



RESEARCH

Insights

Monthly Market Metrics and Trends: Equities and Options, September 2026

Analyzing Volatility, Market Performance, and Equity and Options Volumes

Theme for the Month: Reading the Tea Leaves in TLT Options

Published: October 2026

Market Theme

- September saw record changes in Treasuries, with 10-year Treasury yields reaching their highest level since June 2007, while 30-year Treasury yields reached levels last seen in June 2002, following a series of inflation, economic growth and monetary-policy developments, which included a rate hike by the FOMC mid-month.
- We explore the movement in Treasury yields in the context of one of the largest long-dated Treasury ETFs, which saw record inflows and a surge in associated options trading, in order to determine whether we can infer anything about future rate expectations.

Market Metrics

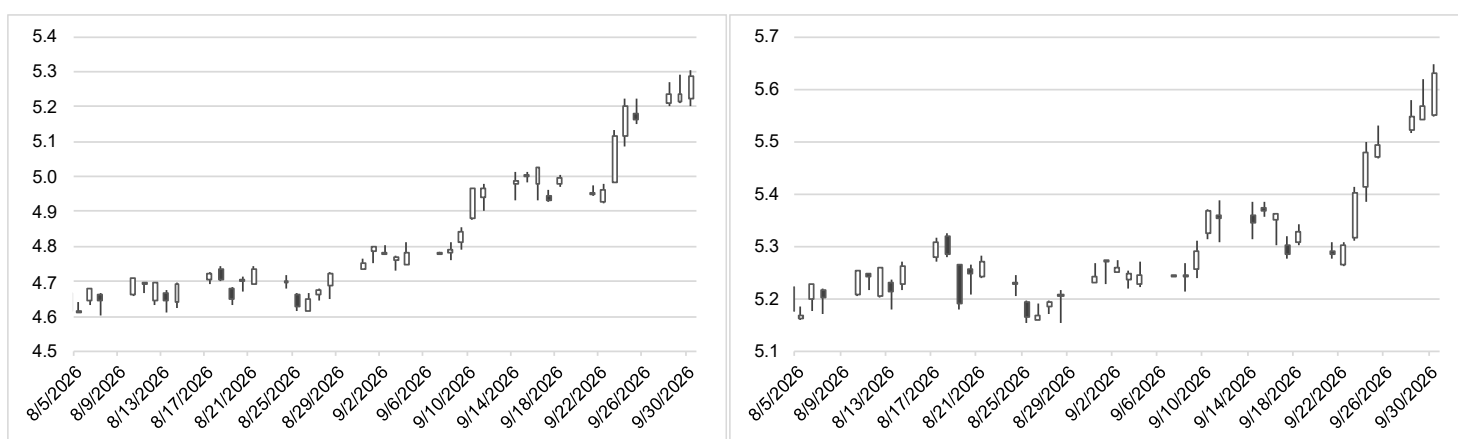
- S&P 500 (Price Index): September close: 7,651.54, -0.5% M/M, +11.8% YTD, +14.4% Y/Y
- S&P 500 Sector Total Return Performance:
 - Best = Information Technology +4.5% M/M / Energy +40.3% YTD / Energy +42.4% Y/Y
 - Worst = Financials -7.2% M/M / Consumer Discretionary -5.8% YTD / Utilities -7.0% Y/Y
- Volatility Index (VIX): Monthly average 15.8%; +0.5 pp M/M, no change Y/Y
- Equity Average Daily Volume (ADV): Monthly average 17.0 billion shares; +3.7% M/M, -7.2% Y/Y
- Options ADV: Monthly average 64.5 million contracts; -1.9% M/M, -0.4% Y/Y

Reading the Tea Leaves in TLT Options

What, if anything, can we infer about the direction of future rates?

September saw substantial moves in Treasury yields, continuing the debate over the path of monetary policy. Persistent inflation pressures, coinciding with record Treasury and corporate issuance year-to-date, have fueled a surge in rates. During the month, yields on longer-term Treasury bonds soared, with 10-year and 30-year yields rising by 54 bps and 39 bps, respectively (*Charts 1 and 2*). The level of 10-year yields, which now stand at a 19-year high alongside a corresponding 24-year high in 30-year yields, has fueled interest in Treasury trading, pushing trading in Treasury coupon bonds with remaining maturities greater than ten years to near-record volumes.

Chart 1: 10-Year UST Yields: Open, High, Low, Close* **Chart 2: 30-Year UST Yields: Open, High, Low, Close***



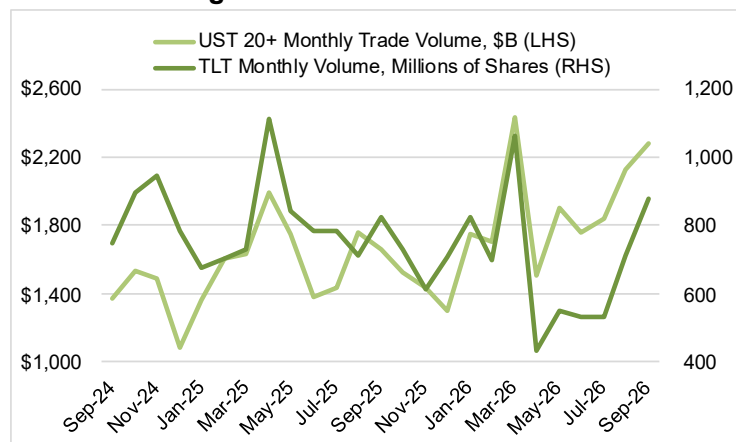
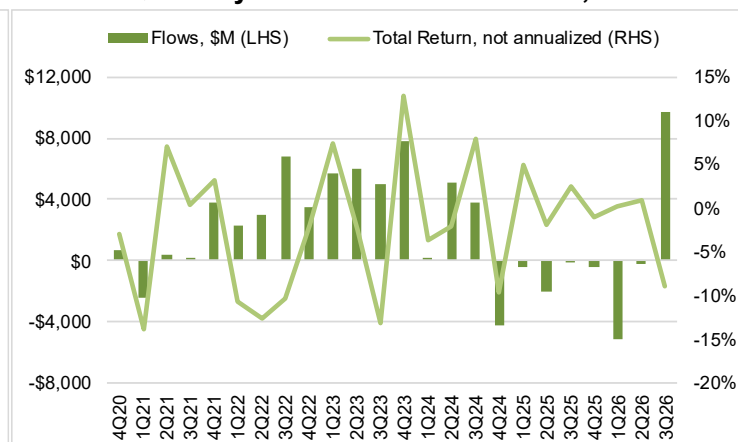
Source: Bloomberg L.P.

* The thicker middle bars represent the day's open-to-close range, while the thin lines above and below show the day's high and low. Dark bars imply a closing yield that was lower than the opening yield, while transparent bars represent the opposite.

Not surprisingly, near-record trading volumes in underlying Treasury bonds have corresponded with record inflows in the largest longer-term Treasury ETF, the iShares 20+ Year Treasury Bond ETF, which holds Treasury bonds with a remaining maturity greater than 20 years (*Chart 3 on the following page*). While there are other long-duration Treasury ETFs, we focus on this particular ETF (ticker symbol "TLT") given it's the largest among its peers, with assets in excess of \$46B as of September 30th.¹

Flows into TLT during the third quarter of 2026 were the largest since the inception of the fund in 2002, despite the sizable losses incurred by the fund as Treasury yields rose (*Chart 4 on the following page*).

¹ As noted, TLT is the largest long-duration US Treasury ETF at \$46.66B in assets, but other long-duration Treasury ETFs include VGLT (\$10.41B), SPTL (\$10.91B), EDV (\$3.63B), ZROZ (\$1.94B) as well as several other ETFs with less than \$1B in assets.

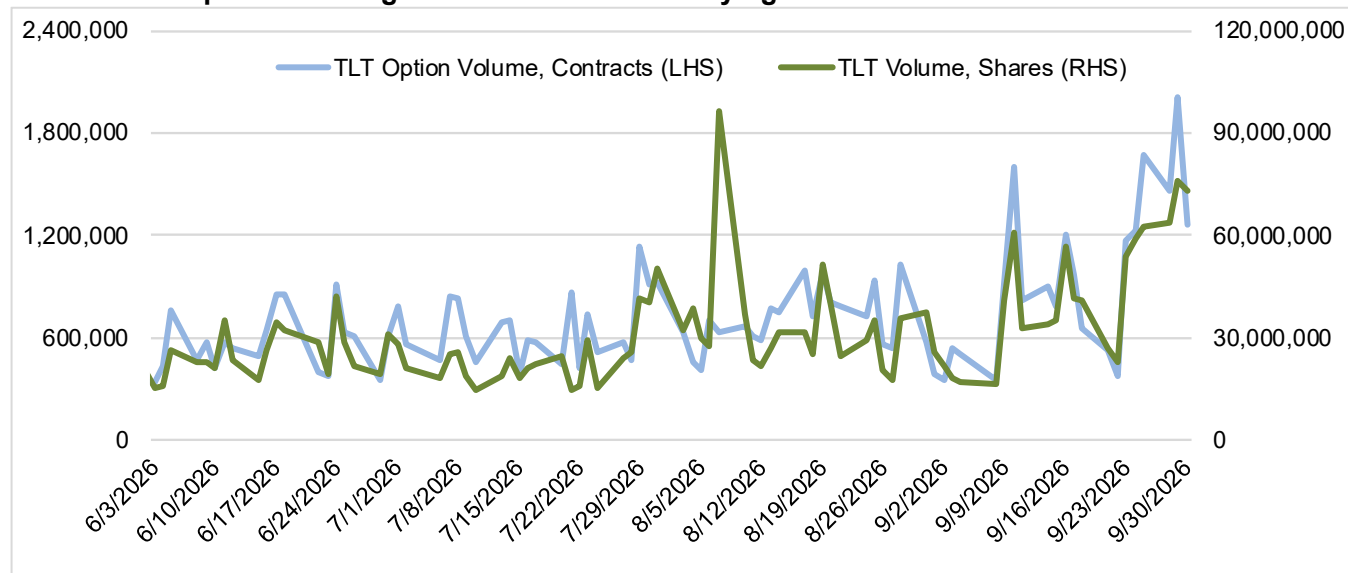
Chart 3: Trading Volumes: 20+ USTs* and TLT

Chart 4: Quarterly Flows and Total Returns, TLT


Source: Bloomberg L.P.

*Includes trading in all Treasury coupon bonds with a remaining maturity of 20 years or more.

Amid the record spike in yields and record flows into TLT, we examine recent trends in TLT options trading to see if we can determine how investors may be positioning for future interest rate moves.

Take-away #1: Options volumes on TLT have increased in tandem with underlying TLT share volumes, suggesting that heightened options activity largely reflects broader trading interest in TLT rather than a disproportionate shift toward options-based positioning (Chart 5).

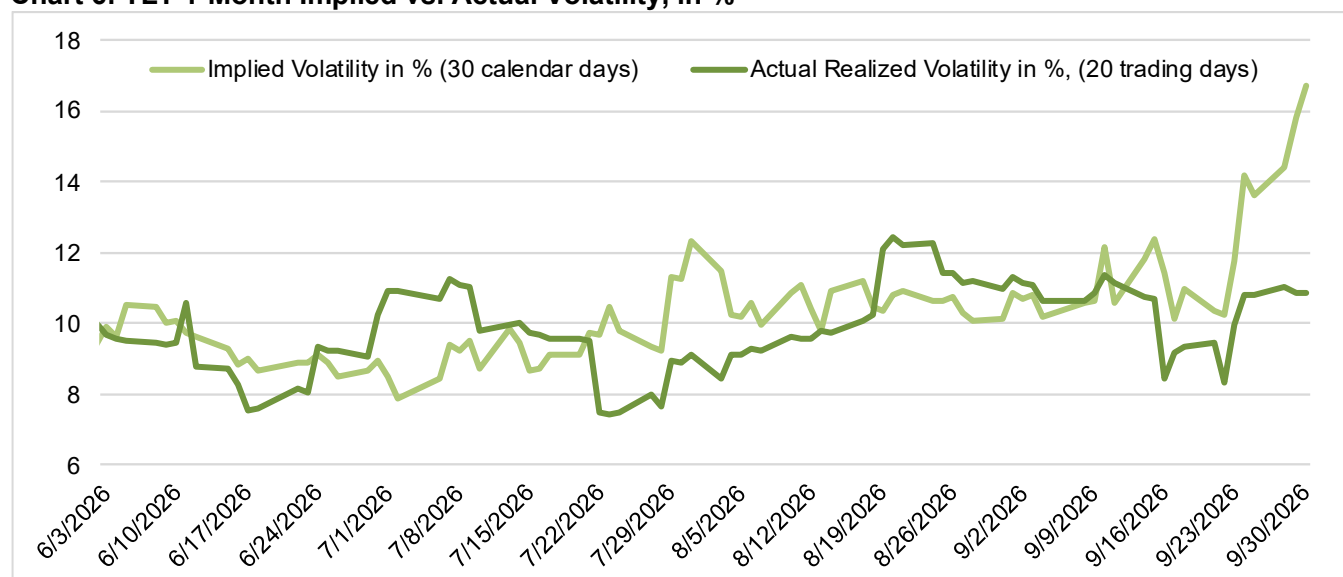
Chart 5: TLT Options Trading Volume and TLT Underlying Share Volume


Source: Bloomberg L.P.

Based on recent daily trading, we see no evidence that options activity leads or lags trading in the underlying ETF, although analysis of higher-frequency intraday data could tell a different story. Options trading has increased broadly in line with activity in the underlying ETF, providing little evidence of a disproportionate increase in options trading relative to TLT shares. Without looking at how any increase in options activity has changed across strikes or maturities, however, it is difficult to know how exposure to rate changes has evolved. (One comment about the spike in TLT share volume on August 7th that was not matched by an equal increase in options volume: August 7th was the day on which a very weak payrolls report was released. Since there is pre-market share trading—but not pre-market options trading for TLT—it’s likely that the surge in activity occurred immediately following the release at 8:30 AM, and subsided by the time “regular” trading opened at 9:30 AM.)

Take-away #2: *Implied option volatility has risen dramatically, and greatly exceeds the actual volatility based on historical price changes (Chart 6).*

Chart 6: TLT 1-Month Implied vs. Actual Volatility, in %



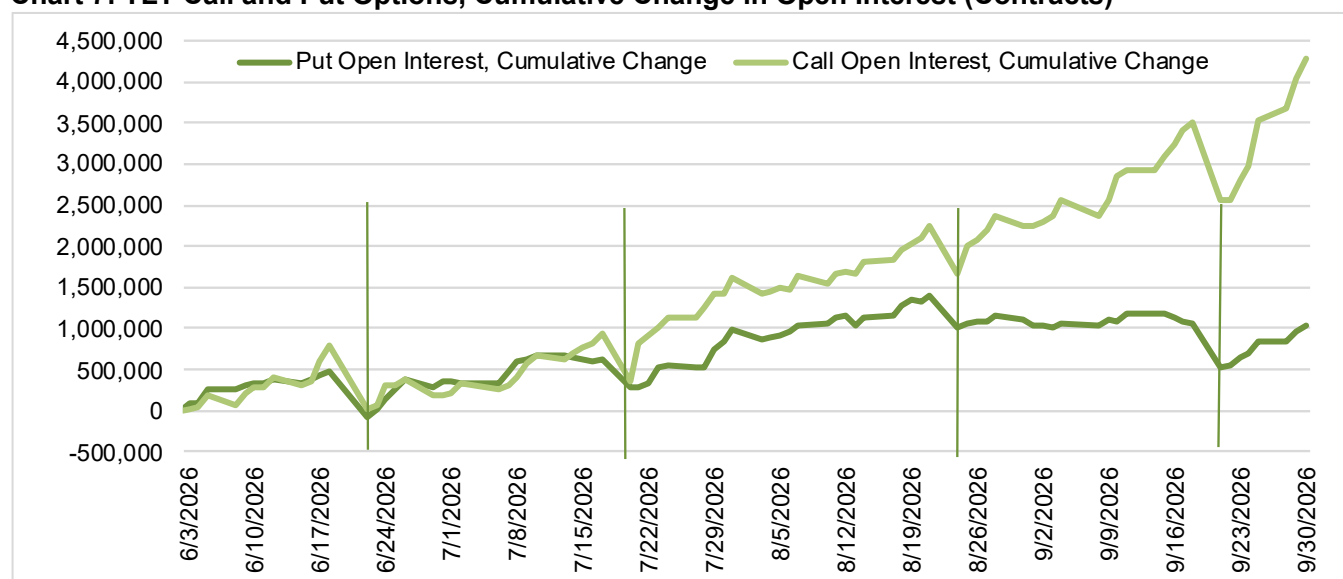
Source: Bloomberg L.P.

Note: 30 calendar days and 20 trading days are each meant to approximate 1-month tenors.

Implied volatility often takes its cues from realized price movements in the underlying. However, implied volatility is now substantially higher than realized volatility on a 30-trading day basis; options markets have increased the price for volatility exposure. The market may be pricing in greater future rate fluctuations, reflecting heightened uncertainty about the direction, magnitude and staying power of future changes in Treasury yields, a larger volatility risk premium, or both. Higher implied volatility, all else equal, increases the cost of purchasing options and generates greater premia for option sellers. It appears that investors expect higher rate volatility ahead, though their positioning suggests no change in expectations for the direction of rates.

Take-away #3: The cumulative change in call open interest over the past several months has greatly exceeded the increase in put open interest, with an acceleration in the difference during the last week of September (Chart 7).

Chart 7: TLT Call and Put Options, Cumulative Change in Open Interest (Contracts)*



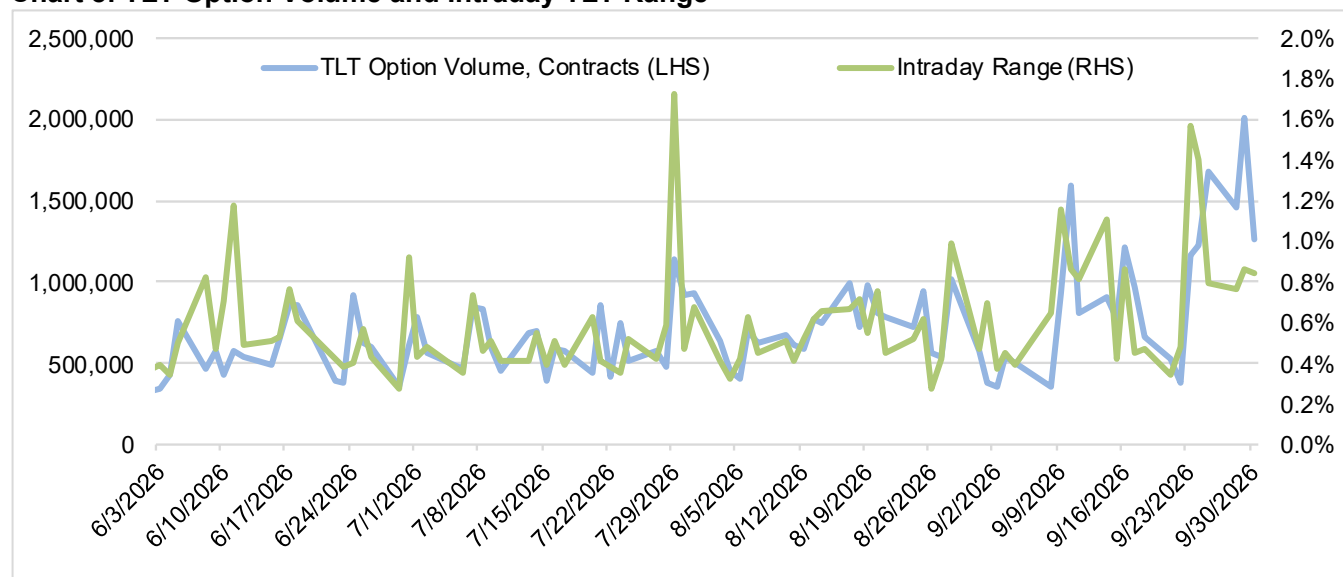
Source: Bloomberg L.P.

*Vertical lines indicate the expiration of standard monthly option contracts. While TLT options also have weekly maturities on Mondays, Wednesdays and Fridays in addition to expirations on the last trading day of the month, options with a standard monthly expiry (the third Friday of each month) are typically listed a full year in advance and so tend to have the most open interest relative to other expiries.

The growing concentration of outstanding options positions in calls relative to puts is notable, although the increase in open interest is insufficient evidence to conclude whether investors are buying calls to position for a bullish rebound (higher TLT prices and lower long Treasury yields) or selling calls to generate income via covered positions (short TLT calls, long TLT shares) or to express a neutral-to-bearish view (short call spreads). Looking at put and call volumes is similarly inconclusive; trading in calls has typically been greater than trading in puts; daily call volume as a percentage of total options volume averaged 61% between June 2026 and August 2026, and rose modestly to an average of 66% during September. The substantial increase in call open interest indicates growth in outstanding call positions relative to puts, but neither open interest nor trading volume establishes whether investors are predominantly buying or selling upside exposure.

Take-away #4: TLT daily option volumes appear to be highly correlated with the magnitude of daily price swings in TLT (Chart 8).

Chart 8: TLT Option Volume and Intraday TLT Range*



Source: Bloomberg L.P.

*Intraday range is calculated as (day's high price– day's low price) / day's opening price.

The magnitude of intraday price swings, which averaged 0.5% between June 2026 and August 2026 and 0.8% during the month of September, appears to be highly correlated with each day's options volume, but contemporaneous correlations on a daily basis cannot distinguish market *reactions* to price/yield moves from *expectations* of future price/yield moves, as options transactions can occur before, during or after a large price move on any given day. Options volumes are more closely associated with the magnitude of intraday TLT price movements than with either the level or change in implied volatility. The relationship is consistent with investors adjusting exposures during periods of heightened price volatility, although daily data cannot establish whether trading is primarily driven by hedging, speculation or contemporaneous reactions to market developments.

Take-away #5: TLT put implied volatilities have risen relative to call implied volatilities (Charts 9 and 10).

Chart 9: Put/Call Skew, 1-Month TLT Options*

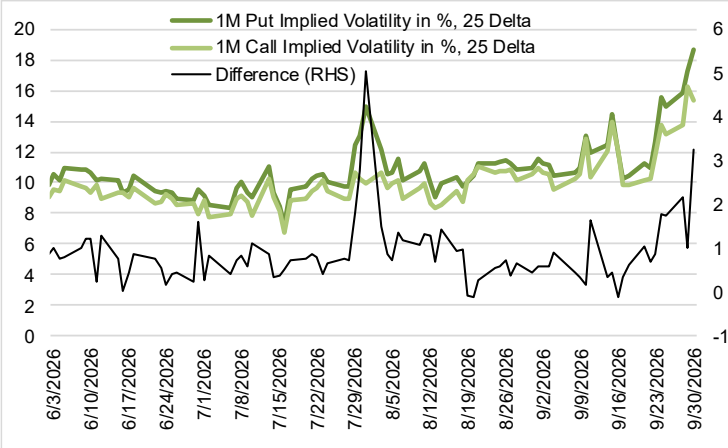
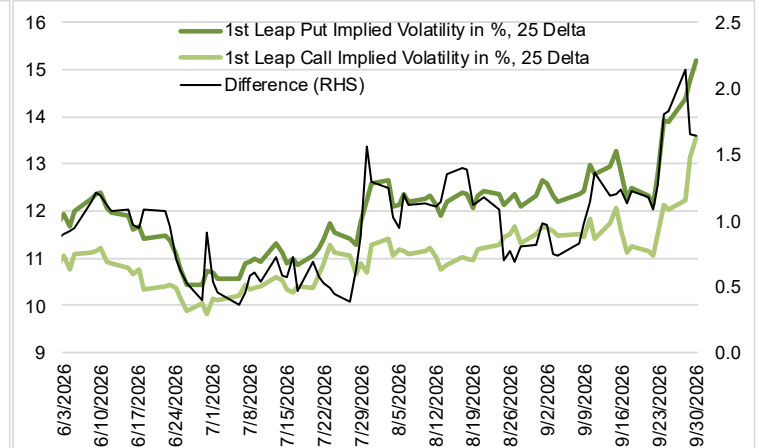


Chart 10: Put/Call Skew, 1-Year TLT Options*



Source: Bloomberg L.P.

*Skew refers to how much implied volatility for an out-of-the-money put differs from that of an equally out-of-the-money call. In this case, both the put and call are substantially away from the current (spot) price, with a delta of 0.25, each option contract is expected to move by approximately \$0.25 per dollar move in the underlying. (We use out-of-the-money options to illustrate skew since at-the-money calls and puts typically have similar implied volatilities, although American-style early exercise features and dividends may cause differences. Their deltas are generally close to +0.50 for calls and -0.50 for puts.)

For both short- and long-dated options, out-of-the-money puts have traded at higher implied volatilities than comparable out-of-the-money calls, with the differential widening during the second half of September. Out-of-the-money puts often trade at higher implied volatilities than comparable calls, reflecting the premium investors pay for downside protection, but the difference between put and call implied volatility has been growing, even as put trading volume has remained stable relative to call volume. While the widening skew is consistent with greater concern about further declines in Treasury prices, trading volumes alone cannot establish whether investors are increasingly seeking protection or whether dealers are demanding greater compensation for assuming downside risk.

Conclusions

- 1) Record inflows into TLT despite rising Treasury yields and substantial losses suggest continued investor appetite for long-duration Treasuries, although whether investors expect yields to decline or simply find current yields attractive is unclear.
- 2) Option volumes have also risen broadly in line with trading in TLT shares and appear closely tied to daily price swings. Call open interest has grown much faster than put open interest, but from the data, we cannot distinguish between investors buying calls in anticipation of a rebound and those selling calls to generate income or position for further weakness.
- 3) Trading in TLT options appears to be consistent with heightened uncertainty rather than consensus about the future direction of rates. Investors are trading more actively and options markets are pricing greater exposure to future price fluctuations, but for now, whether investors expect long-term Treasury yields to rise further or reverse course isn't apparent from options positioning.

Further analysis of open interest by strike and expiration, together with estimates of delta and gamma exposure, could shed light on where exposures are concentrated and how those have changed over time. Changes in implied

volatility skew could also reveal whether the market is assigning a greater premium to downside protection relative to upside exposure. Ultimately, TLT options activity offers more insight into uncertainty surrounding future Treasury yields than whether investors believe rates have peaked.

Market Metrics

S&P 500 and Volatility Index (VIX)

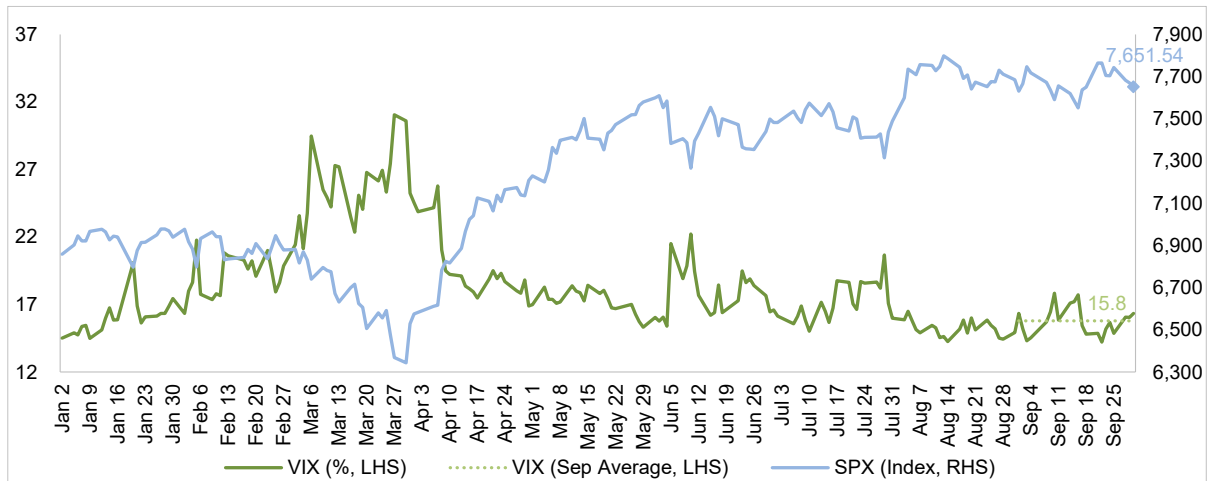
Table 2: S&P 500 Index Price and Volatility Index (VIX, %), September 2026

	Value	M/M Change	YTD Change	Y/Y Change	Monthly Peak	Monthly Trough
S&P 500 (Close Price)	7,651.54	-0.5%	+11.8%	+14.4%	7,764.70	7,551.81
VIX (Monthly Average)	15.8%	+0.5 pp	-	no change	17.8%	14.2%

Source: Bloomberg L.P., SIFMA estimates

Note: Figures shown for S&P 500 are price changes; total returns on a M/M, YTD, and Y/Y basis are -0.3%, +12.7% and +15.7%, respectively. Total returns assume dividends are reinvested into the index.

Chart 3: S&P 500 Index Price and Volatility Index (VIX, %), Year to Date 2026



Source: Bloomberg L.P., SIFMA estimates

S&P 500 Index: Sector Breakout

Looking at market performance by sector, we highlight the following:

- Best-performing sectors:
 - Month = Information Technology at +4.5% followed by Communication Services at +4.3%
 - YTD = Energy at +40.3% followed by Information Technology at +28.4%
 - Y/Y = Energy at +42.4% followed by Information Technology at +30.2%
- Worst performing sectors:
 - Month = Financials at -7.2% followed by Materials at -6.7%
 - YTD = Consumer Discretionary at -5.8% followed by Utilities at -5.7%
 - Y/Y = Utilities at -7.0% followed by Consumer Discretionary at -5.2%

Table 3: S&P 500 Sector Indices Total Returns, September 2026

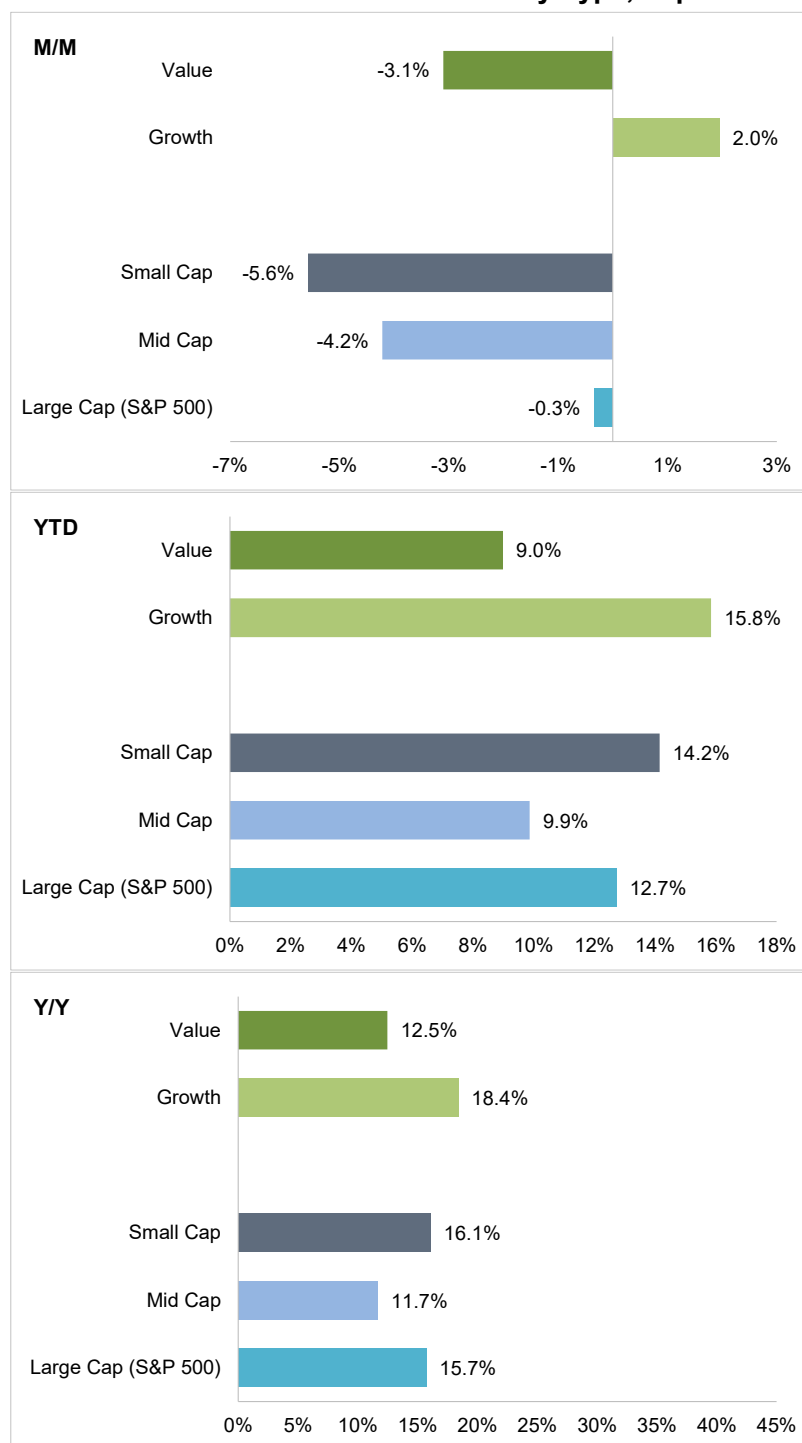
Sector (Weight)	Total Return (%)		
	M/M	YTD	Y/Y
SPX	-0.3	12.7	15.7
Information Technology (39.7%)	4.5	28.4	30.2
Financials (11.4%)	-7.2	-1.4	0.5
Communication Services (9.9%)	4.3	4.5	12.1
Health Care (9.3%)	-0.9	10.2	23.0
Consumer Discretionary (8.6%)	-5.8	-5.8	-5.2
Industrials (8.0%)	-4.4	8.5	9.5
Consumer Staples (4.4%)	-3.3	6.0	6.0
Energy (3.4%)	-2.7	40.3	42.4
Utilities (1.9%)	-5.9	-5.7	-7.0
Materials (1.7%)	-6.7	8.8	10.0
Real Estate (1.7%)	-6.1	5.3	2.3

Source: Bloomberg L.P., SIFMA estimates

Note: Sectors are ordered by their respective weights in the SPX Index at the end of the month, which are indicated in parentheses. Total returns assume dividends are reinvested into the index.

S&P 500 Index: Strategy Breakout

Chart 4: S&P 500 Total Return Indices by Type, September 2026 (M/M, YTD, and Y/Y)



Source: Bloomberg L.P., SIFMA estimates

Note: Total returns assume dividends are reinvested into the index.

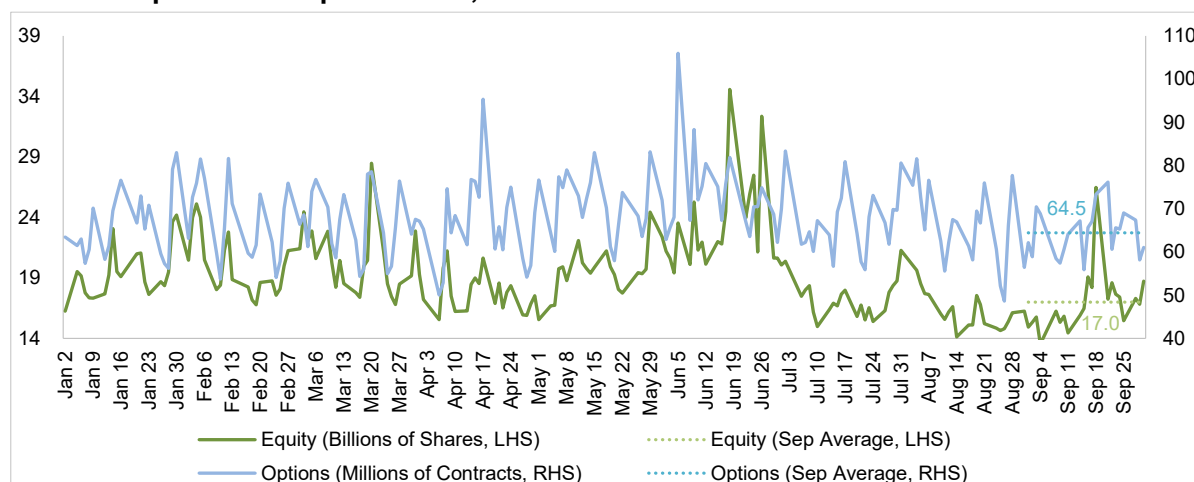
Equity and Options Volumes (ADV)

Table 4: Equities and Options Average Daily Trading Volumes, September 2026

	Monthly Average	M/M Change	Y/Y Change	Monthly Peak	Monthly Trough
Equities ADV (Bil. Shares)	17.0	+3.7%	-7.2%	26.5	13.5
Off-Exchange	50.6%	+0.1 pp	-0.3 pp	-	-
Options ADV (Mil. Contracts)	64.5	-1.9%	-0.4%	76.2	55.9
Equity Options	58.3	-3.0%	-2.0%	-	-
Index Options	6.2	+10.5%	+17.0%	-	-

Source: Cboe Global Markets, SIFMA estimates. Equity trading volumes include ETF trading volumes.

Chart 5: Equities and Options ADV, Year to Date 2026



Source: Cboe Global Markets, SIFMA estimates

Note: Equity and options values reflect average daily volumes across all US equity and options exchanges.

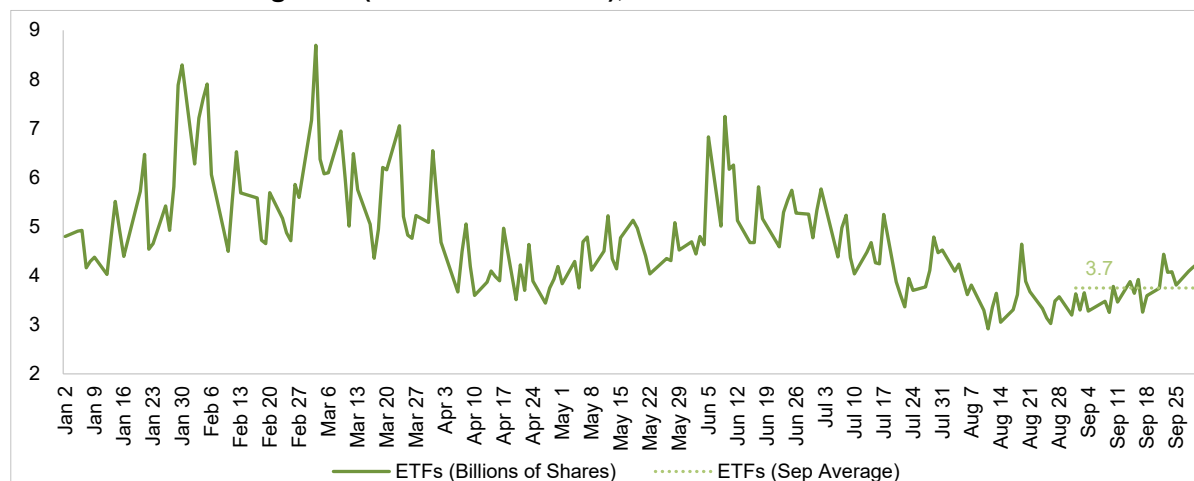
ETF Trading Volumes (ADV)

Table 5: ETF Average Daily Trading Volumes, September 2026

	Monthly Average	M/M Change	Y/Y Change	Monthly Peak	Monthly Trough
ETF Trading (Bil. Shares)	3.7	+5.3%	+5.0%	4.4	3.3
% of Equity Trading	22.1%	+0.3 pp	+2.6 pp	-	-

Source: Cboe Global Markets, SIFMA estimates

Chart 6: ETF Trading ADV (Billions of Shares), Year to Date 2026



Source: Cboe Global Markets, SIFMA estimates

Note: Equity and options values reflect average daily volumes across all US equity and options exchanges.

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