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TRIVARIATE RESEARCH

THE STATE OF THE US CONSUMER

07/29/2022

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RESEARCH SUMMARY AND CONCLUSIONS

Earnings results from consumer companies are highlighting what appears to be a major macro and micro controversy – what is the state of the US consumer and how will that impact the US equity market? Many investors think there is a possible soft landing, not an imminent recession, and see some evidence of resiliency from this earnings season so far. We disagree. Today's high nominal GDP will materially slow, and we believe we are in a lag period, between Fed action and an economic slowdown, **with meaningful topline misses coming in the next two quarters.** Today's research focuses on the consumer from three lenses, macro, fundamental, and quant (the Trivariate way). We then assess the available alpha to look for investment opportunities in the consumer sector.

Macro: There are clear signs that the US consumer is slowing down after incredible strength since the Fall of 2020. Our proprietary multi-factor consumer activity gauge peaked in May. We have seen wages and job growth modestly softening, and ample evidence from the biggest 100 public companies that headcounts are being reduced or growth in hiring is slowing. The housing market data show persistently high home prices. Despite higher oil and a slowdown in growth, we have yet to see pressure on credit card delinquencies, but we are beginning to see some initial signs of consumer stress (auto delinquencies and proliferation of buy now / pay later schemes).

Available alpha: Our models have had mixed efficacy for consumer stocks YTD, but as macro conditions decelerate, we expect our ability to pick winners from losers to improve in consumer staples stocks and worsen in consumer discretionary stocks. Dispersion among stock performance is typically wide when consumer activity is negative and declining, but standard modeling signals often are not helpful in picking winners from losers during those regimes. **Hence, we recommend de-grossing exposure to consumer discretionary stocks today.** When consumer macro conditions deteriorate, our models typically work very well in consumer staples at deciphering winners from losers, **meaning this is a good time to gross-up exposure to consumer staples.**

RESEARCH SUMMARY AND CONCLUSIONS

Fundamentals / valuation: The long-term average revenue growth for nearly all sub-industries in the consumer discretionary and consumer staples sectors is between 6% and 8% per year. Yet the last 12 months we have seen growth rates of 20% plus across the board. **We expect revenue growth to materially slow.** In the discretionary sector, margins are high or near peaks for nearly every sub-industry except autos. But in staples, margins are lower than average everywhere except personal products, with trough margins in household products. Given these cross currents, we would not necessarily expect wildly divergent valuation trends. However, the price-to-forward earnings remains high for most staples and low for most discretionary stocks, with internet / direct marketing retail and diversified consumer services the notable exceptions. Staples seem like an obvious area of concern, with the double whammy of lower revenue growth and lower multiples a likelihood by 2023.

Quantitative / stock ideas: We analyzed over 200 signals and evaluated the performance of each over time. Within consumer discretionary, our model generated 4.1% spread in the first half of 2022. Price-to-EBITDA was the most effective metric, meaning if you longed the cheapest quintile and shorted the most expensive quintile of discretionary stocks you would have generated 51.6% return in 1H 2022. Highly volatile and high beta businesses lagged stable and low beta stocks. Unlike in discretionary, our quantitative models did not work well in staples in the first half of 2022.

Consumer long / short ideas are shown on page 28. Within discretionary, we prefer quality reopening to junk reopening, focusing on ideas with more relatively achievable estimates. Among staples, average valuation and profit margin expectations, lower correlation to "work-from-home" and more realistic revenue expectations are preferable to expensive stocks with above average expectations that are loved by the sell-side.

OUTLINE OF OUR ASSESSMENT OF THE US CONSUMER

Today's work on the US consumer is broken into four sections:

1) **Macro:** The state of the US consumer through our consumer activity gauge and its underlying components. We highlight positives, negatives, and areas where we see change as likely.

2) **Available alpha:** Based on model efficacy, company-specific risk, valuation dispersion, and pairwise correlations we make gross exposure recommendations about the consumer discretionary and consumer staples sectors.

3) **Fundamentals / Valuation:** We look at growth, profits, and valuation to highlight some notable discrepancies.

4) **Quantitative and Stock Ideas:** We look at our recent proprietary model and factor efficacy and generate long / short ideas within the consumer discretionary and consumer staples sectors.

MACRO CONDITIONS WILL SLOW WITH A LONG LAG

We analyze macro conditions in parts.

In this first part of this macro assessment, we analyze macro economic conditions that are particularly focused on measuring the state of the US consumer. In the second part we analyze the relationship between consumer sub-industry stock returns and changes in key macro conditions to search for statistically significant relationships.

On the macro front, conditions have clearly peaked and will continue to soften. Investors keep questioning the timing. A common ask is **"When will we see more dramatic downside to corporate results?" Our answer is in the next six months.**

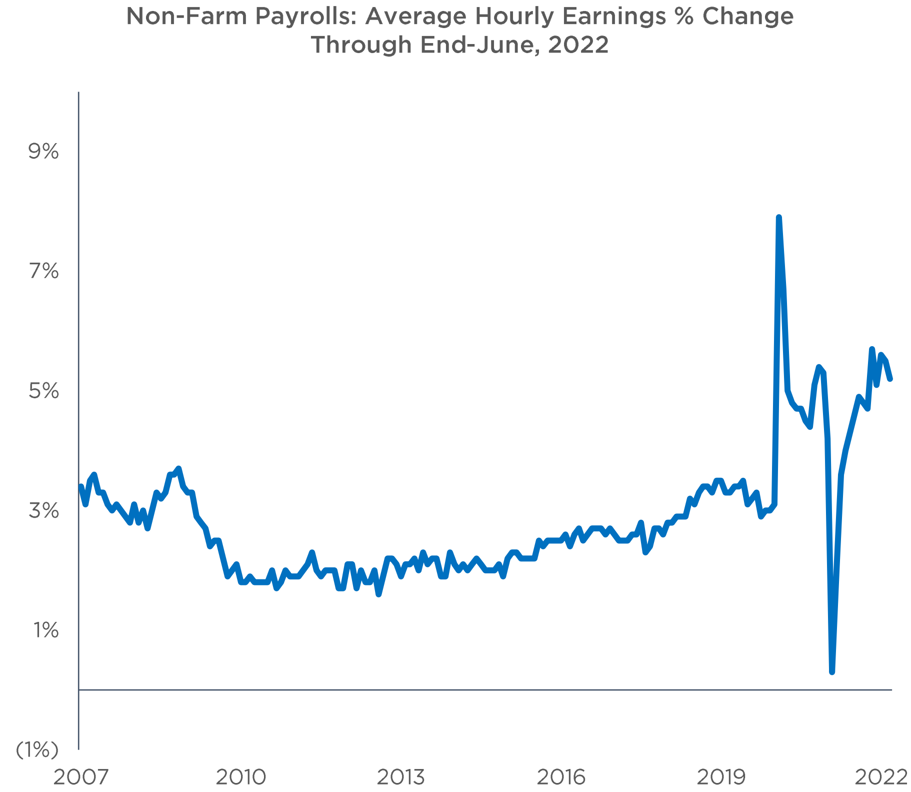
Nominal GDP remains elevated. Our judgment is that the impact of Fed action comes with a lag that is longer than the consensus view. Hence, investors will likely be surprised to the downside if they think we have seen the end of the downward revisions.

In terms of stock returns, interest rates and the dollar clearly matter, and generally are headwinds for discretionary returns.

For investors interested in relationships between macro signals like USD, rates, oil, and spreads, we track the rolling relationships over time to search for statistical significance.

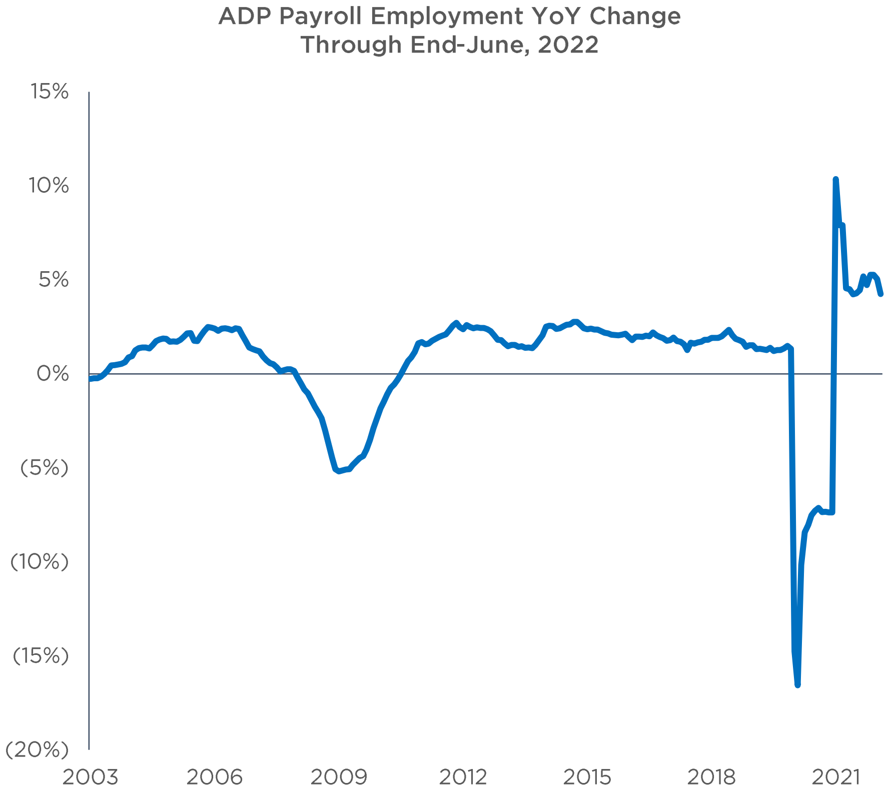
WAGES HAVE BEGUN TO MODERATE

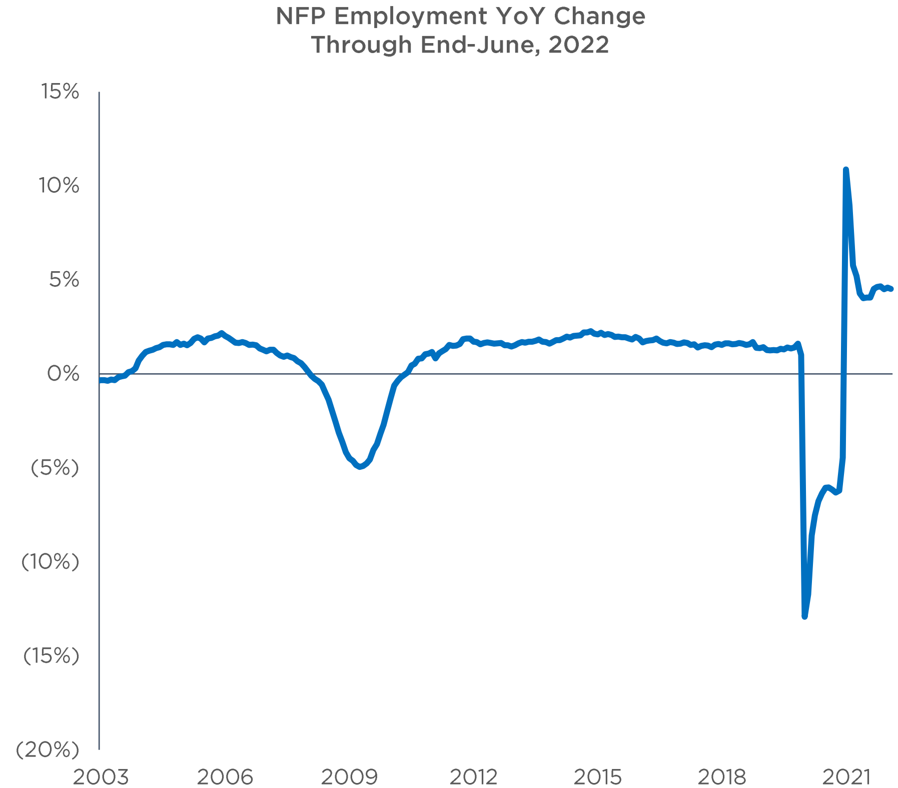
One of the key focus items for policy makers are trends in wages. Corporations have been seeing absenteeism and wage pressure among US workers at a far greater rate (or at some companies nearly exclusively) in their US employee base than non-US employee base. Both the Atlanta Fed Wage growth tracker (left) and the average hourly earnings data from the non-farms payroll month report (right) show some moderation in wages during the last two reports after incredible strength since COVID started.



EMPLOYMENT TRENDS ARE ALSO STRONG BUT ROLLING OVER

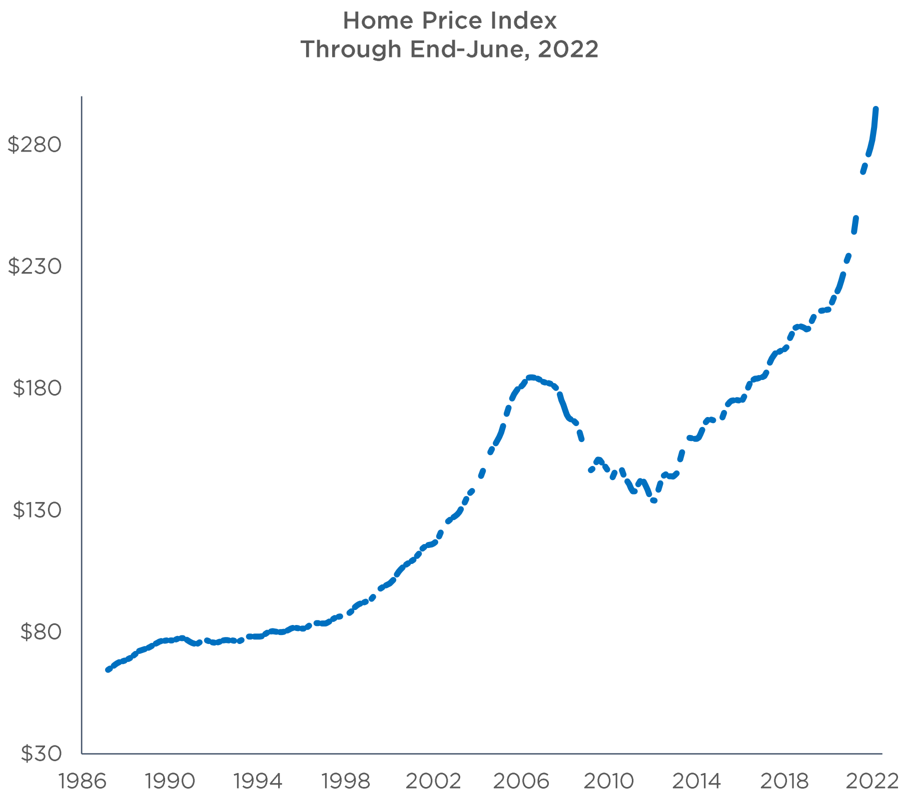
Both the ADP (left) and NFP (right) payrolls show the employment environment is strong. However, we have seen moderation in that strength over the past few months after a huge recovery from the depths of COVID. Many corporates have announced either slowing job growth or plans to reduce the size of their workforce in the coming quarters / years, including XOM, TSLA, FB, GS, and JPM among the largest 100 companies.

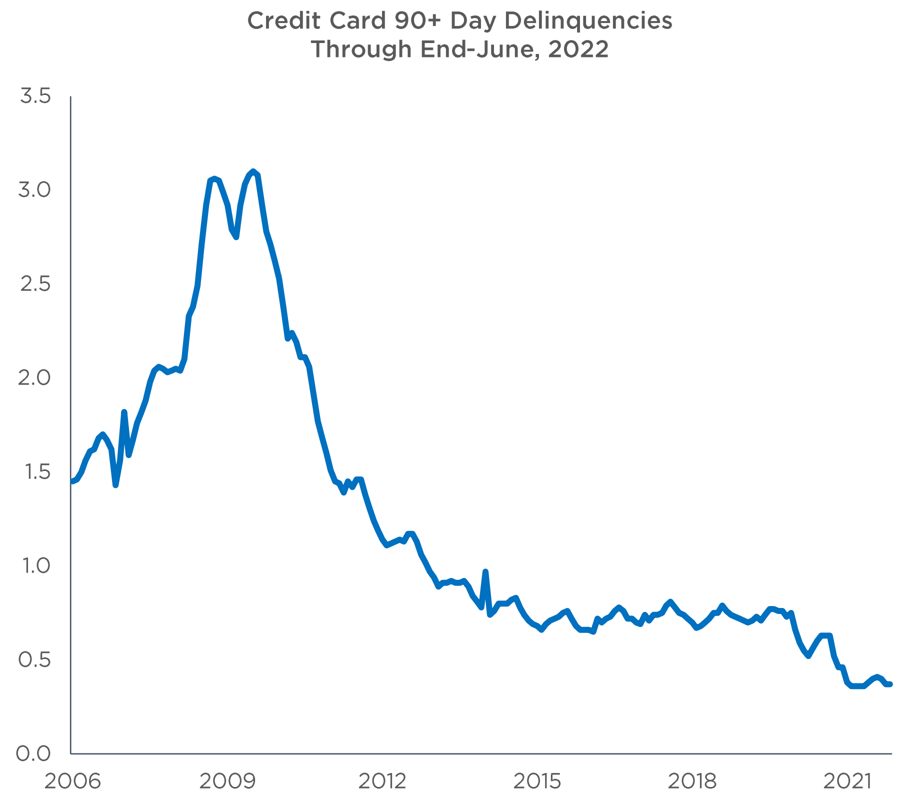




POSITIVES THAT COULD ROLL OVER

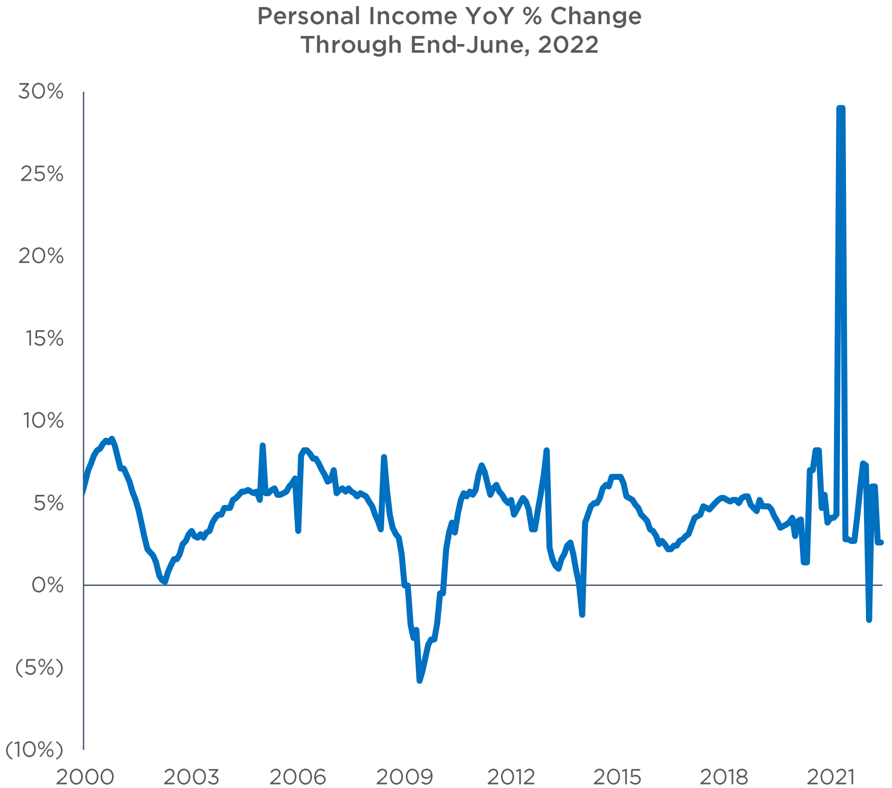
Home prices are still high in most MSAs (left) despite higher 30-year fixed mortgage rates. Either home prices or mortgage rates must decline before housing transactions grow. In the interim, more consumers are renting, driving up the owner's equivalent rent portion of CPI. One measure of heightened tension for the consumer is their ability to pay minimum credit card payments. 90-day credit card delinquencies that come from the monthly Master Trust data (right) are leveling-off at all-time lows. Surely this will begin to rise as the consumer trends deteriorate.

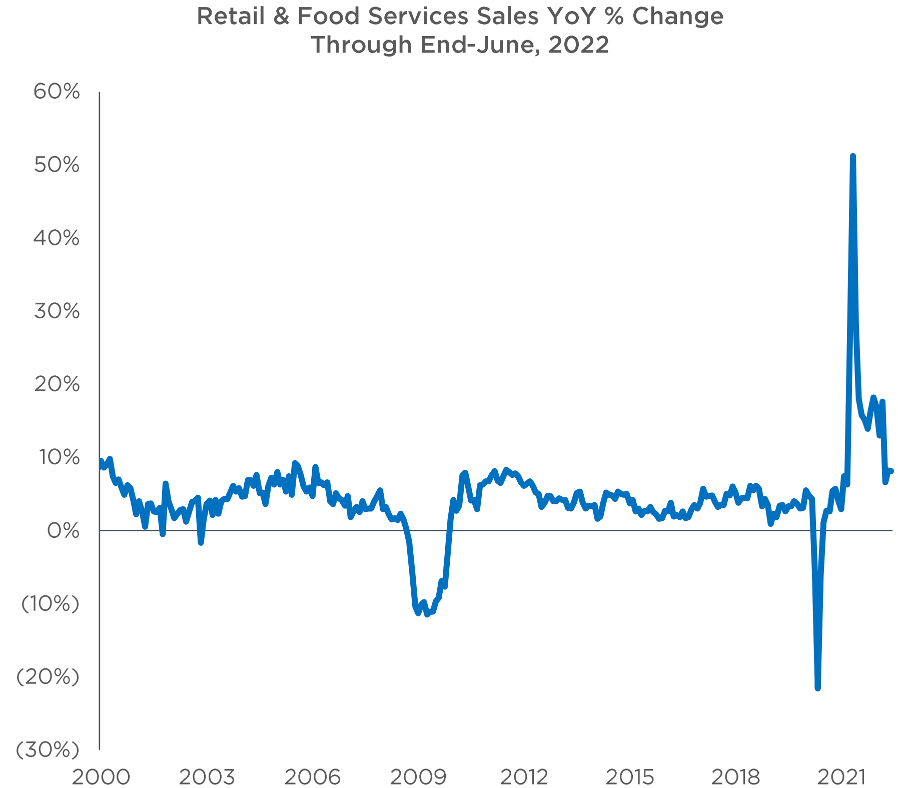




PERSONAL INCOME IS NOW LOWER YOY, IMPACTING SPENDING

As the consumer annualizes the strong spending borne out of government handouts (PPP1, PPP2), strength in housing, and other risk assets (equities, crypto) has moderated. Personal income briefly went negative (left), something we have only seen twice in the last 25 years, before recovering to slightly below long-term averages. Retail and food service sales were crushed during COVID and then recovered but are also now closer to longer-term averages (right).



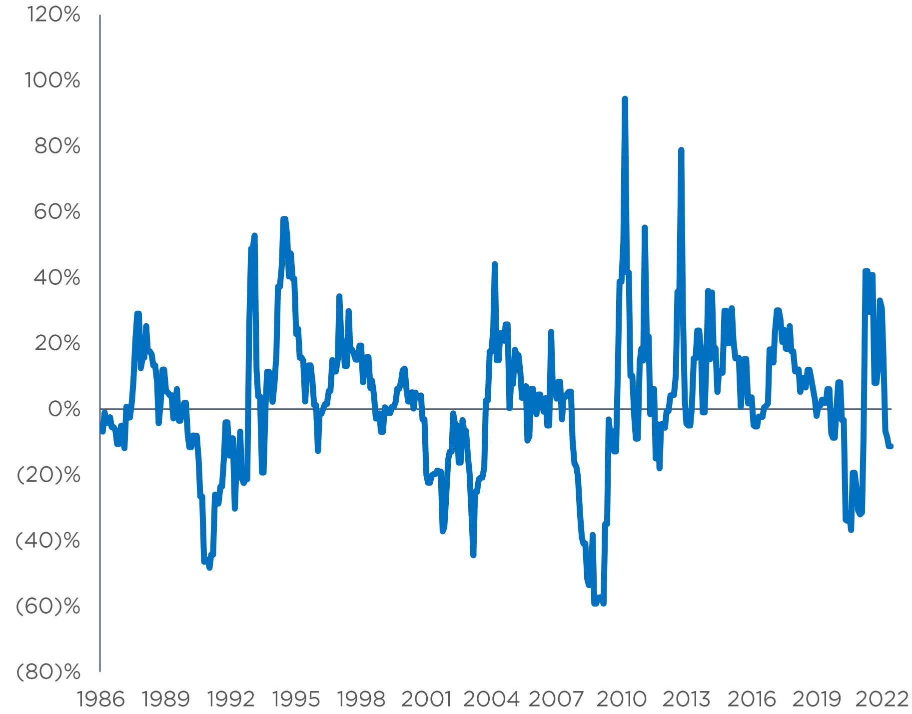


SENTIMENT HAS DECLINED

At some level, a proxy for consumer sentiment can be found in the performance of a basket of cryptocurrencies (left) which is down roughly 75% in the last year. While this is not a robust signal of sentiment, it is a proxy for risk-taking w studied in our previous work. Consumer confidence has gone negative for the first time since the onset of COVID and only the fourth time since the Financial Crisis, with high gasoline prices and higher home borrowing costs partially responsible (right).

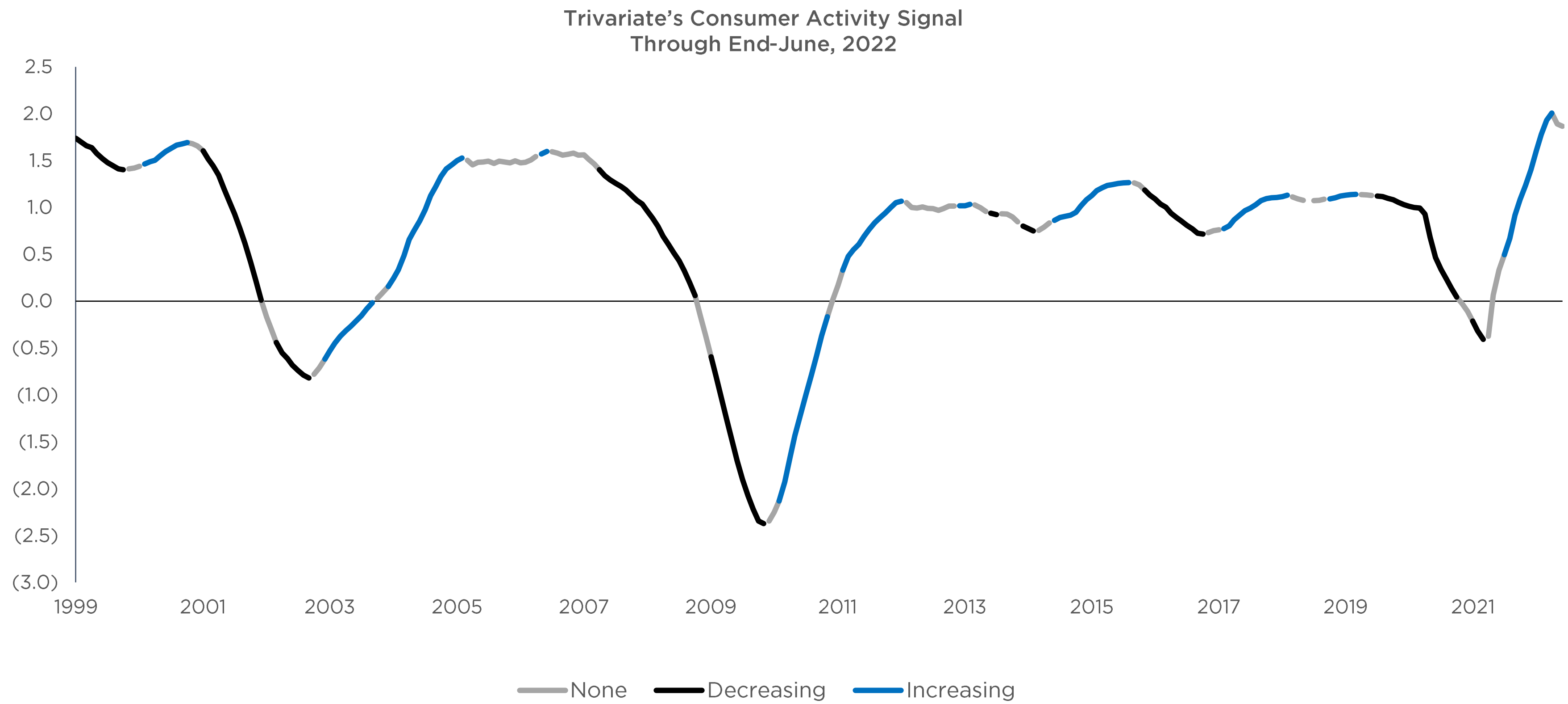
Basket of Well-Known Crypto Currencies
Daily Compounded Returns of $1
March 2020 - Present

Consumer Confidence Survey YOY % Change
Through End-June, 2022



IN AGGREGATE OUR CONSUMER ACTIVITY GAUGE HAS ROLLED OVER

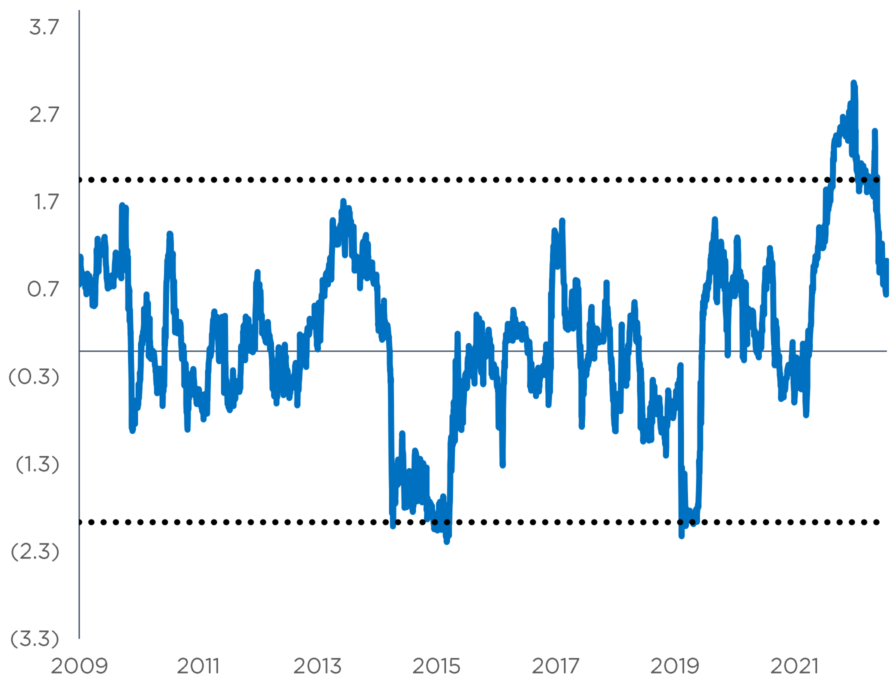
Our proprietary consumer activity gauge, which contains several metrics including wages, jobs, retail sales, sentiment, etc. peaked in May and has been rolling over since. We expect it to retreat over the coming months, from neutral to decreasing by year-end. It is possible the metric could even go to negative and decreasing by 2023, as we observed three times prior in the last twenty years.



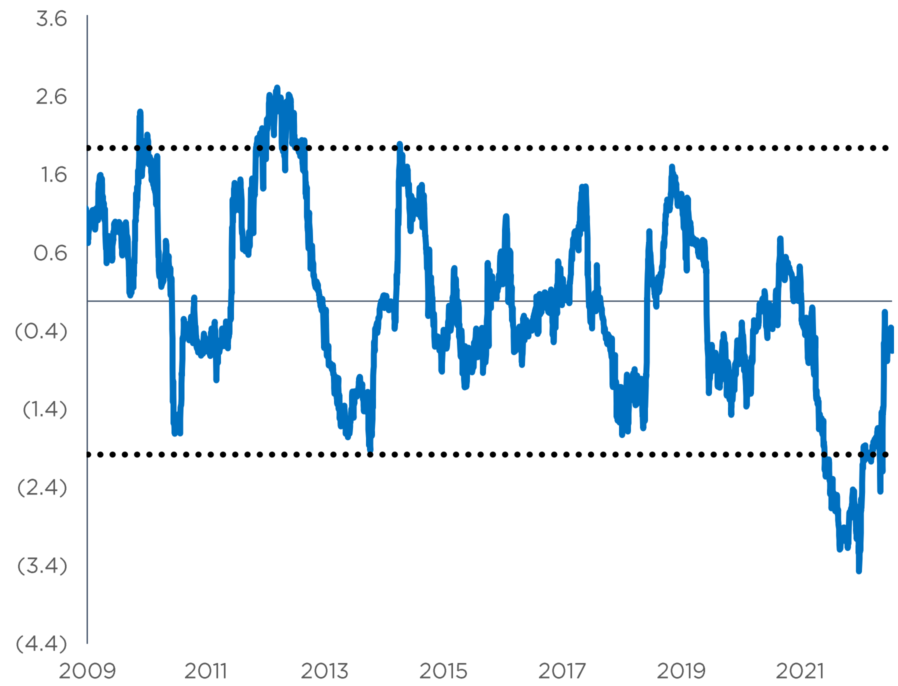
THE STRONG DOLLAR IS ASSOCIATED WITH SOME INDUSTRY RETURNS

The strong dollar catalyzed us to check for any statistically significant relationships between macro signals and consumer-industry stock returns. We saw a relationship between the Dollar:Euro and internet & direct marketing retail returns (left) earlier this year. As the dollar strengthened against the Euro, it was statistically significantly associated with negative stock performance for this industry. That has waned recently. Autos (right) had a strong negative relationship, meaning as the dollar strengthened against a broad basket of currencies it was associated with negative auto returns, though that was only the case last year, so likely was more spurious that illustrative (right).

Internet & Direct Marketing Retail
252d T-Stat of 42d Trend to Euro Spot Price
Through July 22, 2022

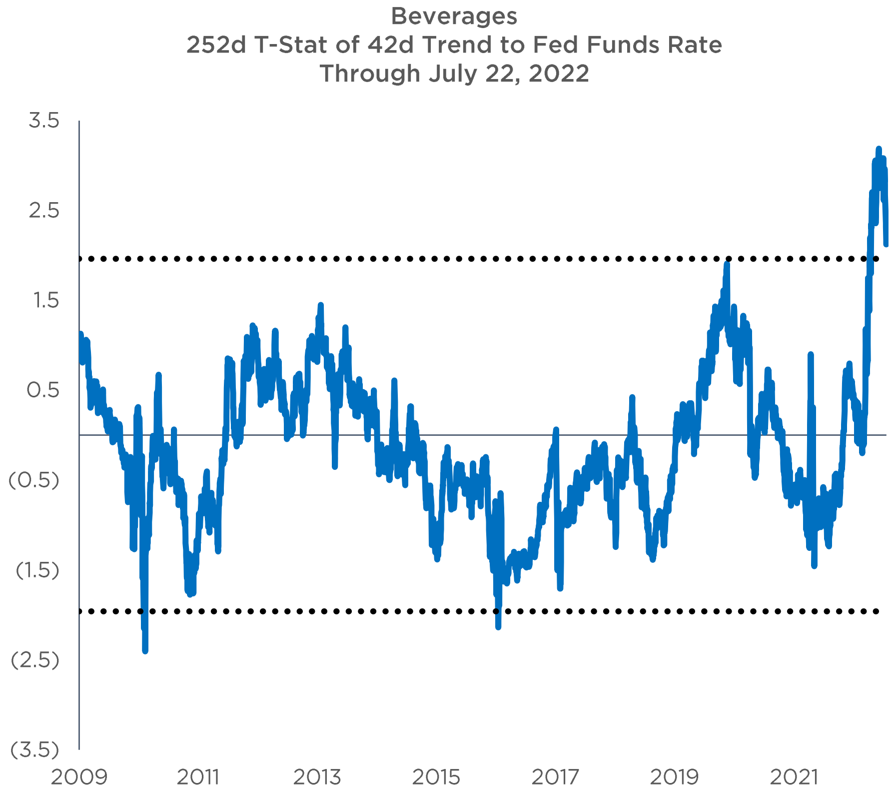


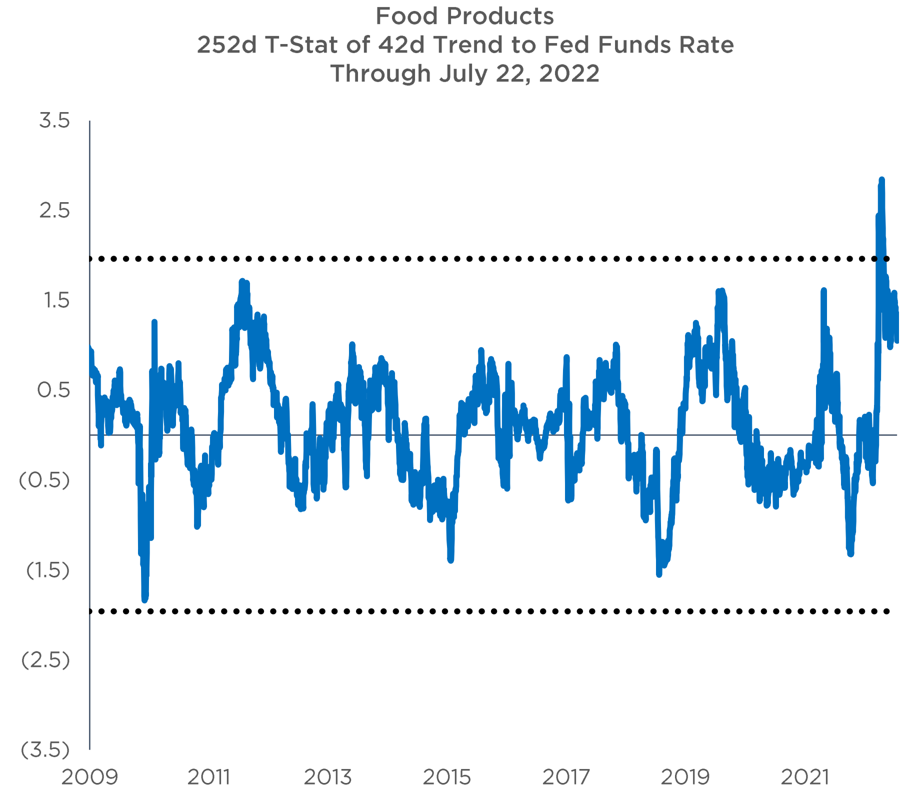
Automobiles
252d T-Stat of 42d Trend to Dollar index
Through July 22, 2022



FED POLICY IMPACTS CONSUMER-INDUSTRY RETURNS

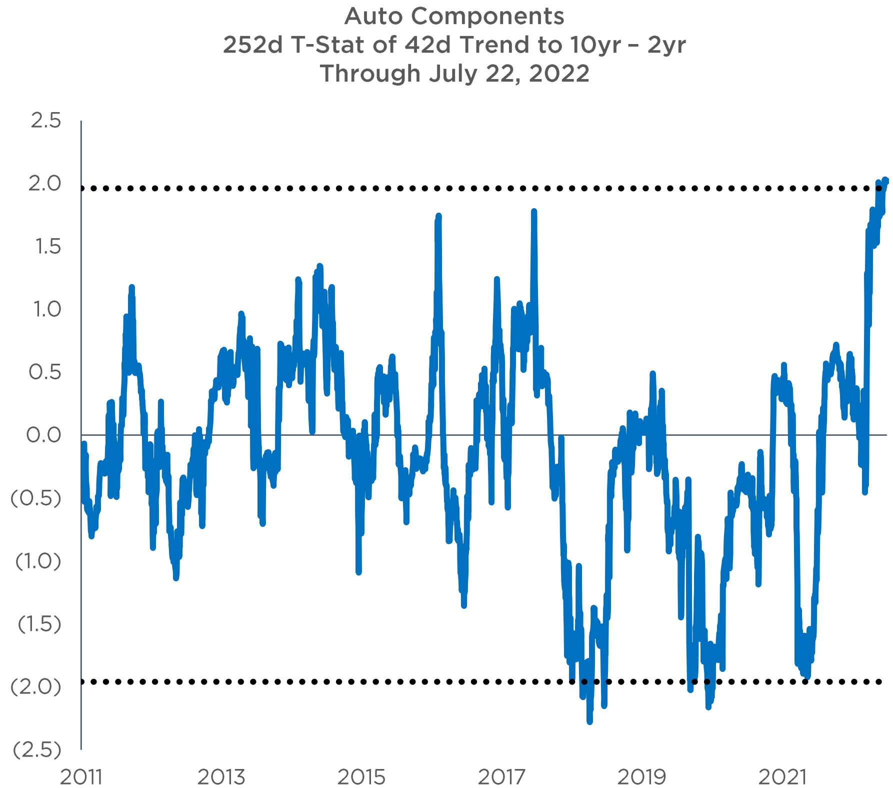
Changes to interest rates also matter for consumer industry returns. Beverages performed well when the Fed Funds Rate was rising (left). Food products also did (right), though that relationship is not statistically significant as of late, as other inputs (wages and commodity prices to name two) are mitigating factors impacting perceptions about their outlook, and hence, their returns.

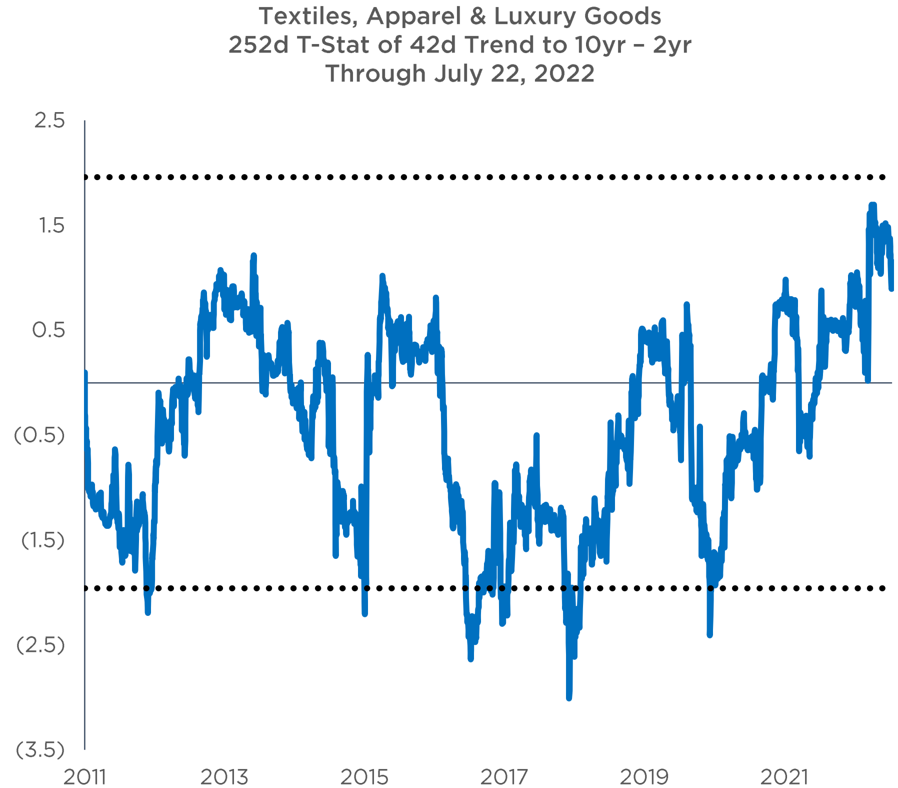




THE SHAPE OF YIELD CURVE MATTERS FOR RETURNS

A flattening curve seems to be positively and statistically significantly associated with auto industry returns today (left) though that was not the case for the previous cycles. For luxury goods, the relationship has started to become more substantial (right). We suspect that the inverted yield curve today will bring about some new and statistically significant relationships to consumer-industry returns. Recessions fears typically are associated with better returns for staples than discretionary stocks, but the valuations have been incredibly anticipatory, as we will show later.





ALPHA POTENTIAL: BETTER IN STAPLES THAN DISCRETIONARY

We looked for the potential to generate alpha in both the consumer discretionary and consumer staples sectors as macro conditions deteriorate.

On the negative side:

1. Valuation dispersion has narrowed for both sectors and is now near-long term averages.
2. Company-specific risk has materially declined for discretionary stocks making it largely a macro and interest rate call today. On the contrary, staples have structurally higher idiosyncratic risk than discretionary stocks and macro is explaining only an average amount of staples' returns today.
3. Pairwise correlations have risen sharply for consumer discretionary stocks, and are near cycle highs, whereas correlations among the staples' stocks are closer to average.

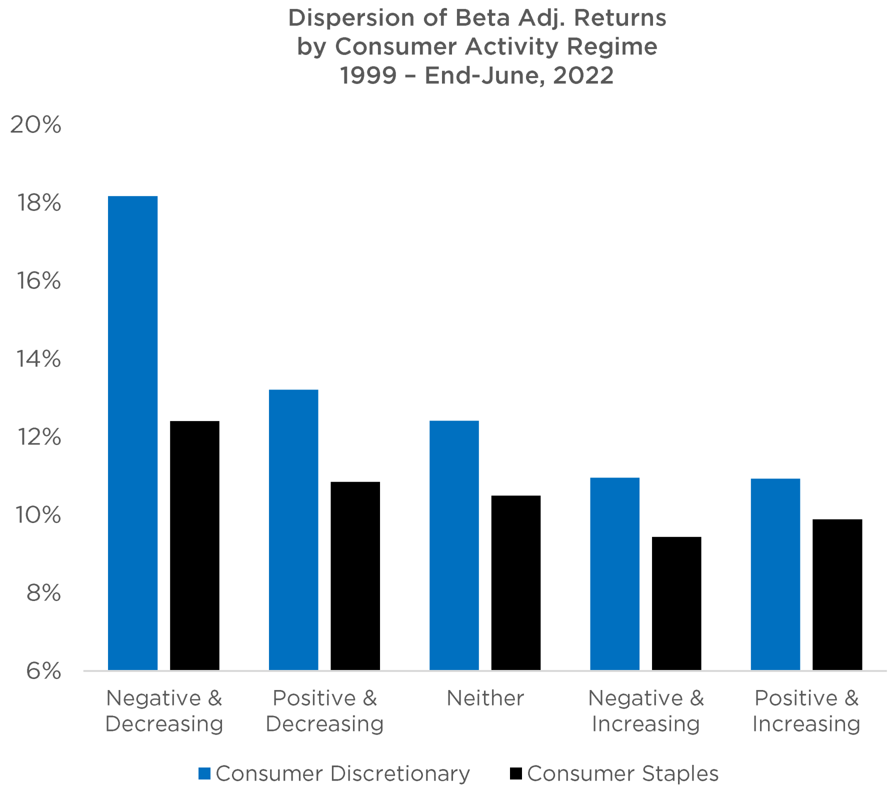
On the positive side:

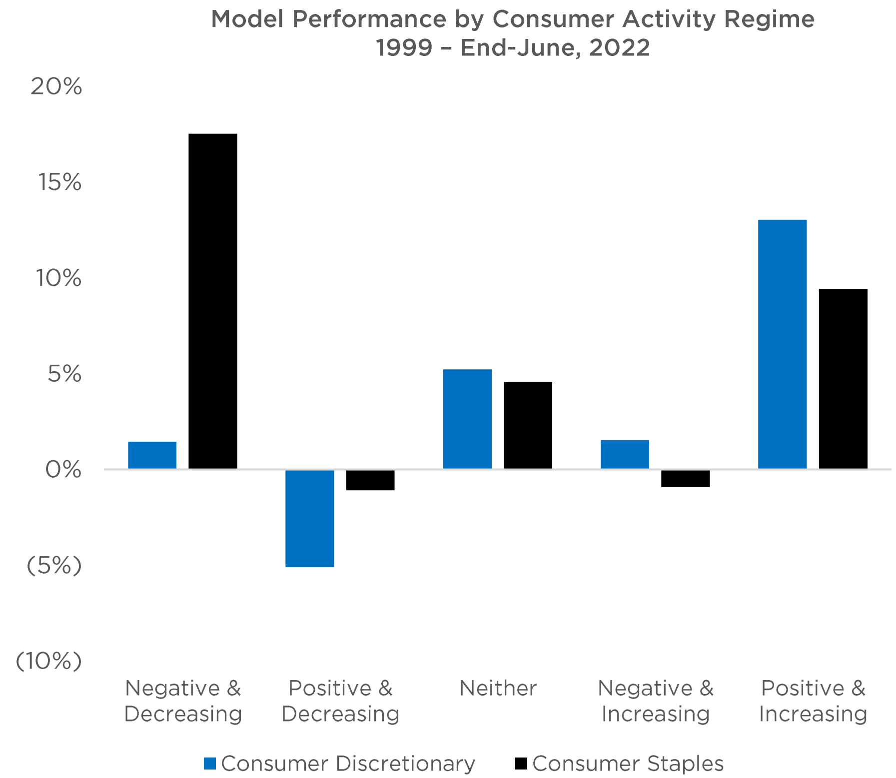
1. Return dispersion is typically wider when consumer activity is decreasing (where we are heading) than when it is increasing (where we were up until two months ago).
2. Our quantitative models tend to work better when consumer activity is decreasing than increasing for consumer staples.

Conclusion: On the margin, stock selection within staples should be easier than within discretionary over the coming months. **We would recommend running with a relatively low gross in consumer discretionary stocks (slightly to meaningfully below long-term averages) and a slightly above average gross to consumer staples.**

MODELS WORK WELL WHEN CONSUMER ACTIVITY IS DECREASING

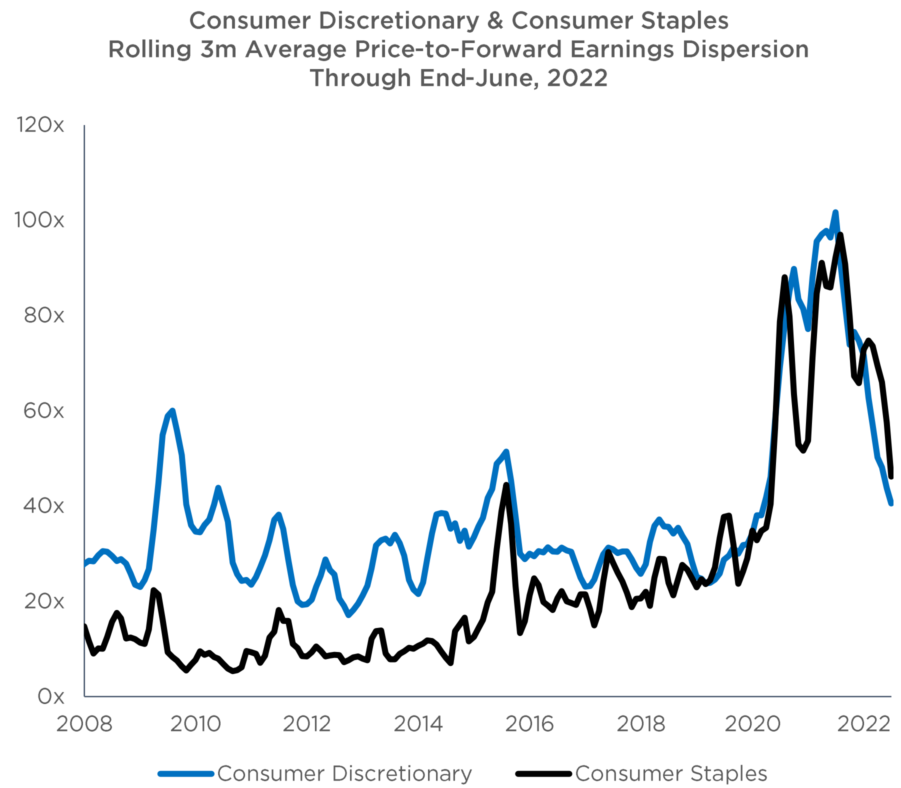
The returns of individual stocks within the discretionary and staples sectors are generally more disperse when consumer activity is decreasing than increasing (left). We observed how our quantitative stock-selection models perform (top vs. bottom quintile annual spread) in various consumer activity regimes. In general (right) our models perform better at distinguishing winners from losers when consumer economic conditions are negative and decreasing, particularly for consumer staples stocks. Rising tides can lift all boats but retreating tides can damage some more than others.

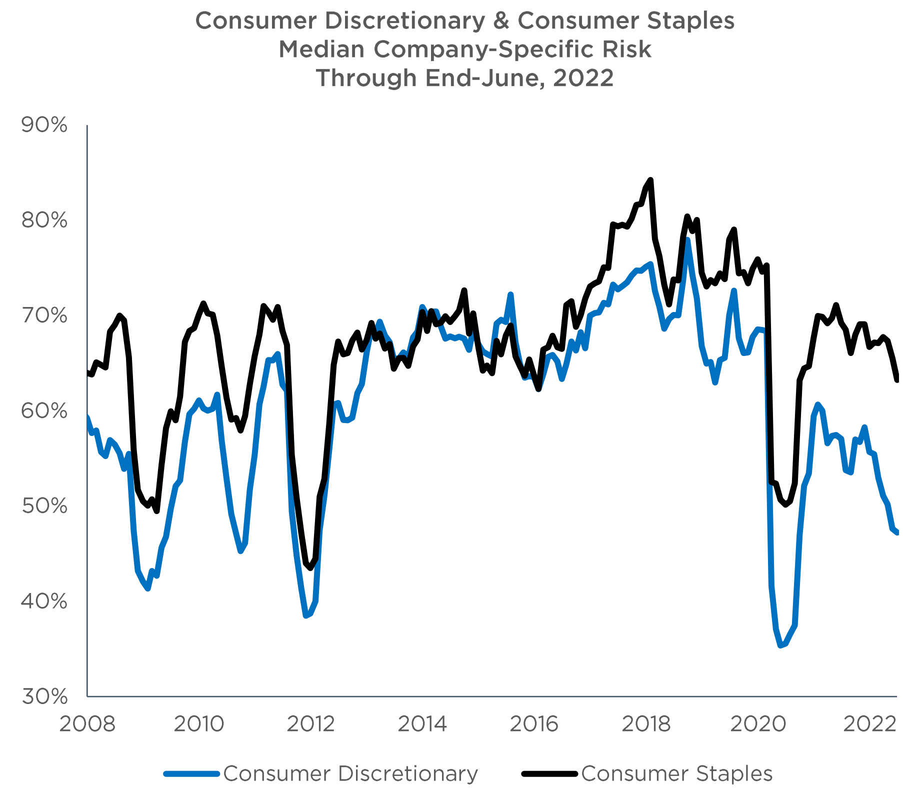




DISPERSION AND COMPANY-SPECIFIC RISK ARE DECLINING

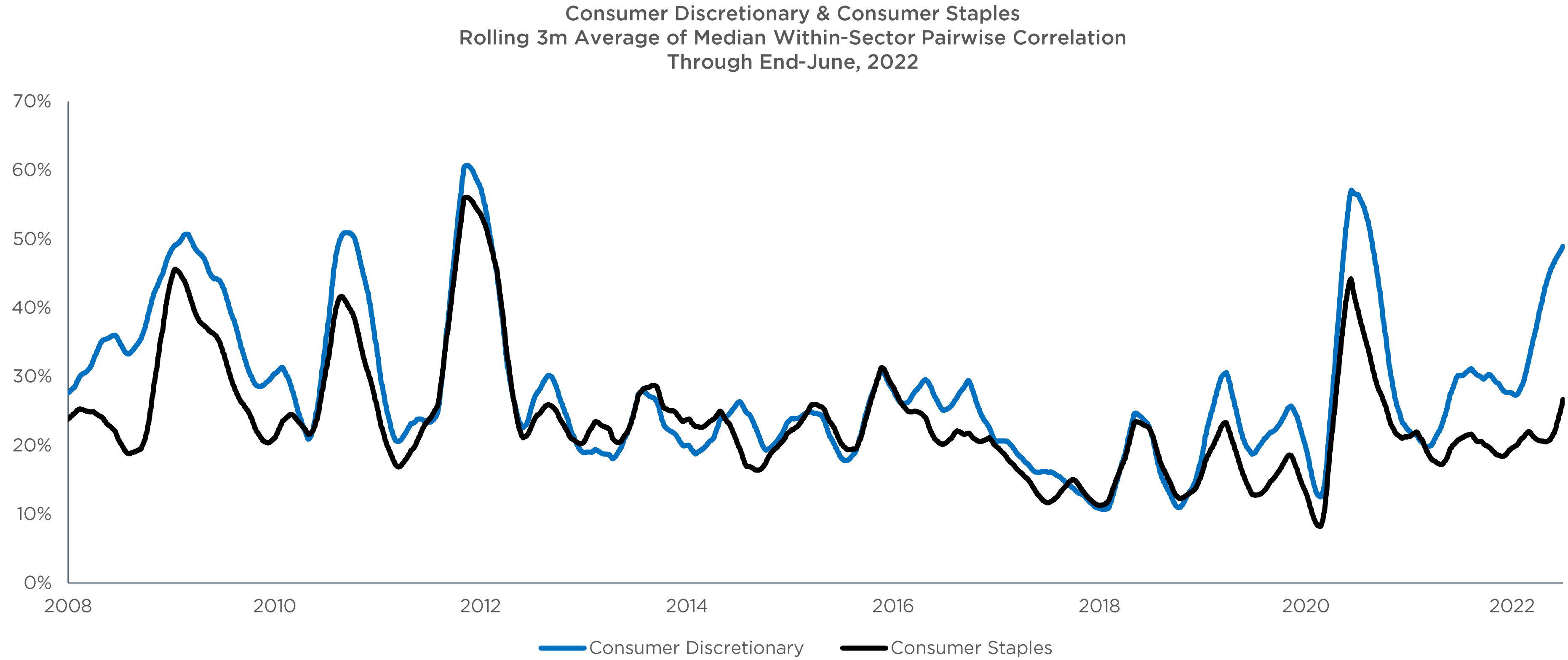
The standard deviation of the price-to-forward earnings for both the consumer discretionary and staples sectors (left) has declined sharply and is now closer to pre-COVID levels and only slightly above long-term averages. Company-specific risk is lower for discretionary, and in-line with long-term averages for staples. Discretionary tends to be more of a macro sector, so staples generally have structurally higher company-specific risk (right).





PAIRWISE CORRELATIONS HAVE INCREASED FOR DISCRETIONARY

We analyzed the rolling correlation of returns of stocks within both consumer sectors. Stocks have become increasingly correlated among the discretionary sector but are closer to long-term averages within staples. During prior risk-off regimes the staples sector saw bigger increases in pairwise correlations than we have seen so far this cycle.



FUNDAMENTALS AND VALUATION

We analyzed revenue growth, profitability (gross margins), and price-to-forward earnings for the various consumer sub-industries.   This environment has created some dislocations.

Nearly every consumer area has very high revenue growth vs. long-term averages. Profitability is high for all discretionary businesses excluding autos, and low for nearly all staples excluding personal products and tobacco. But valuation is bifurcated. Many discretionary stocks are historic low multiples, but many staples are at highs.

Revenue growth will decline: Looking at long-term revenue growth trends and comparing recent revenue growth to these trends makes it obvious – the consumer stocks have massively over-earned and revenue growth will materially slow in the coming quarters. Examples of elevated growth exist both in discretionary and staples, with both hotels, restaurants, and leisure and food products coming off of all-time high trailing 12-month revenue growth rates.

Profitability high for discretionary and low for staples: We think it is unlikely that as the consumer slows, businesses that have been able to raise pricing in the discretionary sector will be immune from margin pressure. Several industries, like textiles, apparel and luxury goods have expanded gross margins and have all-time high margins today. Contrarily, select staples, like household products, have all-time low margins. We think margin pressure is coming for discretionary, but some of that is in the price.

Valuation: In our judgment the same macro-economic assumptions are not equally discounted in stocks. The median specialty retail stock trades below 8x forward earnings today, vs. over 23x for the median household products company, despite the latter seeing trough profit margins. We do not see margins expanding as revenue disappoints, so the potential for multiple contraction among staples seems substantial.

GROWTH, PROFITS, AND VALUATION SIGNAL WIDE DISPERSION

This chart of revenue growth, gross margins, and price-to-forward earnings (growth, profits, and valuation) shows how nearly every consumer area has very high revenue growth vs. long-term averages. Profitability is high for all discretionary businesses excluding autos, and low for nearly all staples excluding personal products and tobacco. But valuation is bifurcated. Many discretionary stocks are historic low multiples, but many staples are at highs.

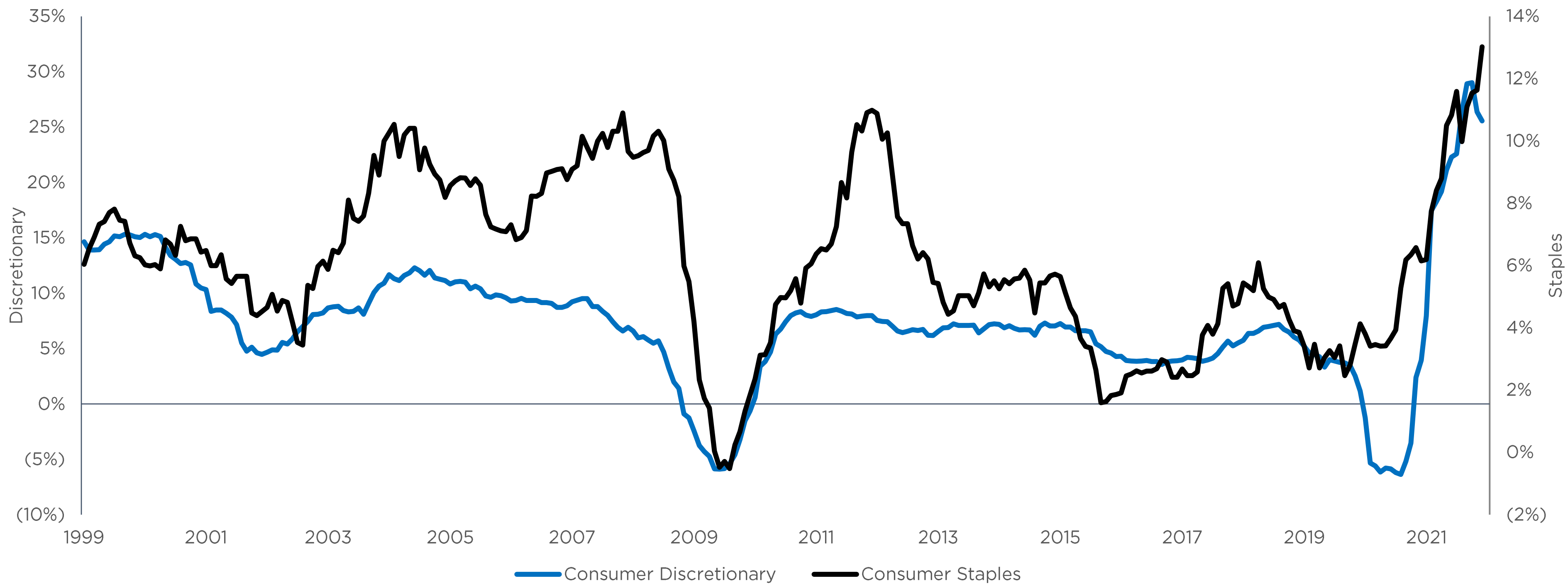
GICS Consumer Industries
End-June, 2022

	Revenue Growth		Gross Margin		Price-to-Forward Earnings	
Consumer Discretionary	Value	% Rank vs. History	Value	% Rank vs. History	Value	% Rank vs. History
Internet & Direct Marketing Retail	16%	42%	46%	84%	118.6x	96%
Diversified Consumer Services	16%	90%	55%	86%	24.0x	91%
Hotels, Restaurants & Leisure	64%	100%	42%	91%	22.8x	78%
Auto Components	17%	89%	19%	50%	15.0x	77%
Multiline Retail	10%	80%	38%	83%	16.5x	61%
Distributors	24%	92%	35%	89%	14.3x	17%
Textiles, Apparel & Luxury Goods	33%	99%	51%	97%	10.5x	7%
Leisure Products	25%	95%	37%	84%	10.5x	3%
Household Durables	18%	92%	28%	98%	7.5x	1%
Automobiles	45%	96%	16%	96%	(53.1x)	1%
Specialty Retail	20%	96%	38%	94%	7.6x	0%
Consumer Staples						
Food Products	16%	100%	24%	10%	21.7x	94%
Household Products	6%	69%	36%	0%	23.4x	94%
Beverages	14%	99%	42%	9%	25.6x	93%
Personal Products	23%	96%	64%	80%	22.6x	81%
Food & Staples Retailing	8%	62%	22%	19%	13.9x	13%
Tobacco	7%	85%	45%	50%	9.2x	9%

TRAILING REVENUE GROWTH IS AT ALL-TIME HIGHS – AND WILL FALL

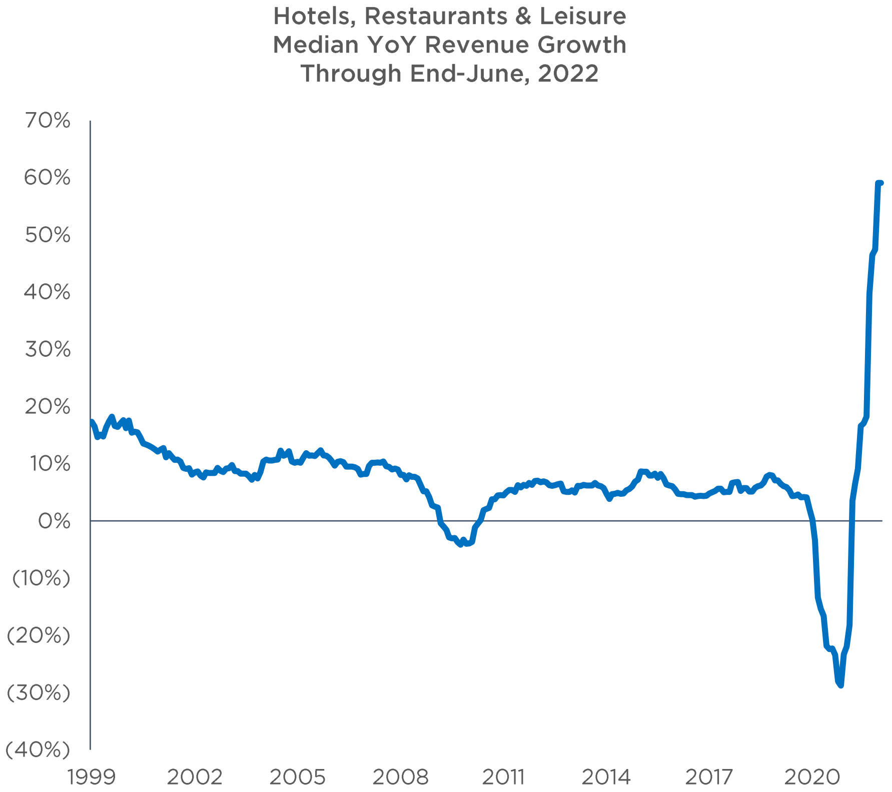
Most consumer sub-industries have grown their revenue between 6% and 8% per year over the last 25 years. Over the last 12 months, consumer discretionary and staples revenue growth has been near all-time highs. It is a near guarantee that revenue growth will materially slow, likely to below long-term trends, as so much consumption was pulled forward from the next couple of years. Stocks like HELE, WEBR, and COOK are good examples of where most of the consumers are saying “I am good” when it comes to ordering more products any time soon.

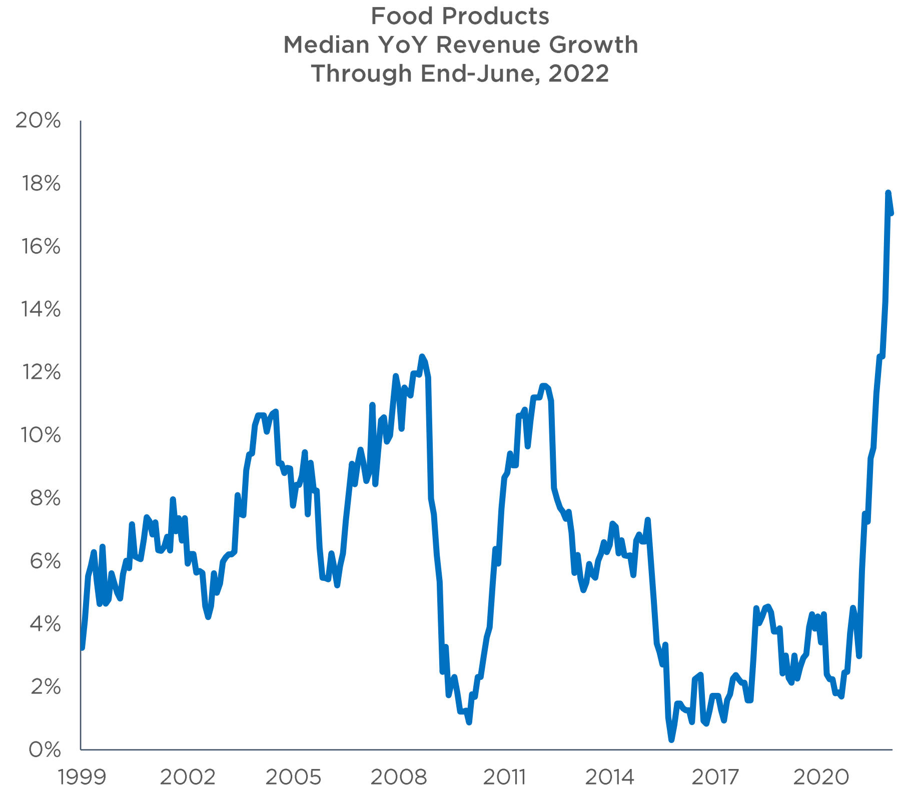
Median YoY Revenue Growth by GICS Sector
Through End-June, 2022



HOTELS AND FOOD ARE GOOD EXAMPLES OF ELEVATED GROWTH

Examples of industries where trailing growth strongly exceed long-term historical averages and likely will collapse exist both in discretionary and in staples. Hotels, restaurants, and leisure (left) and food products (right) have grown their trailing 12-month revenue at record highs and are poised for a collapse in year-over-year growth over the coming quarters.



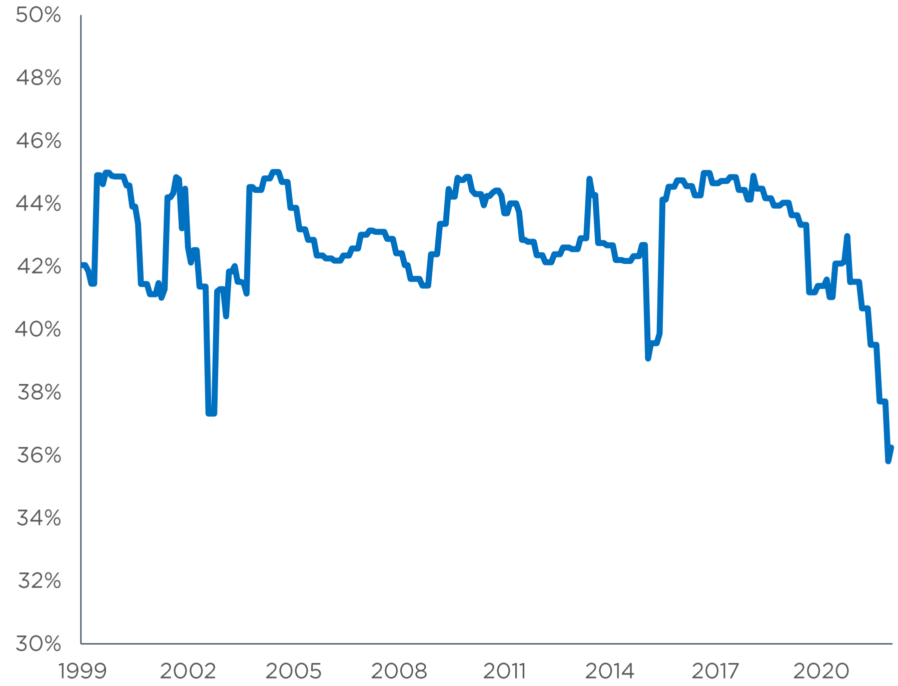


PROFITABILITY TRENDS HAVE DEVIATED

We looked at the gross margins of each sub-industry and found some diverging trends. Textiles, apparel, and luxury goods (e.g., NKE, LULU, VFC, TPR, CPRI) have enjoyed sustained pricing power for two decades, and that in part has fueled persistent gross margin expansion (left). Gross margins for the median stock are now at an all-time high, which is somewhat shocking given macro conditions. On the contrary, household products companies have seen sustained margin pressure and the median stock (e.g., PG, CL, CHD, KMB) has all-time low gross margins.

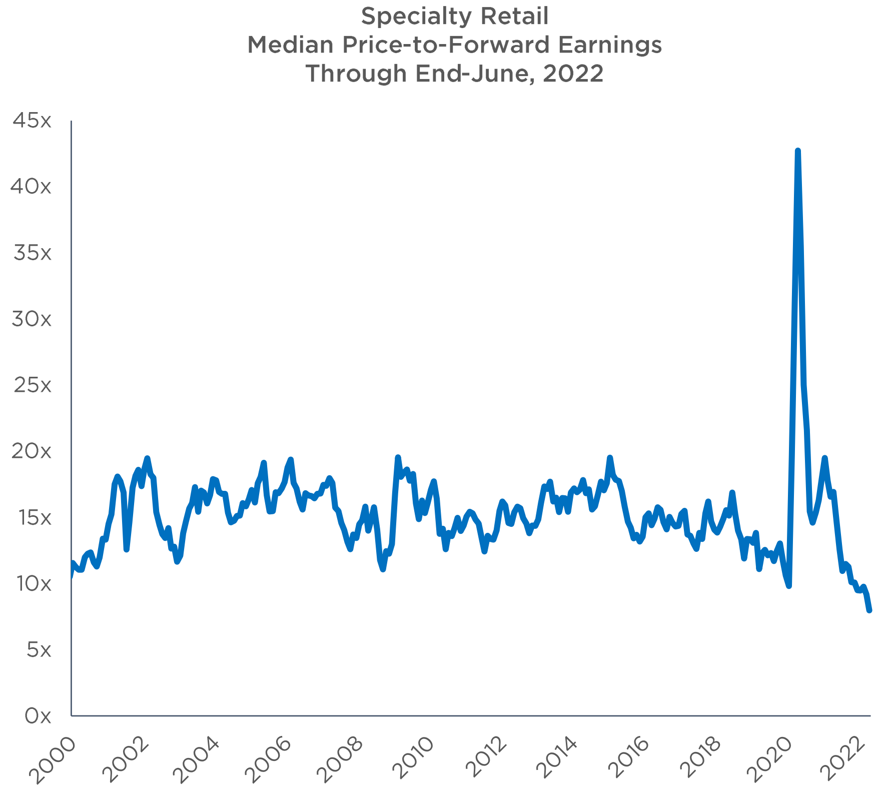
Textiles, Apparel & Luxury Goods
Median Gross Margin
Through End-June, 2022

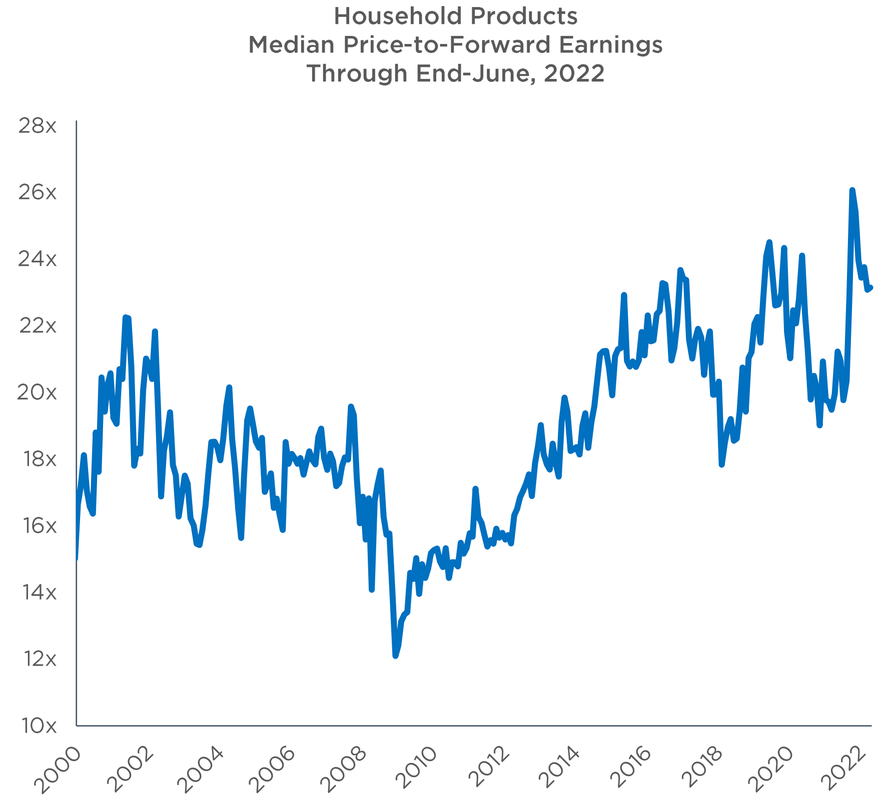
Household Products
Median Gross Margin
Through End-June, 2022



SPECIALTY RETAIL CHEAP AND HOUSEHOLD PRODUCTS EXPENSIVE

It appears that potential revenue declines are more "in the price" for discretionary stocks than for staples' stocks. Why do we say that? Many discretionary sub-industries have trough valuations (left), including specialty retail, where the median stocks now trades just below 8x forward earnings. On the contrary, the risk-off trade this year has caused many staples to get extremely expensive vs. their own history and in absolute terms. For instance, the median stock in the household products industry, despite trough profitability, currently trades near 23.5x forward earnings (right).





QUANTITATIVE ASSESSMENTS AND QUANTITATIVELY-DERIVED IDEAS

We analyzed over 200 signals and evaluated the performance of each over time. We show the performance each month of the top minus the bottom quintile on the 10 most / 10 least efficacious metrics for predicting subsequent stock return.

Within consumer discretionary, our model generated 4.1% spread in the first half of 2022. Price-to-EBITDA was the most effective metric, meaning if you longed the cheapest quintile and shorted the most expensive quintile of discretionary stocks you would have generated 51.6% return in 1H 2022. Highly volatile and high beta businesses lagged stable and low beta ones.

Unlike in discretionary, our quantitative models did not work well in 1H 2022 for consumer staples. But as you saw earlier, we think the time is now to start increasing position sizes as efficacy historically improved as consumer macro conditions slow. Forecasted growth and size mattered, where as volatility also failed. Valuations metrics were also effective at segmenting winners from losers within staples.

CONSUMER DISCRETIONARY: VALUATION HAS WORKED, VOL HAS NOT

We analyzed over 200 signals and evaluated the performance of each over time. Price-to-EBITDA was the most effective metric, meaning if you longed the cheapest quintile and shorted the most expensive quintile of discretionary stocks you would have generated 51.6% return in 1H 2022. EV-to-EBITDA, and price-to-forward earnings were also efficacious. On the other hand, high revenue growth companies lagged those with low revenue growth, as the market on average viewed this as cyclical.

Top 10 Best and Worst Signals Each Month, Rebalanced Monthly

Signal	January	February	March	April	May	June	Total Return
Trivariate Model Performance	(1.3%)	(2.7%)	0.8%	3.7%	2.2%	1.5%	4.1%
Price-to-Forecast EBITDA	10.9%	1.8%	(3.9%)	16.4%	13.7%	5.7%	51.6%
Enterprise Value-to-EBITDA	9.1%	(1.1%)	(3.2%)	15.8%	12.2%	10.4%	50.0%
Price-to-EBITDA	9.8%	(0.8%)	(2.6%)	14.7%	12.8%	8.4%	48.6%
Return on Tangible Book Value	7.3%	2.4%	(2.3%)	15.5%	4.5%	13.6%	47.3%
Price-to-Forward Earnings	9.8%	(2.0%)	(3.3%)	15.5%	8.4%	9.9%	43.2%
Price-to-EBIT	9.1%	(1.6%)	(3.0%)	14.9%	8.1%	10.3%	42.5%
6-Month Momentum	1.0%	4.1%	3.1%	10.2%	7.6%	10.8%	42.4%
Price-to-Operating Income	9.0%	(1.6%)	(3.0%)	14.9%	8.1%	10.3%	42.4%
1-Year Momentum	0.7%	3.6%	3.1%	9.4%	8.1%	11.9%	42.3%
EBITDA Margin	7.3%	1.4%	2.1%	11.2%	2.7%	11.9%	42.0%
3-Month Average Share Turnover	(3.2%)	(3.4%)	(0.8%)	(9.7%)	(6.6%)	(8.5%)	(28.4%)
R&D-to-Sales Stability	(5.7%)	1.7%	3.9%	(14.0%)	(11.9%)	(5.9%)	(29.0%)
1-Year Average Share Turnover	(4.5%)	(3.3%)	0.4%	(8.9%)	(9.7%)	(8.1%)	(29.9%)
1-Year Average Revenue YoY Growth	(11.7%)	(6.7%)	(9.8%)	(6.2%)	(2.4%)	0.8%	(31.5%)
SG&A Growth	(13.9%)	(2.3%)	(3.5%)	(7.4%)	(0.1%)	(9.2%)	(31.7%)
3-Month Beta	(2.6%)	(0.6%)	(2.1%)	(16.5%)	(5.9%)	(12.4%)	(34.8%)
Percent-to-1-Year High	(3.5%)	(4.8%)	(3.9%)	(13.1%)	(4.7%)	(13.2%)	(36.5%)
1-Year Beta	(7.1%)	(2.9%)	(5.1%)	(11.7%)	(5.2%)	(12.2%)	(37.1%)
1-Year Volatility	(7.0%)	(2.8%)	(2.6%)	(19.0%)	(7.4%)	(11.7%)	(41.7%)
3-Month Volatility	(7.0%)	(3.4%)	(4.5%)	(18.3%)	(3.6%)	(15.3%)	(42.7%)

CONSUMER STAPLES: GROWTH AND VALUATION WORKED, VOL FAILED

Unlike in discretionary, our quantitative models did not work well in 1H 2022 for consumer staples. Valuation metrics worked, but forward earnings per share growth and forecasted revenue growth were even more effective year-to-date in separating winners from losers. Highly volatility companies lagged those that were stable by 41% in the first half of 2022.

Top 10 Best and Worst Signals Each Month, Rebalanced Monthly

Signal	January	February	March	April	May	June	Total Return
Trivariate Model Performance	(2.2%)	(5.7%)	0.7%	0.8%	(1.5%)	8.1%	(0.4%)
2-Year Forward EPS	10.8%	(3.1%)	2.7%	20.2%	9.8%	9.3%	59.1%
2-Year Forecast Revenue	11.8%	3.3%	1.3%	11.6%	8.2%	8.4%	53.3%
Return on Tangible Book Value	4.2%	(2.0%)	(1.7%)	17.1%	10.3%	13.8%	47.6%
Market Capitalization	11.5%	(2.4%)	0.5%	10.7%	8.6%	10.7%	45.5%
Net Margin	6.6%	(4.9%)	1.3%	16.3%	9.2%	10.8%	44.5%
Price-to-Earnings	7.9%	(2.5%)	4.5%	15.5%	9.4%	3.5%	43.9%
Price-to-Net Operating Profit After Taxes	8.1%	2.4%	5.3%	10.1%	4.8%	6.1%	42.8%
Price-to-Operating Cash Flow	7.8%	1.1%	6.4%	8.6%	4.2%	8.3%	42.2%
Price-to-Forecast EBITDA	6.3%	6.3%	7.4%	5.6%	6.2%	4.0%	41.5%
Enterprise Value-to-Operating Cash Flow	7.3%	(0.6%)	5.7%	10.8%	6.5%	6.3%	41.3%
6-Month Average Share Turnover	(8.0%)	4.5%	(5.0%)	(9.2%)	(4.1%)	(6.2%)	(25.4%)
Cash Ratio	(3.1%)	(2.5%)	(1.5%)	(7.5%)	(5.3%)	(10.7%)	(27.3%)
Forecasted Revenue Growth	(6.4%)	4.5%	(1.3%)	(6.3%)	(9.7%)	(12.7%)	(28.7%)
Cash-to-Assets	(3.7%)	(2.0%)	(3.2%)	(6.9%)	(8.1%)	(9.2%)	(29.1%)
1-Year Volatility	(11.5%)	4.6%	(0.8%)	(9.1%)	(8.4%)	(8.9%)	(30.3%)
Sales-to-SG&A	(9.0%)	(5.8%)	(3.0%)	(7.7%)	(8.5%)	(1.3%)	(30.7%)
SG&A Growth	(9.4%)	(4.6%)	(1.4%)	(9.7%)	(1.5%)	(10.0%)	(31.7%)
Market Capitalization Rank	(11.5%)	2.4%	(1.3%)	(10.7%)	(8.6%)	(11.6%)	(35.4%)
2-Year Forecasted Revenue Growth	(11.2%)	1.8%	(5.4%)	(8.5%)	(9.4%)	(12.7%)	(38.2%)
3-Month Volatility	(17.5%)	5.3%	(1.5%)	(14.3%)	(9.9%)	(10.7%)	(41.0%)

QUANTITATIVELY-DERIVED CONSUMER STOCK IDEAS

Within discretionary, we prefer quality to junk among stocks that are highly correlated to our reopening basket. Long ideas have more realistic revenue and margin expectations. Among staples, average valuation and profit margin expectations are preferred to extreme levels. We prefer stocks with lower correlation to our "work-from-home" basket, as over-earnings is more likely for those stocks. We would avoid stocks that are loved by the sell-side.

Select Quantitatively-Derived Stock Ideas
End-June, 2022

Longs				Shorts			
Ticker	Company Name	Industry Group	Market Cap ($ US. Bil)	Ticker	Company Name	Industry Group	Market Cap ($ US. Bil)
BKNG	Booking Holdings Inc.	Consumer Services	71.05	MNST	Monster Beverage Corporation	Food, Beverage & Tobacco	49.10
ABNB	Airbnb, Inc.	Consumer Services	56.70	HAS	Hasbro, Inc.	Consumer Durables & Apparel	11.42
GRMN	Garmin Ltd.	Consumer Durables & Apparel	18.97	PHM	PulteGroup, Inc.	Consumer Durables & Apparel	9.42
CAG	Conagra Brands, Inc.	Food, Beverage & Tobacco	16.43	TPR	Tapestry, Inc.	Consumer Durables & Apparel	7.69
EXPE	Expedia Group, Inc.	Consumer Services	14.90	CPRI	Capri Holdings Limited	Consumer Durables & Apparel	5.86
SJM	The J. M. Smucker Company	Food, Beverage & Tobacco	13.64	BLD	TopBuild Corp.	Consumer Durables & Apparel	5.45
NVR	NVR, Inc.	Consumer Durables & Apparel	13.17	PVH	PVH Corp.	Consumer Durables & Apparel	3.81
TAP	Molson Coors Beverage Company	Food, Beverage & Tobacco	11.83	SIG	Signet Jewelers Limited	Retailing	2.49
SKY	Skyline Champion Corporation	Consumer Durables & Apparel	2.70	ELF	e.l.f. Beauty, Inc.	Household & Personal Products	1.60
SHOO	Steven Madden, Ltd.	Consumer Durables & Apparel	2.57	DIN	Dine Brands Global, Inc.	Consumer Services	1.09
USNA	USANA Health Sciences, Inc.	Household & Personal Products	1.39	LZB	La-Z-Boy Incorporated	Consumer Durables & Apparel	1.02
BVH	Bluegreen Vacations Holding Corporation	Consumer Services	0.50	GIII	G-III Apparel Group, Ltd.	Consumer Durables & Apparel	0.98

RESEARCH CONCLUSIONS

Revenue will miss: Revenue short-falls are likely and could be substantial. Long-term average revenue growth rates for nearly every consumer sub-sector have been 6-8% per year for 20+ years, yet the last 12 months have shown 20%+ growth nearly everywhere. That will end, and investors who think this earning's seasons resilience "is the beginning of the end" of downward revisions will be disappointed, as it is probably closer to "the end of the beginning".

Staples will see multiple contraction: Discretionary stocks have valuations discounting an earnings short fall more than staples, as is common during risk-off regimes, but the staples valuations today appear disconnected from reality. We expect downward revisions and lower multiples for staples.

Gross up staples, gross down discretionary: Return dispersion, model efficacy, valuation dispersion, pairwise correlation, and company-specific risk assessments lead us to conclude that stock selection should be easier in staples than discretionary over the coming months.

Stock ideas should focus on relative estimate achievability and valuation (see slide 28).

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