

Building a Case for Structured Investments

FOR BROKER-DEALER/ADVISOR USE ONLY



Introduction

Investment advisors today face a variety of challenges when it comes to building and managing portfolios for their clients. Each investor has individualized goals and needs. Each investor has a unique view of what the optimal mix of risk and reward should be. Each investor needs to balance the desire for growth against the need to control or reduce the risk of losses.

In recent years, the arsenal of investment tools advisors have had at their disposal has grown beyond the traditional mix of stocks, bonds, and cash equivalent investments. Alternative investments, including hedge funds and private equity, have become increasingly popular among wealthy investors. The number and variety of ETFs has exploded. Real estate investment trusts (REITs) have become a mainstream investment choice. And, over the past several years, Structured Investments have become part of the mix.

Structured Investments have long been popular in Europe and Asia, and over the past several years, they have started to gain acceptance among U.S. investors. According to the Structured Products Association, nearly \$64 billion in new products were issued in 2006, up from \$48 billion in 2005.¹ Nearly half of the products launched in 2006 were intended for the retail investor. Despite this impressive growth rate, the prevalence of Structured Investments within U.S. investors' portfolios remains relatively low. Consider that in Europe and Asia, it is not uncommon for investors to allocate up to 30% of their portfolios to Structured Investments.

What's holding back broader acceptance of Structured Investments? The primary roadblock seems to be awareness and education. U.S. investors simply are not familiar with the majority of these investments. In fact, according to a 2007 report from Spectrem Group, a Chicago-based strategic consulting firm specializing in the affluent and retirement markets, only 15% of affluent investors understand Structured Investments.²

This report examines the role that Structured Investments can play in a diversified portfolio and how they can help meet a variety of objectives, including risk reduction. This report defines the most common types of Structured Investments available today and discusses the benefits and risks of each type of investment, along with practical applications on how they can be incorporated into actual portfolio allocations across multiple asset classes. The goal is to build greater awareness of Structured Investments by educating registered representatives and investment advisors, as well as their clients, about the potential benefits of a strategic allocation to these products.

1. www.structuredproducts.org

2. "Structured Products on the Rise," Investment Advisor.com, June 1, 2007

The discussion contained in the following pages is for educational and illustrative purposes only. The preliminary and final terms of any securities offered by JPMorgan Chase & Co. will be different from those set forth in general terms in this report and any such final terms will depend on, among other things, market conditions on the applicable launch and pricing dates for such securities. Any information relating to performances contained in these materials is illustrative and no assurance is given that any indicated returns, performance or results, whether historical or hypothetical, will be achieved. The information in this report is subject to change, and JPMorgan undertakes no duty to update these materials or to supply corrections. This material shall be amended, superseded and replaced in its entirety by a subsequent preliminary or final term sheet and/or pricing supplement, and the documents referred to therein, which will be filed with the Securities and Exchange Commission, or SEC. In the event of any inconsistency between the materials presented in the following pages and any such preliminary or final term sheet or pricing supplement, such preliminary or final term sheet or pricing supplement shall govern.

IRS Circular 230 Disclosure: JPMorgan Chase & Co. and its affiliates do not provide tax advice. Accordingly, any discussion of U.S. tax matters contained herein (including any appendix) is not intended or written to be used, and cannot be used, in connection with the promotion, marketing or recommendation by anyone unaffiliated with JPMorgan Chase & Co. of any of the matters addressed herein or for the purpose of avoiding U.S. tax-related penalties.

Demystifying Structured Investments

All Structured Investments are designed to meet specific investment objectives, whether it is principal protection or enhanced returns (alpha). They also provide individual investors with an opportunity to access a diverse array of asset classes, such as commodities and foreign currencies, which in the past were primarily available to institutional investors.

Rather than viewing Structured Investments as a separate and distinct asset class, many investment advisors treat them as a subcategory within each of the primary asset classes. For example, equity-linked Structured Investments can be viewed as part of a client's allocation to equities. Investment advisors and their clients can use Structured Investments to achieve greater diversification, to gain or hedge exposure to certain asset classes, or to align portfolios with a particular market or economic view.

One of the unique characteristics of Structured Investments is that they provide asymmetrical returns, with performance that is higher or lower than returns derived from a direct investment in a particular asset class. This non-linear performance profile helps clients plan for specific financial milestones, such as paying for

retirement or college. For example, a Principal Protected Investment can provide clients who are planning for retirement with additional equity exposure, along with full downside protection. With today's retirees enjoying longer lives than past generations, such protection is more important than ever.

Structured Investments usually combine a debt security with exposure to an underlying asset, such as equities, foreign currencies, commodities, or a basket of different indices. In this regard, they are considered to be derivative investments. To many investors, the word "derivative" is synonymous with "risky." Recent fluctuations in the credit markets due to the subprime mortgage meltdown have done little to alleviate investors' fear of derivatives. In practice, however, certain Structured Investments are often used as a means of *reducing risk* by incorporating principal protection while providing the potential to outperform in range-bound markets.

Generally, Structured Investments can help investors achieve three primary objectives: investment returns with little or no principal at risk, higher returns in a range-bound market with or without some principal protection, and alternatives for generating higher yields in investors' portfolios.

Investment Returns without Principal Risk:

Principal Protected Investments (PPIs)

Principal Protected Investments combine some of the features of a fixed-income security, such as return of principal at maturity, with the potential for capital appreciation that can be derived from different types of securities, including equities. They are designed to protect against losses at maturity, while providing the opportunity to participate in the gains on an equity investment. Depending on the specific offering, PPIs may offer full upside participation or they may be subject to a maximum return. In all cases, clients forgo dividends.

PPIs typically mature within one to seven years, and clients must hold them until maturity to guarantee their principal's return. Maturities shorter than five years typically have a cap or maximum return. Generally, they are issued as registered notes or certificates of deposit in \$1,000 denominations. PPIs can be linked to a variety of underlying assets, including an equity index, a basket of equities, commodities, or currencies. Many investors hold PPIs in tax-deferred accounts. This report focuses on PPIs linked to an equity index.

Anatomy of a PPI

When constructing a PPI that is linked to an equity index, the issuers invest in both zero coupon bonds and equity call options (see figure 1). First, they use a portion of the available assets to structure zero coupon bonds that

match the maturity date and principal amount of the PPI. Unlike regular bonds, zero coupon bonds are issued at a discount to their face value and do not pay interest. This means that issuers can structure a bond that will return \$1,000 at maturity for an upfront investment of less than \$1,000. The difference between the bond's value at maturity and the amount paid represents the bond's implied return.

By investing in zero coupon bonds, the issuers are seeking to ensure that the PPI's investment principal will be protected at maturity. The investor's direct credit risk is limited to the financial well being of the issuer (in this case, JPMorgan).

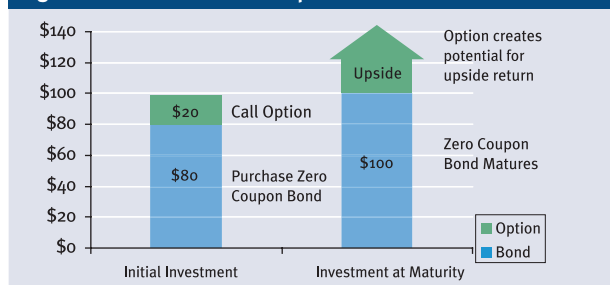
Because zero coupon bonds are issued at a discount to their face value, the PPI issuers will have excess capital to invest. They put this money to work by structuring equity call options on a broad-based equity index, such as the S&P 500™ Index. A call option gives an investor the right (but not the obligation) to buy an investment in the index at a specified price within a specific period of time. The call options typically have an expiration date that matches the maturity date of the zero coupon bond, along with a "strike price," or entry point, that matches the current value of the index. If the underlying asset (the S&P 500 Index) increases in value, the value of the call option will also increase.

No Free Lunch

As mentioned above, PPIs allow clients to participate in some—but typically not all—of the gains in an equity index via a call option. To pay for the principal protection provided by the investment in zero coupon bonds, however, investors forfeit all dividend income, and may also forgo a portion of any gains in the equity index. The percentage of the potential gains that investors receive—known as the "participation rate"—will vary for each PPI, depending on the underlying asset, the maturity date, and the minimum and maximum return payouts.

The participation rate is determined by two factors: the remaining capital available after structuring the zero coupon bond and the price of the equity call option. The price paid for the equity call option depends upon the implied volatility of the equity index purchased.

Figure 1: Mechanics of a Principal Protected Investment



Source: JPMorgan.

Generally, higher market volatility leads to higher prices for index call options. There is no way to control this; therefore, the participation rate will be determined by market conditions at the time of issuance. When volatility is lower, participation rates are higher, and vice versa.

PPI Performance under Different Market Conditions

To illustrate how a PPI might perform under varying market conditions, refer to figure 2. In this hypothetical example, your client, John, invests \$1,000 in a Principal Protected Investment linked to the S&P 500 Index. The PPI matures in seven years and offers a participation rate of 90%. This means that, should the S&P 500 move higher, John would participate in 90% of those gains.

If, at the PPI's maturity, the S&P 500 had risen 20%, John would receive his original investment (\$1,000), plus a return of 18% ($\$1,000 \times 90\% (0.90) \times 20\% (0.20) = \180). While the PPI gained less than a direct investment in the index would have returned (\$200 plus the dividend yield), John can take comfort in the fact that his principal investment was safe throughout the seven-year term of his PPI.

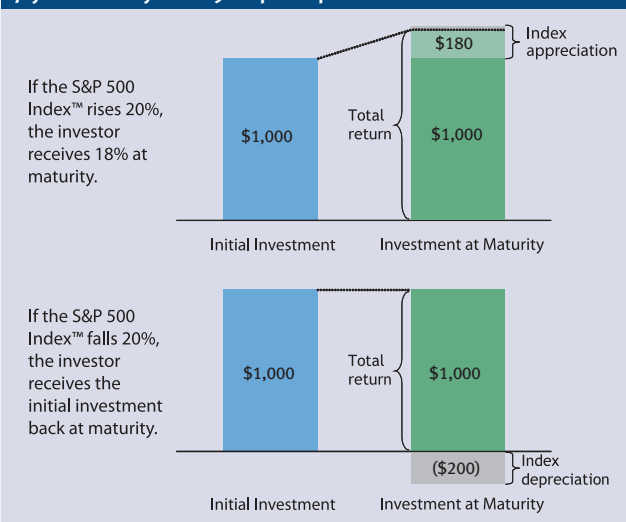
Now consider what happens if the S&P 500 were to decline 20% at maturity (figure 2). Rather than incurring a \$200 loss, John would receive his entire principal back. As this example demonstrates, PPIs will always outperform a direct investment in an index during periods of market declines and may underperform during periods of market gains.

Are PPIs Right for Your Clients?

If you have clients who are saving and investing for life's major milestones, who tend to avoid equities altogether, or who often make risky bets in an effort to break even on stocks that have lost value, PPIs may be a suitable investment for them. Do you recognize any of your clients in the following profiles?

Focused on Life's Milestones. People who are investing for a specific long-term goal, such as future college expenses, retirement, or a vacation home, usually have a good idea of the minimum amount they will need to meet their objective. For these investors, returns over and above their goal are "nice to have," but not a neces-

Figure 2: Example — PPI linked to the S&P 500 Index™ with a 7-year maturity and a 90% participation rate



Source: JPMorgan

sity. On the other hand, they cannot tolerate the idea of failing to meet their goal, and thus they often favor fixed-income or cash investments over more volatile equities. Because returns from fixed-income investments have historically lagged those of equities, however, these investors may have to save a much higher proportion of their income to meet their goal.

Nervous Nellies. All investments entail a tradeoff between risk and reward. Investors typically will take on more risk when they are convinced that the potential for higher returns outweighs the risk of losses. Some investors, however, have such a high degree of loss-aversion that they have difficulty taking on a rational amount of market risk.

According to the "prospect theory" of behavioral finance researchers, these investors evaluate gains and losses in an entirely different manner, attributing more importance to investment losses than investment gains. Whereas these investors are happy when they gain \$100, they are not twice as happy when they gain \$200. Conversely, they consider a \$100 loss more important than a \$100 gain. This tendency to avoid any losses relegates their portfolio to fixed-income and cash investments. While these clients may never find equities attractive, PPIs allow them to participate in potential equity market gains while protecting their principal.

Those Who Cannot Let Go. On the other end of the risk spectrum, some investors have such a high degree of confidence in their investment decisions that they have difficulty letting go of poorly performing stocks. When a stock holding declines, they tend to take increasingly risky bets in an effort to break even. Research has shown that investors tend to hold on to their poorly performing stocks even when it's clear that they should have reallocated a portion of their funds to safer investments, such as fixed income or cash. For clients who fit this profile, PPIs offer an effective way to avoid reckless behavior without sacrificing the potential for equity returns.

Certain Risk Considerations

Principal Protected Investments

Market Risk. Returns on equity linked PPIs at maturity are generally linked to the performance of an underlying asset such as an index, and will depend on whether, and the extent to which, the applicable index appreciates during the term of the notes. You will receive no more than the full principal amount of your notes at maturity if the applicable index is flat or negative during the term of any applicable JPMorgan equity linked PPIs. In some cases, returns on the notes may be limited to a maximum return.

JPMorgan equity linked PPIs might not pay more than the principal amount. You may receive a lower payment at maturity than you would have received if you had invested in the index, the stocks composing the index, or contracts related to the index. If the level of the index declines at the end of the term of the notes, as compared to the beginning of the term of the notes, your gain on the notes may be zero.

IN BRIEF

Principal Protected Investments (PPIs)

What benefits do PPIs provide?

Generally, Principal Protected Investments offer a return at maturity that is linked to an underlying asset, such as a broad market index or a basket of stocks. They provide some of the features of a fixed-income security, such as return of principal at maturity, along with the potential for capital appreciation that equities provide. Maturities range from one to seven years, and investors should plan to hold them to maturity.

What's the downside?

Investors forgo dividends and interest, and may also give up a portion of any capital appreciation in exchange for principal protection.

PPIs may be right for clients who:

- Have a medium to long-term horizon (one to seven years) and are saving to meet specific financial goals, such as retirement or college.
- Are loss-averse investors who typically avoid equities altogether.
- Tend to make increasingly aggressive bets in an effort to break even on poorly performing stocks.
- Do not have an overly bullish outlook for the stock market.

Additional Asset Class Exposure along with Partial Downside Protection:

Buffered Return Enhanced Notes (BRENS)

Building a truly diversified portfolio means investing in a wide variety of assets, such as stocks, bonds, and commodities. Clients should also look to further diversify by investing in different types of securities within each major asset class. For example, clients might divide their equity portfolio allocation among small- and large-cap stocks, international stocks, and emerging markets.

Investors who have difficulty maintaining exposure to volatile asset classes may be reluctant to invest in certain assets. For these investors, a relatively new type of

structured investment, known as a Buffered Return Enhanced Note (BREN), can reduce the risks of investing in certain volatile asset classes by providing partial downside protection.

The specific terms and conditions of each BREN vary, but they are typically linked to the performance of a particular market index, such as the S&P 500 Index or the Dow Jones AIG Commodity Index. They are issued as senior unsecured debt obligations, mature within one to five years, and generally trade in \$1,000 increments. BRENs typically use leverage to pay investors as much as 150% of the return of their benchmark index. Unlike a direct investment in an index, however, investors forgo any dividend or interest income. In some cases, a BREN may be subject to a cap on gains. Depending on the BREN's specific economics, it may be treated as an open transaction. Any gains earned on a BREN may be taxed as long-term capital gains as long as the investment is held unhedged for more than one year. An investor who is considering acquiring a BREN in a taxable account must consult his own tax advisor and refer to the tax disclosure in the prospectus. Therefore, they may be more suitable for taxable accounts than PPIs.

In addition to allowing individual investors to access asset classes that in the past were primarily available to

institutional investors, BRENs feature a “buffer” that provides partial principal protection. These buffers typically range from 10% to 15%. A BREN with a 10% buffer, for example, will return a client's entire principal if the index has declined by 10% or less at maturity. However, if index losses exceed 10%, clients begin to lose principal. Clients who are comfortable taking on some downside risk, but prefer a buffer to cushion against more severe losses, may want to consider a BREN.

BREN Performance under Different Market Conditions

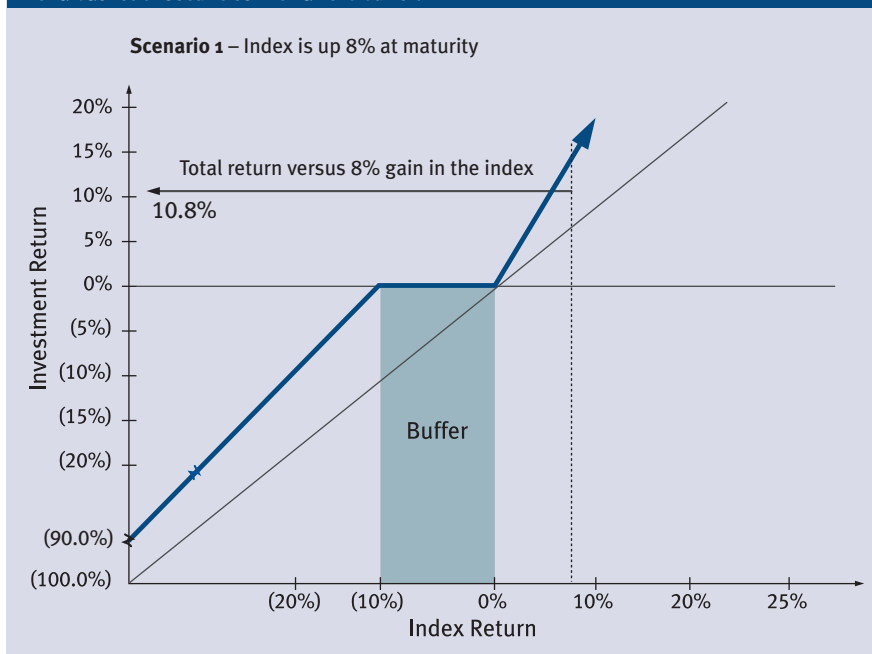
To understand how a BREN might perform under varying market conditions, consider this hypothetical example. Pauline invests \$1,000 in a BREN linked to a basket of global equities that matures in three years. The basket composition is one-third the S&P 500 Index, one-third the Nikkei 225 Index, and one-third the Dow Jones Euro Stoxx 50 Index. The BREN pays 1.35 times the upside of the basket at maturity and offers a 10% buffer. This means that Pauline will experience principal losses only if the indices decline by more than 10% at maturity. She also enjoys uncapped leveraged participation in the basket if she holds it to maturity.

Figure 3 demonstrates what would happen if the indices

closed 8% higher at maturity. In this case, Pauline would enjoy a total return of 10.8%—1.35 times that of a direct investment in the indices. If the indices declined 10% or less at maturity, Pauline would receive her \$1,000 principal back. As this example demonstrates, BRENs may outperform a direct investment in a basket of indices whenever the basket declines in value during the term of the note.

What happens if the basket experiences a more pronounced decline? If, for example, the basket closed down

Figure 3: Buffered Return Enhanced Note. BREN pays 1.35 times upside of a basket of securities with a 10% buffer.



Source: JPMorgan

20% at maturity, Pauline would lose 10% of her principal. This would result in a loss of \$100, which would be preferable to the \$200 loss that a direct investment in the basket would have yielded.

Certain Risk Considerations

Buffered Return Enhanced Notes (BRENs)

Your investment may result in a loss. BRENs do not guarantee any return of principal in excess of the buffer amount and, in some structures, may not return any principal at all. The return on the BREN at maturity is linked to the performance of the applicable underlying index and will depend on whether and the extent to which the underlying index return is positive or negative during the term of the BREN. If the BREN has a 1:1 downside leverage factor beyond the buffer, your investment will be exposed to any decline in the level of the index, as compared to its starting level, beyond the buffer amount.

In some cases, your maximum gain on a BREN may be limited with a maximum total return. For each BREN with a maximum return, if the applicable index return is positive, you will receive at maturity your principal plus an additional amount that will not exceed a predetermined percentage of the principal amount, regardless of the index appreciation, which may be significantly different from the performance of the underlying.

IN BRIEF

Buffered Return Enhanced Notes (BRENs)

What benefits do they provide?

BRENs allow clients to invest in more volatile and sometimes hard-to-access asset classes. They provide leveraged returns along with partial principal protection. Maturities range from one to five years, depending on the BREN's specific economics, and the BREN may be treated as an open transaction. Investors may receive long-term capital gains tax treatment if held unhedged more than one year.

What's the downside?

In order to provide leveraged returns, some BRENs (typically those with 200% to 300% leverage) usually include a cap on the maximum return. If the market index rises dramatically, clients will forgo gains beyond the cap. If the market were to decline dramatically, the majority of a client's capital would be at risk.

BRENs may be right for clients who:

- Are looking to diversify their taxable portfolios by gaining exposure to additional asset classes.
- Are comfortable with some downside risk, but want partial principal protection.
- Are looking to generate returns beyond those available in moderately rising or range-bound markets.

Higher Returns in a Range-Bound Market: Return-Enhanced Notes (RENs)

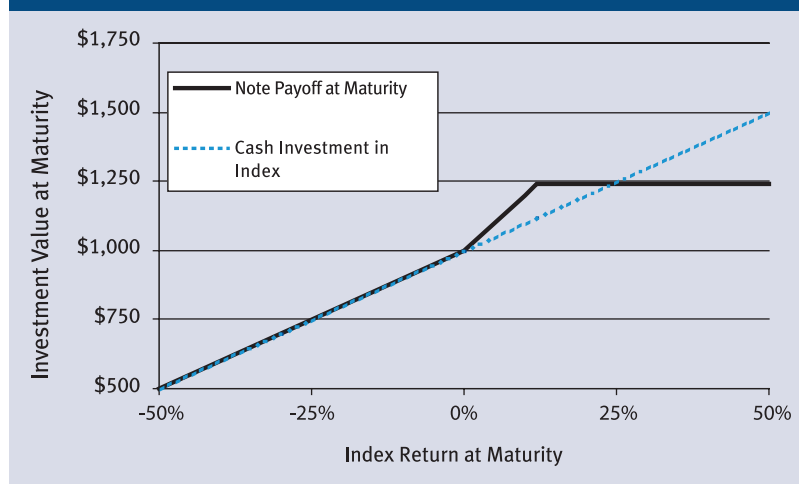
In three out of the four years from 2003 to 2006, stocks, as measured by the total return of the S&P 500 Index, logged double-digit gains. During such periods of relative economic strength, investing in stocks can be particularly rewarding. But what happens when the outlook for the economy and stocks becomes less certain? That's when stocks often move in a sideways direction, with no meaningful moves to the upside or to the downside. Under these conditions, investors have been limited to middling returns from their stock portfolios. By investing in a Return Enhanced Note (REN), how-

ever, clients may be able to earn higher returns during range-bound markets.

At any time, investors will have differing views on the market's future direction. Some investors may be highly optimistic while others are pessimistic. For clients who believe that market returns will likely be only moderately higher over a period of one to three years, a REN can help them monetize this view. By purchasing a REN, clients effectively forfeit the right to participate in major market rallies that they consider unlikely to occur. In exchange, a REN provides leveraged returns that enable them to earn higher profits when the market experiences only moderate gains.

Just as with BRENs, the specific terms and conditions of each REN will vary. They are typically linked to the performance of a broad-based equity index, such as the S&P 500 or the Nasdaq-100, and most pay double or triple

Figure 4: Two-year REN linked to the Nasdaq-100



Source: JPMorgan

the return of their benchmark index. RENs are issued as senior unsecured debt obligations that mature within one to three years and generally trade in \$1,000 increments. Unlike a direct investment, however, the upside performance potential on a REN is usually subject to a cap. In addition, unlike BRENS, RENs provide no protection against market declines. To better understand how RENs work, consider the following hypothetical example.

REN Performance under Different Market Conditions

Paul believes the Nasdaq-100 Index is unlikely to gain more than 5% in each of the next two years. He would like the potential to earn more than 10%, so Paul purchases a two-year REN that pays twice the return of the Nasdaq-100 at maturity, up to a 24% maximum return. If Paul's outlook is correct and the Nasdaq-100 gains 10% at maturity, his total return would be double that of the index, or 20% (figure 4). Under this scenario, Paul's moderately bullish market view enables him to leverage below average market returns and earn a healthy profit.

What happens if Paul's outlook is wrong and the Nasdaq-100 rallies 40% over the course of two years? In that case, Paul's gain is capped at 24%. That's because he "sold away" his right to earn market-matching returns in exchange for leveraged returns when the market rose only moderately. In this example, Paul's REN would outperform a direct investment in the Nasdaq-100 (excluding dividends) as long as the index returns less than the cap or maximum return.

IN BRIEF

Return Enhanced Notes (RENs)

What benefits do they provide?

RENs enable investors with a moderately bullish view of the market to potentially outperform a market index through leveraged returns. Maturities range from one to three years.

What's the downside?

Gains may be capped, so if the market index rises dramatically, clients forgo gains beyond the cap. RENs provide no principal protection in the event of a market decline. As with all Structured Investments, clients forgo the dividend income from the underlying asset.

RENs may be right for clients who:

- Are looking to diversify their taxable portfolios.
- Are seeking returns beyond those available in moderately rising or range-bound markets.
- Are comfortable taking on full downside risk.

Clients should also consider what happens when the REN's benchmark index declines. RENs do not provide any downside protection, so if the Nasdaq-100 had declined 10% at maturity, Paul would have lost 10% on his REN. This loss matches what he would have experienced through a direct investment in the Nasdaq-100.

Certain Risk Considerations

Return Enhanced Notes (RENs).

Your investment may result in a loss. RENs do not guarantee any return of principal. Returns on RENs at maturity are linked to the performance of the applicable underlying index and will depend on whether and the extent to which the underlying index return is positive or negative during the term of the REN.

In some cases, your maximum gain on a REN is limited to a maximum total return. For each REN with a maximum return, if the applicable index return is positive, you will receive at maturity your principal plus an additional amount that will not exceed a predetermined percentage of the principal amount, regardless of the index appreciation, which may be significantly different from the performance of the underlying.

Solutions for Generating Higher Yields in Client Portfolios:

Reverse Exchangeables

Investors who believe that returns for stocks or bonds are likely to be range-bound over the short term may want to consider a Reverse Exchangeable to monetize this view. A Reverse Exchangeable enables clients to earn potentially higher yields in a low-return environment, along with contingent principal protection.

Anatomy of a Reverse Exchangeable

A Reverse Exchangeable is a hybrid security that pays a fixed coupon and provides contingent protection for an investor's investment principal. The specific terms and conditions of every Reverse Exchangeable vary, but they are typically linked to the performance of a single stock, a basket of stocks, or a stock market index. They are issued as registered notes, mature within one year or less, and trade in \$1,000 increments. The coupon from a Reverse Exchangeable is taxed partially as interest on deposit and as put premium.

The primary appeal of a Reverse Exchangeable is its coupon, which typically ranges between 10% and 20% per annum. Under most conditions, this yield is higher than what clients might attain from a traditional bond or money market investment. Unlike a direct investment in a stock or bond, however, a client's upside potential on a Reverse Exchangeable is limited to the coupon amount. If the underlying asset appreciates in value, investors do not participate in those gains. Therefore, Reverse Exchangeables may be appropriate for clients who believe that the return on the underlying security will be lower than the coupon rate they can earn over the short term (one year or less).

The coupon on a Reverse Exchangeable is determined by the volatility of the underlying stock or basket of stocks, as well as the amount of contingent protection incorporated. The dividend yield of the underlying stock will also factor into the coupon rate—the higher the dividend, the higher the coupon rate. Once determined, the coupon rate remains fixed regardless of how the underlying asset performs. The frequency of interest payments varies and can occur periodically throughout the term of the

note or can offer payment in full at maturity. In all cases, the frequency of interest payments is determined and disclosed at inception.

In addition to providing high coupon rates, Reverse Exchangeables feature a “contingent buffer.” This contingent buffer, which typically ranges between 20% and 30%, protects principal in the event of a moderate decrease in the value of the underlying security.

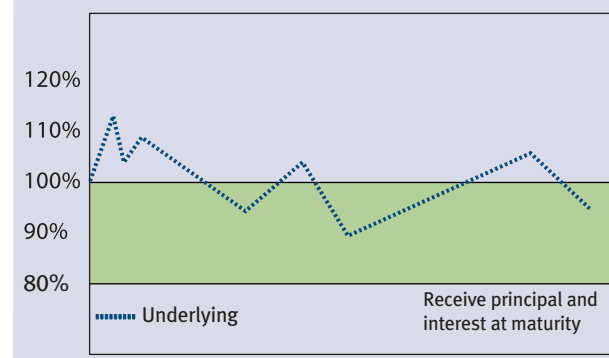
Unlike the buffer in a BREN, the contingent buffer disappears or gets “knocked out” if the security closes below the buffer level at any time during the life of the note. If that occurs, and the stock does not close above its initial level on the final observation date, clients may receive physical settlement at maturity, that is, actual shares of the underlying security, (assuming the underlying asset is a single stock) or the cash value of the actual shares. Reverse Exchangeables linked to a commodity, fixed-income instrument, or index offer cash settlement under these circumstances. Clients should be comfortable with the prospect of holding shares of the underlying asset before investing in a Reverse Exchangeable.

Reverse Exchangeable Performance under Different Market Conditions

To understand how a Reverse Exchangeable might perform under varying market conditions, consider the following hypothetical example. David invests \$1,000 in a Reverse Exchangeable linked to ABC stock. The Reverse Exchangeable pays a coupon rate of 20% and features a 20% contingent buffer. ABC stock is trading at \$10 a share.

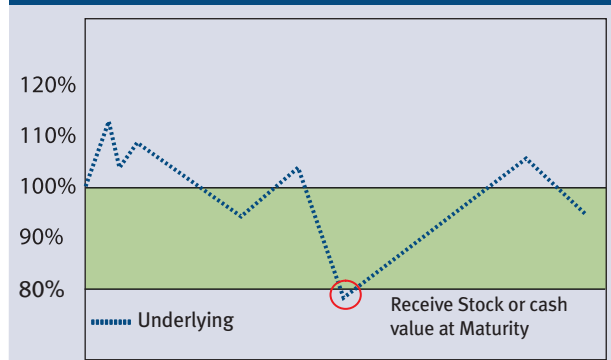
There are several possible outcomes that can occur when a Reverse Exchangeable matures. If the underlying stock never falls below the level of its contingent buffer (\$8), David receives 100% of his principal back, along with any

Figure 5: Return: Reverse Exchangeable on ABC stock at \$10. Features 20% coupon and 20% contingent buffer.



Source: JPMorgan

Figure 6: Return: Reverse Exchangeable on ABC stock at \$10. Features 20% coupon and 20% contingent buffer.



Source: JPMorgan

accrued interest due (see figure 5). For example, if the lowest closing price of ABC stock was \$9.50, David would receive his entire principal back (\$1,000), along with 20% interest (\$200). Because the stock never breached the 20% contingent buffer by falling below \$8 a share, David's principal remained protected. The outcome would be the same if ABC stock breached the buffer, falling below \$8, but then closed above the initial level of \$10 a share on the final observation date.

Certain Risk Considerations

Reverse Exchangeables

An investment in Reverse Exchangeables may result in a loss. The notes do not guarantee any return of principal. Under certain circumstances, you will receive at maturity a predetermined number of shares of the applicable underlying stock. The market value of those shares will most likely be less than the principal amount invested and may be zero.

Your return on a Reverse Exchangeable is limited to the principal amount plus accrued interest. For each \$1,000 principal amount note, your maximum return at maturity is \$1,000 plus any accrued and unpaid interest, regardless of any appreciation in the value of the applicable underlying stock, which may be significant. Accordingly, the return on a Reverse Exchangeable may be significantly less than the return on a direct investment in the applicable underlying stock.

Your contingent buffer may terminate on any day during the term of the Reverse Exchangeable. If on any day during the term of the notes the closing price of the underlying stock declines below the contingent buffer, you will be fully exposed at maturity to any depreciation in that reference stock. You will be subject to this potential loss of principal unless at maturity the price of the applicable underlying stock subsequently recovers to an amount in excess of its initial level on the pricing date.

Now consider what would have happened if ABC stock fell below \$8 and remained there on the final observation date (see figure 6). In this case, David would receive physical delivery of 100 shares of ABC stock at maturity, or its equivalent in cash, along with any accrued interest. The number of shares he receives is determined by dividing the stock price at inception by the initial investment. For example, if ABC stock was trading at \$10 at inception and David invested \$1,000, he would receive 100 shares at maturity. If the Reverse Exchangeable settled in cash, the cash payment would reflect the decrease in the price of the underlying on the final observation date. While the overall value of ABC stock fell, the high coupon rate that David received helped to offset the decline in the value of his stock.

Due to its coupon rate and contingent buffer, a Reverse Exchangeable will always outperform its underlying asset in a bear market. However, the maximum return is the coupon rate. Therefore, investors must be willing to forgo any appreciation in the value of the underlying security in exchange for the coupon rate. Clients who have a neutral to moderately bullish short-term outlook, are seeking a coupon rate that is higher than current yields, and are comfortable taking on some downside risk, may want to consider a Reverse Exchangeable.

IN BRIEF

Reverse Exchangeables

What benefits do they provide?

Reverse Exchangeables provide attractive coupon rates and contingent protection. They will always outperform the underlying security in a bear market, due to the coupon rates they pay. They typically mature in one year or less.

What's the downside?

If the underlying asset appreciates in value, investors do not participate in those gains. The notes provide only contingent principal protection and that protection disappears, or "knocks-out," if the underlying security closes below the predetermined contingent buffer level. Investors may receive physical shares at maturity or equivalent cash value.

Reverse Exchangeables may be right for clients who:

- Have a range-bound view of the markets.
- Are income-oriented investors.
- Are comfortable taking on some downside risk.

Practical Applications

Advisors commonly look for two types of returns: alpha and beta. Many advisors add active equity managers for the alpha portion of clients' returns. They also turn to ETFs for the beta portion of their invested returns, hoping to simply mirror major index returns. We would like to introduce a third type of return: structural alpha. What follows is an explanation of how Structured Investments can add structural returns to client portfolios.

These examples are based on actual investments used by advisors in their approach to reducing risk while seeking to generate excess market returns. Note that most advisors do not view Structured Investments as their own asset class. Instead, they view Structured Investments as an overlay to an existing portfolio allocation. For example, if a client has a 40% allocation to equities, in many cases advisors will carve out a portion of the equity allocation to be used for a structured investment to add some downside protection and leverage. Below is an example of such an allocation.

S&P 500

With the spike in volatility in the summer of 2007, we saw considerable interest from advisors in taking a short-term view on the S&P 500. One particular investment that garnered interest was a Buffered Return Enhanced Note with an 18-month maturity, two-times upside participation, a maximum return of 19%, and a buffer of 10%.

The note offered a relatively short-dated maturity, some protection against further market declines, as well as a way to outperform in a low-return environment. Many advisors have used assets slotted for the equity portion of their clients' portfolios to fund this type of investment.

International and Emerging Markets

Over the past year, advisors and clients have been searching for a means to add exposure to international equities, including emerging markets, without taking on an equal amount of risk. One particular client ultimately settled on a BREN with a 75% allocation to global equities, including the S&P 500 Index, the Dow Jones Euro Stoxx 50 Index, and

the Nikkei 225 Index. The remaining 25% allocation was dedicated to emerging markets, including the S&P BRIC Index (Brazil, Russia, India, and China) and the CECEUR (Eastern Europe Index).

The BREN offered a three-year maturity with a 15% buffer, and 130% uncapped exposure to any appreciation of the equity basket. The funds for the investment came from the client's allocation to international investments, as well as emerging markets. Although the investment had a 25% exposure to emerging markets, the overall equity portfolio allocation was much smaller.

Commodities

Commodity exposure can be particularly challenging for investment advisors, as clients are often concerned about the potential volatility of commodities. There are many ways to access commodities, including but not limited to, single commodity exposure, multiple commodity exposure, and index exposure. In addition, advisors can elect to add no downside protection, some downside protection, or full downside protection.

Some advisors and their clients have invested in a Principal Protected Investment that offers exposure to a basket of commodities. The Basket itself comprises Oil (35%), Aluminum (15%), Copper (15%), S&P GSCI Precious Metals Index (15%), S&P GSCI Agriculture Index (10%), and finally S&P GSCI Livestock Index (10%). This PPI offered 140% uncapped exposure to this basket of commodities, full principal protection at maturity, as well as 40% participation in any depreciation of the basket. The unusual feature in this particular investment was the ability to have a positive return in a down market as well.

Advisors who purchase this type of investment for their clients may be pulling assets from their clients' commodity allocation and may elect to continue to allocate the remaining commodity allocation to traditional commodity investments, such as ETFs or mutual funds. In some cases, advisors may be making an initial allocation to commodities as an asset class, while in other cases they are redefining portfolio risk to the downside.

Do Structured Investments Make Sense for Your Clients?

Structured Investments can provide innovative ways to help meet a variety of risk/return profiles. Whether clients are looking for principal protection, additional asset exposure, enhanced returns, or a combination of the two, a structured investment exists (or can be created) to meet each client's unique needs.

To determine whether these investments are an appropriate match for clients, consider the following questions:

- What is the client's investment time horizon?
- How much risk is the client comfortable taking on?
- Is the client willing to sacrifice higher returns in exchange for principal protection?
- Is the client more concerned with meeting specific goals than with achieving more alpha?
- Does the client have specific income needs?
- Does the client have a bullish, bearish, or neutral market outlook?

- Can the client do without a regular stream of income?
- Is the client able to invest capital for long periods of time, up to seven years?

The answers to these questions should help you ascertain whether Structured Investments belong in your clients' portfolios. At a minimum, taking the time to gain a better understanding of clients' financial goals and risk tolerance can be its own reward, as it may lead to deeper, more productive client relationships.

Frequently Asked Questions

Where do Structured Investments fit within clients' overall asset allocation?

Investment advisors often consider Structured Investments as a component of their clients' alternative investment allocation or as an allocation to the underlying asset class. Within this subset, advisors can access tools to achieve structural alpha within their existing allocations to traditional asset classes. Structured Investments can be used to redefine risk, enhance yield, or monetize a particular market view.

Can Structured Investments be sold in the secondary market?

Structured Investments are intended to be held to maturity. However, in cases where investors need access to their capital, JPMorgan intends to support a liquid secondary market for all Structured Investments the company issues. Fees and commissions may impact the prices of the investments and the terms are only guaranteed at

maturity. Real-time bids are published on Bloomberg or can be attained by calling JPMorgan at 1-800-576-3529.

Do Structured Investments appear on client statements?

JPMorgan's relationship with leading custodians enables most advisors to value Structured Investments on consolidated statements. We also provide daily valuations for advisors who self-custody.

How often do you launch new products?

Each month, JPMorgan offers a new portfolio of Structured Investments designed to meet a variety of risk/return profiles. The minimum purchase amount is \$1,000 and subsequent purchases are also in \$1,000 increments. We deliver Structured Investments to advisors' custodians upon settlement. Settlement is determined when the note is issued and typically occurs within three days of the actual trade date.

Does JPMorgan offer customized solutions?

We can tailor products to monetize a particular market view or client need, subject to certain investment minimums.

Can I create my own Structured Investments for my clients?

While in some cases it may be possible to replicate a structured investment on your own, the costs and complexities of doing so will most likely outweigh the convenience of a professionally engineered structured investment.

Where can I get more information about JPMorgan Structured Investments?

Call the JPMorgan Structured Investments group at **1-800-576-3529** or visit **www.jpmorgan.com/si**.

Experience the JPMorgan Advantage

JPMorgan Structured Investments are designed to complement your clients' overall investment strategy. New solutions are under constant development to provide you with additional opportunities to enhance client portfolios. Experience the unique benefits of JPMorgan Structured Investments, including:

- Innovative Structured Investments that span all of the major asset classes.
- One of the lower investment minimums in the industry.
- Direct access to Structured Investment specialists who can guide you and your clients and manage operational issues with your custodian or broker-dealer.
- A commitment to education demonstrated through teach-ins, conference calls, and educational materials.

Notes

The information contained in this document is for discussion purposes only. The final terms of any securities offered by JPMorgan Chase & Co. may be different from the terms set forth herein and any such final terms will depend on, among other things, market conditions on the applicable pricing date for such securities. Any information relating to performance contained in these materials is illustrative and no assurance is given that any indicated returns, performance or results, whether historical or hypothetical, will be achieved. These terms are subject to change, and JPMorgan undertakes no duty to update this information. This document shall be amended, superseded and replaced in its entirety by a subsequent preliminary or final term sheet and/or pricing supplement, and the documents referred to therein, which will be filed with the Securities and Exchange Commission, or SEC. In the event of any inconsistency between the information presented herein and any such preliminary or final term sheet or pricing supplement, such preliminary or final term sheet or pricing supplement shall govern.

SEC Legend: JPMorgan Chase & Co. has filed a registration statement (including a prospectus) with the SEC for any offerings to which these materials relate. Before you invest, you should read the prospectus in that registration statement and the other documents relating to this offering that JPMorgan Chase & Co. has filed with the SEC for more complete information about JPMorgan Chase & Co. and this offering. You may get these documents without cost by visiting EDGAR on the SEC Web site at www.sec.gov. Alternatively, JPMorgan Chase & Co., any agent or any dealer participating in this offering will arrange to send you the prospectus and each prospectus supplement as well as any product supplement and term sheet if you so request by calling toll-free 866-535-9248.

IRS Circular 230 Disclosure: JPMorgan Chase & Co. and its affiliates do not provide tax advice. Accordingly, any discussion of U.S. tax matters contained herein (including any attachments) is not intended or written to be used, and cannot be used, in connection with the promotion, marketing or recommendation by anyone unaffiliated with JPMorgan Chase & Co. of any of the matters address herein or for the purpose of avoiding U.S. tax-related penalties.

Investment suitability must be determined individually for each investor, and the financial instruments described herein may not be suitable for all investors. The products described herein should generally be held to maturity as early unwinds could result in lower than anticipated returns. This information is not intended to provide and should not be relied upon as providing accounting, legal, regulatory or tax advice. Investors should consult with their own advisors as to these matters.

This material is not a product of JPMorgan Research Departments. Structured Investments may involve a high degree of risk, and may be appropriate investments only for sophisticated investors who are capable of understanding and assuming the risks involved. JPMorgan and its affiliates may have positions (long or short), effect transactions or make markets in securities or financial instruments mentioned herein (or options with respect thereto), or provide advice or loans to, or participate in the underwriting or restructuring of the obligations of, issuers mentioned herein. JPMorgan is the marketing name for JPMorgan Chase & Co. and its subsidiaries and affiliates worldwide. J.P. Morgan Securities Inc. is a member of NASD, NYSE and SIPC. Clients should contact their salespersons at, and execute transactions through, a JPMorgan entity qualified in their home jurisdiction unless governing law permits otherwise.