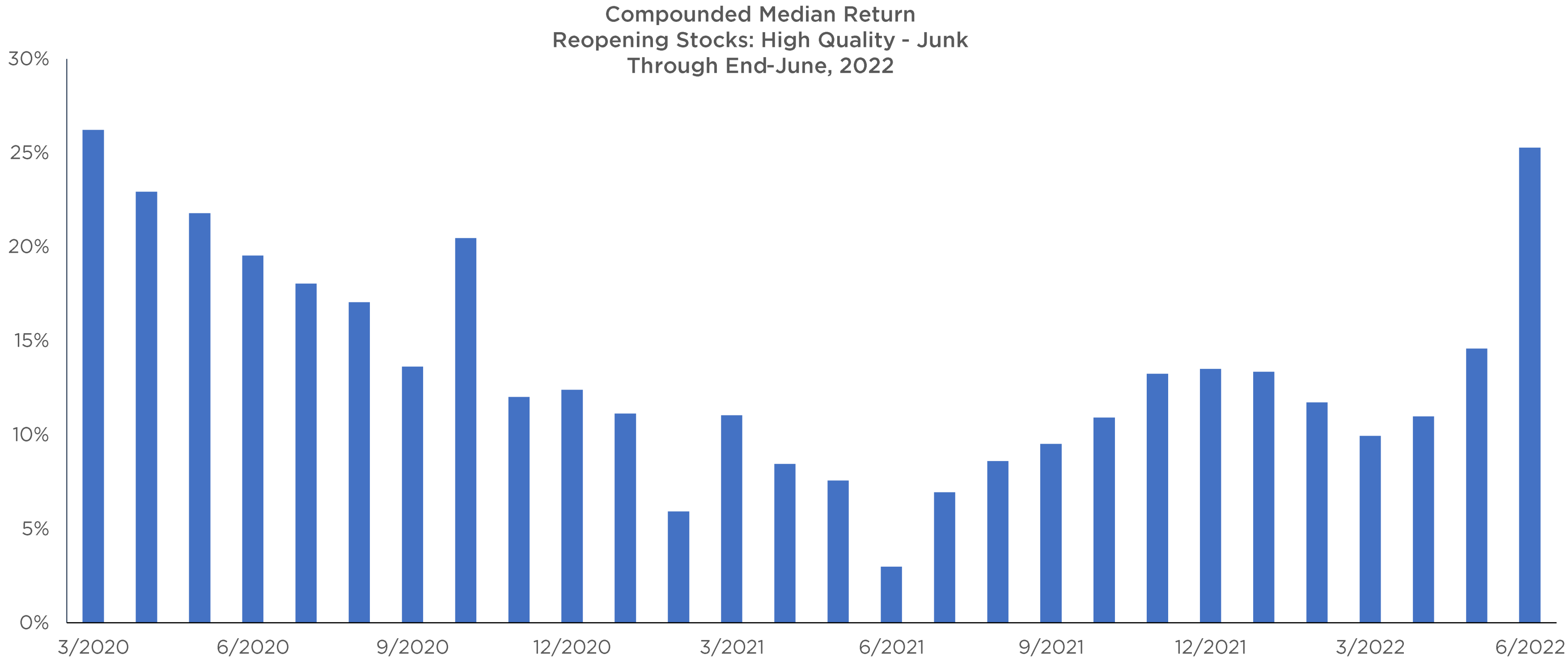
Reopening vs. work-from-home may no longer be an important risk factor. While inflation is guaranteed to stay high for some time, and the Fed was active, stocks with a high correlation to inflation did not beat the SP500 during Q2. Momentum was an effective quantitative signal.

Q2 2022 Select Portfolio Returns

Sector	Return	Observation
Work-From-Home	(26.0%)	As we approach 2.5 years from the onset of COVID, are reopening vs work-from-home exposure less relevant risks to monitor? Both baskets lagged the SP500 this quarter, as low-quality reopening (cruises, airlines, AMC) and classic work-from home (NFLX, ROKU) all performed badly.
Reopening	(21.5)%	
Inflation Basket	(19.8)%	The inflation basket performed roughly in-line with the SP500 during Q2, despite the "surprise" 75bps hike and multi-decade high CPI readings. Select regional banks, metals, and oil-services performed poorly in June. We think it is a mathematical certainty, fueled by owner's equivalent rent, that the CPI will stay elevated for some time – the question is when / whether the Fed will react to that with incremental dovish commentary.
12-Month Momentum	19.1%	We show Q1-Q5 spreads for these three different momentum metrics, and generally momentum was still efficacious at picking winners from losers within the quarter. Stocks that performed poorly the previous 6-12 months did not rebound vs. those that had performed well in Q2.
6-Month Momentum	16.7%	
3-Month Momentum	7.6%	

LOW QUALITY REOPENING STOCKS JUST HAD THEIR BIGGEST FAILURE

While junk did not really lag quality on a beta-adjusted basis in a down market the way we would have expected the performance of junk among reopening stocks was materially worse than the performance of quality reopening stocks. The market is now really discriminating among the reopeners on quality, with airlines, cruises, select banks all lagging. In fact, during Q2, the top quartile of quality reopening, beat the bottom quartile of reopening by the largest magnitude since COVID.



MEGA CAP TECH LOST OVER 2.4T IN Q2

We show the best and worst performing stocks by return (left) and by change in market cap. (right). The top ten performing stocks by return with a market cap greater than $1 billion included 4 biotech, 3 energy, and HRB (during tax season). The worst performing were crypto, former work-from-home darlings and those that were loved and disappointed on the profit outlook. **267 of the top 2000 US equities were down 33% or more during the quarter.** The top five performing stocks by contribution (change in market cap) include LLY, MRK, WBD, XOM, and IBM. Over 2.4 TRILLION dollars of cap was lost during Q2 between MSFT, AAPL, GOOGL, AMZN, and TSLA.

Q2 2022 Select Stock Total Returns

Ticker	Company	Q2 Total Return	June 30 Market Cap. (US$ Bil.)
TPTX	Turning Point Therapeutics, Inc.	180.3%	3.75
DAWN	Day One Biopharmaceuticals, Inc.	80.4%	1.31
SRRA	Sierra Oncology, Inc.	71.6%	1.34
STNG	Scorpio Tankers Inc.	62.0%	1.95
VHI	Valhi, Inc.	54.9%	1.28
HURN	Huron Consulting Group Inc.	41.9%	1.3
GFF	Griffon Corporation	40.4%	1.53
OLLI	Ollie's Bargain Outlet Holdings, Inc.	36.8%	3.67
HRB	H&R Block, Inc.	36.6%	5.64
CVI	CVR Energy, Inc.	32.9%	3.37
SI	Silvergate Capital Corporation	(64.4)%	1.69
PTON	Peloton Interactive, Inc.	(65.3)%	3.1
LYFT	Lyft, Inc.	(65.4)%	4.62
AUR	Aurora Innovation, Inc.	(65.8)%	2.17
MSTR	MicroStrategy Incorporated	(66.2)%	1.86
WRBY	Warby Parker Inc.	(66.7)%	1.29
GDRX	GoodRx Holdings, Inc.	(69.4)%	2.35
UPST	Upstart Holdings, Inc.	(71.0)%	2.68
COIN	Coinbase Global, Inc.	(75.2)%	10.44
CVNA	Carvana Co.	(81.1)%	2.39

Q2 2022 Select Stock Market Cap. Delta

Ticker	Company	Q2 Market Cap. Added (Lost) (US$ Bil.)	June 30 Market Cap. (US$ Bil.)
LLY	Eli Lilly and Company	33.45	291.86
MRK	Merck & Co., Inc.	23.15	230.55
WBD	Warner Bros. Discovery, Inc.	16.06	32.57
XOM	Exxon Mobil Corporation	11.17	360.82
IBM	International Business Machines Corporation	10.06	126.99
MSFT	Microsoft Corporation	(390.52)	1,920.84
GOOGL	Alphabet Inc.	(404.46)	1,437.61
TSLA	Tesla, Inc.	(415.78)	697.93
AMZN	Amazon.com, Inc.	(578.18)	1,080.62
AAPL	Apple Inc.	(636.70)	2,212.84

VALUATION METRICS REVERSED; GROWTH, HIGH LIQUIDITY LAGGED

We track the performance of over 250 signals and report the performance between buying the top and shorting the bottom quintile over the subsequent month and quarter. There were some meaningful reversals during the quarter. Several valuation-based metrics were effective in the month of April but materially failed in the month of June. High volatility stocks or those with high-liquidity consistently lagged. High forecasted revenue growth (a growth stock-proxy) consistently lagged low forecasted revenue growth each month of the quarter.

Top 5 Best and Worst Signals Each Month, Rebalanced Monthly (Top 500)

Signal	April Return	May Return	June Return	Total Return
6-Month Momentum Stability	11.8%	3.7%	3.2%	19.8%
Price-to-Operating Cash Flow	11.3%	5.8%	0.1%	17.8%
Price-to-EBITDA	11.3%	10.2%	(4.8)%	16.8%
EV-to-EBITDA	11.0%	10.5%	(5.0)%	16.5%
1-Year Trailing EV-to-EBITDA	10.4%	10.7%	(5.5)%	15.6%
Distance to Default	7.1%	(2.5)%	10.5%	15.5%
Price-to-1 Year Trailing Cash Flow	12.8%	6.9%	(4.3)%	15.4%
Price-to-Forecast EBITDA	13.1%	10.7%	(8.4)%	14.7%
Price-to-Fwd Earnings	7.7%	13.6%	(7.3)%	13.4%
Price-to-EBIT	7.8%	10.3%	(6.6)%	11.1%
Total Revenue Stability YoY	(1.7)%	5.5%	(10.3)%	(6.9)%
R&D-to-Sales	(9.9)%	(9.5)%	2.5%	(16.4)%
Forecast Revenue Growth	(8.3)%	(5.8)%	(5.6)%	(18.5)%
R&D-to-Sales 1-Year Trailing	(13.6)%	(4.3)%	(1.8)%	(18.8)%
Average R&D-to-Sales 1-Year Trailing Stability Score	(12.7)%	(8.6)%	1.5%	(19.0)%
3-Month Average Share Turnover	(10.5)%	(1.4)%	(10.3)%	(20.8)%
6-Month Average Share Turnover	(10.2)%	(1.7)%	(11.1)%	(21.5)%
2-Year Forecast Revenue Growth	(11.7)%	(9.3)%	(3.8)%	(23.0)%
1-Year Beta	(14.5)%	(5.4)%	(8.4)%	(25.9)%
1-Year Volatility	(14.6)%	(2.4)%	(12.0)%	(26.7)%
3-Month Volatility	(16.2)%	(2.0)%	(10.8)%	(26.8)%
2-Month Beta	(15.1)%	(6.0)%	(8.4)%	(26.9)%

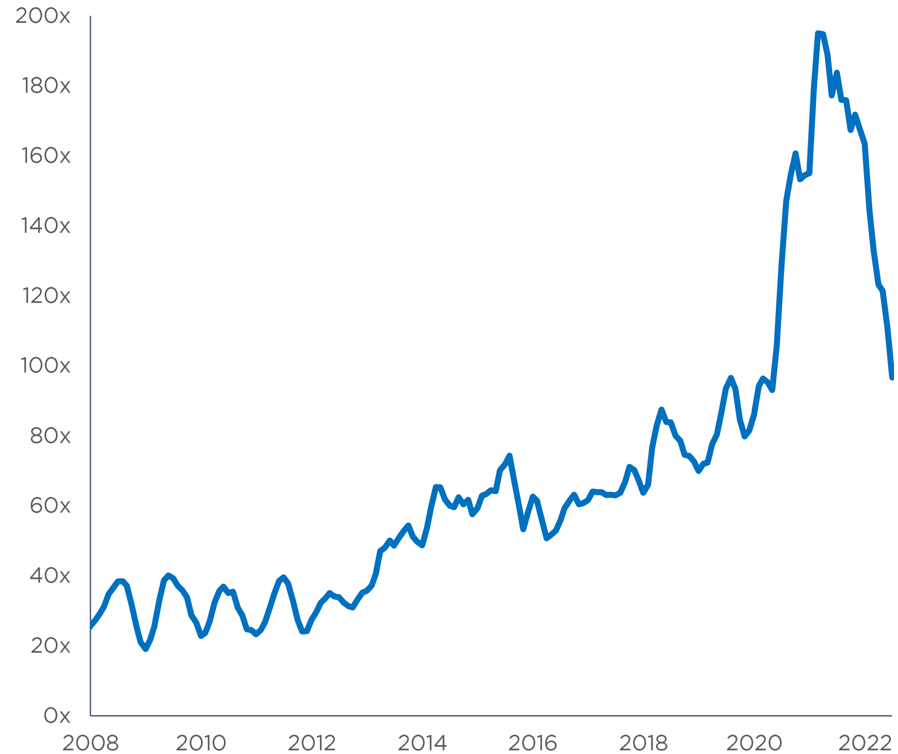
MOST INDUSTRIES SAW A NARROWING OF VALUATION DISPERSION

We analyzed the dispersion of price-to-forward earnings (cross-sectional standard deviation) for each industry. 19 out of 24 industries saw dispersion narrow, and only 5 of 24 (left table) have wider dispersion than their long-term average today. Software saw among the most narrowing on dispersion as many saw substantial multiple compressions. Nonetheless, dispersion remains elevated vs pre-COVID levels (right).

Q2 2022 Change in 3-Month Average of Cross-Sectional Dispersion in Price-to-Forward Earnings

Industry Group	Change
Consumer Durables & Apparel	10.9
Materials	3.6
Telecommunication Services	2.8
Utilities	2.6
Technology Hardware & Equipment	0.1
Banks	-0.6
Household & Personal Products	-0.6
Commercial & Professional Services	-1.5
Diversified Financials	-2.7
Capital Goods	-5.1
Insurance	-7.7
Retailing	-8.1
Energy	-8.7
Pharmaceuticals, Biotechnology & Life Sciences	-8.9
Semiconductors & Semiconductor Equipment	-9.0
Media & Entertainment	-9.9
Health Care Equipment & Services	-14.2
Automobiles & Components	-16.8
Food, Beverage & Tobacco	-18.6
Consumer Services	-18.9
Real Estate	-20.5
Software & Services	-26.6
Transportation	-34.1
Food & Staples Retailing	-70.3

Software & Services Price-to-Forward Earnings Dispersion Through End-June, 2022



CORRELATIONS ARE UP AND COMPANY-SPECIFIC RISK IS DOWN

Median pairwise correlation levels rose in 22 of 24 industries (excluding energy, utilities) during Q2, and in all 24 industries in June vs. May. For many industries (semis, software, biotech, retail) the rising pairwise correlations were in the top 5% we have seen in 25 years (left). Company-specific risk fell in all but 3 of 24 industries (right). Banks got less macro, but still have low company-specific risk in absolute terms. Software has become largely a macro call.

Q2 2022 Change in 3-Month Average of 3-Month Median Pairwise Correlation

Industry Group	Percentile of Change (Lower Is Less Correlated)
Energy	27.3
Utilities	49.8
Food & Staples Retailing	52.7
Food, Beverage & Tobacco	56.6
Insurance	66.8
Materials	68.4
Banks	72.8
Real Estate	73.0
Capital Goods	74.4
Telecommunication Services	74.6
Commercial & Professional Services	75.7
Household & Personal Products	77.6
Transportation	87.8
Diversified Financials	89.8
Consumer Services	91.4
Technology Hardware & Equipment	92.1
Health Care Equipment & Services	93.1
Media	93.3
Retailing	95.1
Consumer Durables & Apparel	95.5
Pharmaceuticals, Biotechnology & Life Sciences	95.7
Automobiles & Components	96.5
Software & Services	96.5
Semiconductors & Semiconductor Equipment	98.6

Q2 2022 Change and Level of Company-Specific Risk

Industry Group	Change in CSR	Level of CSR
Banks	5.9	40.5
Household & Personal Products	3.2	61.4
Insurance	0.2	49.8
Food & Staples Retailing	(1.0)	71.1
Diversified Financials	(1.9)	45.2
Real Estate	(2.1)	45.6
Consumer Services	(2.4)	47.7
Commercial & Professional Services	(2.6)	49.0
Transportation	(3.1)	53.6
Utilities	(3.9)	60.5
Capital Goods	(3.9)	43.7
Retailing	(4.3)	50.0
Food, Beverage & Tobacco	(4.7)	64.5
Media & Entertainment	(4.9)	49.4
Telecommunication Services	(5.0)	59.4
Energy	(5.1)	50.8
Consumer Durables & Apparel	(5.5)	43.9
Health Care Equipment & Services	(6.4)	51.7
Materials	(6.6)	49.4
Pharma, Biotech & Life Sciences	(6.9)	54.1
Semiconductors & Semiconductor Equip.	(7.2)	32.1
Technology Hardware & Equipment	(7.6)	43.1
Automobiles & Components	(8.4)	41.5
Software & Services	(8.5)	38.4

Q2 EXPECTATIONS ARE DOWN BUT 2022 FULL YEAR NUMBERS ARE UP

April earnings season at the start of Q2 caused Q1 2022 earnings to rise 6.6%. Full year numbers are now 1.3% higher than they were at the beginning of the quarter, though Q2 expectations are 1.9% higher than they were at the start of Q2. Since the start of Q2, the biggest downward revisions were in consumer discretionary and communication services, the biggest upward revisions in energy, and REITS.

Q2 2022 EPS Revisions: July 1, 2022 vs. March 25th, 2022

Sector	1Q22	2Q22E	3Q22E	4Q22E	2022E
S&P 500	6.6%	(1.9)%	0.7%	0.4%	1.3%
Energy	12.5%	46.6%	47.1%	43.3%	37.8%
Financials	8.7%	(4.5)%	(0.5)%	(0.2)%	0.8%
Health Care	6.9%	(5.1)%	(4.7)%	(4.9)%	(2.0)%
Materials	7.4%	(8.6)%	8.7%	10.5%	4.0%
Info Tech	5.2%	(4.0)%	(1.7)%	(0.8)%	(0.4)%
REITS	5.6%	9.1%	7.2%	6.4%	7.1%
Utilities	14.7%	(0.9)%	0.7%	2.2%	4.4%
Communication Services	0.6%	(9.8)%	(6.8)%	(6.6)%	(5.8)%
Consumer Staples	6.8%	(3.4)%	(2.4)%	(2.5)%	(0.6)%
Consumer Discretionary	4.8%	(20.4)%	(11.0)%	(8.8)%	(9.9)%
Industrials	5.3%	0.9%	0.1%	(1.6)%	0.8%

ECONOMIC ACTIVITY HAS CLEARLY ROLLED OVER

Q2 2022 Changes in Macro Regime

Macro Signal	Q1 2022 Regime	Q2 2022 Regime	Comments
Economic Activity	None	Decreasing	Strong economic activity in 2021 moved to a peaking in Q1 and now is declining during the second quarter. Leading Economic Indicators are lower, NFIB Small Business Optimism, CEO confidence and the Philly Fed Business Outlook all declined during Q2. As a result, expectations for 2022 YoY GDP are now 2.5%, down from 3.5% at the start of the quarter (ECGDUS22 Index on Bloomberg)
Consumer Activity	Increasing	None	Our consumer activity gauge peaked in Q2 after remaining strong due to jobs and wages in previous quarters. Lower consumer confidence during the quarter was a key driver and is likely due to persistent inflation and higher 30-year fixed mortgages.
Financial Conditions	Tightening	Tightening	Overall financial conditions tightened again during Q2, moving meaningful lower through the quarter. While there is ample precedent for far tighter conditions, the story of the quarter remains the substantial move higher in the 2-year yield and what feels like imminent and meaningful yield curve inversion.
Yield Curve 63d	Bear Flattening	None	
Yield Curve 126d	Bear Flattening	Bear Flattening	
Yield Curve 252d	Bear Flattening	Bear Flattening	
Industrial Activity	None	None	Industrial activity overall continued to soften during Q2 after beginning to peak late in the summer of 2021. The Baltic Dry Index, NAM Car-Loads, Class 8 Truck Orders and Dry Van Rate Per Mile were all meaningfully lower during Q2. Pockets of strength remain in the Baker Hughes Rig Count, overall Industrial Production and Capacity Utilization, which modestly rose.

OIL, COMMODITIES HIGHER, THE DOLLAR STRONGER DURING Q1

Q2 2022 Changes in Macro Regime

Macro Signal	Q1 2022 Regime	Q2 2022 Regime	Comments
China	Decreasing	Decreasing	The Chinese economy, amid rolling lockdowns and government intervention has been weak since August of 2021. While most government-released data lags, and we have seen the stock market rally very recently, the economic data show worse residential property sales, worse FAI real estate, fewer new auto registrations, lower industrial production, lower electricity consumption, and lower fiscal expenditures than three months ago. A relative positive has been exports.
Commodities	Increasing	Increasing	Brent oil was up 6% during Q2, after rising nearly 40% during Q1. The Daily National Average Gasoline Price rose 15% during Q2. Natural gas has been incredibly volatile, up 65% from the quarter's start to $9.32, and now down 42% since to actually modestly down since the end of March. Agricultural commodities are mixed, with soy and corn among those higher QoQ, and sugar and cotton lower.
Oil	Increasing	Increasing	
Currency	Dollar Strengthening	Dollar Strengthening	The dollar has continued to strengthen (DXY), particularly against the Euro, and hopefully will reach parity by the time I pay my hotel bill in Italy in August (1.03 last). The dollar is also stronger against the Pound, and Looney QoQ. This is clearly a headwind for US corporate earnings in aggregate.
Europe	Increasing	Increasing	European and UK Consumer Confidence unsurprisingly both fell during Q2, in-line with the US results. IFO Eurozone Business Climate Expectations, while lower end-Q2 vs. end-Q1 ticked up in the last month. Eurozone unemployment, while higher than in the UK, has continued to improve, while the last UK report was directionally negative month-over-month. The biggest development is the positive 10-year yields across Europe, the first time we have broadly seen this since the Financial Crisis.

INVESTMENT ADVICE FOR Q3

1. **Relative estimate achievability is what matters:** Given the estimates are poised to be downwardly revised, and are likely about to start declining immediately, we believe the right estimate approach is to focus on relative estimate achievability at the stock and industry level.
   - **The area with the least achievable estimates are in our judgment is industrials – particularly machinery and capital goods, and we implore analysts to assess the incremental margins embedded in the consensus outlook.**
   - **While staples and utilities are likely to have above average estimate achievability, valuation is stretched, and the penalty for lower guidance may be harsh.**
2. **Even though it is well-known that the earnings estimates need to be lowered, we do not think all the downward revisions are fully discounted.** Stocks that guide lower and don't underperform would be a good initial starting signal to believe the market has found a floor. We have heard several investors say they think 3400-3500 is the floor for the SP500, meaning that is likely the current consensus. We would not advise buying stocks in front of downward guidance.
3. **Focus on US vs. non-US labor force:** It is abundantly clear that the bulk of wage pressures and absenteeism are a US phenomena, and hence, focusing on companies with more non-US workers and / or fungible workforces will aid in estimate achievability
4. **We recommend quality over junk not reopening vs. work-from-home:** This worked during Q1, and we continue to recommend avoiding both junk reopening and junk work-from-home stocks. The former have excessive optimism about the future, the latter, excessive optimism about the elevated COVID-era trends persisting.
5. **Capital use and its consequences:** We would focus on dividend growth and deleverage, and avoid those stocks with imminent refinancing events, as we recently addressed in our work. Please contact us for any of our five reports on buybacks, dividends, M&A, capital spending / R&D, and leverage.

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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