

RESEARCH NOTE / NOVEMBER 2020

Portfolio Trading Activity in the Addepar Investor Sentiment Index(SM)

We recently introduced the Addepar Investor Sentiment Index ("ISI"), which measures investor optimism based on portfolio-level trading activity. One of the most common questions we have received since launch is whether the Investor Sentiment Index is really representative of the broad investor base, or if it is skewed by a small group of highly active traders?

To answer this question, we first analyze the dispersion in activity across investors in our sample, and then determine whether the ISI varies by activity level. We conclude:

- There is a big dispersion in activity across portfolios: the bottom quartile of all portfolios by activity change their position less than 15% of the time (or less than 2 months out of the year), and the top quartile does so in at least 9 out of 12 months.
- The ISI tracks the overall sentiment in the U/HNW investor community well, and does not vary significantly by investor activity levels.

Background

The Addepar Investor Sentiment Index (ISI) is a transaction-based index of U/HNW investor sentiment derived from U.S. equity transactions on the Addepar platform. The index distills every U.S. equity market transaction for portfolios with greater than \$10 million in total holdings on Addepar into a single number: *the percentage of portfolios buying U.S. equities minus the percentage of portfolios selling U.S. equities*.

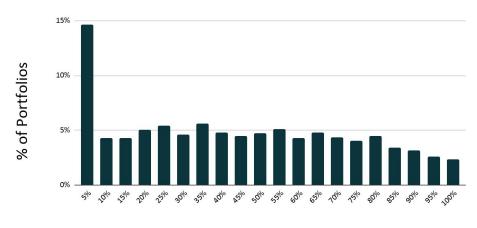
If you're interested in a more detailed description of the index and its methodology, you can read our white paper <u>here</u>.

Distribution of portfolio activity

We first group portfolios included in the index by the frequency of their trading. To do this, we pick U/HNW portfolios that have at least 12 months of trading activity. We define a portfolio to be active in any given month if the net flow (in absolute value terms) for the portfolio is greater than .1% of the portfolio. The reason for this is to reduce (though not fully eliminate) the effect of inadvertent or mechanical portfolio activity that likely doesn't represent substantive changes in investor sentiment. In other words, we take the monthly net purchases in U.S. equities as a percentage of the total value of a portfolio to gauge activity. If the absolute value of this number is > .1%, we conclude that the portfolio has been active for the month. We then express the number of months a portfolio has been active as a percentage of the total number of trading months (e.g. a portfolio that has been active 6 out of 12 months is viewed as active 50% of the time).

Figure 1 shows the histogram of portfolios by activity. You can think of the left side of this chart as investors who either rebalance infrequently or are passive investors (buy-and-hold investors). On the right side of the chart are active investors who more frequently rebalance portfolios. As you can see, about 15% of the portfolios are never or rarely active. From there, the distribution is surprisingly uniform until it reaches approximately the 80% activity level and begins to taper off. The relative uniformity of the distribution is suggestive that it's not the same group of investors that constitute the ISI every month.

Figure 1: Histogram of portfolio activity



% of Months Portfolio is Active

Source: Addepar Analytics

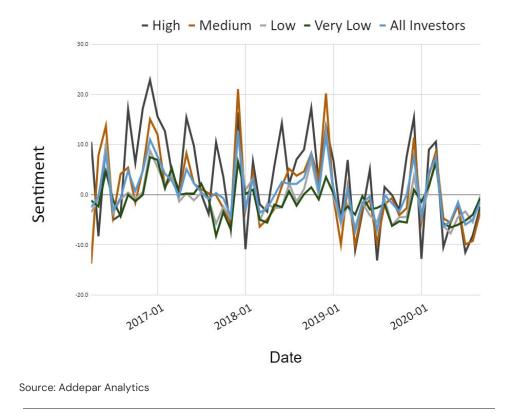
Sentiment based on activity levels

We now look at the Investor Sentiment Index based on activity levels. For ease of analysis, we take the portfolios, put them into quartiles (high-, medium-, low- and very-low-activity accounts) and calculate the ISI against each one. Figure 2 shows the history of the ISI calculated for each quartile.

As we compare across groups, we see at first glance a lot of consistency. The ISI appears to capture portfolio sentiment that is broad-based and not specific to a particular quartile of investors. Said differently, the sentiment expressed by highly active investors is similar to that expressed by those with inactive portfolios, once we account for different quartiles having different activity levels, and hence different absolute levels of the ISI on average.

It's particularly interesting to see that active and inactive traders alike sold during the pandemic. Starting in April of 2020, the ISI for each quartile is negative. This is broadly consistent with the historically contrarian behavior of this investor class—although one might have hypothesized that active traders would be more inclined to be net bullish, similar to the fast-growing active retail investor group. But this was not the case. Similarly, selling was broad based and also extended to the very-low-activity category of UHNW investors.

Figure 2: ISI by portfolio trading activity quartiles April 2016–September 2020



Per Figure 3, the correlations between the quartiles range from .6 to .9. These are supportive of the time-series comparisons. The high-activity quartile seems to show the least correlation to the others. It appears that this is caused by the particularly bullish reads relative to other groups during certain periods (e.g. September 2016 to February 2017).

Figure 3: Portfolio trading activity quartile ISI correlations April 2016–September 2020

9	High	Medium	Low	Very Low
High	1.00	422	- 22	
Medium	0.70	1.00		
Low	0.64	0.87	1.00	
Very Low	0.58	0.72	0.88	1.00

Source: Addepar Analytics

Additional evidence for our finding that sentiment is broad-based across the activity levels of investors lies in correlations to equity markets. The quartile-based ISIs have relatively consistent correlations across the quartiles and with the current and future market returns—with the exception of the very-low-activity investors¹. For this quartile, the correlation to future market returns is very low (.08), as you might expect.

oisi Equity neturn	Investor Activity Quartiles:				
	High	Medium	Low	Very Low	
Current Month	-0.30	-0.36	-0.50	-0.42	
Next Month	0.18	0.19	0.22	0.08	

Figure 4: Quartile correlations to current and next month's returns

Source: Addepar Analytics

In conclusion we see that across active and inactive investors alike, the ISI tracks the overall sentiment in the U/HNW investor community well, and is not skewed by a small subset of portfolios. When looking at the four distinct groups (high, medium, low and very low activity)—as expected—the ISI scales with activity, but intriguingly, the ISIs of the different groups tend to track each other closely. Additionally, correlations to the U.S. equity market across the four groups are also consistent, which further illustrates that sentiment is broadly reflected across investors.

¹ While correlations look to be higher for the low-activity portfolios than for the high- and medium-activity ones, this is partially mechanical and we will look to evaluate the independent informational content in the different activity ISI in future research.

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