

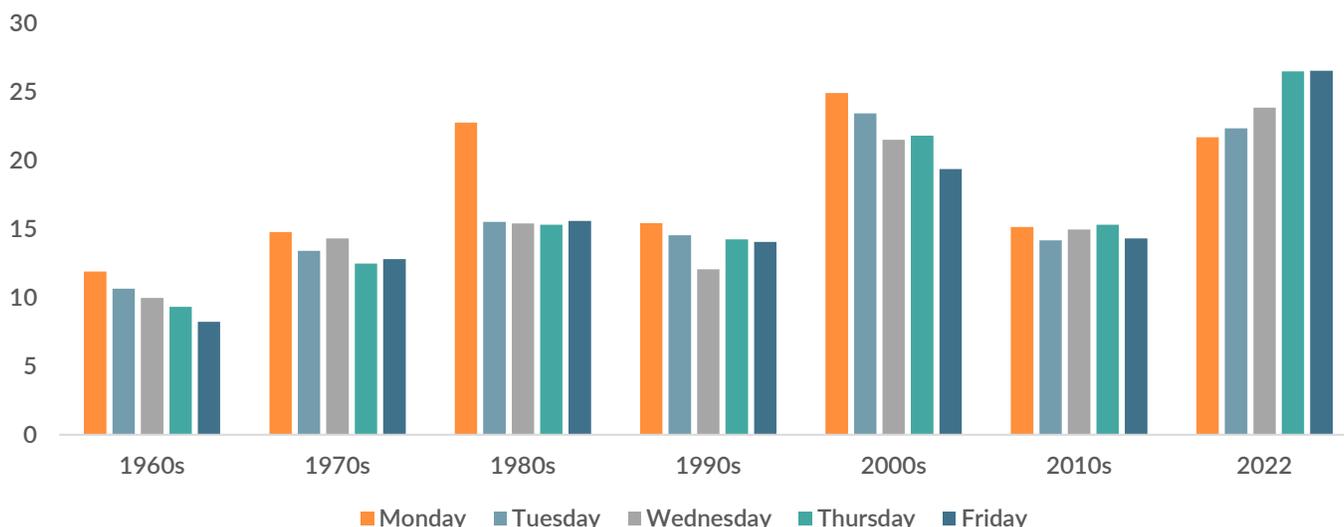
## DAILY VOLATILITY'S SHIFTING VOLATILE DAY

Both implied and realized volatility for the S&P 500 were elevated last year<sup>1</sup> but took an interesting path. In 2022, there were a near-record 108 days with +/- 2% intraday moves (compared to the 33-year average of 38 days/year); however, the maximum daily move of 5.6% was more in line with the 33-year average of 5.1%. In other words, the market oscillated, with several days of above-average daily moves but no specific period of excessive daily volatility.

The chart looks at the day of the week volatility of the S&P 500 on a close-to-close basis, sorted by decades starting in the 1960s. Last year was an explosive year, similar to some of the most volatile periods of the 2000s, with both the dot-com crash and the global financial crisis. Interestingly, 2022 saw a shift in the day of the week that experienced the most volatility. Monday has historically experienced some of the highest volatility given the “weekend effect,” with three days of news realized on the first trading day of the week. Historically, the latter half of the week was on the lower end of volatility. In the current market, daily volatility tends to be upward moving during the week, with Friday being the most volatile day. The concentration of macro data in the latter half of the week and the recent whipsaw market activity of retracing initial reactions to data have likely impacted this shift.

We have highlighted the cyclical nature of volatility and our belief that we are in a higher volatility regime for the S&P 500 that began during the start of the pandemic in 2020 (see our [Q4 2022 Quarterly Statement](#)). While the day of the week shift could be more representative of market dynamics and macro data focus, we continue to believe the higher volatility regime will remain through much of 2023.

### S&P 500 Day of Week Volatility 2022 vs. Previous Decades



Sources: Glenmede Investment Management, Bloomberg, YahooFinance  
This represents past performance which is not indicative of future results.

All data is through 12/31/2022

<sup>1</sup> Using the Cboe Volatility Index (VIX) as a proxy for implied volatility, the VIX had a median closing price of 25.5 compared to 19.5 average since 1990, and the S&P 500 had an annual realized volatility of 24.3% compared to 16.8% average since 1990.

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