Enhancing Overlay Collateral Efficiency

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Futures offer investors potentially valuable returns via exposure to markets and corresponding risk premiums. Yet while many investors choose to post cash to fulfill their futures margin obligations, a more capital-efficient way to participate in a futures overlay program may be to post other types of assets as margin collateral. In this paper, we'll explore how Treasury securities can come to the rescue by enhancing flexibility in contrast to posting cash.

Key takeaways

» Futures overlay programs allow investors to achieve their desired market exposure without needing to fully fund the position, which enhances capital efficiency for the fund.

» The impact of needing to post initial and variation margin can be high for participants in a futures overlay program in a volatile market. An increase in margin requirements represents a potential liquidity obligation for the fund.

» Investors may post a portion of their Treasury securities as collateral, with little or no haircut, enhancing capital efficiency without impacting the asset allocation or return expectation of the Treasury mandate.

» Investors may think an alternative method to meet margin requirements when posting cash is operationally inefficient. There are several different types that can be posted for margin, but Treasury securities can be a good substitute for collateral, especially if investors hold existing Treasury portfolios.

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What is a futures overlay?

Futures give investors the opportunity to bet on (or hedge against) the future price of an underlying asset. This includes commodities, currencies, equities, bonds, and several other investable assets. A futures overlay program integrates futures investments with investors' existing holdings, providing investors with on-demand access to most of their cash while still being exposed to the capital markets. Investors can earn an increased expected return through exposure to a market risk premium in addition to being able to maintain liquidity for short-term needs.

Futures overlay programs can typically enhance investors' capital efficiency because they're funded on margin, helping them achieve their desired market exposure without having to fully fund the position. These instruments offer the chance to invest in listed futures with low transaction costs and a high degree of liquidity and transparency as a result. Yet the same mechanism that provides that capital efficiency can at times also present something of a hurdle.

The margin challenge

Holding overlay exposure through futures requires a portion of the investor's collateral to be posted with the futures broker for margin. Exchanges, which ultimately define the margin requirement, have been known to increase initial margin requirements during periods of high market volatility. Custodial accounts can often hold additional cash to provide variation margin and absorb the impact of market fluctuations. Adverse market movements may result in depleting variation margin, leading to a need to replenish the required margin collateral.

The need to post initial and variation margin presents a liquidity challenge to the portfolio. This impact can be substantial for participants in a futures overlay program in volatile markets because all positions are marked to market daily. Overlay clients need to be prepared for these scenarios, since an increase in margin requirements represents another potential liquidity obligation for the fund.

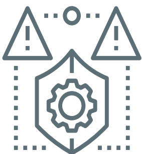
Treasuries to the rescue

Most futures overlay portfolios will choose to satisfy margin requirements by posting cash or Treasury bills to meet initial margin requirements. Both alternatives are highly flexible, involve low-volatility assets, and typically have little or no *haircut*, or discount, for collateral-valuation purposes. If the portfolio contains seperately held assets (ETFs, cash, Treasuries, etc.), the investor can post a portion of the assets as collateral, enhancing the capital efficiency of the overlay program. While several different assets are accepted for collateral, they can correspond with the level of associated risk by discounting them. It's important to remember that any gain or loss on the asset posted will still belong to the investor. Note also that this leaves the overall asset allocation untouched. This may be useful to consider, since the investor isn't disadvantaged from a return standpoint by posting an asset other than cash.

FIGURE 1: POSTING SEPARATELY HELD ASSETS FOR COLLATERAL

Benefits

- Greater flexibility and increased liquidity in the portfolio, since less cash is needed to satisfy margin requirements
- Total cash requirement for margin is reduced, which can be especially helpful during transitionary periods in the portfolio, when capital constraints may exist



Risks

- Assets posted can decrease in value, potentially triggering a margin call
- This impact can be substantial for participants in a futures overlay program in volatile markets because all positions are marked to market daily

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Example involving a passive Treasury mandate

Parametric manages passive Treasury mandates for several clients in separate accounts, managing these accounts to a standard or custom benchmark and providing the client the ability to modify the benchmark as exposure needs change. These portfolios contain many individual Treasury securities. They can be posted to satisfy the initial margin requirement associated with a futures overlay program if desired.

Below is an illustration of how collateralizing a futures overlay program with Treasury securities can enhance overall results relative to posting cash. It shows the impact of expanding overlay positions from $50 million (left sections) to $300 million (right sections), along with the impact of using cash for initial margin (top sections) versus posting Treasury securities from an existing mandate (bottom sections).

In this example, we assume an initial margin requirement of 4% and that the investor has:

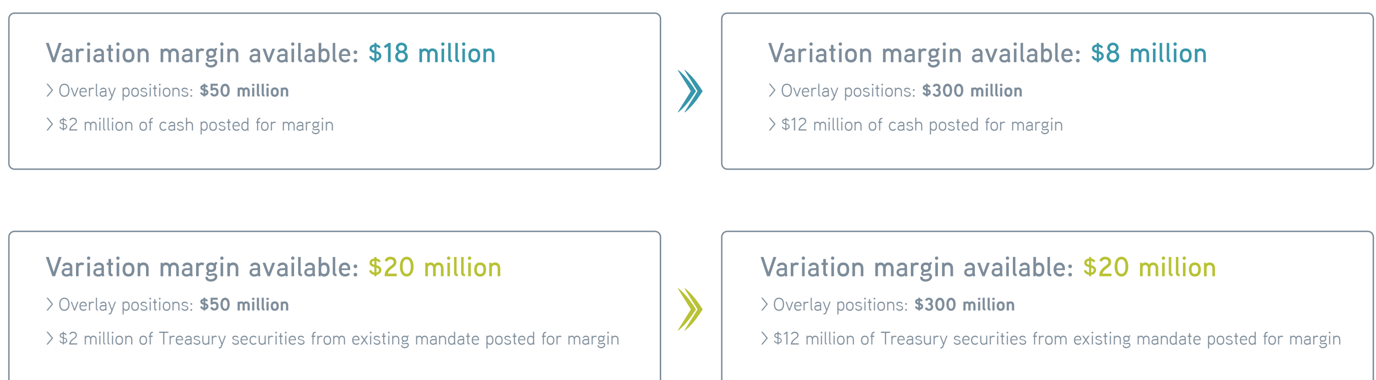
- $20 million of cash in a margin account and $30 million of cash in a custodial account
- $50 million of Treasury securities in an existing Treasury mandate

When positions are expanded to $300 million, the investor has an additional $12 million in variation margin available by posting Treasury securities from an existing mandate instead of cash. Therefore, the investor retains access to more of their cash without sacrificing the potential benefits of the overlay program.

Conclusion

The thoughtful management of collateral can increase the benefits of an overlay program by allowing investors more flexible use of their cash. While our example focused on using Treasury securities as a substitute for collateral, there are several different securities that can be posted for margin. Each of these choices has a variety of trade-offs. Some investors may want to consider a substitute to cash for margin requirements. Using an existing investment may make it possible for fund sponsors to enhance the capital efficiency of their overlay program.

FIGURE 2: ILLUSTRATIVE EXAMPLE INVOLVING A PASSIVE TREASURY MANDATE



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