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# Day-of-the-Week Effect

The Addepar Investor Sentiment Index (ISI) research note is uniquely 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 the 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 in our research notes. To ensure privacy, we never disclose identities.

## Summary:

This month's note documents a pattern of improving sentiment over the course of the week. Investors seem particularly vulnerable to catching a case of the "Mondays," which resolves into TGIF by the end of the week. These results are consistent with the day-of-the-week effect that has been observed in market pricing and is related to investor psychology or an improving mood during the week. It's also well documented that the magnitude of the effect has significantly diminished over time in market pricing, particularly in larger and more liquid securities. This is understood to be caused by the entrance of new players that have arbitrated the effect out of trading considerations. However, the effect still persists in the trading pattern of the HNW sector. Investors should be aware of these psychological biases as they make their trading decisions.

## Day-of-the-week effect

The day-of-the-week effect is the observation that returns vary across days of the week in a persistent manner. In numerous studies dating back to the 1930s, and

re-validated many times since then by academics and practitioners, returns are most negative on Mondays and improve as the week progresses<sup>1</sup>.

More recent studies have shown that the day-of-the-week effect has diminished in recent years, although it hasn't completely vanished, likely due to increased arbitrage as the effect has become more well known among investors.

But even though the effect is less apparent today in prices due to new market participants' offsetting activity, it may still persist in trading patterns that tell us something about investor behavior and psychology. In this analysis, we'll study the day-of-the-week effect from the point of view of trading in the HNW segment by utilizing our daily ISI. The findings presented herein are unique and valuable because they cannot be gleaned from looking at market returns, on which other studies are based.

## **ISI analysis of the day-of-the-week effect**

Figure 1 shows the average daily ISI on each day of the week for the full daily ISI history. Sentiment is roughly neutral on Mondays and Tuesdays, while increasing for the rest of the week. In broad strokes, this appears to be consistent with the conclusions from long-term studies of equity returns, which show that investors tend to become more optimistic as the week progresses.

The construction of the ISI is based on transaction data and is, therefore, a more direct measure of investor sentiment (hence the 'index' part of its name) than observations on market returns. The latter are additionally impacted by company fundamentals and other forces, which makes the day-of-the-week effect much more challenging to interpret.

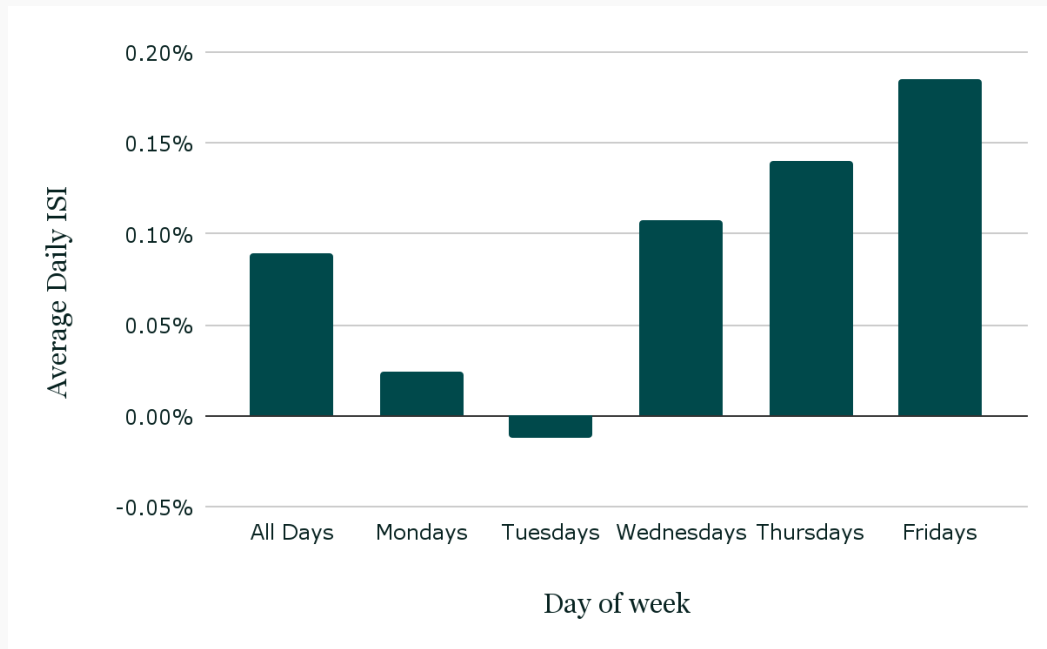
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<sup>1</sup> The evolution and cross-section of the day-of-the-week effect, Shlomo Zilca, 2017

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### Figure 1: Daily Investor Sentiment Average by Day of the Week

July 2017–December 2021



Source: Addepar

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Figure 2 presents a table of statistical analysis of the same data as Figure 1. Several observations stand out in this analysis. First, high absolute z-scores indicate that the results are generally robust to random error. Mondays and Tuesdays show significant negative z-scores, while Thursdays and Fridays show significant positive ones. Second, distributions (with the exception of Tuesdays) appear to have a significant positive skew. Said differently, the medians are much closer to zero than the means because there are a small number of large positive market events. It's interesting to note that even without the effect of skew, the day-of-the-week effect remains (see Median column).

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## Figure 2: Daily Investor Sentiment Binned by Day-of-the-Week Statistical Analysis

July 2017–December 2021

Day of week	Mean	Median	StDev	Skew	z-score
All Days	0.09%	0.01%	0.5%	1.5	0.0
Mondays	0.02%	-0.01%	0.5%	1.6	-1.9
Tuesdays	-0.01%	-0.02%	0.4%	0.3	-3.4
Wednesdays	0.11%	0.03%	0.5%	1.3	0.5
Thursdays	0.14%	0.04%	0.6%	1.3	1.4
Fridays	0.19%	0.09%	0.6%	1.9	2.3

Source: Addepar

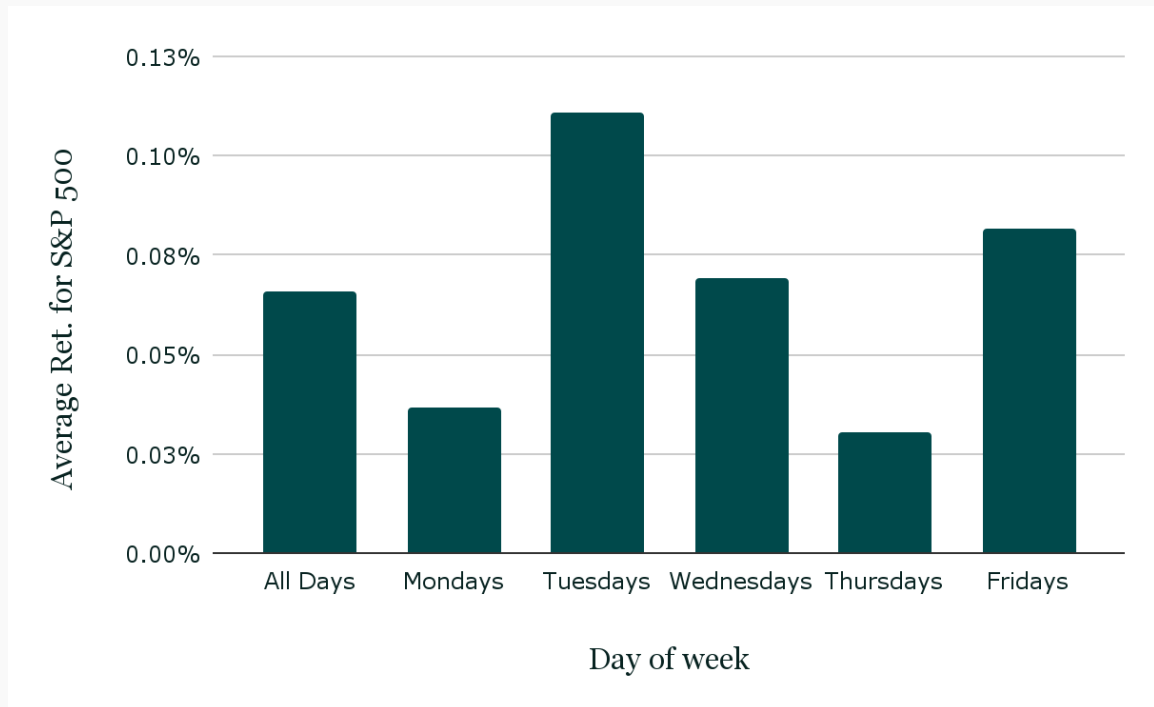
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As figure 3 shows, over the same timeframe, the returns of the S&P 500 do not show the day-of-the-week effect that seems to persist over longer time periods as discovered in previous studies.

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**Figure 3: S&P 500 Average by Day of the Week**

July 2017–December 2021



Source: Addepar

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And a further statistical analysis (figure 4) also appears to show that the day-of-the-week effect results for the S&P 500 are neither stable nor inconclusive.

As described previously, the broader market as proxied by the S&P 500 is traded by a wide range of participants including institutional, hedge funds, insurance, HNW, retail and other investors. The observed behavioral bias in the HNW trading data relative to the lack of bias found in the market data may suggest that other investors either don't share this bias or may even be taking advantage of HNW investors.

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## Figure 4: Daily S&P 500 Returns by Day-of-the-Week Statistical Analysis

July 2017–December 2021

Day of week	Mean	Median	StDev	Skew	z-score
All Days	0.07%	0.09%	1.3%	-0.7	0.0
Mondays	0.04%	0.10%	1.5%	-2.6	-0.3
Tuesdays	0.11%	0.02%	1.2%	2.4	0.6
Wednesdays	0.07%	0.09%	1.2%	-0.7	0.0
Thursdays	0.03%	0.14%	1.3%	-2.4	-0.4
Fridays	0.08%	0.09%	1.2%	1.6	0.2

Source: Addepar

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### Summary

This research note documents a pattern of improving sentiment over the course of the week. Many investors do seem vulnerable to catching a case of the “Mondays,” which is replaced by a more optimistic TGIF attitude by week’s end. These results are indeed consistent with the day-of-the-week effect that has been identified in market pricing and is related to investor psychology or an improving mood over the course of a week. It’s also well documented that the magnitude of the effect has significantly diminished more recently in market pricing, especially in larger and more liquid securities. This appears to be caused by the emergence of new players that have arbitrated the effect out of trading decisions. However, the effect clearly persists in the trading pattern of the HNW sector. Investors should be alert to these psychological biases as they make their trading decisions.

### Stay tuned

We’ll 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](#).

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