

# Sector sentiment in high inflation

Investor Sentiment Research Note | February 2023

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## Introduction

This Addepar Investor Sentiment Index (ISI) research note is designed to provide transparency into the investment behavior of the wealthiest tier of investors. Leveraging Addepar's network of RIAs and family offices, we analyze anonymized investment data on our platform to gain insight into how ultra-high-net-worth (U/HNW) investors are making portfolio adjustments, effectively capturing their views on the economy and markets. Additionally, where relevant, we conduct client interviews to supplement the data analysis presented. To ensure privacy, we never disclose identities.

## Takeaways

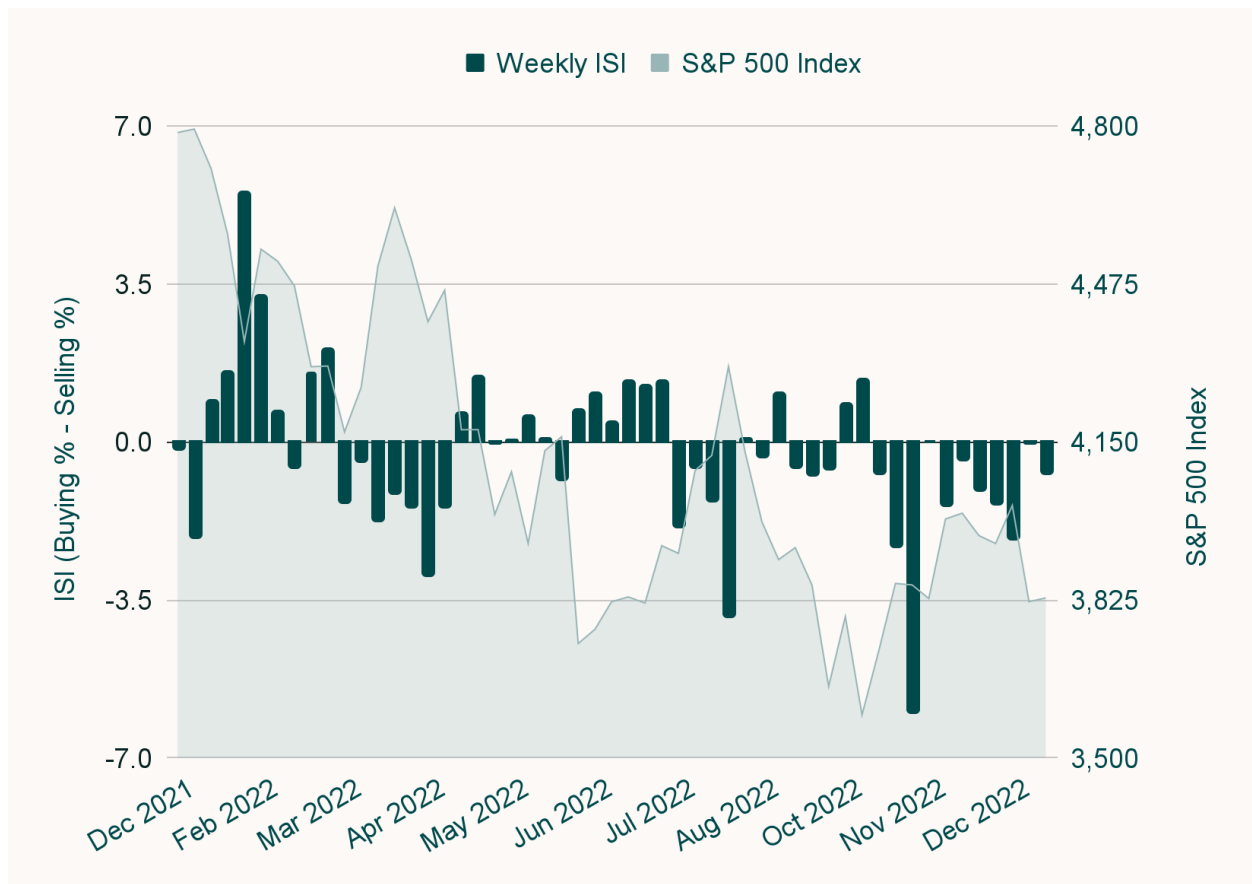
- After beginning the year relatively bullishly, investor sentiment turned negative for the second half of 2022, even as the year-long sell-off steadied in Q4.
- Our factor risk model shows that inflation sensitivities were strong predictors of sector excess returns in 2022 as well as investor sentiment. The consumer cyclical sector is most negatively sensitive while energy has the strongest positive sensitivity to inflation.

The S&P 500 lost 19.4% in 2022, the largest drawdown since the onset of the pandemic. Through the end of July, investor sentiment moved in the opposite direction of market performance (effectively rebalancing behavior). Subsequently, investors were mostly bearish with only three weeks recording positive sentiment over the rest of the year. This is particularly pronounced due to seasonality we tend to see at the end of the year, influenced by the mechanical effects of dividend reinvestment. The negative sentiment in the latter part of 2022, particularly in Q4, contrasts with positive market performance and other market indicators such as forward earnings.

**Exhibit 1**

Weekly ISI vs. S&P 500

December 31, 2021–December 31, 2022



Source: Addepar

In Exhibit 2 below, we apply our macro risk lens to assess the sensitivity of sector performance, as measured by its excess return over the S&P 500. Because inflation has been the driving factor in 2022, we dive deeper into analyzing this<sup>1</sup>. A positive inflation sensitivity signifies that a sector tends to perform better in increasing inflationary environments than in decreasing inflationary environments, while sectors with negative sensitivity perform better in decreasing inflationary environments. The higher the sensitivity, the more inflation has tended to affect a sector's overall performance in relation to broader equities.

In 2022, inflation factor sensitivity was a strong predictor of performance. This was particularly true of energy and consumer cyclicals, while being more modest for other sectors. Energy, which has historically performed well in environments with rising inflation, had outstanding returns in 2022. Conversely, the consumer cyclicals sector, which tends to underperform in falling inflationary environments, performed poorly. Sectors with more modest inflation sensitivity—such as basic materials, technology and utilities—had mixed results relative to the broader market in 2022.

Looking ahead, 2023 has started with confirmation that broad measures of inflation are easing, with major consumer and producer inflation indices decelerating on a year-over-year basis<sup>2</sup>. Should inflation continue to cool, we may see a rebound in anti-inflationary sectors such as consumer cyclicals and communication services in the coming year<sup>3</sup>. In the months ahead, we will expand our study to include factors such as changes in growth, volatility and real rates of return in order to better understand how these additional forces drive sector performance.

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<sup>1</sup> For more information, please see the Appendix.

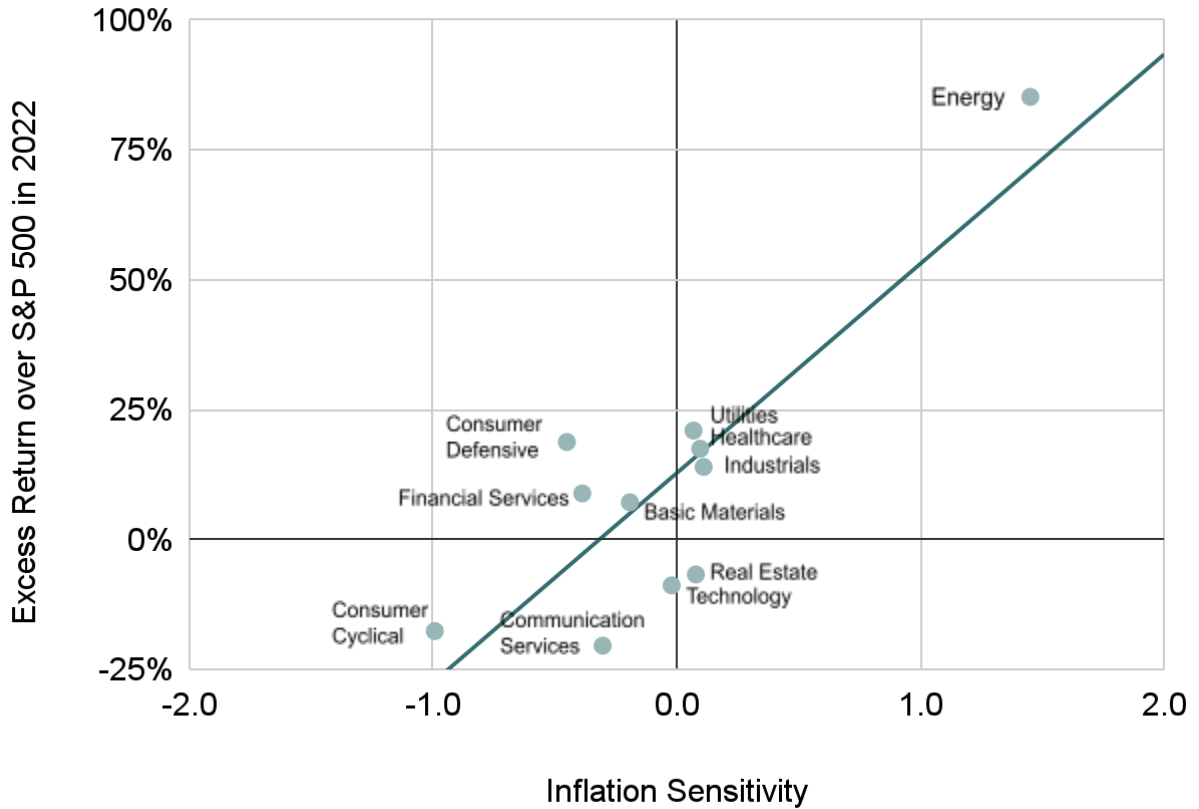
<sup>2</sup> For more details, please see February's Monthly Market Update.

<sup>3</sup> It's important to note that factor sensitivities shared in this note are long-term averages, which hide dispersion in outcomes. A more complete scenario analysis would yield a range of possible outcomes.

**Exhibit 2**

Historical inflation sensitivities were strong predictors of sector returns in 2022.

**Sector sensitivity to inflation vs. 2022 sector performance**



Source: Addepar, Refinitiv

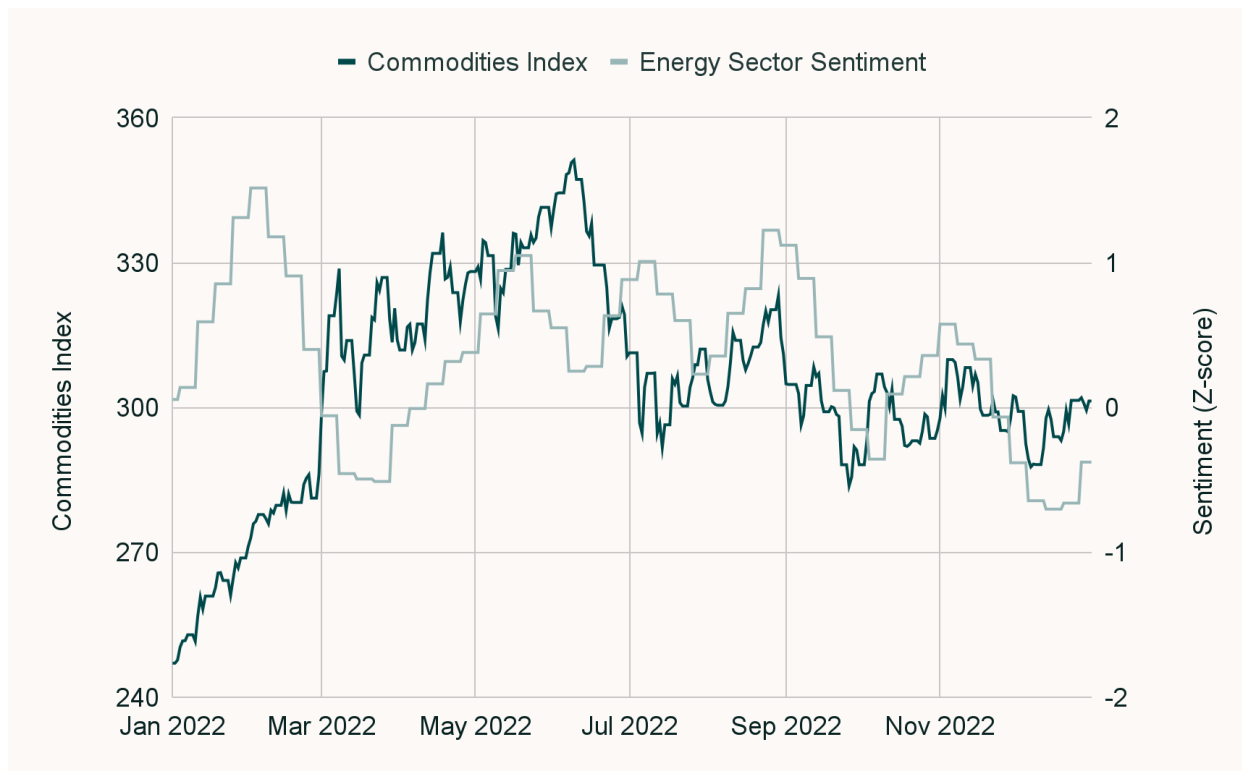
Inflation sensitivity is measured as the difference in risk–return tradeoff for a given sector in increasing versus decreasing inflationary environments. An increasing environment is defined as one in which the current month’s annualized inflation is higher than the average annualized inflation over the previous 12 months; decreasing is defined similarly, but below the rolling average. Monthly sector–level performance data from 2001 through 2021 was used to calculate inflation sensitivity. An inflation sensitivity of +1 signifies that a sector performs one standard deviation better on average in increasing inflationary environments than it does in decreasing environments. Excess returns were calculated as the sector return minus the S&P 500 return on a monthly basis in a given inflationary environment.

Exhibit 3 below presents investor sentiment in the energy sector during 2022 compared to commodity prices. We see that investor sentiment closely tracked commodity prices throughout much of 2022, with the only exception being the period from mid-February to mid-March when investor sentiment fell as commodity prices rose. This “blip” coincides with markedly higher market uncertainty surrounding Russia’s initial invasion of Ukraine. Notably, we also saw dislocations between sentiment and total returns in both the consumer defensive and financial services sectors from mid-February to mid-March.

**Exhibit 3**

Bullish energy sentiment accompanied large increases in commodity prices in 2022.

**Energy ISI vs. Commodity Prices, Jan 2022–Dec 2022**



Commodity prices are represented by the Commodity Research Bureau (CRB) index level. Sentiment is calculated as the monthly rolling average of weekly sentiment Z-scores, calculated over the sample period of Jan 2018–Dec 2022. Z-scores (or “standard scores”) are defined as  $z = (x - \mu) / \sigma$ , where  $\mu$  is the mean of the sample and  $\sigma$  is the standard deviation of the sample. For reference, a Z-score with a magnitude larger than -1 or 1 has a probability of ~16%. A Z-score with a magnitude larger than -2 or 2 has a probability of approximately 4%.

Source: Addepar, Morningstar

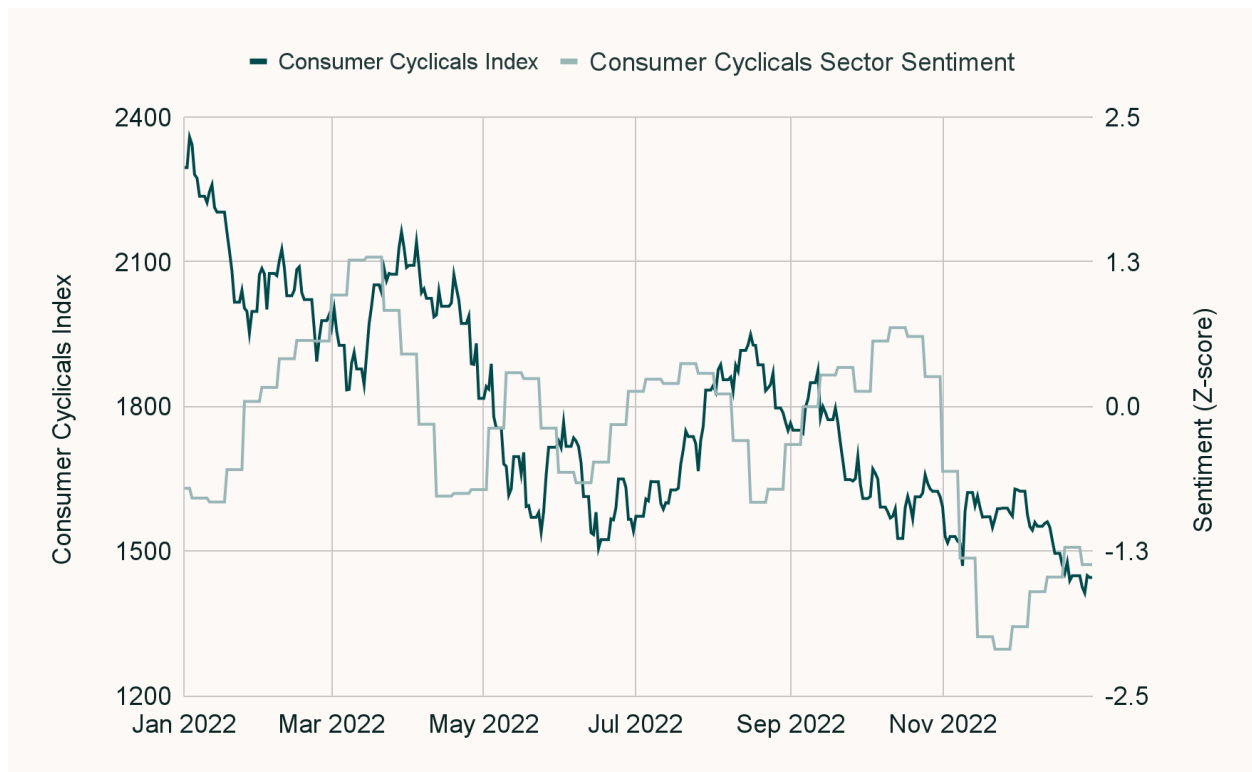
The consumer cyclicals sector was another good example of how inflation sensitivities can impact investor sentiment and asset returns. Historically, consumer cyclical companies have benefited more from decreasing inflation than from increasing inflation relative to companies in the broader market. This was true again in 2022, as the consumer cyclical sector underperformed the S&P 500 while inflation rose for much of the year.

Exhibit 4 below compares the consumer cyclical sector during 2022 to the consumer cyclical total return index in 2022. Investor sentiment was broadly bearish for most of the year as consumer cyclicals fell. Although not statistically significant, sentiment appears to lead performance of the sector by approximately one month for much of the year.

**Exhibit 4**

Consumer cyclical sentiment closely tracked consumer cyclical total returns in 2022.

**Consumer Cyclical ISI vs. Consumer Cyclical Total Return Index, Jan 2022–Dec 2022**



Sentiment is calculated as the monthly rolling average of weekly sentiment Z-scores, calculated over the sample period of Jan 2018–Dec 2022. Z-scores (or “standard scores”) are defined as  $z = (x - \mu) / \sigma$ , where  $\mu$  is the mean of the sample and  $\sigma$  is the standard deviation of the sample. For reference, a Z-score with a magnitude larger than -1 or 1 has a probability of ~16%. A Z-score with a magnitude larger than -2 or 2 has a probability of approximately 4%.

Source: Addepar, Morningstar

## Conclusion

In this research note, we've expanded our coverage of net sentiment and sectors to include a lens to account for exposures to inflationary risk. We'll continue to develop macro lenses as well as analytics that provide additional value to our clients through the aggregated and anonymized investment data on our platform. We'll also keep posting the monthly ISI index, our key observations and periodic research notes on our website.

## Appendix

We've developed a number of risk lenses to assess your portfolios and the assets held within them. These risk lenses recognize that every security or asset class is essentially a packaging of underlying exposures. The macro risk lens can be helpful in understanding the range of possible outcomes under different economic scenarios. As a first step, we select a set of risk factors for our analysis that represent broad drivers of asset class performance. In this context, considerations such as economic growth, inflation and overall risk premiums are front and center.

Macro factors	Description	Intent
Growth	Most recent real growth print relative to average of previous year	Captures sensitivity to economic growth and profitability of companies
Inflation	Most recent inflation print relative to average of previous year	Captures sensitivity to changes in inflation rates
Volatility	Previous month of equity volatility relative to previous year of equity volatility	Captures sensitivity to the changes in equity market volatility
Real interest rates	Previous month's average real interest rates relative to previous year real interest rates	Captures sensitivity to the real future interest rate risk

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