Part of NERA's Series on Structured Products | At A Glance

Principal-Protected Notes

Overview

A principal protected note is a structured product typically issued by a financial institution such as a bank. The payoffs from such a note are more complex than those for a "vanilla" fixed-income product. A principal-protected note can be thought of as combining the payoffs of a zero-coupon bond with that of a call option. The exact type of call option (e.g., Vanilla, Asian, Binary) can vary but the investor should be assured of getting back his or her principal at maturity because the zero-coupon bond component of the product matures at the maturity of the note. It is in this way that the notes are said to be "principal protected."

The derivative component of a principal-protected note is tied to the performance of an underlying asset. In practice that asset can be drawn from a variety of possible asset classes. Examples of underlying assets are a single stock or stock index; a commodity or basket of commodities; a basket of stocks; a hedge fund; and a fund of hedge funds. The performance of the underlying asset or assets is used to determine whether more than the full principal will be paid at maturity, i.e., if the option is "in the money" at maturity.

A Closer Look

The call option feature in a principal-protected note makes the product more complex than a conventional debt instrument. As with a conventional debt instrument, the investor is subject to the credit risk of the issuer, as it is possible that the issuer may not be able to pay its obligation to the investor in part or in full. However, the investor is also engaging in the purchase of a call option. The purchase of a call option means that an investor in a principal-protected note is "long" volatility, which refers to the fact that the option is more valuable when the underlying asset prices are more volatile.

There are a wide range of possible features in principal-protected notes. As noted above, the type of reference asset can vary widely and if the option is tied to the aggregate performance of a basket of reference assets then the investor is also "long correlation," which refers to the fact that if the asset prices are positively correlated (i.e., tend to move in the same direction), then it is more likely that the basket as a whole will be "in the money" at note maturity. Some principal-protected notes have a derivative component that is quite different from a vanilla call option. For instance the derivative component of a principal-protected note might stop increasing in value if the value of the reference asset(s) increases more than a certain threshold. This is called a "knock-out" provision and its presence limits the gain in value that an investor in a principal-protected note can enjoy. Other principal-protected notes might only offer principal protection on a percentage of the money initially invested. For instance an investor may invest $1,000 in a principal-protected note where only $750 was guaranteed to be returned at maturity. There are also notes that guarantee more than the initial investment, so an investor who invests $750 might be guaranteed to receive $1,000 at maturity. The myriad variations in principal-protected notes need to be explicitly accounted for when valuing these products and can make these products difficult for some investors to evaluate.

Principal-protected notes sometimes trade in a secondary market and the nature of the market can also vary widely. Some notes trade on public secondary markets such as the American Stock Exchange and the Frankfurt Stock Exchange, while others only trade in specialized markets where the buy and sell quotes are provided on a discretionary basis by the bank that issued the note.

There have been a variety of arbitration and litigation actions involving principal-protected notes in recent years. A claim in many of these actions is that the investor in the note was not adequately warned of the risks inherent in the product. A common risk cited in these complaints is the lack of principal protection if the issuer of the note suffers financial difficulty and/or if the note is traded before maturity. Some actions have called into question the bid and offer quotes provided by an issuer before the maturity date of the note.

Key Areas of Expertise

NERA assists clients in disputes relating to a wide range of structured products including principal-protected notes. NERA's securities experts have been involved in numerous disputes where we have analyzed issues related to suitability, risk, and valuation of such products. Our experts have extensive experience valuing and analyzing complex structured products and other derivatives. Our relevant expertise includes:

Broker-Customer Disputes

- Evaluating suitability and risk of specific investments
- Assessing portfolio performance
- Examining portfolio-level risk characteristics
- Evaluating liability
- Evaluating opposing expert reports and analyses
- Analyzing and calculating damages (if any)

Valuation and Risk Management

- Valuing structured products including various principal-protected products
- Analysis of hedging strategies for the sale and purchase of principal-protected notes
- Analysis of trading data to examine liquidity and efficiency of trading in secondary markets

About NERA

NERA Economic Consulting (**www.nera.com**) is a global firm of experts dedicated to applying economic, finance, and quantitative principles to complex business and legal challenges. For over half a century, NERA's economists have been creating strategies, studies, reports, expert testimony, and policy recommendations for government authorities and the world's leading law firms and corporations. We bring academic rigor, objectivity, and real-world industry experience to bear on issues arising from competition, regulation, public policy, strategy, finance, and litigation.

NERA's clients value our ability to apply and communicate state-of-the-art approaches clearly and convincingly, our commitment to deliver unbiased findings, and our reputation for quality and independence. Our clients rely on the integrity and skills of our unparalleled team of economists and other experts backed by the resources and reliability of one of the world's largest economic consultancies. With its main office in New York City, NERA serves clients from more than 25 offices across North America, Europe, and Asia Pacific.

Contact

For more information or to contact our experts, please visit **www.nera.com/sec-notes**.