STRUCTURED NOTES

TYPES OF STRUCTURED NOTES & HOW THEY'RE USED IN PORTFOLIOS

Previously only available to wealthy investors, structured notes play an active role in portfolios by protecting against market volatility, while providing upside return potential. In this guide, we'll go into the details of the type of structured notes available and how they can be used in portfolios.

HALO

WHAT'S AHEAD:

One of the many benefits of structured notes is the number of choices. This is great for investors because of the flexibility in risk-return options available that can be personalized for different portfolios.

But since the choices of different note features and variations are almost endless, it can be overwhelming at first—but powerful if used the right way.

In this guide, we'll go into the details of the type of structured notes available to investors and how they can be used in portfolios.

Structured Note Basics

Structured notes are investments issued by banks and are ultimately designed to give investors a level of downside protection.

Traditionally used by institutional investors or in the private banking world with the ultra-wealthy, structured notes are now available to most investors via financial advisors. Technology has given access to many new investors making the market more efficient and transparent, with lower fees.

Structured notes are a large market globally, with more than $3 trillion outstanding. They were born in Europe in the mid-1970s, and the first structured note was created in London and further made popular in Switzerland and Germany.

Compared to structured notes abroad, the products are very much a retail investment in Europe and Asia. This is very different from the United States where many investors haven't used or know much about the structured investment products that are available.

Structured notes are issued by global banks whose returns are based on underlying assets like an index, stock, group of stocks, commodity or foreign currency. Structured notes include two components, a bond component and an options package and can vary in term lengths.

There's also the level of return, or yield, that investors seek when using structured notes. Most structured notes also include a level of protection that partially protects the investor from price declines in the underlying.

Zero-Coupon Bond + Options Package

Debt security that pays no coupons combined with options to create a payoff and measure of protection.

Issued by Major Banks

Most of the top issuers of structured notes are major global banks

Structured notes are considered complex products and may not be suitable for some investors. Your ability to trade or sell structured notes in a secondary market is often very limited as structured notes are not listed for trading on security exchanges. As a result, the only potential buyer for your structured note may be the issuing financial institution's broker-dealer affiliate or the broker-dealer distributor of the structured note. You should, therefore, be prepared to hold a structured note to its maturity date, or risk selling the note at a discount to its value at the time of sale.

Getting Familiar with Structured Notes

First, let's define each of the four basic components of structured notes.

Understanding these four pieces can help when looking at any structure. It will also give you an idea of the variables you can choose and adjust when creating your own structured notes.

Structured notes can be tied to various underlying assets, vary in term lengths, and include a measure of protection. Like with any investment, there's also a level of return, or yield, that investors seek when using structured notes.

FOUR COMPONENTS OF STRUCTURED NOTES:

Underlying

The performance of a structured note generally tracks the performance of an underlying asset - an index, stock, group of stocks, commodity or foreign currency - over the maturity period.

Maturity

This is the time period over which a structured note is held. Maturities can range from 6 months to 20 years, and in most cases structured notes maturities are between two and five years.

Level of Protection

This is the amount an investor is protected against price declines in the underlying asset assuming the structured note is held to maturity. As long as the underlying asset is not down further than the protection amount, the investor gets their principal back and is not exposed to further losses. This can come in the form of either hard protection or soft protection.

- **Hard protection:** a more conservative type of protection, hard protection acts as a 'buffer' against losses. If the underlying price decline breaks the protection level, the investor will only be exposed to losses past the protection amount.

- **Soft protection:** this type of protection acts as a 'barrier' against losses. If the protection level is breached, the investor is exposed to the full losses of the underlying asset. Because of the additional risk with a barrier, you can get potentially more upside returns compared to hard protection.

***A level of protection is assuming the structured note is held to maturity. If the note is redeemed prior to maturity, it is likely an investor may suffer losses.**

Return/Payoff

The amount the investor receives over the term of the note if certain market conditions are met. There are two basic types of return/payoff structures that cover the majority of note types, but many others that we will touch on further below.

- **Income:** provides investors with a fixed return level with periodic coupon payments

- **Growth:** gives investors a level of upside participation on the underlying asset. Participation rate is the level in which the investor experiences positive/negative performance linked to the underlying.

When combining the four variables above, an investor can create a note for almost any investment objective.

Structuring a Structured Note

Now that you have the four main pieces of a structured note, what are the different 'structures' for structured notes?

How does each structure note type behave in different markets? How does an investor decide which type of structured note to utilize?

The variety of notes that can be designed, means there is generally some type of note available for just about any investment goal.

THE BASIC WAYS STRUCTURED NOTES CAN BE 'STRUCTURED' ARE THE FOLLOWING:

1. Provide a measure or level of **protection**
2. **Provide upside** or enhanced participation
3. **Provide regular payments/income** in the form of coupons if certain market conditions are met
4. **Provide a payout/return** at maturity if certain market conditions are met

Structured notes' core component is a zero-coupon bond with a derivatives package issued by a bank. Having the characteristics of both a level of capital protection and upside potential, structured notes can be quite diverse and cover a wide range of portfolio objectives.

Investors may also use options strategies as a form of hedging against price movements and volatility. Since structured notes do include an options package, an investor could certainly put together the same investment strategy with call, put and binary options both at the money and out of the money, depending on the structure they're seeking.

That's why a structured note, with the flexibility of payoffs, maturity and underlyings makes the vehicle efficient and convenient. The choice of note types makes customizing a note more feasible for varying investor goals.

Another consideration for investors is the ability to trade or sell structured notes in a secondary market can often be limited. As a result, the only potential buyer for your structured note may be the issuing financial institution or a broker-dealer distributor of the structured note. Therefore, be prepared to hold a structured note to its maturity date, or risk selling the note at a discount to its value at the time of initial investment.

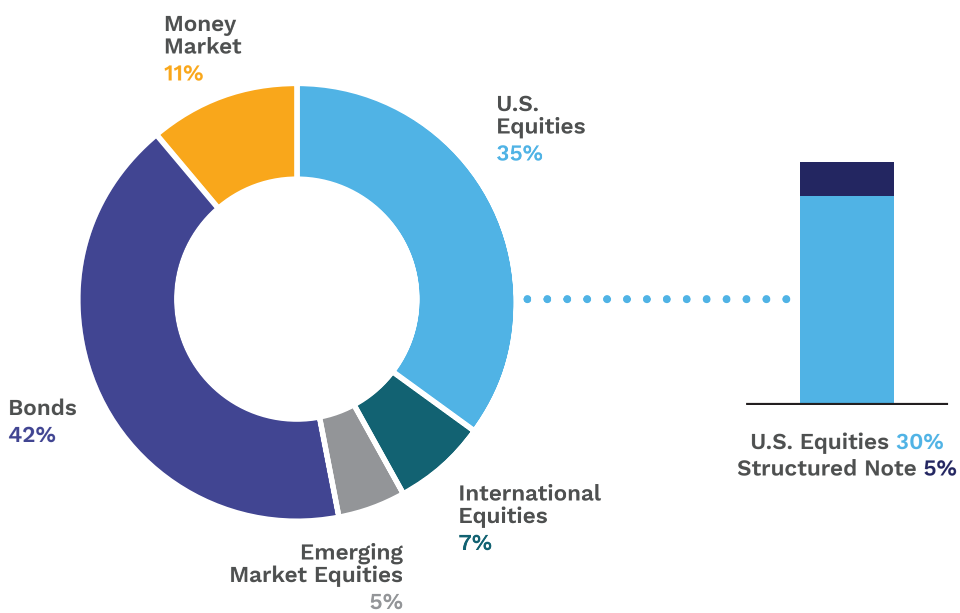
Structured Notes in Portfolios

Investors seek greater control over their portfolios with defined outcome investing. Structured notes can be a powerful portfolio tool because of their flexibility and customization options that can be tailored to client needs.

We see many investors and clients using structured notes as a core holding. By selecting any asset class where a measure of downside protection is desired, a structured note can provide a risk/return tradeoff.

Investors also use structured notes as tactical holdings to play on investment themes, sectors, or other trends in the markets that would be difficult to implement otherwise.

RE-ALLOCATING U.S. EQUITIES EXPOSURE TO EQUITY-LINKED STRUCTURED NOTES:



Market Environment Affects Note Pricing

Structured note returns and pricing levels are dynamic and move with market variables.

Below is a sample of market variables and how they impact structured note returns:

Market Variable		Impact on Structured Notes	
Interest Rates	↑	Rate of Return	↑
Volatility	↑	Rate of Return	↑
Credit Quality	↑	Rate of Return	↓
Dividends	↑	Rate of Return	↑
Correlations	↑	Rate of Return	↓

Since structured notes feature both a zero-coupon bond and options package, the investor is able to participate in upside movements if desired, and also protect against negative price movements on the downside.

Through the Halo platform, any type of custom structured note is available. These include (but are not limited to): Income Notes, Growth Notes, Principal Protected Notes (PPN), Absolute Notes, and Digital Notes.

As we mentioned above, **the majority of notes fall into the income and growth categories,** so we'll start with these two types first.

When structured notes are tied to stocks, ETFs or a group of stocks they should be considered a complement to the equity portion of a portfolio. Further, if the stock or index of the note is tied to small or large-cap, for example, they should be included in that allocation, respectively.

Income Notes

Income Notes can provide income in the form of coupon payments. Like most notes, they can be used to express a wide range of market sentiments and are highly customizable.

A common use of an Income Note is as a core portfolio holding for income, similar to a bond. Instead of holding an index (ETF or mutual fund) or a basket of stocks, an Income Note can be used as a replacement in the equity allocation. It often provides a higher yield than a standard fund's dividend or a traditional bond's coupon payment. Perhaps more importantly, an income note will generally offer a measure of downside protection.

Income Notes can also be used as tactical investments (on both ETFs and stocks). Tactical income notes tend to provide higher yields than core notes, more downside protection, or a combination of both.

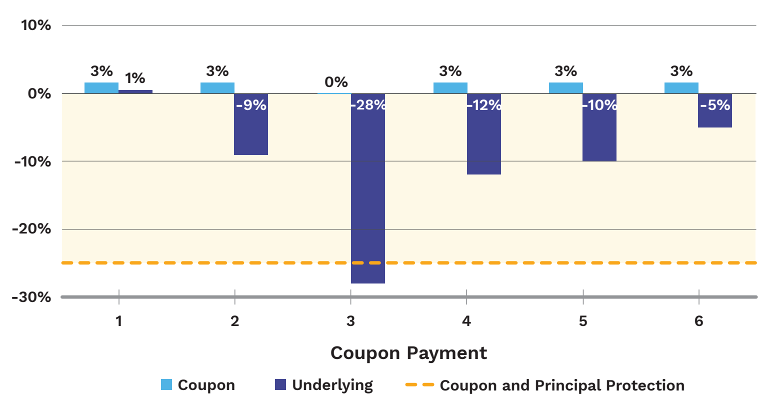
LET'S LOOK AT SOME GENERAL CHARACTERISTICS OF INCOME NOTES:

Payoff:

An Income note's potential positive return is limited to its periodic coupon payments. Coupon payments for Income Notes can be configured to pay on a guaranteed or contingent basis at a frequency that is determined by the investor.

Despite the product's lack of participation in the positive performance of an underlying reference asset, most Income Notes include a measure or level of protection.

Coupon Payments Over Time



Terms:

- **Fixed term** (typically anywhere from 3 months to 20 years, potentially longer)
- **Early termination is possible via Autocallable or Issuer callable, for example.** A holder will receive any payment due (usually a return of principal and a final coupon payment) and will no longer be entitled to any additional coupons if its called.

  Autocallable: redemption of the note occurs upon certain stated conditions—typically if an underlying asset crosses a specific threshold Issuer

  Callable: redemption of the note can be at the discretion of the issuer on a specified date(s) at an amount specified in the terms of the note, if applicable

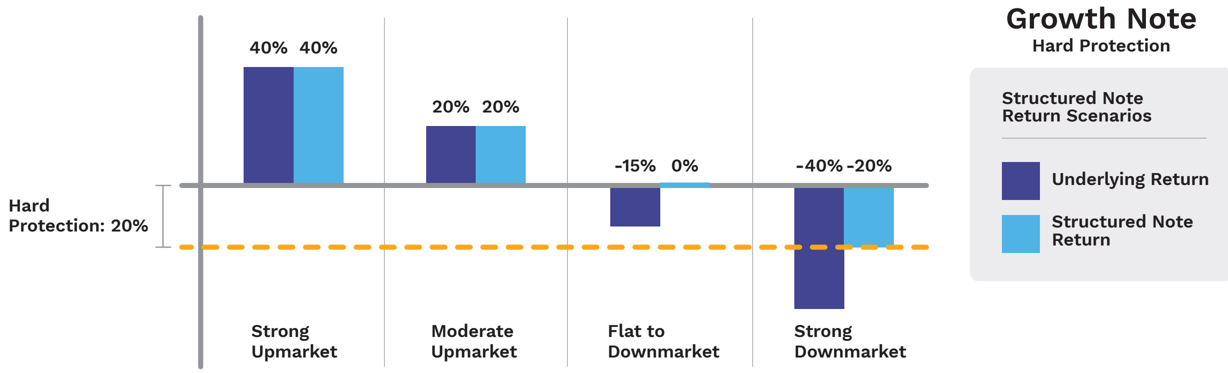
Growth Notes

While an Income Note is focused on collecting coupon payments, a Growth Note (also called Participation Note or Tracker Note) provides the opportunity to participate in the upside performance of an underlying asset. A Growth Note may be tied to any positive performance or limited to a range of positive performances from a basket of underlying assets.

Growth Notes can allow the investor to benefit from stock or ETF price appreciation while also potentially limiting downside exposure. Upside participation can be greater than 100% in some instances. The tradeoff is typically a balance between upside potential and downside exposure through either soft or hard protection.

The tradeoff between hard (buffer) and soft protection (barrier) is very much a product of the market environment and client risk preferences. Soft protection can provide greater participation on the upside, but hard protection is more conservative for investors that may want more comfort against downside risk.

EXAMPLE PAYOFF CHART WITH HARD PROTECTION:



Hard protection acts as a 'buffer' and if the underlying declines past the protection level, the investor's principal is exposed to losses only past the protection amount.

Growth Notes continued

Again, with soft protection — if the protection level is breached by the underlying, an investor is fully exposed to downside losses just as if you owned the asset outright.

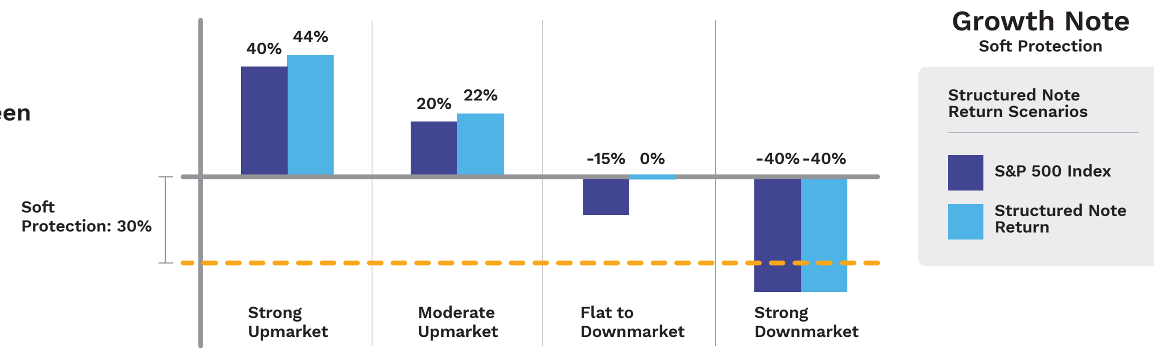
Hard protection offers a buffer against potential losses, so negative underlying performance will be reduced by this fixed amount, but normally has less participation to the upside.

With comparable notes — underlying, maturity, issuer, and protection amount (e.g. 30%) — but hard vs. soft protection, there will normally be more upside potential with soft protection and more downside protection with hard.

EXAMPLE PAYOFF CHART WITH SOFT PROTECTION:

Tradeoffs:

These are a few of the tradeoffs between hard and soft protection, and normally there is no right or wrong answer, just what makes more sense for an investor's portfolio.



Soft protection acts as a 'barrier' and if the underlying declines past the protection level, the investor's principal is exposed to the full losses of the underlying.

Like Income Notes, Growth Notes can be used to complement core portfolio holdings (a stock index ETF for example), which most investors will have in their portfolios. So a Growth Note tied to a major equity index can provide a level of added protection.

Growth Notes can also be used for tactical purposes (for instance, participating in the worst-of upside between two similar stocks), or for tactical tilts in portfolios. If there are portfolio holdings (stocks, ETFs, etc.) that have recently declined but fundamentally are still intact, growth notes with a level of protection can provide a tactical opportunity to participate without having to time the inflection/rebound point of the underlying.

If there are stocks that an investor has a large exposure to, or stocks that are higher in volatility, a Growth Note can be used to add a level of downside protection without giving up return potential.

Payoff:

The participation rate of the underlying. However, there is no assurance that the performance of the underlying asset will actually result in any profits; or positive return of the Note.

Income and Growth Notes make up the majority of the structured note market (at least 90% of outstanding notes). However, there are other note types offered on the Halo platform that are worth exploring.

Absolute Notes

Absolute Notes (sometimes called Dual Directional or Absolute Performance) allow an investor to participate in the positive performance of an underlying asset and a limited amount of negative performance.

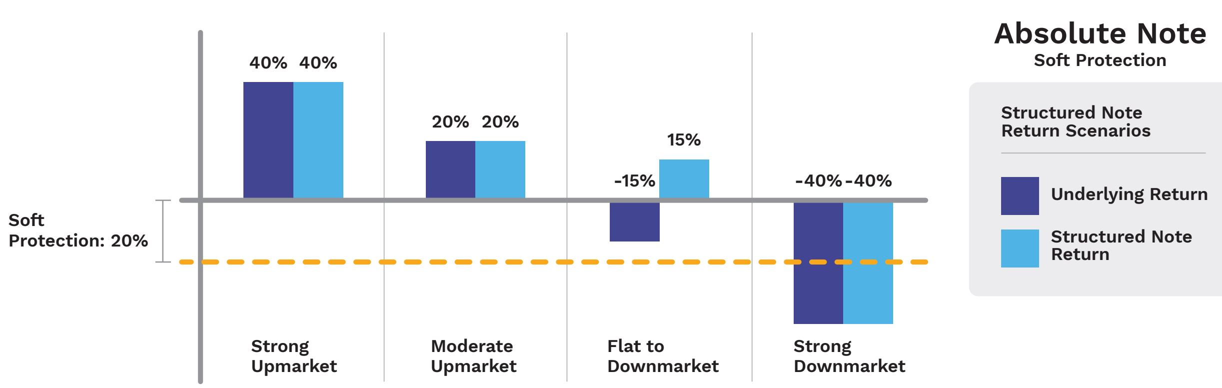
The negative performance is typically capped at the protection level of the note. This may be attractive for an investor that is seeking a limited range of returns on an absolute level, positive or negative.

The positive performance is often capped at a certain level of participation (generally dependent on how much downside participation is in place).

This type of note allows investors to potentially profit from an underlying asset in a bull or bear market environment. This feature means an Absolute Note may be appropriate for investors with an uncertain outlook on the market (or for a stock or basket of stocks).

While an Absolute Note provides a certain amount of negative participation in the underlying asset, beyond a certain point, the note holder will be exposed to downside risk. The payout is dependent on where the asset is priced at maturity.

EXAMPLE PAYOFF CHART:

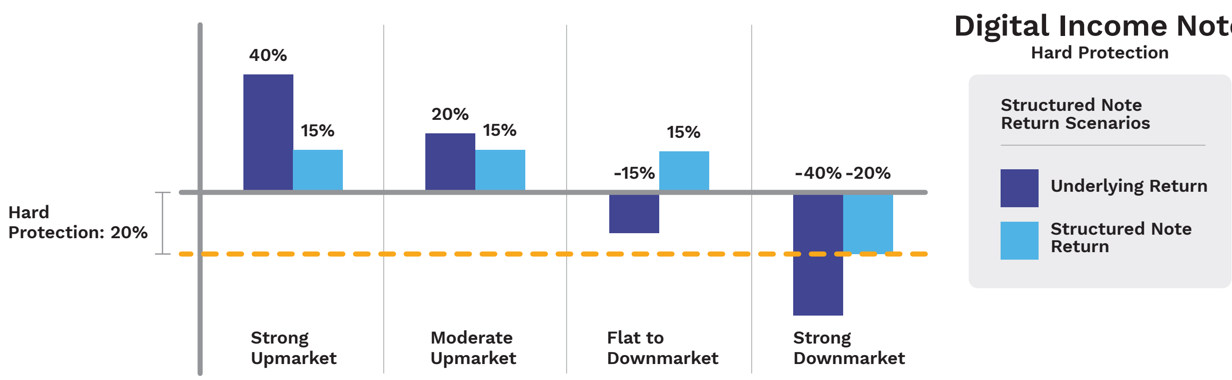


Digital Notes

A Digital Note (sometimes known as Step Payment) is very similar to an Income Note, except the Digital Note pays one coupon payment at the maturity instead of at fixed intervals during the duration of the note.

Like an Income Note, the Digital Note will pay the coupon amount if the underlying asset is above the downside protection level at maturity. Because the note doesn't pay a coupon until maturity, the terms are often shorter than a traditional Income Note which have periodic coupon payments.

EXAMPLE PAYOFF CHART:



Principal Protected Notes

PPNs are notes that are market-linked with full principal protection from market-related losses.

They usually pay a market-linked return. Although there is no downside risk to the investor, there is still credit risk of the issuing bank.

PPNs are generally designed for risk averse investors as the downside is fully protected barring a credit default from the bank, as mentioned above.

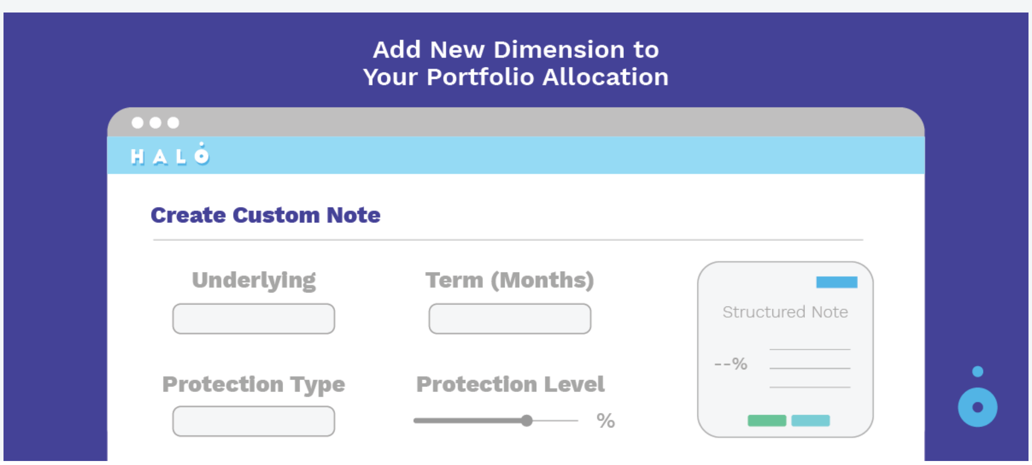
Managing Structured Notes the Right Way with Halo

Finding relevant investments that deliver attractive risk/return has never been more important—or more challenging. But when it comes to positioning client portfolios, defined outcomes can help. Halo's custom note creator allows you to create a structured note for your given objectives, like income or growth.

It starts with choosing an underlying asset, a time frame and protection level—then Halo's platform connects financial advisors to leading global issuers of structured notes.

Are you bullish? Soft protection and a higher participation rate could work. Bearish? Hard protection will provide peace of mind. Uncertain? Potentially choose an income note for a steadier return stream, or an absolute note which can be up when your underlying is down.

As you can see, there are a wide range of structured note types available to investors. This guide should serve as a starting point to finding the right type of structured notes to implement given your unique investment objectives.



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What are Structured Notes?
Structured notes are securities Issued by financial institutions whose returns are based on, among other things, equity indexes, a single equity security, a basket of equity securities, interest rates, commodities, and/or foreign currencies. Thus, your return is "linked" to the performance of a reference asset or index. Structured notes have a fixed maturity and include two components–a bond component and an embedded derivative. Financial institutions typically design and issue structured notes, and broker-dealers sell them to individual investors. Some common types of structured notes sold to individual investors include: principal protected notes, reverse convertible notes, enhanced participation or leveraged notes, and hybrid notes that combine multiple characteristics.

Risks and Other Considerations with Structured Notes Complexity
You and your broker should take time to fully understand the manner in which your return on a structured note is calculated. You should understand the reference asset(s) or index(es) and determine how the note's payoff structure incorporates such reference asset(s) or index(es) in calculating the note's performance. This payoff calculation may include leverage multiplied on the performance of the reference asset or index, protection from losses should the reference asset or index produce negative returns, and fees.

Market risk
Some structured notes provide for the repayment of principal at maturity, which is often referred to as "principal protection." This principal protection is subject to the credit risk of the issuing financial institution. Many structured notes do not offer this feature. For structured notes that do not offer principal protection, the performance of the linked asset or index may cause you to lose some, or all, of your principal. Depending on the nature of the linked asset or index, the market risk of the structured note may include changes in equity or commodity prices, changes in interest rates or foreign exchange rates, or market volatility.

Issuance Price and Note Value
The price you will pay for a structured note at issuance will likely be higher than the fair value of the structured note on the date of issuance. Issuers now disclose an estimated value of the structured note on the cover page of the offering prospectus, allowing investors to gauge the difference between the issuer's estimated value of the note and the issuance price. The estimated value of the notes is likely lower than the issuance price of the note

Disclosures (continued) to investors because issuers include the costs for selling, structuring or hedging the exposure on the note in the initial price of their notes. After issuance, structured notes may not be re-sold on a daily basis and thus may be difficult to value given their complexity.

Liquidity
Your ability to trade or sell structured notes in a secondary market is often very limited as structured notes (other than exchange-traded notes known as ETNs) are not listed for trading on security exchanges. As a result, the only potential buyer for your structured note may be the issuing financial institution's broker-dealer affiliate or the broker-dealer distributor of the structured note. In addition, issuers often specifically disclaim their intention to repurchase or make markets in the notes they issue. You should, therefore, be prepared to hold a structured note to its maturity date, or risk selling the note at a discount to its value at the time of sale.

Daily Pricing
The pricing accuracy is questionable because most structured notes never trade after issuance. Prices are usually calculated by a matrix, which is very different than net asset value. Matrix pricing is essentially a best-guess approach by the issuer.

Tax Considerations
The tax treatment of structured notes is complicated and, in some cases, uncertain. Before purchasing any structured note, you may wish to consult with a tax advisor. You also should read the applicable tax risk disclosures in the prospectuses and other offering documents of any structured note you are considering purchasing.