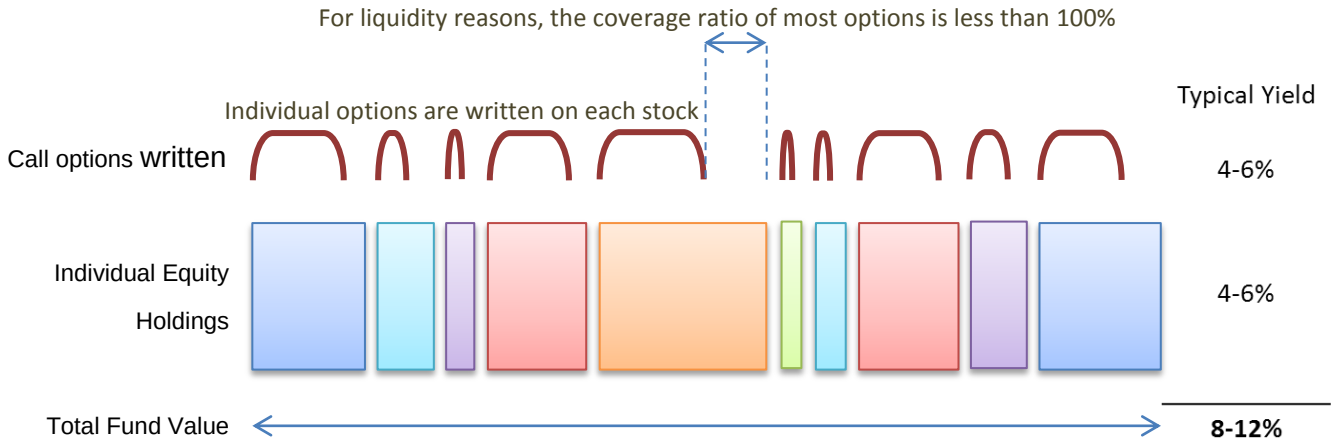
Introduction

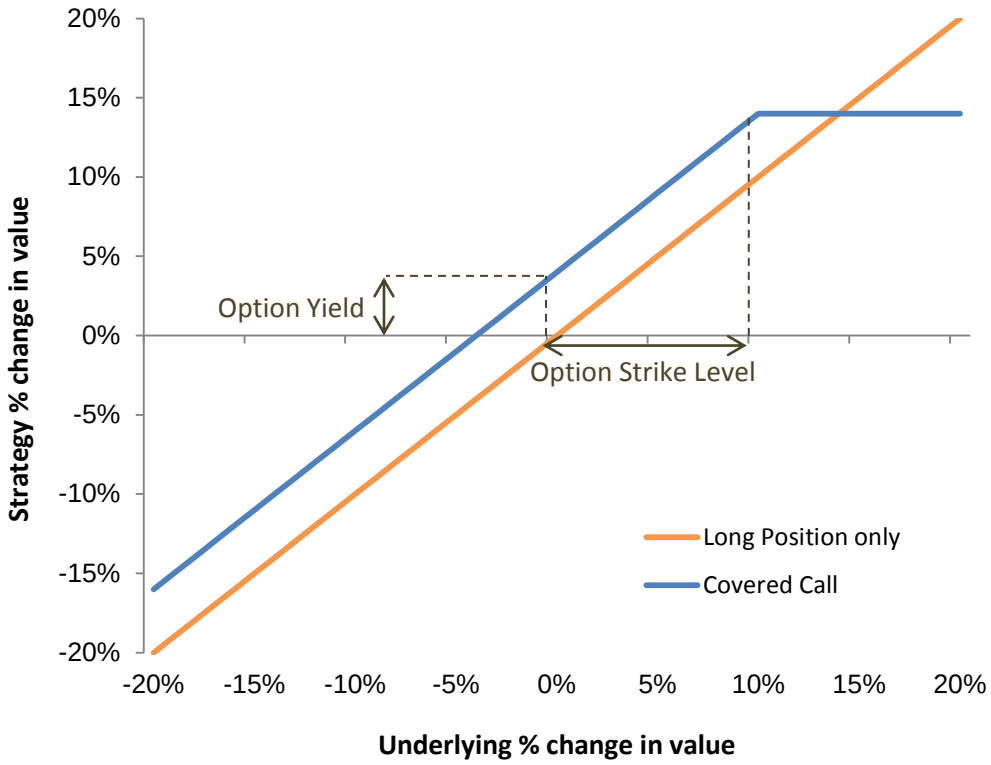
The last year has seen increasing numbers of covered call funds appearing in the Japanese retail market, alongside increased interest in this strategy elsewhere in Asia. This is understandable. Depending on the investors' desired risk and return, covered call can offer an attractive modification of conventional, long ownership of an asset – some of the upside is sacrificed in order to increase the ongoing income of the fund.

The basic structure of a covered call fund is simple; the fund owns an underlying asset (usually equities) and call options are then sold on this asset. This is illustrated graphically below. Although there are some variations on this idea (eg owning a non-JPY asset, and selling the currency risk upside), this remains the simplest and, in many ways, the most logical structure for a covered call fund.

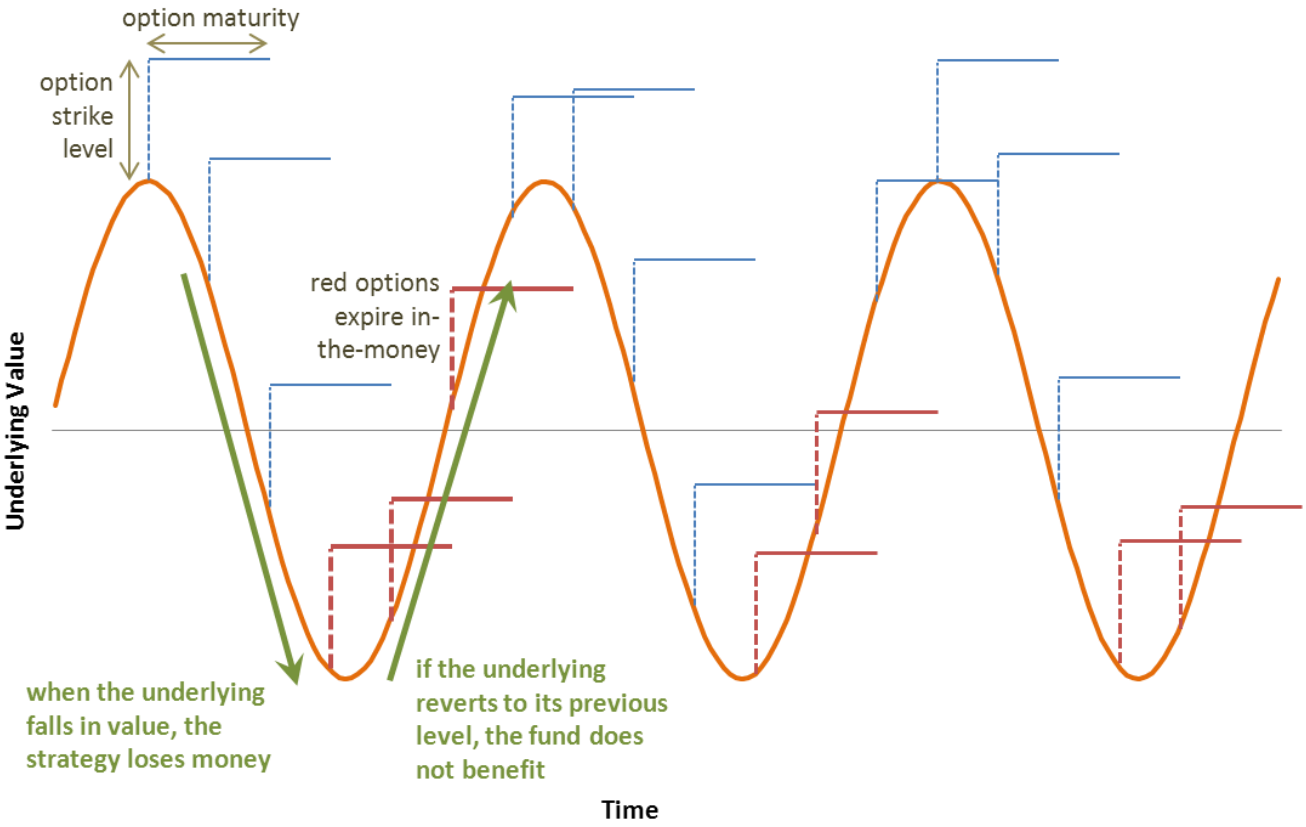
It is necessary to define some jargon for covered call funds. The asset held (eg equities) is called the 'underlying'. The extent to which options are sold over the underlying is called the 'coverage ratio'. If a call option is sold on an asset, but the fund does not own that asset, then this is referred to as a 'naked short' position, and is usually considered undesirable since the fund can suffer unlimited losses. If collateral is not being provided by the fund on the option positions, then counterparties will often insist that naked short positions are not taken.



The covered call fund has a distinct pay-off profile, compared to the underlying:



An important feature of covered call funds is that their success (relative to their underlying) will depend heavily on whether the market is going upwards, downwards or sideways. During falling or flat markets, covered call funds will outperform the underlying, as the options provide additional cash-flow. In an upward market, the options will get exercised and so the covered call will underperform the underlying. The worst kind of market for covered call funds is a volatile market which has neither a consistent upward trend nor a consistent downward trend. In this market, investors may lose money when the market falls, but then fail to recover it if the market rises. This undesirable effect is illustrated below. In this kind of market, a covered call strategy will significantly underperform the underlying asset:



However, most retail investors will be more concerned with the absolute level of returns, rather than returns relative to an underlying index. If this is the case, then covered call can be described as being a good strategy for 'stable' markets. If investors believe that markets are likely to rapidly rise, they should simply buy the underlying. If they believe markets are likely to rapidly fall or be unexpectedly volatile, then they should own a less risky asset. However, if they believe markets are relatively stable, then covered call is an attractive asset class, particularly for retail investors with a desire for a high and fixed yield.

The purpose of this article is to provide advice on how best to manage a covered call strategy. The following 9 tips talk through how to manage the options and the underlying, and what kind of managers and management styles are needed.

OPTION MANAGEMENT

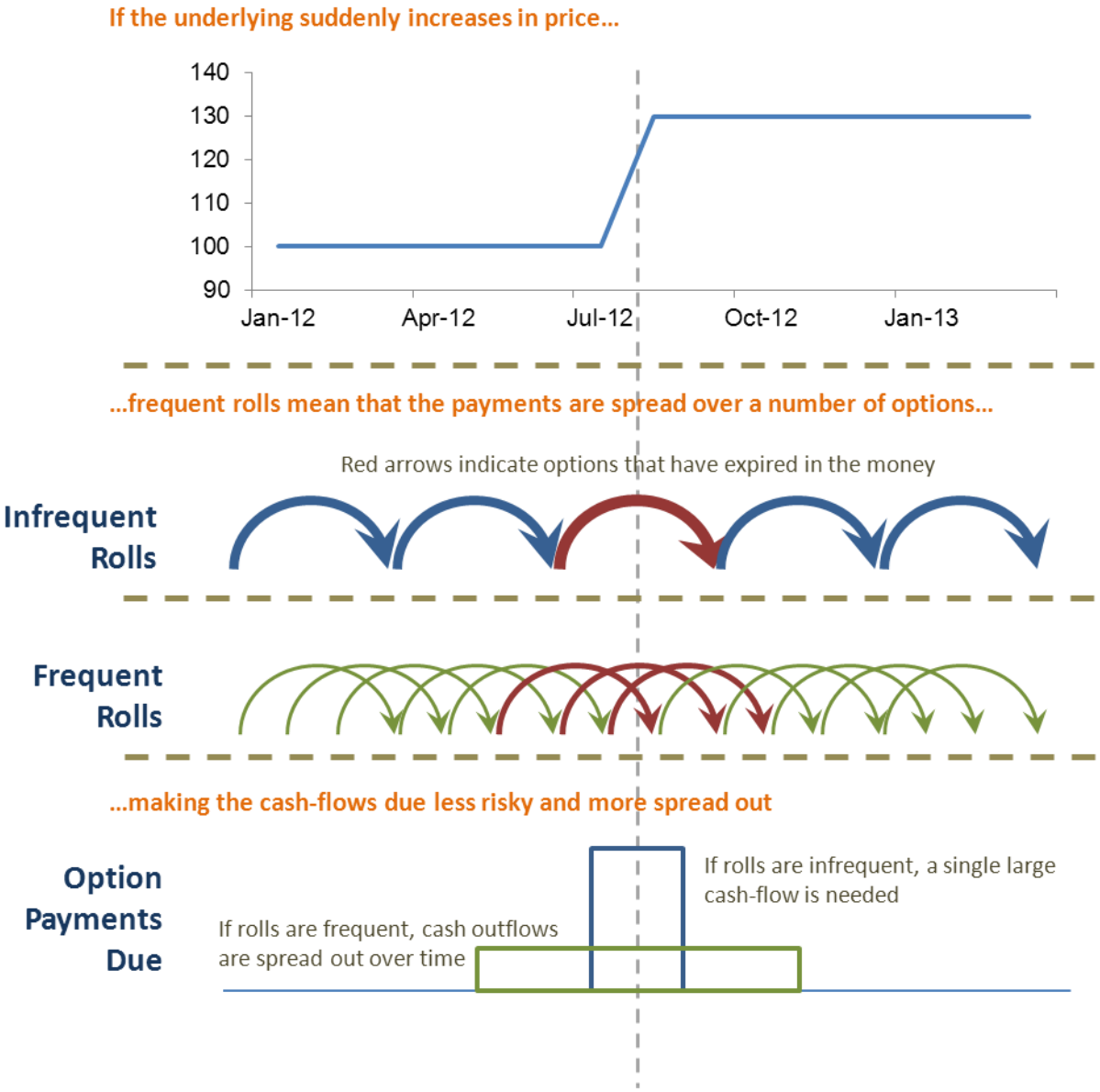
1. Option liquidity restricts the choice of the underlying

For all covered call funds, option capacity will define the total capacity of the fund, and also limit the range of potential assets. It is easy to invest $5bn into large or medium-cap global equities with above-average dividend payout ratios; it is much more difficult to sell $5bn of call options on those equities. Consideration of the option capacity on the underlying is

therefore as important a consideration as the characteristics of that underlying. This is a particular issue for retail funds, where large sums of money are typically invested in a short space of time, which may require more option selling than the market is able to easily accommodate.

2. Have a number of options for each underlying, which roll frequently…

Generally speaking, the more options that are used, the better. The ideal situation is a rolling program of a number of options, so that at any time 3 or 4 options are open on any particular stock. This allows the active manager to change holdings frequently, spreads cash payments due to counterparties, and, since option delta is related to time to maturity, stabilizes the delta of the fund and reduces total risk. It also reduces the market impact of the option program, and makes the options cheaper to trade. This situation is illustrated below:



3. … and don't aim for 100% coverage

When redemptions occur, some of the underlying securities must generally be sold to provide the necessary cash. If options have been sold on all securities, then some of these options must also be bought back, in order to avoid creating a naked short position. Buying back options is expensive in terms of transaction costs. It is therefore better to leave some percentage of the securities (say 5%) uncovered, so that they can be cheaply liquidiated.

4. Don't collateralize your option positions

The options used for covered call funds will tend to be over-the-counter derivatives. This type of option is fully customizable, and is traded directly with a counterparty – there is no public exchange and no public prices are available. Since the fund receives the option

premium at the point at which the option is sold, **there is very little counterparty risk to the fund**. Collateralization has a yield cost, so the fund suffers a minor yield reduction if it agrees to collateralization. Make sure that your asset manager is not intending to collateralize the options. Provided that the fund always owns the underlying assets, counterparties should agree to this.

MANAGER SELECTION

5. Most traditional active management styles are unsuitable for covered call

In a covered call fund, the manager of the underlying should avoid trading the underlying, except on the option expiry date. This is because selling the underlying whilst keeping the call option would result in a naked short position. It is possible to buy back the call option that has been sold, but this is usually too expensive to justify the trading activity. Furthermore, counterparties will tend to charge less to roll an option than to start a new one, making it sensible to change holdings as little as possible. Any strategies which have a high turnover, which rely on momentum or short-term valuation indicators, or which try to take advantage of short-term opportunities in the market, are not suitable for covered call. A buy-and-hold, low-turnover approach must be used.

Similarly, the goal of active management must change. The fund has only minor benefit from major increases in the price of the underlying. A manager with an excellent eye for picking growth stocks – even the turnover were low – would not be suitable to manage a covered call fund. Instead, the focus has to be on maintaining price stability of the underlying and taking advantage of the high income levels. Diversification and other forms of risk management are key to this.

Quantitative management, or fundamental indexation, are both suitable management styles for a covered call fund, and potentially superior to conventional active management. These styles tend to (though do not always) lead to funds which hold long-term positions, are well diversified in terms of risk, and are designed to obtain a high yield, or achieve some other goal. They therefore meet the objectives above. The security selection process can also take into account the liquidity of the option positions, a significant additional advantage which increases both capacity and yield.

6. Your option manager is as important as your underlying manager, and can add value

When a call option is sold to a counterparty, the counterparty will keep the option and attempt to hedge the position, or they will sell the option to a third party. Either of these

processes requires the counterparty to take action, and until the hedge/onward sale is complete, the counterparty owns the price risk of the option. The more risk that the counterparty has to take, the more that they will charge for the option transaction. Trading options at low cost is a skillful business which requires a well-established relationship between option manager and counterparty. The more freedom that the option manager has to change the characteristics of the option portfolio – maturity dates, strike prices, and the implementation schedule – the lower cost of option trading will be. Market counterparties will try to take advantage of inexperienced managers, or will pre-emptively increase their dealing spreads when dealing with managers who they do not yet trust. If this happens then the alpha gained from management of the underlying can be cancelled out by the extra option transaction costs.

OPTION MARKET IMPACT

7. Don't assume that the option market is fair

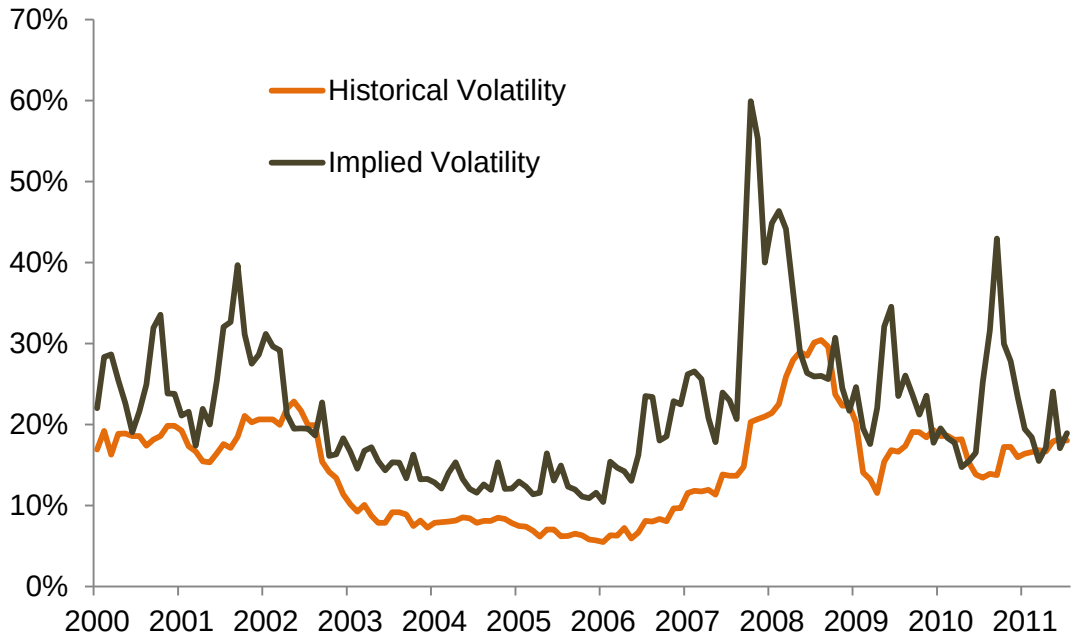
In most asset markets, assets can be assumed to be close to what the market believes is fair value – if they are too expensive, others will lower the price by selling them, or the issuer will lower the price by issuing more. However, as we have seen, option markets are not as liquid or transparent as conventional security markets, and they do not have these natural balancing mechanisms. There are few people who will buy options because they look too cheap, and there are even fewer who will sell them if they look too expensive. Most option investors are looking to protect their principal, and are not particularly sensitive to the price of the options.

8. So find a way to assess whether options are currently at fair value

Since the option market can deviate from perceived fair value for long periods, it is best to establish a metric to determine whether the options you are selling are systematically too cheap. In reality, it is impossible to perfectly assess the 'fair value' of any asset, and it is particularly difficult with an option. However, a 'proxy' measure can be established. One simple way to do this is to look at the option's implied volatility relative to the underlying assets historical volatility. This is far from a perfect way of establishing fair value, but it can be useful to give an idea of whether the market is unfairly priced or not. If implied volatility is higher than historical volatility, then the option is too expensive; if it is lower, then the option is too cheap. If the options being sold are too cheap, then it may be sensible to reduce the total coverage ratio, since the options will be subtracting from the overall return of the

portfolio.

The graph below shows implied vol versus historical vol for the S&P 500 index. Through much of the 00's, implied vols were too high; however, recently they have been much closer to fair value.

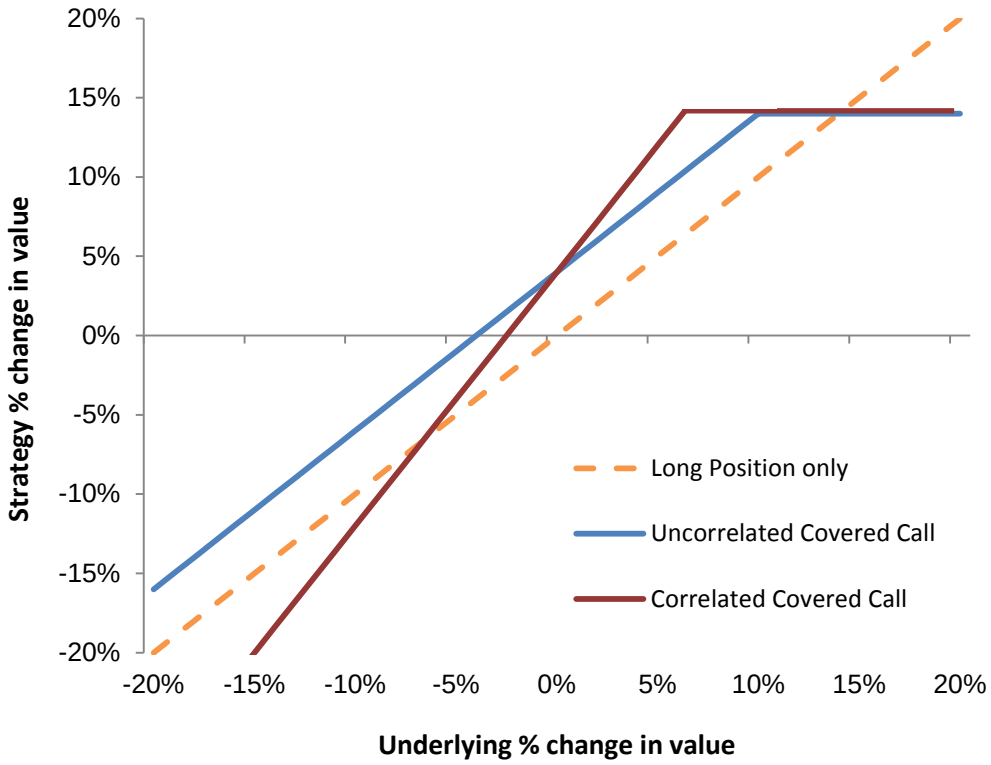


RISK MANAGEMENT

9. Correlation between option value and underlying value is a bad thing

For most covered call funds, the option value and the underlying value are inversely correlated. This is because the short call option position that the fund has decreases in value when the underlying goes up in value. There is therefore a natural diversification benefit to covered call funds. If the options are not being written on the underlying, but rather some other asset (for example, the fund holds US high-yield bonds, and has written options on the currency positions) then this diversification benefit may not exist, or it may even work in reverse, making it possible for the fund to lose money very quickly.

The chart below compares the pay-off for a normal covered call fund (where the calls are sold on the underlying) to a covered call fund where the calls are not sold on the underlying, and where the option value and underlying are correlated. In this circumstance, call writing can be more like leverage; it can dramatically increase the total risk of the fund.



Conclusion

We hope this article has illustrated some of the complications, advantages and future developments for covered call strategies. Fundamentally, these strategies fit very well with retail investors' desire for high income assets, and their tolerance of capital risk. For these reasons we expect the covered call type of fund to develop, diversify and increase in popularity over the next few years.

本情報提供資料は、BNY メロン・グループ（BNY メロンを最終親会社とするグループの総称です）の資産運用会社が提供する情報について、BNY メロン・アセット・マネジメント・ジャパン株式会社が審査の上、掲載したものです。当資料は情報の提供を目的としたもので、勧誘を目的としたものではありません。当資料は信頼できると思われる情報に基づき作成されていますが、その正確性、完全性を保証するものではありません。ここに示された意見などは、作成時点での見解であり、事前の連絡無しに変更される事もあります。

BNY メロン・アセット・マネジメント・ジャパン株式会社
BNY Mellon Asset Management Japan Limited

金融商品取引業者：関東財務局長（金商）第 406 号
〔加入協会〕社団法人　投資信託協会
一般社団法人　日本投資顧問業協会