Convertible Bonds - Strategies & Concepts

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1. INTRODUCTION

2. THE CLASSIC STRATEGY (HS = HYBRID STRATEGY) 3
   2.1. Quality is decisive
   2.2. Stay on track
   2.3 Convertibles can’t be beat

3. CONVERTIBLES INSTEAD OF EQUITIES (ES = EQUITY SUBSTITUTION STRATEGY) 5
   3.1 Know the opportunities and risks

4. THE BOND SUBSTITUTE (YE = YIELD ENHANCEMENT) 6

5. ADVANCED STRATEGIES FOR INVESTORS (AS = ALTERNATIVE STRATEGIES) 7
   5.1 Arbitrage ("buying volatility")
   5.2 Capital protection strategy
   5.3 High Yield
   5.4 Top opportunities approach

6. SUMMARY 10
Convertible bonds (or simply “convertibles”) lend themselves to any number of investment strategies and concepts. Here I will discuss various investment strategies that are possible with convertibles. Convertible bonds as:

- Mixed equity/bond portfolios
- An equity substitute
- An added component in bond portfolios
- Hedge funds

1. INTRODUCTION

Direct comparisons of convertible bond funds are in many cases problematic because nearly every product displays a distinct risk profile. The only sensible comparisons are risk-adjusted comparisons (e.g. employing the so-called Sharpe Ratio). It certainly doesn’t make any sense to compare a money market investment with US tech stocks.

The risk (volatility) of a portfolio is normally the predefined target (driving parameter). Within scope of this predefined target, the return is then optimized. Convertibles have the characteristic that at a given level of risk, they offer a better return than other financial instruments.

But one can also conceive of completely different approaches, such as aiming to optimally exploit a specific market environment (e.g. a sideways stock market trend). The driving parameter in this instance is therefore not risk, but the expected market environment. Many other driving parameters are also imaginable.

The reader should also bear in mind the following regarding these strategies: Experience has shown us that the success of a strategy can only be fully realized if it is applied consistently over the entire cycle. This holds true for convertible bonds as well as for equities and ordinary bonds. But the characteristics of convertibles make it relatively easy for us to follow this strategy even in a difficult environment. Nevertheless, the investors must have a precise understanding of the risk/return characteristics of the chosen strategy and be able to live with the consequences of the strategy in good times as well as bad. If that is the case, then one can employ convertible bonds through an entire series of strategies to achieve significantly above-average success over the long term.

2. THE CLASSIC STRATEGY (HS = HYBRID STRATEGY)

The so-called “hybrid convertible bond strategy” is to some extent the classic way to invest in convertibles. In this strategy, the investor buys convertible bonds that are close (+/-15%) to their repayment price. This results in severely limited risk. A convertible in this price segment therefore still behaves like a bond, i.e. 90% of the capital is protected.
Despite the capital protection, hybrid convertible bonds respond to rising equity prices. Based on the mathematical valuation model, such a convertible participates at a rate of 50% to 60% in a rise of the stock. One therefore also speaks in this instance of an indirect equity exposure of a convertible of 50% to 60%. Hence, a hybrid convertible can be viewed as a mixture (approximately 50% each) of a bond investment and an equity investment. This is where the name “Hybrid” comes from for this strategy.

2.1. QUALITY IS DECISIVE
This strategy requires precise management of the credit ratings of the convertible bonds. The above-mentioned capital protection mechanism only works if the convertible bond issuer remains solvent at all times despite falling equity prices and is able to repay the bond. A hybrid convertible bond strategy in the classic sense therefore exhibits a high average credit quality.

In a difficult market environment the average credit rating should be kept as high as possible. This average rating is based on the so-called implied rating. Through this method, the credit spread of each individual issuer is measured with respect to Treasury securities on a daily basis and classified according to the rating table. The rating of the portfolio thus reflects the most recent classification of the market and offers efficient bond protection.

2.2. STAY ON TRACK
It is also decisive to make sure that a hybrid convertible bond portfolio is always kept in the hybrid price segment! If equity prices rise strongly, the prices of convertibles will also rise. But the convertibles will thus lose their hybrid character and increasingly exhibit the risk of a direct equity investment. Indeed, a convertible bond trading at 150% or more of its issue price (repayment at 100%) has a downside risk of at least 33%. This means that after a sharp rise in prices, the convertibles should be sold and the proceeds should be invested in more defensive securities. This simultaneously locks in the gains achieved up to that point. Depending on the market situation, the need to act is more or less pressing in such instance.

In falling markets, on the other hand, the convertibles that were originally purchased increasingly lose contact with the stock. The conversion premium rises (i.e. conversion becomes uninteresting), and to some extent the convertible bond turns into an ordinary bond that no longer responds to movements of the underlying equity. Also in this instance, a hybrid convertible bond portfolio will eventually move out of its target range (which should have a 50/50 equity/bond character), and the positions must be replaced (through more aggressive securities). This will make it possible to benefit from a stock market rebound.

In summary: A properly implemented hybrid convertible bond strategy reduces risk (i.e. equity exposure through convertibles) after share prices rise and increases the equity exposure after share prices fall. Or to put it succinctly, buy low, sell high! This may sound almost trivial, but consistent application of this fundamental rule in the stock market is frequently neglected due to psychological factors. Convertibles help, here, to apply this principle in an elegant way. Convertible bonds enable you to prevent timing mistakes since they automatically provide increased capital protection in falling markets (which in a certain sense corresponds to the reduction/sale of equity exposure). After share prices fall, more equity exposure can be built up again with the money that has been saved. In rising markets, on the other hand, there is direct participation. The “buy low, sell high” principle is also a direct consequence of
— the use of convertibles and
— the consistent application of the hybrid convertible bond strategy (i.e. the build-up or reduction of equity exposure as soon as the portfolio moves outside of the target range)

2.3 CONVERTIBLES CAN’T BE BEAT

It should also be noted that the hybrid convertible bond strategy can be replicated with the help of ordinary options and bonds. This involves combining options and bonds in such a way as to create a pseudo convertible bond portfolio with a comparable risk/return profile to the real thing. In such case, however, the costs (and option premiums) are considerably higher. The least expensive way to implement a 50/50 equity/bond strategy is through the use of convertibles. This has also been statistically shown through various studies (for details, see Studies / Analysis). Moreover, a portfolio manager with extensive experience and know-how should be able to exploit the opportunities offered by the not-always-efficient global convertibles market.

Studies show that a (risk-adjusted) hybrid convertible bond strategy virtually cannot be beaten by other securities in terms of the return generated. Hybrid convertibles are a very interesting fundamental investment for a well-diversified portfolio.

3. CONVERTIBLES INSTEAD OF EQUITIES (ES = EQUITY SUBSTITUTION STRATEGY)

Convertible bonds trading at 50% or more above their guarantied repayment price have a downside risk comparable to that of a stock. In such instance, one speaks of equity-like convertibles. But for assuming the higher risk, the investor is compensated through higher (also equity-like) upside potential. In this price segment, the convertibles display only a low conversion premium or none at all. This means that the bond can converted into the shares at a ratio of nearly one to one. Accordingly, the upside potential of the bond is identical to that of the equity.

What is interesting now, however, is the fact that despite the high similarity to the stock, such convertibles perform better than direct equity investments when the stock market is falling sharply. This capital protection takes hold later and less strongly than in the case of a hybrid convertible bond.

Even so, in the case of falling markets there is a considerably smaller loss relative to that of an equity investment. In rising markets, however, the participation rate noted earlier is between 80% and 100%. The equity-like convertible bond strategy is equivalent to an equity investment with partial hedging.

In some cases, the investor receives the (partial) capital protection practically for free (if the convertible no longer displays a premium and the regular interest payments of the bond correspond to the stock dividends). It is usually much more expensive to buy put options (to hedge an equity portfolio). It is also decisive, here, to make sure that the equity-like convertible bond portfolio is always kept in this segment.
3.1 KNOW THE OPPORTUNITIES AND RISKS

An equity-like convertible bond strategy always exhibits a higher risk than, for example, the hybrid strategy described at the beginning of this paper. But an investment in this segment is not worse (or better) in view of this fact. What is decisive is only that the investor understands the opportunities and risks in advance, then consciously chooses the strategy and maintains this strategy over an extended period of time. On a risk-adjusted basis, neither the hybrid convertible bond strategy nor the equity-like convertible bond strategy can be beaten through other securities (e.g. stocks and ordinary bonds or options). Equity-like convertibles are suitable as a substitute for equity investments. The risk of price fluctuation can be considerable. Over the long term, however, a significant added return can be expected relative to a pure equity portfolio, especially if, as previously mentioned, the investor engages in consistent rotation (increasing equity exposure) after market drops. Our experience with equity-like convertible bond portfolios concurs with the expectations described above. In Japan, we maintain such a convertibles portfolio, which resets the equity exposure to 100% each month. This means that after a month of sharply falling share prices, the equity exposure must be increased again because the convertible bond premiums have risen and become less equity sensitive. Following very good months with rising share prices, the opposite is the case: we need to reduce the equity exposure. The goal of this convertibles portfolio is to beat Japan’s stock market index.

4. THE BOND SUBSTITUTE (YE = YIELD ENHANCEMENT)

In the case of a bond-like strategy, one buys convertible bonds that display a positive yield to maturity, regardless of whether the stock markets rise or fall. This usually means that one is buying securities trading below their repayment price. Convertibles in this segment display conversion premiums of 25% or more and thus respond only very weakly to movements of the stock market. Compared with a hybrid strategy, this strategy results in higher regular interest payments in the portfolio, but the tradeoff is less upside potential in the event of rising stock markets. The bond-like convertible bond strategies include portfolios that, through their conversion rights, exhibit an equity exposure ranging from 20% to 30%, making them 70% to 80% bond-like. Important: The total volatility of such a portfolio is only minimally higher than that of a pure bond portfolio.

Also in this instance, the advantageous characteristics of the convertibles (reasonable conversion rights) result in a better risk/reward ratio than that of a corresponding direct equity/bond investment. And ultimately, one receives an extremely inexpensive means of participating in the stock market through the convertible. Also here, one must always make sure that the equity component (indirect through the convertible) does not exceed the percentage guideline or fall below the minimum measure. Otherwise, one must engage in rotation to ensure a consistent strategy.

Issuer credit quality is particularly important in this strategy because the pure bond component (70% to 80%) of the investment is considerably higher than that of a hybrid convertible bond strategy or an equity-like convertible bond strategy. This portfolio’s performance in the various economic environments and stages of the cycle will depend on the specific credit-rating strategy. This is thus another decisive consideration in defining the overall strategy. In our mandates and funds employing a bond-like strategy, we generally take a very conservative
approach, i.e. we strive for a very high average quality level (between A and AA+). The question of currency hedging is always a decisive factor.

The strategy is suitable for particularly conservative investors who don’t want to or cannot endure any negative surprises. The risk of price fluctuation is small (3% to 6% per year). When stock markets are performing well, this strategy can generate a significant excess return relative to pure bond investments. When stock markets are performing poorly, on the other hand, this strategy will produce a lower return than that of an ordinary bond portfolio, though the shortfalls remain modest due to the favorable valuation (i.e. high capital protection) of convertibles. A bond-like convertible bond portfolio can therefore be included in an ordinary bond portfolio.

Recent comments have suggested the rise of some disillusionment concerning convertibles over the past few difficult years. Either the losses have ended up being too large or the future return prospects are judged to be low. Such statements confirm how important it is to precisely analyze and determine the right choice of strategy with the client. If this is done carefully and the risk/return parameter is discussed, then no disappointment will follow. Actively managed convertible bond portfolios with clearly defined strategies did an admirable job in the difficult years behind us. Whether or not to choose a bond-like strategy depends solely on the risk preference of the investor.

5. ADVANCED STRATEGIES FOR INVESTORS (AS = ALTERNATIVE STRATEGIES)

The three “basic strategies” (hybrid, equity-like and bond-like) differ primarily in terms of their risk of price fluctuation and thus in terms of the indirect equity component of the convertible. Since volatility (risk of price fluctuation) is generally the “natural enemy” of the average investor, setting boundaries with respect to risk within the given strategy certainly makes sense. Numerous other strategies are conceivable, however, which pursue completely different goals than risk control. For example, one can define strategies that profit especially in a specific market environment (e.g. a sideways trend), but the tradeoff is a weak or negative return if the target environment does not materialize. A brief description of such “exotic” strategies follows below.

5.1 ARBITRAGE (“BUYING VOLATILITY”)

One of the most popular non-traditional convertible bond strategies is so-called convertible bond arbitrage. The trick, here, is simple and obvious: You buy a convertible and simultaneously sell short a certain number of shares of the same company. If the share price falls, you make money on the short stock position. You will lose money on the convertible bond, but given the capital protection element, this loss will be smaller than the gain on the short stock position (the value of the shares could fall as low as zero). A net gain remains. If the stock market rises, you make money on the convertible bond. This gain exceeds the loss on the short stock position because the original equity exposure of 50% in the case of the convertible steadily increases as the share price rises.
This strategy therefore results in a gain in rising markets as well as in falling markets. Losses arise, however, if the stock markets move very little or not at all. In such case, the value of the short stock position remains stable, but the convertible bond loses time value (decay of the option premium). One therefore also says that convertible bond arbitragers are “buying volatility” with their strategy. If volatility goes down (e.g. the stock markets move sideways), losses arise.

Convertible bond arbitrage is thus independent from the stock market trend and therefore exhibits a completely different risk structure than that of the classic convertible bond strategies. On the whole, however, arbitrage provides quite stable returns without overly high risk. A convertible bond arbitrage fund cannot be classified as an equity portfolio or as a pure bond portfolio. It is an independent strategy.

5.2 CAPITAL PROTECTION STRATEGY
Another interesting strategy is the capital protection strategy. This involves selecting convertibles in such a way that the portfolio cannot drop below a predefined level. A bond that is trading at 105%, for example, and will be repaid in one year’s time at 100% can only lose a maximum of 5% (calculated over a one-year period and excluding interest payments). A convertible bond portfolio consisting entirely of such bonds would thus have a capital protection level of 95%. Depending on the choice of convertible, virtually any level of protection can be specified. The higher the protection, however, the more constrained one is in selecting the securities. For example, a portfolio with 100% protection cannot buy any security that is trading above 100% in the market. In the case of rising stock markets, the portfolio holds on to the securities.

The capital protection strategy is strongly asymmetric. The profit potential is unlimited, whereas a firm floor exists on the downside. This is what distinguishes this strategy from a normal hybrid strategy (see above), in which equity exposure is built up again in falling markets (convertibles are replaced), thus resulting in the absence of a firm lower limit. The disadvantage of the capital protection strategy is a certain amount of constraint in selecting securities. Securities in the portfolio also may not be replaced at will because the capital protection (guaranteed repayment level) must always be kept in mind.

The volatility (fluctuation range) of this strategy can be large because the portfolio faces no limitations in one direction (upward). It can even exceed the volatility of a classic hybrid strategy (because, as mentioned above, some of the convertibles are replaced in a hybrid strategy, thus lowering the risk). Nevertheless, the risk of a capital protected portfolio will only increase in the event of success, i.e. when stock prices are rising. Even conservative investors should find this prospect appealing.

The main strength of this strategy derives from the characteristics of convertibles. Capital protected products that are constructed with bonds and options cost investors substantially more than identical strategies devised with convertible bonds. The fact that inexpensive, long-term options are obtainable through convertibles ultimately results in a very interesting and effective capital protection product.
5.3 HIGH YIELD
A high yield strategy involves buying convertible bonds from issuers with low credit ratings. Such issuers are either companies permanently engaged in risky transactions or firms suffering from temporary liquidity problems (e.g. due to a difficult economic climate). The advantage of this strategy is the very high interest payments or yield to maturity of the bonds.

But it is only with quite a few reservations that the high yield strategy may be viewed as a genuine convertibles strategy. This is because convertible bonds in this segment usually display very high conversion premiums (1000% and higher). This stems from the fact that the issuers are in problematic situations that have caused their share prices to fall sharply. Hence, such convertibles no longer respond directly to movements of the stock (even if the share price doubles). High yield convertible bonds in fact exhibit an indirect reaction to upward movements in share prices, namely through the mechanism of the improved estimation of the credit quality and thus the narrowing of the very wide credit spread.

In the case of a high yield strategy, the true fundamental concept of a convertible bond (gains when share prices rise and protection when they fall) is no longer realized. A high yield strategy is ultimately based on the correct (or false) assessment of the issuer’s probability of survival. Instead of buying convertibles, one can therefore also buy ordinary bonds issued by the same company.

5.4 TOP OPPORTUNITIES APPROACH
Many more special strategies are conceivable. For example, one can focus on selecting only a few, very inexpensively valued securities. “Inexpensively valued” does not refer to a low purchase price, but to an inexpensive valuation with respect to the theoretical/mathematical valuation models. Concretely, an inexpensive valuation is expressed in the form of a lower conversion premium (compared to other securities trading at similar prices). A relatively low conversion premium results in faster gains on the convertible bond when prices are rising in the stock market, whereas market setbacks are cushioned more effectively. We refer to the selection of particularly inexpensive convertibles as the so-called “Topopportunities” (top opportunities) approach. The advantage here is the optimal exploitation of the inexpensive opportunities offered by the market. These opportunities can even be leveraged through borrowing. The disadvantage of this approach is the low diversification and thus the possible deviation from the general market trend.

In addition, one can write options on the convertible bond positions. Depending on how it is implemented, this can result in a massive shift in the risk/return profile. Usually, however, an options writing strategy helps to lower volatility (i.e. reduce risk) and therefore particularly makes sense for conservative investors. Furthermore, such a strategy results in interesting added returns.
6. SUMMARY

Convertible bonds can ultimately be used to produce practically any targeted risk structure. Or, in other words, nearly all conceivable market environments can be covered optimally. From a somewhat more general perspective, convertibles therefore are not merely a (highly interesting) security class but also a modular system. With the corresponding expertise and software support, one can produce customized solutions that are hard to beat. Convertible bonds are a veritable high tech instrument for steering the direction of portfolios. Convertibles are to some extent a substratum of elementary building blocks like stocks, bonds, options and futures. Their possible applications are therefore nearly universal, even for investors who have not yet ever heard of them.