

DIVIDEND MULTIPLIER STRATEGY



Dividend Futures Primer

The Metaurus Dividend Multiplier Strategy uses dividend futures contracts to replicate exposure to S&P 500 Index dividend distributions. It is specifically designed to offset any embedded leverage by holding sufficient cash and collateral to meet distribution obligations regardless of market movements. This primer explains some features of dividend futures and how they work inside the Strategy.



The Metaurus Dividend Multiplier Strategy separates an equity index into two isolated components of return, a Dividend Component, and a Price Component. Using the S&P 500 Index® as an example, investor capital is allocated between the two Components to pursue a multiple of the S&P 500's dividend yield in exchange for modestly reduced exposure to the price return of the index. The Dividend Component is comprised of long positions in the first three maturities of S&P 500 Annual Dividend futures contracts (traded on the Chicago Mercantile Exchange) plus cash collateral. *This research primer explains how dividend futures work inside the Strategy based on Metaurus' patented methodology.*

The Dividend Component

The Dividend Component delivers isolated exposure to the actual S&P 500 ordinary dividends paid over the next three years.¹ To create this exposure the strategy uses a combination of S&P 500 Annual Dividend Futures contracts (first three maturities) and a portfolio of "Collateral" consisting of short-term US Treasuries ("USTs") and cash and cash equivalents ("Cash"). The notional value of the dividend futures contracts is collateralized by the USTs and Cash which is designed to offset any embedded leverage. Thus, these collateralized futures contracts do *not* provide any leverage to the Strategy.

1) – What are Dividend Futures Contracts?

Dividend Futures are exchange-traded, cash-settled futures contracts that allow investors to take positions on, and obtain exposure to, the amount of future dividend payments. Dividend futures are "contracts for difference," which we will discuss below. When you buy (or go long) a dividend future, you are entering into a contract whose final settlement value is determined at a specified, later date. The final or settlement price of a dividend futures contract on that date is based on the actual dividends paid during the contract's "settlement" or "measurement" period. In the case of an *annual* dividend future, the settlement period extends for one year from mid-December to the following mid-December. The table below illustrates the annual measurement periods for the S&P 500 Annual Dividend futures from 2021 through 2032.²

Table 1. Dividend Futures Prices

Contract Year	Dividend Measurement Start Date	Dividend Measurement End Date (Expiry)	Current Market Price a/o 12/31/2021
2022 S&P Annual DF	12/20/21	12/16/22	63.15
2023 S&P Annual DF	12/19/22	12/15/23	65.45
2024 S&P Annual DF	12/18/23	12/20/24	66.70
2025 S&P Annual DF	12/23/24	12/19/25	68.30
2026 S&P Annual DF	12/22/25	12/18/26	69.55
2027 S&P Annual DF	12/21/26	12/17/27	70.70
2028 S&P Annual DF	12/20/27	12/15/28	73.15
2029 S&P Annual DF	12/18/28	12/21/29	74.00
2030 S&P Annual DF	12/24/29	12/20/30	75.50
2031 S&P Annual DF	12/23/30	12/19/31	77.00
2032 S&P Annual DF	12/22/31	12/17/32	77.50

The Strategy utilizes the first three years of S&P 500 Annual Dividend futures contracts.

Source: Bloomberg 12/31/2021.

¹ Unless otherwise noted, references to dividends are to ordinary dividends, and not special dividends.

² In the case of dividend futures contracts, a "calendar year" is measured from the third Friday in one December to the third Friday in the next December. *E.g.*, the final settlement price of the 2022 S&P 500 Annual Dividend futures contract is determined on December 16, 2022, and reflects actual dividends paid from December 20, 2021, through and including December 16, 2022.



2) – The Dividend Points Index – a Running Tally

Dividend futures use a "dividend points index" as a reference. The S&P 500 Dividend Points Index keeps a running tally of the dividends as they are paid by the companies in the S&P 500 Index, then converts them into S&P 500 Dividend Index points. The Dividend Points Index tallies the cumulative amount of S&P 500 dividends paid during the year, then at the end of the year (specifically, on the Monday after the third Friday in December), it resets to zero and the whole process starts again for the next year. The final settlement value of each dividend futures contract equals the final value of the Dividend Points Index on its expiration date, reflecting the amount of actual dividends paid by the S&P 500 during the contract's measurement period. Figure 1 below, illustrates the S&P 500 Dividend Points Index since 2015.

Figure 1. S&P 500 Dividend Points Index (Annual)



Source: Bloomberg 12/17/21

3) – What Does it Mean to Buy a Dividend Future and What is a Contract for Difference?

Dividend futures are different from stocks or bonds. When an investor buys a stock or a bond, they must pay the full cash price for it. This is why stocks and bonds are often referred to as cash securities – because their full purchase price must be paid-for in cash. Dividend futures are different. When an investor buys a dividend future, no cash changes hands. The only up-front money an investor must come up with is the margin required by the exchange where the futures contract is listed. Margin requirements for dividend futures tend to be relatively low, in the range of 3%-5% of the notional size of the contract. Meaning, if the notional price or size of the contract was \$60, for example, the exchange would only require around \$2 to be posted as collateral at the time of purchase to cover potential losses³.

During the life of the contract, a dividend future is marked-to-market daily and all net gains or losses are settled daily in the holder's margin account. An investor must maintain a minimum balance in the margin account to cover potential losses on the futures contract. This is how dividend futures provide leverage. In this example, an investor could "pay" or pledge as little as \$2 to control a \$60 instrument. *Note: we will discuss this in greater detail below, but it is important to stress that the Strategy is designed to hold Collateral valued at approximately the full notional amount of the dividend future to offset any inherent leverage of that futures contract.*

Just as investors don't pay the full cash price of the dividend future to own it, they don't receive the cash price back when they sell it or when it matures. Instead, what investors realize is the cash difference between the price at which they went long the dividend future and the price at which they sell it or the final settlement price if held to maturity. In the example, if the investor went long the dividend future for \$60 and it matured (or was sold) for \$65, the investor

³ During the life of the futures contract, gains and losses are marked-to-market and settled daily. Investors must, at all times, maintain a minimum level of cash in the margin account to cover potential losses that could occur on the next trading day.



would *receive* \$5 in cash gains. If, on the other hand, the investor went long the dividend future for \$60 and it matured (or was sold) for \$56, the investor would *owe* \$4 cash to cover the loss in value. This is why dividend futures are referred to as "contracts-for-difference."

4) – Combining the Dividend Futures and the Collateral to Replicate the S&P 500 Dividend

As stated at the outset, the Dividend Component of the Strategy provides isolated exposure to a multiple of the actual S&P 500 ordinary dividend, *without employing leverage*. It does this by combining long positions in dividend futures with approximately an equivalent notional amount of Collateral. By being long Collateral in an amount equal to the notional value of the futures position, the Strategy achieves two important outcomes. First, the Strategy offsets embedded leverage in the dividend futures position. Second, combining a Cash position with a "contract for difference" (such as a dividend future) creates a blended position that simulates a cash security, such as a stock. Using the earlier example, being long a dividend futures contract for \$60 and holding \$60 in cash collateral can be viewed as economically equivalent to "investing" in that dividend amount for a purchase price of \$60.

<u>Example:</u> If over the calendar measurement period for the dividend future, the actual dividends paid are \$65, the value of the combined position at settlement will also be worth \$65: \$60 of cash collateral plus \$5 received from the net cash payout on settlement of the futures position (\$60 + \$5 = \$65). On the other hand, if over the calendar measurement period for the same dividend future, the actual dividends paid are \$56, the value of the combined position will also be worth \$56: \$60 of cash collateral minus \$4 owed for the net cash "loss" settlement of the futures position (\$60 - \$4 = \$56).

It is important to note that the combined position of the dividend future and Collateral is marked-to-market each day. If the dividend futures position has a gain on the day, the amount of that gain is paid by the exchange and added to the Collateral pool. If the dividend futures position experiences a loss on the day, then the amount of the loss is taken from the Collateral and delivered to the exchange to cover it. This posting of daily gains and losses between the exchange and the investor does not trigger a tax event. The key takeaway is that the value of the Collateral will, at all times, be approximately equal the ending day's market value of the dividend futures position.

Figure 2, below, illustrates how dividend futures positions and underlying Collateral are marked-to-market daily. Here we start out at T+0 with dividend futures and Collateral both worth \$61.50. Then, on T+1, the value of the dividend futures position increases \$4.50 to \$66.00. Because futures positions are marked-to-market daily, the change in value of the underlying collateral is posted and increases to \$66.00. As shown, gains and losses are posted daily.

Figure 2. Dividend Futures Positions Marked-to-Market



This is how the Strategy replicates one unit of S&P 500 dividends. Through this technique, the Strategy can allocate sufficient Collateral to support multiple dividend futures positions replicating multiple units of S&P 500 dividend exposure. Regardless of how many units of dividend exposure the Strategy is targeting (*e.g.*, 2x, 3x, 4x, 5x, etc.), the Strategy is calibrated to (1) deliver a multiple of cash flow based on the *actual dividends* paid by the S&P 500 and (2) deliver that multiple without employing any leverage.



5) – Unlocking Collateral as Actual Dividends are Realized

The final element to examine is how the gradual realization of actual dividends paid during the measurement period of the dividend futures contract enables the Strategy to make periodic distributions (generally quarterly) based on actual S&P 500 dividends in the period. Remember, the dividend futures positions and their associated collateral are marked-to-market and settled each day as described above. During the life of the contract, the **Dividend Points Index** is tallying the actual dividends paid by the S&P 500 each day. This means that every day, based on actual dividends paid, the dividend points index "locks-in" a portion of the final settlement value of that year's dividend futures contract. The portion of the contract's final value that has been locked-in no longer needs to be collateralized since it is no longer at risk, freeing up collateral for distribution.

Consider, for example, the 2021 Annual Dividend Futures Contract. By June 30, 2021, the S&P 500 had already **paid \$30.80 in dividends** since the start of the contract period, December 21,2020. The market price of the futures contract on that date was **\$59.80**. Of the \$59.80 in market value, \$30.80 had already been "locked-in", leaving only **\$29.00** of market value **"at risk"**. Because \$29.00 of Collateral was all that was required to fully secure the at-risk market value left in the futures contract, then \$30.80 (\$59.80 - \$29.00 = \$30.80) in Collateral would have been available to be distributed to investors in the Strategy.

Figure 3.



Figure 3 is a hypothetical example that illustrates how the market price of the dividend futures contract (blue line) converges with the actual amount of dividends paid on the S&P 500 on the date of the contract's maturity (red line, *i.e.*, the Dividend Points Index).

Figure 3 also illustrates the key, inverse relationship between the required futures collateral (gray-shaded area), and the funds available for distribution (orangeshaded area). As actual S&P 500 dividends are paid, the cash held as collateral to support those futures positions (gray) is freed-up and can then be distributed to investors (orange).

6) – Conclusion

In this primer, we have discussed the following key understandings about Dividend Futures and how they function within the Dividend Component of the Metaurus Dividend Multiplier Strategy:

- 1) Dividend futures are contracts for difference that require no up-front cash to buy.
- 2) Dividend futures settle based on a dividend points index that tracks the actual dividends paid by the S&P 500.
- 3) The combination of Collateral plus a dividend futures contract simulates an equivalent cash long position in S&P 500 dividends, and does so without any leverage, like a stock in this sense.
- 4) During the course of the year, as actual S&P 500 dividends are realized, the final settlement price of the current year's dividend future is locked-in, freeing up cash collateral for distribution to investors based on actual S&P 500 dividends paid in the current year.



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