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TRIVARIATE RESEARCH

HOW MUCH WILL DOWNWARD REVISIONS MATTER?

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RESEARCH SUMMARY

The macro landscape has softened, consumer and industrial activity have slowed, the dollar has strengthened, and commodities are generally higher since the beginning of the year. CPI will mathematically remain elevated for some time, so there is a materially higher risk of stagflation now than there was six months ago. The market now faces quantitative tightening instead of quantitative easing.

Despite this, the consensus earnings expectations for 2022 are higher now than they were on January 1st of this year. **This is non-sensical, and we expect material downward earnings revisions beginning next week with potential negative pre-releases, through July earnings season and into the second half of 2022.** The main questions are: how big will the downward revisions be? What percentage of that decline is currently discounted? We are looking for any signs that downward revisions are discounted, but to date have only seen those missing get punished.

For 2022, earnings expectations are now 2.9% higher than they were on January 1st, with energy up the most (93%), and consumer discretionary, communication services, and industrials lower.

The market multiple has compressed roughly six turns year-to-date, from 21.5x to 15.5x. This means current market multiples are roughly in-line with the long-term average, despite the fact the constitution of companies is far superior today to much of history.

INVESTMENT CONCLUSIONS

Sell-side analysts have a long-history of being overly optimistic about earnings expectations. Forward earnings data have existed since 1978, and on average analysts expect 14% earnings growth on January 1st of a given year, and the actual growth rate has been closer to 7%. For the last 20 years, we have consistently seen downward revisions, except during economic troughs, when, predictably, the analysts all get collectively too bearish at the cycle bottom.

While negative earnings revisions are virtually guaranteed, the market can still appreciate or have multiple expansion while earnings expectations are being downwardly revised. Even recently, the SP500 has appreciated in seven of the last 12 years that there were negative revisions.

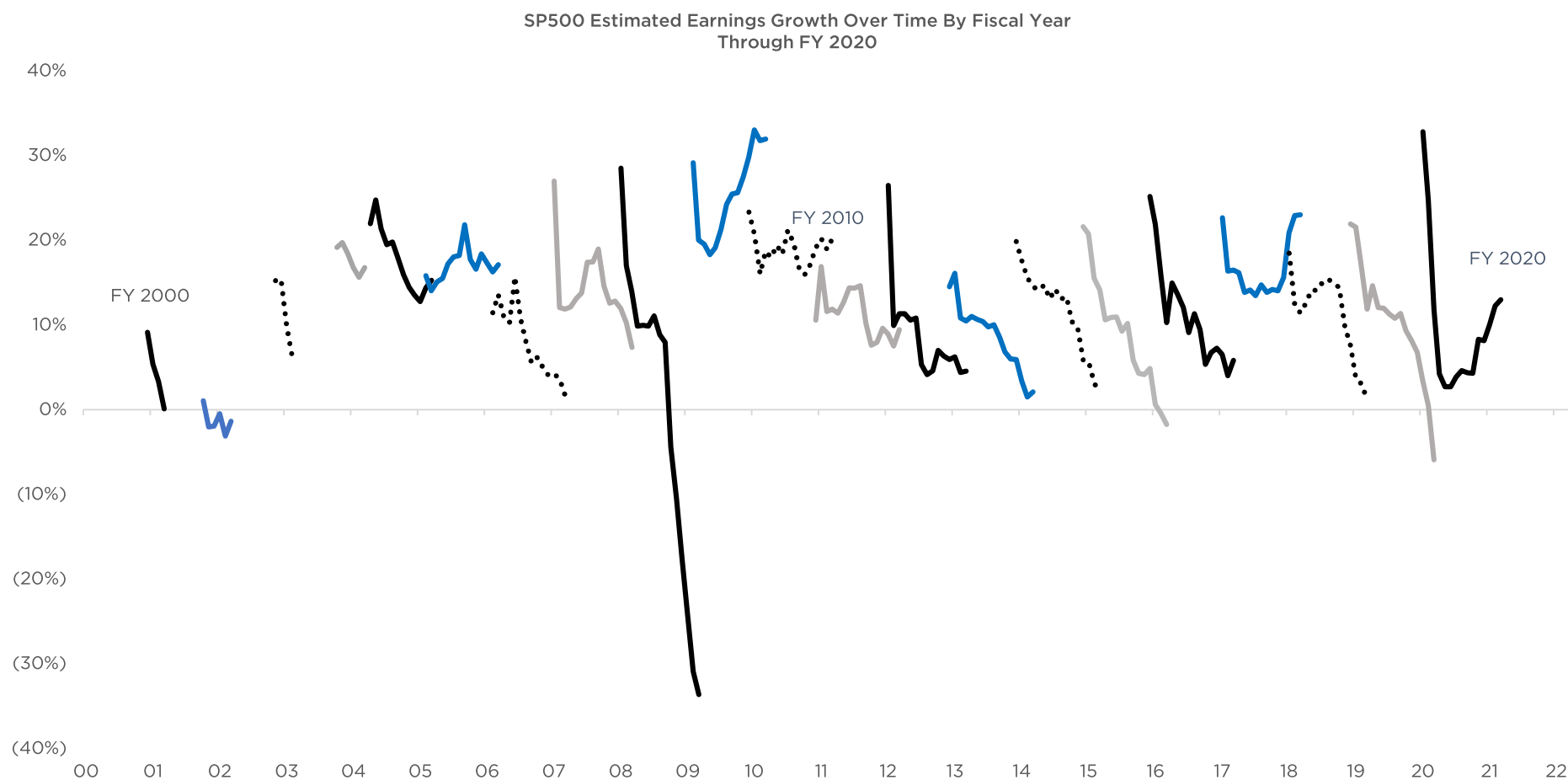
We think the constitution of the US stock market is superior now than in the past, and that makes it somewhat unlikely that gross margins for mega / large caps will collapse back to the 1999-2011 levels. However, we think revenue expectations for the 2H of 2022 and 2023 need to be materially reset.

Given we think the risk is as much or more to revenue expectations than decremental margin collapses, we focus on the current revenue expectations by sector. Overall expectations are for 11.5% growth this year, and 5.5% next year, or 12.8% and 5.2% ex-financials. Double-digit revenue growth for 2023 is currently expected for the consumer discretionary sector.

Technology, communication services, and industrials are all forecasted to grow the top-line above 6.5% in 2023. We would not be surprised to see these sectors undergo the most negative guidance during Q2 earnings. Energy expectations are for a revenue decline in 2023- and for now we think estimate achievability is above average there.

ANALYST EXPECTATIONS OFTEN GET DOWNWARDLY REVISED

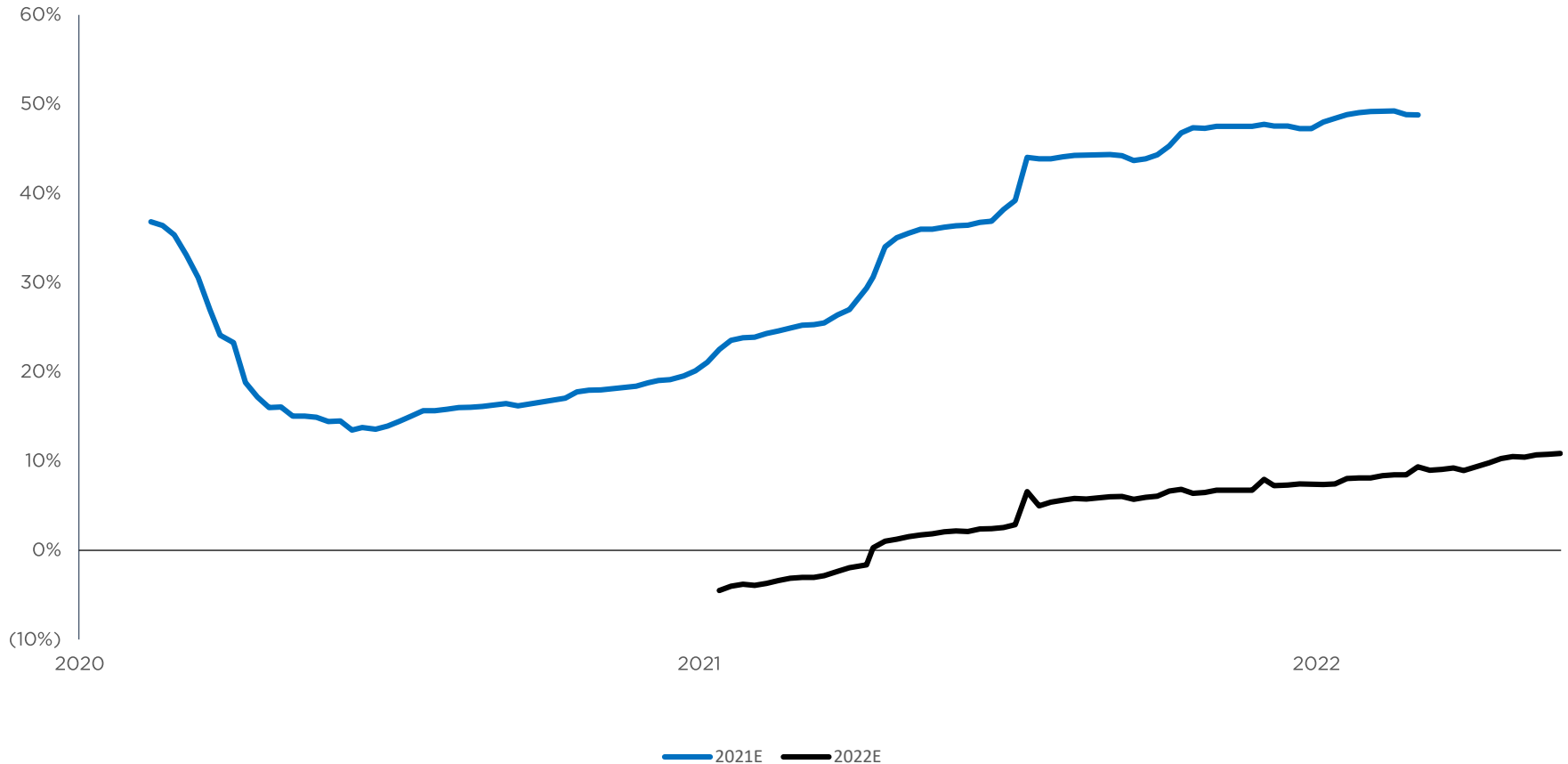
Below are the sell-side earnings expectations, bottom-up, for the SP500 over time. There is a long pattern of high expectations at the beginning of a calendar year, followed by consistent downward revisions throughout the year. Over the last 20 years, the only times analysts were too pessimistic were at economic troughs - where analysts get too bearish at the bottom.



BUT 2022 EXPECTATIONS FOR EARNINGS HAVE CONTINUED TO RISE

This year, earnings expectations have increased throughout the year. The increase in earnings expectations has been steady since the 2022 outlook was first posted in 2021. While energy has driven a material percentage of the overall increase in expectations, the reality is that macro conditions should have resulted in more material downward revisions ex-energy.

SP500 Estimated Earnings Growth Over Time by Fiscal Year
FY 2021 and 2022



EARNINGS EXPECTATIONS ARE WAY TOO HIGH

Current bottom-up earnings expectations are for 10.5% growth for the SP500 for 2022 and another 8.6% growth in 2023. Those expectations are irrationally high – but we don't think the buy-side expects these to be realized. We expect material downward revisions in industrials, consumer discretionary, and communication services. We think estimates in the next couple of quarters are more relatively achievable in energy, materials, and healthcare services.

Bottom-Up Analyst Earnings Growth Expectations
June 24, 2022

Sector	2021	2Q22E	3Q22E	4Q22E	2022E	2023E
S&P 500	47.0%	13.4%	13.2%	13.6%	10.5%	8.6%
S&P ex-Financials	42.3%	23.7%	20.9%	16.9%	15.8%	7.9%
Consumer Discretionary	70.3%	0.2%	19.2%	21.6%	10.6%	25.7%
Consumer Staples	6.5%	6.5%	9.1%	6.9%	5.4%	8.2%
Energy	#N/A	446.7%	212.4%	85.3%	129.0%	(12.4%)
Financials	71.9%	(23.9%)	(17.8%)	(2.3%)	(12.4%)	13.1%
Health Care	22.6%	6.9%	8.0%	(4.8%)	5.8%	(0.1%)
Industrials	78.6%	83.3%	32.5%	31.7%	35.5%	17.5%
Info Tech	32.2%	7.5%	13.7%	28.8%	9.8%	12.6%
Materials	75.3%	71.6%	6.2%	7.7%	22.7%	(6.4%)
Communication Services	38.7%	(8.0%)	(5.8%)	6.4%	(3.9%)	14.9%
Utilities	5.0%	(12.8%)	31.5%	(36.1%)	5.7%	5.1%
REITS	24.7%	29.0%	18.8%	19.5%	12.5%	6.1%

WE THINK INDUSTRIALS WILL SEE DOWNWARD EARNINGS REVISIONS

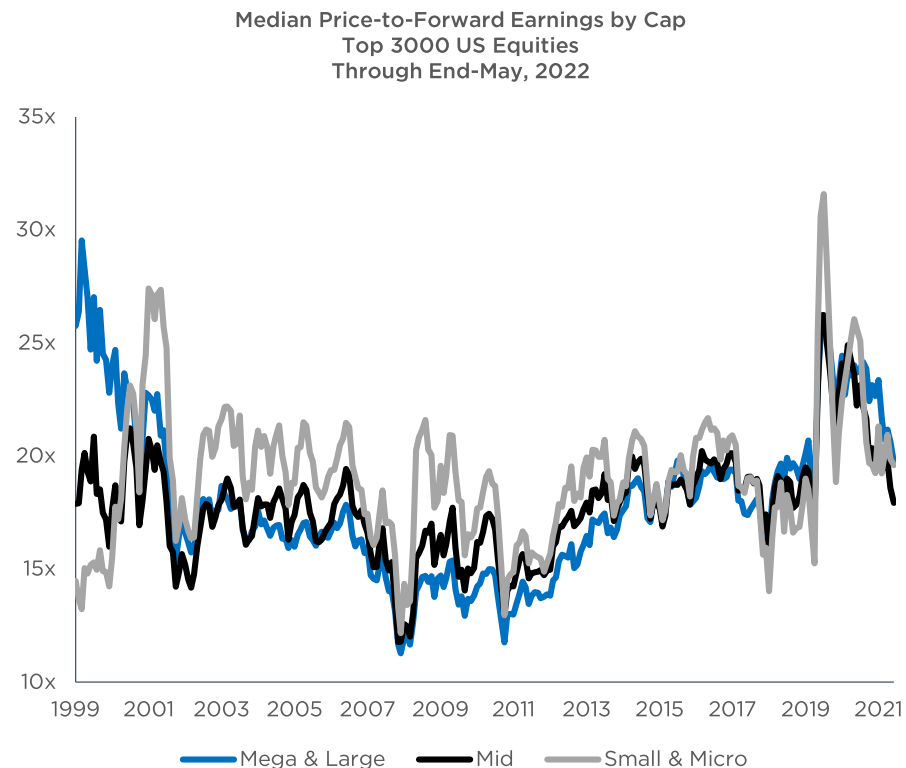
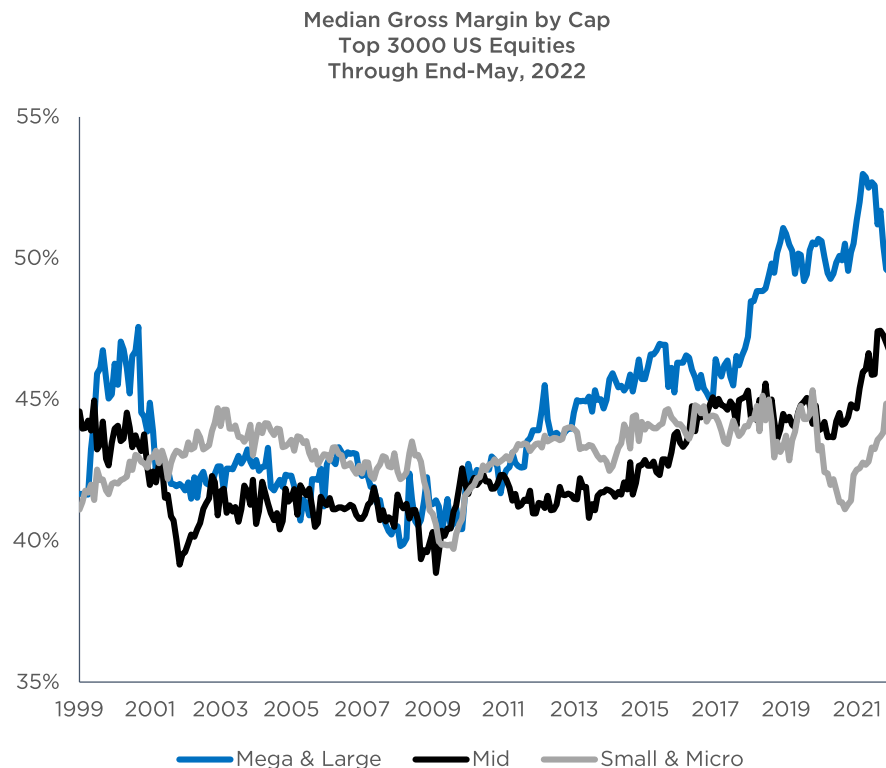
Earnings expectations are higher now 2.9% higher than they were on January 1st, despite the market pullback. Energy estimates are up the most, over 90%, and consumer discretionary, communication services and industrials are down the most since the start of the year.

Q1 2022 EPS Revisions: June 24, 2022 vs. December 31, 2021

Sector	2Q22E	3Q22E	4Q22E	2022E
S&P 500	0.6%	3.4%	4.6%	2.9%
Energy	99.0%	93.5%	86.7%	93.2%
Financials	(3.6%)	0.0%	0.7%	(0.9%)
Health Care	(4.4%)	(2.4%)	(2.7%)	(3.2%)
Materials	13.4%	18.5%	23.0%	17.9%
Info Tech	(1.3%)	0.5%	4.7%	1.5%
REITS	11.9%	12.4%	9.4%	11.2%
Utilities	(0.6%)	(1.0%)	(3.6%)	(1.7%)
Communication Services	(12.0%)	(8.9%)	(7.4%)	(9.3%)
Consumer Staples	(5.0%)	(3.2%)	0.6%	(2.5%)
Consumer Discretionary	(23.0%)	(8.4%)	(3.8%)	(11.7%)
Industrials	(4.3%)	(1.3%)	(0.9%)	(2.2%)

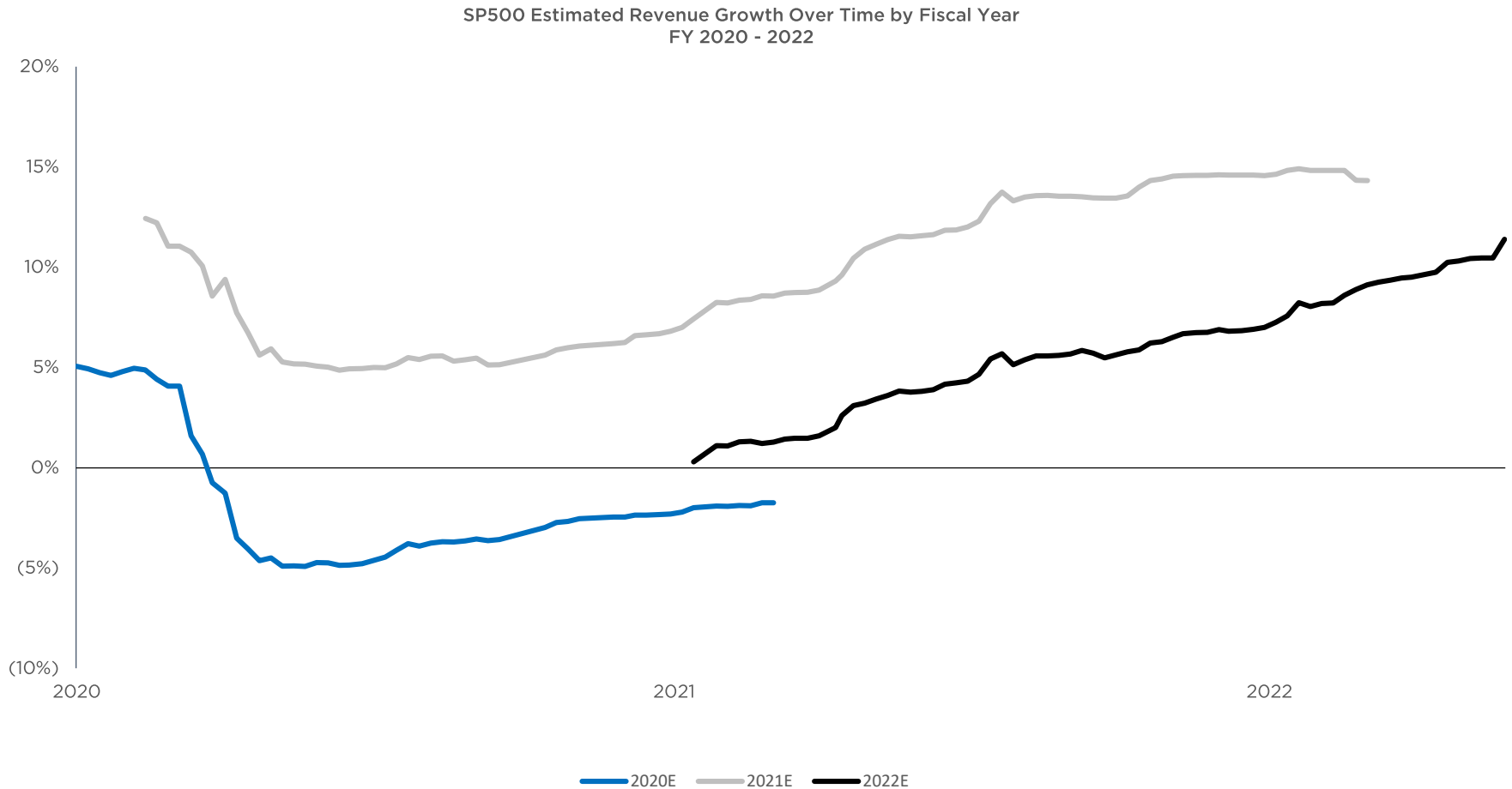
HOW MUCH WILL PROFITABILITY DECLINE?

The median gross margin of large caps didn't dip during COVID but have started to rollover recently (left chart). We do not think mega / large cap margins will regress to the 1999-2011 levels, given the constitution of companies are so much better today than in the past. Multiples have been reset nearly six turns year-to-date (right side), so investors are clearly embedding a material margin collapse. We expect margins to decline further, but likely no where near back to long-term averages. Instead, we see the bigger risk being to revenue.



CONFUSINGLY, REVENUE EXPECTATIONS CONTINUE TO RISE

At the beginning of 2021, revenue expectations for 2022 were roughly flattish - meaning for no year-over-year growth. Today, expectations are now for nearly 10% year-over-year topline growth. We think the biggest risk to earnings is probably revenue disappointments, as we see more evidence of double-ordering, backlog cancellation, and over-earning develop in the second half of the year.



REVENUE REVISIONS IN INDUSTRIALS, CONSUMER, AND TECH?

Given we think the risk is as much or more to revenue expectations than decremental margin collapses, below we show the current revenue expectations by sector. Overall expectations are for 11.5% growth this year, and 5.5% next year, or 12.8% and 5.2% ex-financials. Double-digit revenue growth for 2023 is currently expected for discretionary, and technology, communication services, and industrials are all forecasted to grow the top-line above 6.5%. We would not be surprised to see those areas most vulnerable to downward revisions. Energy expectations are for a revenue decline - and that currently seems relatively achievable.

Bottom-Up Analyst Revenue Growth Expectations
June 24, 2022

Sector	2021	2Q22E	3Q22E	4Q22E	2022E	2023E
S&P 500	13.2%	16.5%	12.4%	7.7%	11.5%	5.5%
S&P ex-Financials	13.8%	18.6%	13.6%	8.1%	12.8%	5.2%
Consumer Discretionary	16.1%	15.6%	15.2%	14.1%	11.3%	10.6%
Consumer Staples	5.1%	9.6%	6.7%	6.9%	6.8%	3.8%
Energy	45.6%	77.9%	48.6%	2.0%	45.3%	(4.8%)
Financials	9.4%	1.3%	3.6%	4.1%	2.2%	7.9%
Health Care	11.2%	14.3%	7.4%	3.7%	9.1%	3.2%
Industrials	11.6%	21.7%	14.7%	4.6%	12.6%	6.7%
Info Tech	15.1%	11.0%	11.1%	18.7%	10.8%	9.6%
Materials	18.7%	34.2%	10.7%	(4.5%)	15.3%	3.3%
Communication Services	8.8%	10.5%	6.5%	13.3%	7.3%	8.6%
Utilities	10.1%	(10.9%)	12.0%	8.2%	6.6%	2.3%
Real Estate	9.1%	27.2%	17.0%	5.1%	16.6%	7.6%

DOWNWARD REVISIONS DO NOT GUARANTEE A DOWN MARKET

The good news is there is ample long-term and recent historical precedent that the market can appreciate, and / or multiples can expand even when there are downward earnings revisions. Below shows that in seven of the last 12 years we have seen earnings expectations decline but the market appreciate.

Estimates Revisions vs. Price-to-Forward-Earnings vs. Returns
SP 500, 15 Month Window

FY	Total Estimates Revisions Over Course of 15 Months	15 Months Prior to End FY Price-to-Forward-Earnings	End of FY Price-to-Forward-Earnings	PFE Ratio: End FY vs. 15 Months Prior	SP500 Return: 15 Months Prior to End FY
2009	(15.8%)	12.2x	15.7x	1.29x	53.6%
2010	6.0%	15.3x	15.4x	1.01x	22.6%
2011	8.3%	14.6x	15.0x	1.03x	5.1%
2012	(12.4%)	13.6x	15.8x	1.17x	13.5%
2013	1.7%	14.4x	17.6x	1.22x	25.4%
2014	(2.6%)	17.2x	19.2x	1.11x	15.5%
2015	(9.8%)	18.0x	18.9x	1.05x	(6.2%)
2016	(5.1%)	17.8x	19.5x	1.09x	25.0%
2017	(5.9%)	18.2x	18.3x	1.00x	17.1%
2018	8.2%	19.9x	19.8x	1.00x	4.7%
2019	(0.3%)	16.3x	18.4x	1.13x	8.2%
2020	(30.6%)	20.8x	24.8x	1.19x	31.3%
2021	30.9%	24.9x	21.7x	0.87x	16.4%

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