

RESEARCH NOTE | JULY 2021

Coming Out of Pandemic Mode

We recently introduced our Addepar Investor Sentiment Index (ISI) (methodology found here), which uses portfolio-level transaction data to gauge investor sentiment. We analyze the investment data on our platform to gain insight into how ultra-high-net-worth (U/HNW) investors are making adjustments at the portfolio, sector and stock levels. Additionally, we conduct client interviews to supplement the data and analysis presented in our research notes. For privacy reasons, we never disclose identities.

Elevated trading activity witnessed throughout the pandemic subsided to historically low levels in July. Net, gross and sector-level scores were all subdued. This month's key highlights include:

- Investors were very modestly bearish in July, although they briefly turned bullish when markets sold off in the 3rd week of the month.
- Gross activity, a measure of volume, hit its lowest historical level since we started tracking the index. Gross activity shows seasonality effects with troughs in the summer months and peaks in December.
- Sector sentiment was also mild, consistent with the aggregated sentiment measures.
- Of notable exception was the technology sector, where sentiment in Salesforce, Texas Instruments and Apple led to a relatively bullish read.
- China's crackdown on technology companies sent the Hang Seng steeply lower while investor sentiment was neutral with average volumes indicating disagreement on the market's direction.

Investors navigate July's market crosscurrents

The S&P 500 returned 2.3% in July, the 6th consecutive month of gains. The first two weeks of the month started with a rally and then sharply sold off on July 19th as apprehension grew over the rapidly spreading Delta coronavirus variant and its quickly increasing risk to domestic and international economies. The sell-off subsequently reversed and the S&P 500 climbed to its all-time high on July 26th before drifting lower in the final trading days of the month. Disappointing quarterly

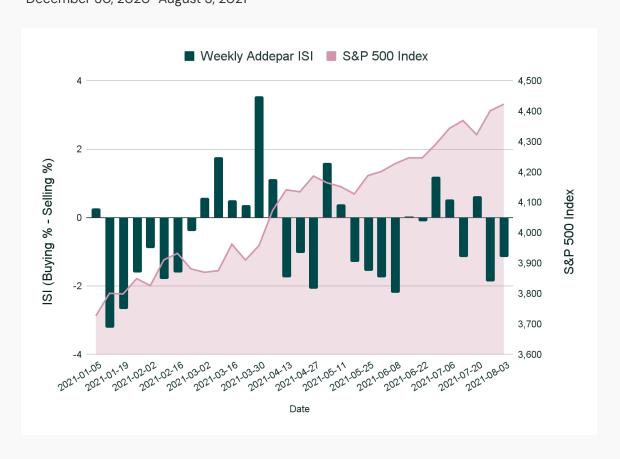
results from giant growth stocks such as Amazon, together with China's escalating crackdown on technology companies, fueled the sell-off.

The bond market reflected the continuing deceleration in longer-term growth expectations. Over the course of the month, yields in 10-year Treasuries fell from 1.45% to 1.24% (yields fall when prices rise), the biggest drop since March 2020, the start of the epidemic.

Broadly, sectors showed positive returns with the exception of energy and financial services. Oil prices fell both on news of the agreement between OPEC and its trading partners to boost supply and expectations that demand for oil will moderate due to slowing growth. This drove a sell-off of 8.3% in the sector. Financial services returned -.4% as Treasury yields fell.

In July, the ISI was a very modest -1.9, the fourth straight month of bearish reads. In scrutinizing weekly ISI data, investors were bearish during three of the five weeks of the month. Consistent with their historical behavior, investors took the opportunity to buy U.S. equities during the sharp mid-month dip before returning to their bearish stance.

Figure 1: Weekly Addepar Investor Sentiment Index (4wma)
December 30, 2020–August 3, 2021

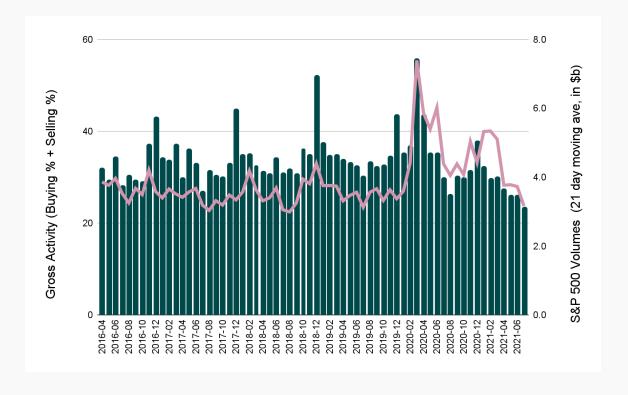


Gross activity reverts to pre-covid levels

After being elevated throughout the pandemic, volumes and gross trading activity have come down (below even) pre-covid levels. Gross activity (% of portfolios buying plus % of portfolios selling) has continued to decline since the start of the pandemic. In fact, July's print of 23.4 was the lowest since we have been tracking the index.

Trading volumes for the S&P 500 have also declined since the start of the pandemic. While trading volumes and gross activity show some historical correlation (.4, -.5), this has increased to .8 since the start of 2020 largely due to the unique set of circumstances in March of last year that drove volumes, volatility and gross activity to highs not seen since the financial crisis of 2008.

Figure 2: Gross Activity and S&P 500 Trading Volumes January 2019-July 2021



Source: Addepar

Gone fishing?

One may also observe in figure 2 that the local troughs in gross activity appear to be in the summer months, particularly in July and August. This may lead one to ask whether seasonality impacts gross activity scores.

Figure 3 shows median gross trading activity by month. Historically, July is the least active month, with a median gross activity score of 28.9. This July in particular had the lowest July read to date. A CIO of a family office from the northeast region of the U.S. remarked "No one took a proper summer vacation last year and this year everyone is making up for it."

Meanwhile, December stands out as the most active month, with a median gross trading activity of 43.5, which can be attributed to reinvestment of dividends back into funds.

May 2016-July 2021 50 40 Median Gross Activity 30 20 10 Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Month

Figure 3: Seasonality in Gross Activity

Source: Addepar

Investors disagree on china

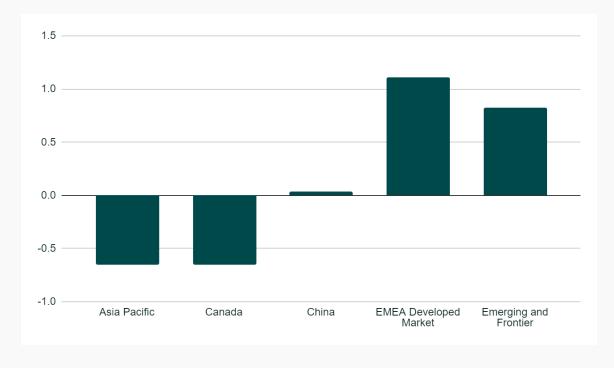
In July, the Hang Seng index sold off 11% of its market value, reflecting investor anxiety over how the technology sector will fare under increased Chinese regulatory activity related to data security, online education and online gaming.

Investor sentiment in emerging and frontier markets (which includes China) had a robust positive read in July. In fact, investors have been bullish every month this year except for June. However, sentiment for Chinese equities was neutral with average volumes indicating disagreement on the market's direction.

Due to variations in the magnitude of sentiment scores across geographies, we normalize values using z-scores (a statistical measure of how strong sentiment is in each geography relative to its historical mean) in figure 4.

An independent RIA client from the southwest explained, "Long-term prospects in China and the region remain sound. We believe the aggregate market oversold on the online education news and therefore it's now a buying opportunity."

Figure 4: Sentiment Z-Scores by Geography
July 2021



Source: Addepar

Quiet at the sector level

Figure 5 shows sector-level sentiment and historical z-scores. In July, sector rotations were generally quite muted and consistent with aggregate net and gross sentiment. Investors modestly rotated out of industrials and consumer defensive and into consumer cyclical and technology.

Of note, the technology sector, which tends to have negative sentiment, turned moderately bullish. Texas Instruments, Salesforce and Apple were significant contributors on robust quarterly results. Intriguingly, however, Amazon's disappointing quarterly results did not impact investors' bullish sentiment.

Figure 5: Sector Sentiment

July 2021

Sector	Sentiment	Z-Score
Consumer Cyclical	1.0	0.3
Technology	0.9	1.4
Energy	0.7	0.3
Communication Services	0.4	0.0
Materials	0.5	0.4
Utilities	0.2	0.3
Healthcare	0.3	0.1
Real Estate	0.2	0.0
Financial Services	-0.8	-0.3
Consumer Defensive	-0.9	-0.5
Industrials	-1.3	-0.6
Bullish/Bearish		
Relative to own history:		
Strong -		
Moderate -		
Strong +		
Moderate +		

Source: Addepar

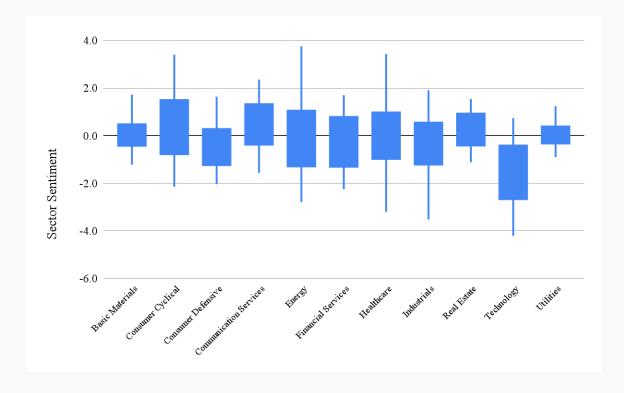
To further put the technology sector sentiment into perspective, figure 6 shows a box plot of monthly sector sentiment. A box plot is a statistical chart often used to get a visual sense of the dispersion in a data set. End points of the lines represent

the 5th and 95th percentiles, while edges of the boxes represent the 25th and 75th percentiles.

One can observe that for all sectors with the exception of technology, zero lies between the lower quartile and the upper quartile. This would indicate that biases are most pronounced for the technology sector¹ and clearly negative.

Figure 6: Distributions of Sector Sentiment

May 2016-July 2021



Source: Addepar

Additionally, the differences in the range from the 75th percentile to the 25th percentile in figure 6 are not consistent. In fact, some are quite small, such as utilities, while others are rather large, such as consumer cyclical.

As one may suspect, this illustrates many investors' general propensity to allocate relative to sector weights in the market and make over/under alpha allocation decisions relative to these weights. Figure 7 shows a scatter plot of sector weights vs the upper-lower quartile for each sector. A best fit line excluding energy and technology is included, although it's not statistically significant.

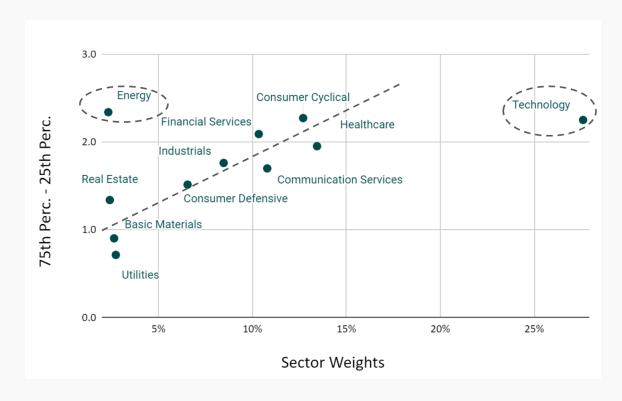
_

¹ See January 2021 Research Note for additional coverage of technology

With the exception of technology and energy, one can see a loose linear relationship between weights and dispersion. Technology has the largest weight, although it does not have dispersion that's higher than smaller sectors. We'll explore more about the dynamics in the technology sector when discussing figure 8, below.

Energy also stands out as it has a small market weight but high dispersion. This is due to the outsized impact of energy prices on the sector, which we have explored in previous research notes.

Figure 7: Sector Weights vs. 75th–25th Percentile May 2016–July 2021



Source: Addepar

In figure 8, we look at the top 10 most-traded stocks in the technology ISI data set. Because investors often invest on a market cap-weighted basis, we also include these figures to evaluate the relative importance of each stock. In a particularly concentrated industry such as technology, Apple and Microsoft share more than half of the total sector market cap, and therefore sentiment in these two stocks drives much of the overall sector-level sentiment.

Figure 8: Top Ten Technology Stocks by Market Capitalization

August 2020-July 2021

Top 10 Traded Stock	Average ISI Previous Year	July, 2021 ISI	Percentage Market Cap
Apple	-0.7	0.3	26%
Microsoft	0.1	0.1	20%
NVIDIA	0.1	-0.1	4%
Intel	-0.4	-0.3	3%
Adobe	0.4	0.2	3%
Cisco	-0.2	0.0	2%
Qualcomm	0.2	0.2	2%
Oracle	-0.2	-0.5	2%
Salesforce	0.3	0.5	2%
IBM	0.0	-0.3	1%

Source: Addepar

Stay tuned

We will continue to develop 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.

Notice and disclaimers

All information provided by Addepar, Inc. or its subsidiaries (collectively, "Addepar"), including without limitation, all text, data, graphs and charts (collectively, the "Information") is the property of Addepar and is provided for informational purposes only. The Information may not be modified, reverse-engineered, reproduced or re-disseminated in whole or in part without prior written permission from Addepar. All rights in the Information are reserved by Addepar.

The Information may not be used to create derivative works or to verify or correct other data or information without prior written permission from Addepar. For example (but without limitation), the Information may not be used to create indexes, databases, risk models, analytics, software or in connection with the issuing, offering, sponsoring, managing or marketing of any securities, portfolios, financial products or other investment vehicles utilizing or based on, linked to, tracking or otherwise derived from the Information or any other Addepar data, information, products or services.

The user of the Information assumes the entire risk of any use it may make or permit to be made of the Information.

Addepar makes no express or implied warranties or representations with respect to the information (or the results to be obtained, but rather the use thereof), and to the maximum extent permitted by applicable law, Addepar expressly disclaims all implied warranties (including, without limitation, any implied warranties or originality, accuracy, timeliness, non-infringement, completeness, merchantability and fitness for a particular purpose) with respect to any of the information.

Information containing any historical information, data or analysis should not be taken as an indication or guarantee of any future performance, analysis, forecast or prediction. Past performance does not guarantee future results.

The Information should not be relied on and is not a substitute for the skill, judgment and experience of the user, its management, employees, advisors and/or clients when making investment and other business decisions. All Information is impersonal and not tailored to the needs of any person, entity or group of persons.

None of the Information constitutes an offer to sell (or a solicitation of an offer to buy), any security, financial product or other investment vehicle or any trading strategy.

Addepar does not recommend, endorse, approve or otherwise express any opinion regarding any issuer, securities, financial products or instruments or trading strategies and Addepar's research products or services are not intended to constitute investment advice or a recommendation to make (or refrain from making) any kind of investment decision and may not be relied on as such.

Addepar, Investment Sentiment Index and other Addepar brands and product names are the trademarks, service marks or registered marks of Addepar or its subsidiaries in the United States and other jurisdictions.