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Concentrated Equity Risk Management: Hedging Recent IPO Exposure

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There are times when institutional investors find themselves with a concentrated exposure to single-name equities. The source of this concentration is often an allocation to venture capital (VC) and private equity (PE). The frequency of this "problem of the riches" has grown in recent years due to the following factors:

- Institutional investors have increased their allocations to PE and VC.
- Similar to public-equity markets, PE and VC have exhibited robust performance in recent years, with many portfolio companies evolving into publicly listed stocks.
- Managers have been extending their holding period of fund investments relative to historical averages. This includes holding investments in the fund well past the restricted date post-IPO, when positions were typically distributed to the end investor.

Thanks to these factors, investors have found themselves with outsized exposure to a highly appreciated, concentrated equity position. The positions are often large enough to create a significant amount of idiosyncratic risk in the broader fund. Examples of this occurrence include companies such as Airbnb, Meituan, and Robinhood.

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Mitigating risks

The most straightforward way to control risk in these positions is to sell and realize a sizable gain. However, the end investor frequently doesn't control the shares directly (for example, as an LP in a fund) and is therefore unable to sell. In these instances, the investor may seek alternative ways to mitigate the risk of the concentrated position until it can be reduced.

There are three primary strategies investors consider when seeking to reduce concentrated position risk:

- **Direct hedging:** achieved by directly shorting the name physically or via swap
- **Proxy or basket hedges:** achieved by shorting or buying puts on a representative index or basket of economically similar names
- **Options strategies:** achieved by using a combination of puts and calls on the company to create a desired payoff profile

Investors must evaluate a series of trade-offs and considerations to determine which solution may be the most appropriate for their circumstances.

Direct hedging

Directly hedging the exposure by either shorting shares via a swap or physically shorting shares is an effective tool for managing the overall exposure. This approach is most commonly used when investors would like to reduce the single-name risk and rebalance exposures within the portfolio (for example, short single-name exposure and buy exposure to an underweight allocation such as value equities). Drawbacks to this approach include the elimination of any future upside participation in the concentrated position, uncertain costs to borrow shares, and the margin requirements of the hedge position. It should also be noted that the investor will need an ISDA agreement with a counterparty to enter into a swap or a prime brokerage account to short individual equity shares.

Proxy hedges

Using a proxy hedge on a representative index or custom basket of similar names appeals to investors initially—protection usually costs less since the implied volatility assumption tends to be greater for single-name stocks than either the index or the basket. However, this approach has two major drawbacks. First, determining the appropriate benchmark and its efficacy is difficult as there's often not a long enough price history—particularly for recent IPOs—to perform a robust quantitative correlation analysis. Second, the primary concern is the idiosyncratic risk of the company (rather than market or sector beta risk), which a proxy hedge does not eliminate.

Options strategies

While most investors prefer not to “bet against” their managers by reducing exposure to large positions, rightsizing exposures at the total portfolio level is a critical element of prudent risk management. As such, structuring a solution with options allows investors to tailor upside and downside participation based on their unique needs and objectives. For this reason, and the difficulties with direct hedges and proxy hedges, options hedges are the most popular approach to managing concentrated equity positions.

There are a variety of strategies that can be created with options, but three structures are commonly employed—outright puts, collars, and put-spread collars.

Structuring considerations

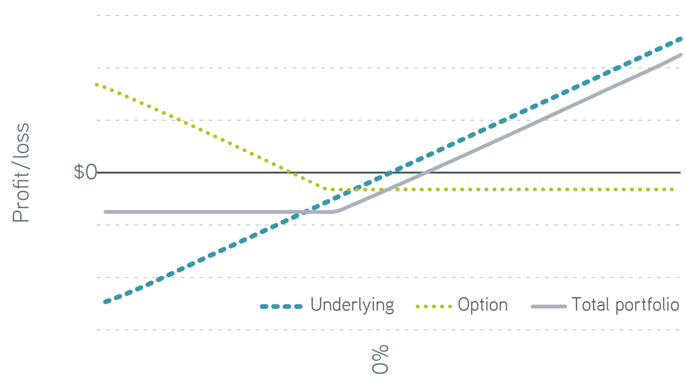
When constructing an options strategy, it’s important to understand and evaluate the objectives, constraints, and risk tolerances. These include:

- Expected timing of distribution or sale of the underlying asset to be hedged
- Budget or amount of premium willing to be spent
- Desired payoff profile and the willingness to cap upside or accept less downside protection to minimize premium outlay
- Understanding the margin and liquidity needs associated with selling calls when the underlying positions isn’t directly held by the investor
- Availability and liquidity of exchange-listed options desired by an investor given market constraints immediately following an IPO
- If the company recently went public, it often exhibits a significant amount of volatility compared with more mature companies or broad indexes, which can create both headwinds and opportunities in structuring a solution.

Outright put

The most direct options solution is to simply purchase put options to protect the downside. However, if the volatility of the equity shares is high, outright puts can be expensive. Investors that use outright puts commonly set a predefined spending budget to purchase out-of-the-money (OTM) options.

Put market mechanics



- Purchasing a put option provides the opportunity to sell the underlying security at the strike price at the time of expiry.
- Provides the purest form of downside protection as it neutralizes the long-stock exposure below the strike price.
- Typically requires the largest outlay of premium since there's no offsetting option sale to defray the premium.

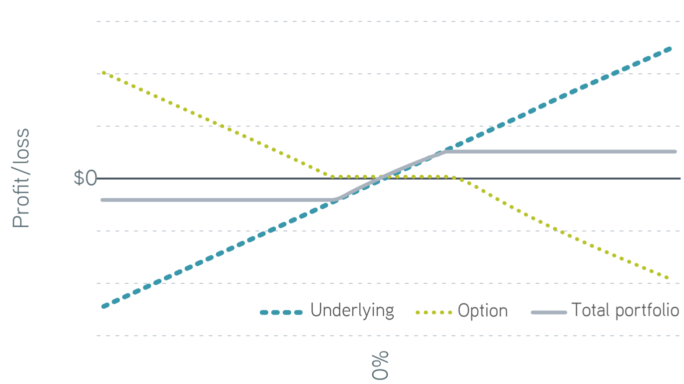
Source: Parametric, 2021. For illustrative purposes only to show the market mechanics of put options and the general relationship to market movement. No representation is being made that an underlying will move negatively or positively.

Collar

With the elevated volatility in recent IPOs and the dynamics of how they trade, a *collar*—purchasing an OTM put and selling an OTM call—can often create a compelling risk/reward scenario compared with other hedge solutions.

Most mature companies or index exposures exhibit more volatility to the downside than to the upside. By consequence, OTM puts are generally priced at higher implied volatilities compared with OTM calls, known as *skew*. For certain IPOs, the opposite is true—they tend to exhibit equal or higher volatility to the upside than to the downside during the price-discovery period. In addition, there's often significantly more demand from end investors to buy calls rather than puts. Due to these factors, call options are frequently more expensive than puts with similar term and moneyness. The investor can capitalize on this phenomenon by allowing for increased upside participation by moving the call strike further out of the money relative to the put strike.

Collar market mechanics



- A collar includes purchasing an OTM put option and selling an OTM call option.
- The addition of the short-call option generates income to defray some or all of the put-option purchase.
- In exchange for selling the call, the investor forgoes the potential upside in the underlying stock above the call-strike price

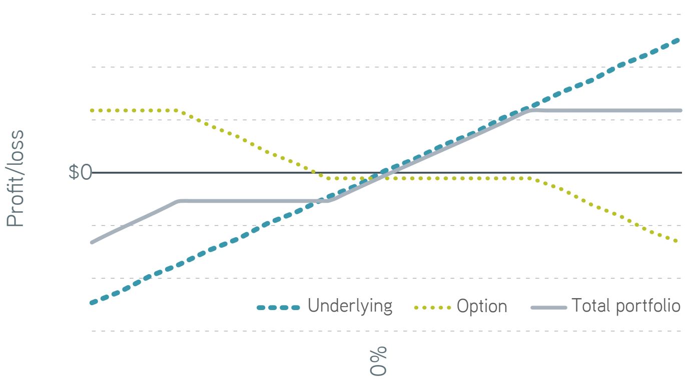
Source: Parametric, 2021. For illustrative purposes only to show the market mechanics of an options collar and the general relationship to market movement. No representation is being made that an underlying will move negatively or positively.

Alternatively, another structure investors can implement to take advantage of this pricing and skew dynamic is a *ratio collar*. Instead of purchasing one put and selling one call in a standard collar, a larger number of puts are purchased relative to the calls sold. For example, an investor looking to hedge 100 shares of a company can purchase 100 units of puts, which could be financed by selling fewer than 100 units of OTM calls. This leaves a portion of the exposure without a short-call position, which retains the full upside participation.

Put-spread collar

A collar strategy can be further adjusted by selling a further OTM put to create a *put-spread collar.* While this structure limits the total downside protection, it may allow for a higher initial level of protection from the long put, a higher call strike to allow for more upside participation, or a reduction of the required premium spend.

Put-spread collar market mechanics



- Put-spread collars build on the standard collar structure but include a put that's sold further OTM than the purchased put.
- This structure is used to help further fund the cost of the long put and is used when downside protection is desired within a defined range.

Source: Parametric, 2021. For illustrative purposes only to show the market mechanics of put spread options collar and the general relationship to market movement. No representation is being made that an underlying will move negatively or positively.

Results

As allocations to VC and PE managers remain elevated, and markets remain bullish, investors may increasingly face outsized exposures to highly appreciated single-equity names. There are a variety of risk mitigation solutions to prudently manage the exposure effectively. Options structures are the most common approach, offering many structures to investors. Investment professionals at Parametric partner with investors to understand their concentrated equity-risk exposure and develop a solution that achieves their long-term objectives.

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