Structured Notes in a Balanced Portfolio

Understanding the Risks and Rewards for Investors

By William G. Droms and Steven N. Strauss

The market crashes of 2000 to 2002 (the "tech bubble") and 2008 (the "housing bubble"), along with persistent market volatility during the past "lost decade" for equities, have left many investors unsettled and worried. It is no secret that economies and markets move in cycles, some of which are driven by underlying economic issues and others by events entirely unrelated to the markets.

In recent years, at least partially in response to increasing market volatility, structured notes have become more popular with investors and their advisors. Structured notes are among the most useful—but also the most complex—financial instruments that are available to retail investors; they can play a valuable role in managing risk in a client's portfolio, but they have the potential to create levels of risk that neither a client nor the client's advisor might fully understand. Thus, as the dollar amount of structured notes issued continues to increase, it is important for financial advisors to have a clear understanding of the risks and rewards of these increasingly popular investment vehicles. The discussion below explains different kinds of structured notes, their benefits and risks, who should use them and when they should use them, and, most importantly, when structured notes do not represent the best option for an individual.

Overview

Structured notes are debt instruments (bonds) issued by financial institutions, such as J.P. Morgan, Deutsche Bank, RBC, Morgan Stanley, Credit Suisse, and other major banks. These notes differ from typical debt instruments, however, because their returns are linked to an underlying equity index—such as the Standard & Poor's (S&P) 500; the Europe, Australia & Far East (EAFE) Index; or the Dow Jones Real Estate Investment Trust (REIT) Index—instead of simply paying a stated rate of interest. Moreover, rather than being linked directly to the index, structured notes can also be linked to an underlying indexed-linked exchange-traded fund (ETF), such as the "Spider" (S&P's Depository Receipt [SPDR] S&P 500 Index ETF; ticker symbol: SPY), iShares MSCI EAFE Index ETF (ticker symbol: EFA), or iShares Dow Jones Real Estate Index ETF (ticker symbol: IYR).

In order to create a structured note, a bank issuer combines a zero-coupon bond with financial derivatives, such as put and call options or futures contracts and swap agreements. This strategic combination of traditional investments with derivatives determines the investment payout at maturity. From a buyer's perspective, the internal structure of the note and the necessary rebalancing of its derivative components are not of concern. The buyer's concern is that the note and the payoff structure of the note are guaranteed by the issuing bank; thus, the buyer's risk exposure is the counterparty risk that the issuing bank will be unable to pay the note at maturity. Although this risk can be minimized by only investing in notes issued by financially strong banks with high credit ratings, it cannot be eliminated.

The more basic structured notes are referred to as "buffered notes." These are structured with limited downside risk and, in return for the investor taking some risk,

the payout on the upside is enhanced. For example, an investor might want to protect against the first 10% decline in the equity market, based upon the assumption that it is unlikely that markets would decline much more than 10% from current levels by the time the note matures. In exchange for the buyer taking on the equity risk of a decline of more than 10%, the issuer can construct a structured product that provides enhanced upside return, usually in the form of a return multiplier, such as two times the positive return earned by the selected index. The upside is not unlimited; generally, one might expect a 13-month note to have a maximum return—that is, a "cap"—in the range of 15% to 20%, so that if the index went up by more than the stated maximum, the return would be limited. As the term of the note increases, the maximum stated return generally increases as well. Furthermore, structured notes are generally very tax efficient—the return earned on a structured note (of more than 12 months in term) is considered a long-term capital gain, which is taxed at long-term capital gains rates.

For example, one major bank recently offered an 18-month note with a 10% downside buffer and a payment at maturity of double the increase in the value of the S&P 500 from the issue date to the maturity date, subject to a cap or maximum return of 19.75%. With this note, the full par value will be paid to the bond holders if the S&P 500 has declined by 10% or less at maturity. If the S&P 500 has declined by 15%, then the first 10% decline will be covered by the buffer and the bond will pay 95% of par value at maturity. (An investor would lose 5%, compared to 15% if the same funds had been invested in the S&P 500.) On the positive side, if the S&P 500 has increased by 8% at maturity, the note will pay two times the 8%—a return of 16%. If the S&P 500 is up by more than 9.875%, the note will cap out and pay 19.75% of par value at maturity.

Risks

Structured note vehicles allow investors to maintain a particular market exposure with some downside protection, thus reducing equity volatility risk compared to just owning an underlying index fund outright; however, structured notes also have significant downside factors to consider. Structured notes, if used appropriately, can provide an investor with a predetermined amount of upside potential and decreased risk, but they are certainly not free from risk. The first and most important risk to assess is the credit risk of an issuer. Structured notes are bonds backed by the issuing bank; if the issuer defaults, bond holders become unsecured creditors of the bank.

For example, investors who held structured notes issue by Lehman Brothers in 2008 saw these notes become virtually worthless. According to anecdotal reports in the press, some holders of Lehman structured notes had their retirement savings wiped out, under the apparent and completely mistaken belief that these notes were as safe as an annuity from a major life insurance company, but with a much better return.

Advisors must understand the credit risk exposure of structured notes and should explain this exposure to clients. This credit exposure is the central risk of the notes; they are unsecured notes backed only by the creditworthiness of an issuing bank. In effect, using structured notes to reduce equity risk trades equity risk for credit risk. On the other hand, structured notes carry no more credit risk than any other unsecured note issued by a bank; thus, they are not any riskier than an interest-bearing note issued by the same bank. Before investing in a structured note, investment advisors have the same due diligence responsibilities that they would have in investing in any other fixed income investment.

A second risk of structured notes is really more of a disadvantage: most structured notes do not factor dividend income into their return. For example, assume that the S&P 500 dividend yield is 2% per year and that an investor holds a two-year note indexed to the S&P 500. If the value of the index remains unchanged at the end of the two-year term, the rate of return is 0%, compared with the 2% per year if the investor had held the underlying S&P 500.

A third risk to consider is liquidity. The secondary market for structured notes is sometimes limited, and it can be costly to sell these notes prior to maturity. To mitigate this risk, investments in structured notes should be limited to funds that will not be needed during the note's term. Even when the issuing bank maintains a "market" for the note, these investments should not be purchased unless the investor plans to hold them to maturity. In the authors' experience, in the very few circumstances where clients have had to sell a note prior to maturity, they were able to execute the sale at prices very close to the value indicated on the clients' brokerage statements. (The notes have a Committee on Uniform Securities Identification Procedures [CUSIP] number and are priced daily on clients' brokerage statements, just like any other corporate bond.) Regardless of their benefits, structured notes may not be appropriate for clients who do not fully understand the credit and liquidity risks involved.

A final risk to consider is income risk. If a note is structured to provide a predetermined income payment, there is a risk that the income payments will not be made if the issuer defaults on the note. Income-oriented structured notes are fairly rare, but if a note is structured this way, then this risk must be taken into account.

Rewards

In return for their risks, structured notes offer some downside protection and an enhanced return on the upside (subject to the cap). Using structured notes as described above allows investors to maintain a particular market exposure with some downside protection, thus reducing equity volatility risk in their investment portfolio. Based upon an investors' view of the market, structured notes can be used to lever a return that the investor deems likely to occur and to protect against a sell-off that the investor deems possible to occur. Used properly as part of a diversified portfolio, structured notes can reduce the portfolio's equity risk and potentially enhance total return.

The authors, in their own private wealth practice, have limited their investments in structured notes to the "plain vanilla" buffered notes described above. They have found these notes particularly attractive to clients during times of greater-than-normal market volatility. After the 2008–2009 market crash, for example, the authors convinced nearly all of their clients to "stay the course" with their equity investments. Part of this strategy was to emphasize the use of structured notes as a means of hedg-

ing part of the downside risk of a further decline in equity markets.

Structured notes appeal to some wealth managers because they will always outperform their underlying indexes in a down market, due to the downside buffer, and will outperform a rising market if the market increase is less than the cap. In those cases where notes owned were capped out because of the rapid rise of the stock markets following the March 2009 bottom, the authors received no expressions of concern from clients who owned the notes that capped out. In part, this reaction was likely caused by the widespread feeling of relief following the recovery of the market in 2009 and 2010. But it is unlikely that investors who purchased a note primarily as a means of hedging downside risk and reducing volatility would be dissatisfied with notes that capped out when the market happened to experience an extraordinary increase in a short period of time.

The returns of structured notes are a function of market returns over the holding period of the note. As mentioned earlier, structured notes will outperform the underlying index in a down market, due to the existence of the buffer. But outperform is a relative term here, and it is still possible to incur a loss on a buffered note in a market that takes a sharp downswing. With a 10% buffered note, for example, a 20% market decline would result in a loss of principal equal to 10% of the note's par value. A 30% decline—certainly not unprecedented in recent experience—would result in a 20% principal loss.

In a rising market, structured notes can be expected to outperform the underlying index if the cap on the note is more than double (for a two-to-one levered note) the total return on the underlying index (including the dividend yield). For example, a two-year note with a 16% cap will outperform the underlying index in a period when the underlying index, including dividends, provides a total return of less than an average of 8% per year. If the return on the underlying index is greater than 8% per year, then the structured note will cap out and the owner of the note will suffer an opportunity loss equal to the excess of the underlying return above the cap on the note. Thus, there is the possibility of an opportunity loss on a structured note in a robust market environment.

In addition to the plain vanilla buffered notes, many other types of notes exist to meet different client objectives, such as notes indexed to volatility indexes, market-neutral notes, notes indexed to baskets of currencies, and notes indexed to baskets of commodities. A typical market-neutral note may be tied to a wide variety of underlying indexes and is structured to provide a return equal to the percentage change, either up or down, of the underlying index. At maturity, holders of a market-neutral note receive a payment equal to the principal value of the note, plus the absolute percentage change in the level of the underlying index, subject to caps at both ends (i.e., either positive or negative changes in the index), referred to as barriers. The note pays a percentage return equal to the absolute value index change—as long as the change never breaches the barrier; should it be breached at any time during the life of the note, the note simply pays par value at maturity. Thus, the risk of loss due to changes in the index is zero, but the note is still subject to counterparty risk. Because these notes offer the possibility of positive returns in both bullish and bearish markets, they are referred to as market-neutral notes.

A typical market-neutral note might have 18 months to maturity with a 20% barrier. At maturity, if the underlying index is either up or down by 15% and the barrier has never been breached, the note would pay off the par value, plus a 15% return. But if, at any time during the 18-month life of the note, the index closed either up or down by 20% or more, then the note would simply repay its par value at maturity. The clearest benefit of these notes can be seen in a down market, where the note should always outperform the underlying index. If the underlying index was down by 15% at the note's maturity and the barrier had never been breached during the life of the note, the note would pay a positive 15% return. If the market was down by 25%, the note would pay par value at maturity for a 0% return. Receiving par value at maturity is obviously a much better result than a 25% loss, but there is a catch: if either the lower or upper barrier was breached at any time during the life of the note, the note would only pay par value at maturity.

On the upside, if the underlying index was up 20% or less at maturity, and the barrier had never been breached, the performance of the note would match the performance of the underlying index dollar for dollar. If the upper or lower barrier was breached at any time during the life of the note, however, the return on the note would be 0%—this opportunity loss is the major component of the price paid for the downside insurance. Thus, there is a potential for opportunity loss in both directions.

These market-neutral notes are attractive primarily as a hedge against a major market decline. Once a market-neutral note does breach a barrier, the owner is left with a zero-coupon bond that will pay par value at maturity. This note can be sold in the secondary market (at a discount) and the proceeds can either be cashed out or reinvested in a new market-neutral note, effectively "restarting the clock" on a new market-neutral note. Alternately, of course, the owner can elect to simply hold the note to maturity and receive full par value. Because there is no risk of loss due to changes in the underlying index with this type of structured note (although there is credit or counterparty risk), a market-neutral structure that guarantees 100% principal repayment is treated for federal income tax purposes as a "contingent payment debt instrument."

Plain vanilla and market-neutral notes can also be indexed to baskets of currencies or commodities. Although these notes are structured in a manner comparable to notes that are linked to underlying stock indexes, they offer the opportunity to earn a return tied to currencies or commodities. Beyond these notes, there exists an almost unlimited number of combinations and permutations of structured notes, which can meet a wide variety of private client investment objectives if they are used correctly.

Using Structured Notes as Part of a Balanced Portfolio

CPAs interested in recommending structured notes to clients or integrating structured notes into a wealth management practice need to consider several due diligence issues in order to become comfortable with using structured notes. The following sections examine a few major issues that advisors should consider.

Credit quality of the issuing bank. This is a primary concern in evaluating a structured note, just as it would be if one were buying a plain vanilla, income-paying cor-

porate bond from the same bank. If the issuing bank's credit is deemed acceptable, then the credit quality underlying a structured note is no more or less important than the credit quality of a comparable plain vanilla bond. For example, the credit quality issues surrounding a structured note issued by JP Morgan Chase are no more or less important than those surrounding a plain vanilla, income-paying bond issued by JP Morgan Chase. If the credit quality would be deemed acceptable for a plain vanilla corporate bond, it should be deemed acceptable for the structured note.

Credit rating of the issuing bank and the cost of a credit default swap. Two important inputs to assessing credit quality are the ratings given by the major rating agencies and the market price of a credit default swap (CDS) for the issuing bank. The ratings assigned by the "big three" (S&P, Moody's, and Fitch) are a good starting point for evaluating relative credit ratings. The market prices at which CDSs trade for the banks provide an excellent additional check on credit quality: the lower the market price to insure the bank's credit, the higher one can judge the credit quality. It is often the case that banks with similar credit ratings will have widely different CDS market prices; in such a case, the issuer with the lower-priced CDS is often a better choice from the perspective of seeking the highest credit quality.

Transparency issues. Structured notes can be difficult to understand because buyers cannot see into the "black box" of exactly how the issuing bank is structuring and hedging the notes. But the issuer can certainly explain the inner workings of the note to the buyer in sufficient detail; this way, buyers who take the time to interact with issuers can understand how the note works. The bottom line is that the issuing bank is committed to providing the structured payout that is described explicitly in the offering prospectus.

Break-even point. Before an order is placed, it is a good idea to calculate how high the underlying market would have to go for the buyer to have been better off just holding the underlying asset. For example, if a two-year note with a 16% cap is indexed to an underlying asset that has a 2% dividend yield and the market rises by 12% or more over the two-year period, the underlying asset would have provided the same total return as the note (i.e., ignoring compounding, the underlying asset would appreciate 12% and would have earned 4% in dividends for a total return of 16%). In assessing the attractiveness of the note, potential buyers should assess the likelihood of the potential opportunity-cost penalty that could be imposed by owning the note relative to the underlying asset. Of course, this assessment also would have to take into account the value of the buffer on the downside, compared to the potential opportunity loss on the upside.

Diversification. In their practice, the authors diversify structured notes across asset classes, within asset classes, and across issuers. To limit counterparty risk and maintain diversification guidelines, they generally limit the total amount of notes of all categories to a maximum of 6.5% of total assets, with no more than 1.5% invested in any one particular issue. To diversify across asset classes, the authors generally limit their exposure to a maximum of 3% invested in notes indexed to the U.S. stock market, a maximum of 2% indexed to the EAFE Index, and a maximum of 1.5% indexed to the REIT markets. In addition, the authors diversify by issuer and typically own a total note portfolio distributed across at least three or four different issuers.

Fees involved. Structured note returns are quoted net of fees, but buyers should understand how an issuer is paid on the note. Fees are clearly stated in the prospectus and the pricing supplement accompanying the note; they are commonly expressed as an "all in" percentage commission paid to the issuer, with part of that fee allocated as a selling concession to unaffiliated dealers (generally the broker-dealer who is acting as custodian of the note). One common structure is based on a one-time fee of 25 basis points (0.25% of the face value) to the broker-dealer and a distribution fee paid to the note issuer equivalent to 50 basis points per year (0.50% annualized) over the life of the note. In addition, the issuer has the use of the note proceeds that can then be invested by the issuing bank in loans or other assets.

The fees cited are what the authors have seen, using a discount broker that acts as custodian for their fee-only practice. For fee-only advisors, the fee charged on a structured note as part of a client portfolio would be the same as the advisor's standard fee on assets under management; thus, there would be no difference between fees earned by investing in structured notes and fees earned on any other assets in the portfolio. For advisors or brokers who earn commissions on their clients' investments, the commission would be included in the selling concession described above; these fees would be significantly higher than those in a fee-only practice in order to allow for the paying of commissions to the selling broker or commissioned advisor.

A Starting Point

Although the items discussed above do not represent an exhaustive list of major issues, they provide a good starting point for evaluating the role that structured notes can play in a balanced portfolio. The authors have had a very positive response from clients to the expanded use of structured notes designed to reduce equity market risk in broadly diversified portfolios.

Advisors using these notes should emphasize the risk reduction attributes of the notes provided by the downside buffer more than the leveraged return potential on the upside. The authors have owned some notes that have capped out, as well as some that outperformed the total return on the underlying index on the upside due to the leverage feature. Advisors might want to think of the opportunity cost of the notes that cap out as essentially the cost of insurance, and the outperformance as a nice bonus in a relatively flat market (i.e., two times the return underlying is still less than the cap). As an attractive attribute—assuming no counterparty problems—a buffered note will always outperform a falling market.

For CPAs engaged in private wealth management or personal financial planning, learning about the advantages and disadvantages of structured notes, including those presented in the discussion above, would be time well spent. ❑

William G. Droms, DBA, CFA, *is the Powers Professor of Finance in the McDonough School of Business at Georgetown University, Washington, D.C., and a cochair of Droms Strauss Advisors Inc., St. Louis, Mo.* ***Steven N. Strauss, CPA/PFS,*** *is also a cochair of Droms Strauss Advisors Inc.*