Thinking about Principal-Protected Securities

BY DAVID KREIN

Structured products and structured notes (SPSNs) have become wildly popular tools for individual and institutional investors. One of the most common features of SPSNs is “principal protection.” Principal-protected securities (PPSs) often are marketed as a conservative and prudent approach to what otherwise might be a complicated or risky market exposure. And by some measures, many investors are comforted by the notion that, at a minimum, they will get their invested capital back from the issuer.

Unfortunately, this is an incomplete explanation of how PPSs work in practice. Although the issues are complex, understanding how such protection is assembled should lend insight into when investors might get their principal back, who is going to give it to them, and why they might want to consider alternatives.

Defining Principal Protection

PPSs are similar to traditional SPSNs in that they offer exposure to an underlying market through an unsecured debt obligation issued by a counterparty institution, which usually is a Wall Street institution.

The distinctive feature of a PPS, however, is that it limits the risk to the investor’s principal by establishing a maximum loss threshold. And has a maximum loss of 0 percent. Other forms of PPSs may seek to return less than 100 percent; they are referred to as “partial PPSs” and can be set to have a maximum loss of 2 percent, 10 percent, 20 percent, or more.

Understanding Principal Protection

A typical PPS has two embedded parts that, in combination, determine the degree of principal protection and the market exposure. They are 1) a zero coupon bond and 2) a call option on the underlying market.

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When issued, such a PPS is priced at 100 percent. This is the sum of both the embedded zero coupon bond price, which is less than 100 percent, and the embedded call option price, which is equal to the difference between 100 percent and the zero coupon bond price.

As the PPS approaches maturity, the price of the zero coupon bond approaches 100 percent. This is the dynamic that allows the issuer to return the customer's capital at maturity regardless of what happens in the underlying market. If the call option’s underlying market has risen in value at maturity, it will add to the PPS’s return. If the underlying market has fallen, the call option cannot be worth less than zero.

Although many of these basic mechanics may be familiar to PPS investors, a deeper analysis highlights the considerations, opportunities, and risk factors that the PPS itself introduces into an investor’s portfolio.

Zero Coupon Bonds Trade at a Discount Prior to Maturity

If a PPS investor seeks to liquidate the instrument at any time between issuance and maturity, the bid (repurchase) price of the PPS is the sum of the prices of its two embedded parts: the zero coupon bond and the call option. The issuer will not pay more than that sum.

In practice, neither of these embedded parts is guaranteed to be worth at least 100 percent of the principal prior to maturity. There are many situations in which the sum of the embedded parts may be less than 100 percent.

For example, assume that an investor holds a PPS with 100-percent principal protection tied to an underlying index and the index level has fallen substantially from the time the PPS was issued. The embedded call option would be nearly worthless. The price of the PPS consists almost entirely of the zero coupon bond, which would be priced below—and perhaps well below—100 percent.
Although these two embedded parts are aggregated for purposes of creating the PPS, investors should recognize that it is the call option that gives the investor exposure to an underlying market. The notion that the principal is “protected” comes from spending no more for that exposure than the zero coupon bond’s discount from 100 percent.

Counterparty Credit Risk

PPSs introduce a complex set of credit exposures into an investor’s portfolio because they most often are issued by subsidiaries of highly rated Wall Street institutions. There seemingly is little immediate risk of issuer default; these subsidiaries typically carry a “guarantee” from the parent entity, which often gives them a matching credit rating in the marketplace. In the event of subsidiary default, the parent entity is supposed to step in to meet the subsidiary’s obligations. In the further event of parent default, however, investors become part of the general pool of unsecured creditors and wait their turn for a distribution following liquidation.

There are two immediate credit market considerations here. First, the embedded zero coupon bond is a credit instrument and its pricing will be sensitive to differences and changes in ratings. In a competitive market, lower-rated institutions should have more attractive product terms than higher-rated institutions for an otherwise identical PPS.

Second, PPS investors reasonably might seek to manage excessive credit risk concentration. At a minimum, investors should seek to acquire PPS from more than one issuer. Depending on the investor’s acquisition platform, this may complicate the overall trading and settlement procedures and add to the complexity of overseeing the specific terms and conditions contained in each issuer’s prospectuses.

Identifying Credit Risk and Market Risk

Investors generally understand the overall credit risk in the PPS marketplace. Mainly, they take on the credit risk of the issuer when they acquire such an instrument. More specifically, investors take on credit risk in both embedded parts—the zero coupon bond and the call option—because each requires the issuer to satisfy an obligation at maturity.

First, the issuer must deliver the principal amount of the zero coupon bond to the investor at maturity. Second, the issuer must deliver the “in-the-money” amount of the call option as specified by the underlying exposure profile of the PPS. If the issuer cannot satisfy either obligation at maturity, the PPS—and probably the institution—is in default.

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Managing the Market Risk Factor

Disaggregating and managing the market risk factor is fairly straightforward. An investor who is able to acquire an underlying market exposure through a PPS should be able to acquire the embedded call option on a stand-alone basis. As long as the premium is paid up front and in full, there should be no further obligations, margin calls, etc. The option itself even can be packaged as an SPSN if that is deemed necessary.

What to Consider When Considering Principal-Protected Securities

1. A PPS can be unbundled to better allow investors a degree of market exposure and risk management that appropriately matches their objectives.
2. Unbundling allows for a more active cash management program and ultimately higher returns.
3. Counterparty credit risks can be managed by incorporating different issuers within a portfolio.
Such an instrument’s value at maturity would range from zero dollars to some higher value, without limit.

Although there is a remaining credit risk component in the call option itself, it is much less than the PPS at issuance and may be as low as zero if the underlying exposure fails to perform favorably at maturity.

Managing the Credit Risk Factor
Disaggregating and managing the credit risk factor is fairly straightforward as well. Once investors have acquired the underlying market exposure, they are left with an amount of capital that would have been used to purchase a zero coupon bond within the PPS. Now, however, that capital continues to sit in their accounts.

Investors might reasonably elect to deploy this balance within their cash management programs. It would allow for active oversight, opportunistic trading, a diversified portfolio of credits, and ultimately higher returns.

Conclusion
This article analyzes one of the more basic forms of structured products and structured notes: the principal-protected security. Although it cannot begin to address the myriad permutations being issued today, the article points to the need to consider these instruments in their disaggregated form. Only then can investors begin to understand the embedded parts and determine whether such instruments offer an appropriate risk-reward mix for their portfolio.

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