

Financial instruments and risk warnings

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Fixed Income Instruments

Fixed Bond/Perpetual Bond

Nature

Fixed/perpetual bonds are bonds that pay the same amount of interest for their entire term, providing their investors the certainty of how much interest they will earn and for how long.

Use

Fixed/perpetual bonds are used to gain exposure to a particular market or instrument and are subject to bond risk (credit and interest rate risk).

Risks

● Credit Risk

As the interest paid to bondholders is part of the bond issuer's payments, investing in bonds is subject to the risk of the issuer's inability to meet his/her contractual obligations with regards to interest and principal payments.

● Interest Rate Risk

Also, as bond prices have an inverse relationship with interest rates, in the case of rising bond interest rates, an investor's existing bonds will become less valuable.

● Market Risk

Fixed/perpetual bonds may also be subject to price volatility due to market perception of the creditworthiness of the issuer and general market liquidity.

● Inflation Risk

Bonds are also subject to inflation risk. If inflation rises, the returns associated with the bond will be worth less (lower value) and their purchasing power will decrease.

● Reinvestment Risk

Reinvestment risk is the risk that the proceeds from the payment of principal and interest, which have to be reinvested at a lower rate than the original investment. Investments in bonds with a long-term time horizon may be exposed to higher levels of reinvestment risk. A generally low or falling return environment may not offer sufficient returns to meet long-term goals.

● Redemption and Volatility Risk

Since perpetual bonds have no specified maturity date, there is not a set date on which the repayment will be made, and their prices may be more volatile than those of fixed bonds.

These risks may be heightened when market conditions go through peaks and troughs.

FRN

Nature

Floating rate notes are bonds that pay a floating rate of interest (variable coupon). The coupon rate of FRNs includes a money market reference rate plus a spread. The spread is set when the bond is issued, is typically constant and is based on the issuer's creditworthiness.

The reference rate resets periodically, so the FRNs do not pay fixed coupons as these change when the reference rate changes. However, FRNs have sometimes a cap/floor, so the investors can know the maximum/minimum interest rate FRNs will pay.

Use

FRNs are used to gain exposure to a market and for diversification, when there is expectation that the interest rates will increase.

Risks

● Credit Risk

The higher the issuer's credit quality, the lower the spread. Thus, FRNs are subject to credit risk. If there is a change in the credit quality of the issuer that affects the perceived credit risk associated with the bond, the price of the FRN will deviate.

FRNs are also subject to credit risk, as FRNs cash flows are not known and guaranteed.

● Interest Rate Risk

Since FRNs are short-term instruments that have their coupon rates reset at regular, short-term intervals, FRNs have little exposure to interest rate risk. In cases of decreasing interest rates, FRNs coupon payments decrease. However, compared to fixed-rate debt instruments, FRNs protect investors against a rise in interest rates.

● Market Risk

FRNs, as bonds, may also be subject to price volatility due to factors such as market perception of the creditworthiness of the issuer and general market liquidity.

- As market rates rise, the expected FRN coupons increase in line with the increase in forward rates, so their price remains the same. As issuer creditworthiness declines, higher interest rates are demanded.

The above risks may be heightened when market conditions go through peaks and troughs.

Index Linked Bond

Nature

An index linked bond (or inflation-linked bond) is a bond for which the amount of payments of income on the principal (coupon) and/ or the principal outstanding are linked to a specific price index (often the Consumer Price Index). Index linked bonds pay a coupon that is equal to the product of the index linked and the nominal coupon rate, providing that way protection to investors by shielding them from changes in the underlying index. The real value of the bond is known from the purchase and the bond cash flows are adjusted for inflation and any other market changes. Hence, the bondholder receives a real rate of return.

Use

Index linked bonds are used to hedge against potential inflation and any other market changes, as they provide protection against unexpected inflation and market changes and their coupon and principal value adjust based on changes in the underlying index.

Risks

● Interest Rate Risk

The prices of index-linked bonds respond to changes in real interest rates, rather than nominal interest rates and have an inverse relationship with them; in the case of rising real interest rates, the bond's price decreases and investors could be left unprotected against this decrease. Hence, index-linked bonds are subject to interest rate risk.

● Financial Indices Investment Risk and Inflation-linked Risk

Index linked bonds are also subject to financial indices investment risk and inflation-linked risk. A portfolio may use index linked bonds, in order to provide investors with protection against inflation and market changes by delivering a return in excess of inflation. The rate of interest and redemption value are based on change in the official index of inflation. A period of low inflation or deflation will adversely affect any economy and as a consequence capital growth of the portfolio may not be achieved.

● Credit Risk

Finally, index-linked bonds are subject to credit risk that is the risk of default on debt that may arise from a counterparty or other entity with a payment obligation, failing to make required payments from time to time.

These risks may be heightened when market conditions go through peaks and troughs.

Mortgage Bond

Nature

A Bond backed (secured) by a mortgage or a pool of mortgages on a real estate or real property (e.g., house, equipment). Mortgage Bonds pay interest on a monthly, quarterly or semi-annual basis and in case of default, the holder has a claim to the underlying property and could sell it off to compensate for the default.

Use

Mortgage Bonds are income-producing securities that offer high level of protection, as the principal is secured by a valuable asset that could be sold off to cover the debt in case of default.

Risks

Since Mortgage Bonds are contractual obligations whose underlying is the Bond backed by mortgage, they are exposed to credit risk, market risk and interest rate risk.

● Credit Risk

The interest portion of mortgage payments made by the borrowers is used to pay the yield on the Mortgage Bonds. Consequently, Mortgage Bonds are subject to the risk of the borrower's inability to meet his/her mortgage obligations (credit risk).

● Interest Rate Risk

Since Mortgage Bonds' price has an inverse relationship with interest rates, Mortgage Bonds may be subject to risk arising from changing interest rates.

● Market Risk

Except from the risk arising from changing interest rates, Mortgage Bonds may be subject to price volatility due to market perception of the creditworthiness of the issuer, general market liquidity and other factors (market risk).

These risks may be heightened when market conditions go through peaks and troughs.

Loan (Corp. Public, Private Loan, Direct Lending)

Nature

Loans are long-term debt-based financial instruments. A loan is essentially a debt provided by one entity (lender) to another (borrower) at an interest rate that represents the cost at which the loan is provided. It is evidenced by a loan contract (promissory note) where the principal amount of the money borrowed, the interest rate charged, and the date of payments are specified. The borrower is obligated to pay back the full amount of money borrowed plus the interest on this amount. Lenders/creditors may also use debt covenants in the loan agreements, in order to restrict the borrower from performing activities that may jeopardize their interests.

Types

Secured Loans: The borrower pledges a collateral (e.g., property)

Unsecured Loans: Monetary loans that are not secured against the borrower's assets (e.g., personal loans, credit cards, bank overdrafts)

Demand Loans: Short-term loans that have no fixed dates and scheduled payments. They can be secured or unsecured and can be called for complete payment at any time.

Subsidized Loans: The interest is reduced by explicit or hidden subsidy.

Concessional Loans (Soft Loans): Loans granted with terms more generous than market loans, through below market interest rates, by grace periods or combination of both.

Categories based on Target Markets

Based to whether the borrower is an individual or a business, loans can be categorized as personal or commercial loans.

Categories based on the Issuer

Private Loans: Loans that are offered by a private company, with less enquiries. The interest charged will be higher than that provided by a public loan and the loan terms may change at any time.

Public Loans: Loans that are offered by the government, public sector companies and public corporations. These loans are granted after tenacious loan approval procedure. The interest charged is lower than that of the private loans and they are considered safer than private loans.

Use

Loans are used for portfolio diversification and to gain exposure to a market.

Risks

● Credit Risk

The risk that the borrower will default/fail to meet his payment obligations (both interest and principal at maturity). In the case of the borrower's default, investors may lose all their investment, especially if the loan is unsecured.

● Interest Rate Risk and Reinvestment Risk

The risk that the amount paid by the borrower (interest and principal) will provide less yield if the prevailing interest rates decrease. A generally low or falling return environment may not offer sufficient returns to meet long-term goals and may also result in smaller amounts being reinvested, as the value of money will decline.

● Loans Investment Risk

Although secured loans offer the portfolio more protection than an unsecured loan, in the event of non-payment of scheduled interest or principal, there is no assurance that the liquidation of collateral from a secured loan would cover the borrower's obligation. Moreover, in the case of investing in loans through a direct assignment, the portfolio faces the risk of becoming part owner of any collateral, if a loan is terminated, and consequently the risk of bearing the costs and liabilities associated with owning and disposing of the collateral. The portfolio may also have to rely on the agent bank (that administers the loan) or other financial intermediary to apply appropriate credit remedies against a loan borrower. As a result, the portfolio may invest in loans not rated by any internationally recognised rating service.

These risks may be heightened when market conditions go through peaks and troughs.

Asset-Backed Securities

Nature

The portfolio may buy or sell Asset-Backed securities (ABS), structured finance products created through securitisation and backed by pool of assets. As an alternative to the issuance of a corporate bond, a corporate entity can issue securities backed by loans or receivables (the assets). The

assets are sold into a bankruptcy remote SPV. The SPV issues bonds (notes) to noteholders who subscribe to the notes and in return receive an income stream (principal and income) derived from the underlying assets within the collateral pool. The issuing SPV can issue multiple notes (called tranches) which have differing risk and return characteristics. Typically, the senior most ranking tranche will receive a AAA rating from the rating agencies. Structural subordination protects the more senior tranches of notes as losses are applied from the bottom of the ABS structure upwards. In a simplified structure:

Senior-subordinate structure and priority of payments:

For many ABS (including CDOs) there are three broad categories of liability which can be sub-divided into any number of tranches:

- 1 **Senior tranche:** rated AAA, it usually makes up the bulk of debt issued by the CDO, accounting for up to 90% of the liabilities.
 - 2 **Mezzanine tranche:** This is normally rated between Aaa and Baa2, it is the section in the middle and may account for about 5% of the liabilities.
 - 3 **Equity:** this is unrated or the "first loss piece" and may account for 5% -10% of the liabilities.
- **Collateral:** Underlying securities acting as the collateral (loans/receivables etc.) may be either amortizing or non-amortizing, which distinguishes them from traditional credit instruments as the pricing and yield are influenced by the average life of the principal payments' assumptions:
 - **Credit enhancement:** All ABS are credit enhanced. That means that support is provided for one or more of the bondholders in the structure. Credit enhancement levels are determined by the characteristics of the underlying collateral pool, the expected performance of the loans/receivables. These cash flows are stressed by the rating agencies so each individual tranche can withstand certain levels of stresses in order to achieve a particular rating. Credit enhancement may take the form of:
 - Structural subordination – the subordinate tranches provide credit support for the senior tranches and protect those above from losses. Losses are applied from the bottom of the structure upwards.
 - Reserve funds – sponsors can set aside cash in the form of reserve funds which will sit at the bottom of the structure and act as a loss absorption buffer
 - Excess spread is the amount of cash flow that remains at the bottom of the waterfall once all proceeds have been applied to noteholders as interest and principal, any shortfalls have been addressed and any reserve funds have been topped up, if necessary. The excess spread is typically made available to the sponsor/originator.
 - Overcollateralisation – the value of the collateral exceeds the amount of the par value of the securities issued by the SPV, the difference which can be used to absorb losses
 - **Call provisions:** ABS may have call provisions just like callable bonds
 - **ABS are traded over the counter (OTC) as opposed to via exchanges.**

Types of ABS

ABS/structured finance broadly cover these different asset types:

1 Asset backed securities (ABS) typically cover securities not backed by real estate and are more commonly granular, consumer types of assets consisting of the following:

- auto loans
- auto leases
- consumer loans
- credit cards
- student loans
- equipment leases

Typical features of ABS:

- Granular, consumer assets – 100s or 1000s of underlying borrowers
- Financing “real economy” borrowing
- Originators include high street banks as well as specialist lenders

2 Residential mortgage-backed securities (RMBS) make up the largest portion of the European ABS market. Common types of RMBS:

- Prime
- Non-conforming
- Buy-to-let (BTL)
- Second lien
- Equity release

Of these, Prime RMBS makes up the largest portion of the market, Prime RMBS is pools of mortgages typically originated by high-street banks and building societies to borrowers with good credit scores and stable income. Non-conforming RMBS is usually a UK product. The pools backing these deals are made up of mortgages extended to borrowers with some history of credit impairment and/or unusual incomes or property types. In effect, these are the mortgages that high-street lenders do not underwrite, and it is left to specialist lenders, usually non-bank lenders, to underwrite these products..

3 Commercial mortgage-backed securities (CMBS) are deals backed by loan(s) made to finance commercial property.

4 Whole-business securitisations (WBS) are UK-focused structures used by corporates as an alternative to corporate debt. The WBS will typically have security over an asset or number of assets owned by the corporate, but the performance of the deal will be linked to the performance of the corporate. Examples of such deals are:

- Pubs
- Airports
- Infrastructure assets (wind farms)

5 Collateralised Debt Obligation (CDO) is a security backed by a diversified pool of one or more of the following types of debt obligations:

- High yield corporate bonds
- Structured financial products (MBS and ABS)
- Emerging market bonds
- Bank loans
- Special situation loans and distressed debt

More of a synthetic nature. Less depth. The specificity of a CDO is its structure; the pool of assets is sold to a special purpose vehicle (SPV) whose sole interest is to repackage the underlying's and sell it into tranches. A CDO will always have several tranches while a classic MBS can have just one. These strategies could access senior, mezzanine and equity securities. There are several spin-offs of CDOs to consider:

- When the underlying pool of debt obligations are bond-type instruments (high-yield corporate, structured financial products, EM bonds) a CDO is referred to as a Collateralised Bond Obligation (CBO)
- Collateralised Mortgage Obligations (CMOs) were created because the cash-flow characteristics of pass-through MBS securities did not meet the needs of some institutional investors. To broaden the range of potential investors, these structured mortgage-backed instruments with a variety of maturity and prepayment profiles have been created out of basic mortgage cash flows
- When the underlying pool of debt obligations are only made of bank loans it is named a Collateralised Loan Obligation (CLO)

CDO investors are buying these debt or equity tranches. Their interest and principal repayments come from the assets held in the SPV. The investor therefore depends on the quality and diversity of these assets for the payment of interest and return of capital. In order that the senior tranche can obtain a AAA rating there is a priority of payment. The senior tranche has priority of payment before the mezzanine. The equity is last in the “pecking order”. The investment return is based on risk. Provided the collateral does not experience credit losses, the equity and subordinated debt holders obtain a higher investment return than the more senior debt holders. The sequential pay process means that the subordinated tranches, and in particular the equity, is much more at risk from defaults in the asset portfolio. This is because a small number of defaults within the asset pool will lead to the equity holders losing their principal investment. This is why many people refer to the equity as a “leveraged” investment and the senior tranche as “unleveraged”. Leverage being a measure of the ratio of debt to equity.

Use

ABS are used to enhance the yield (earn a higher risk-adjusted yield than most other fixed income asset classes) and to provide risk diversification benefits in a portfolio.

Risks

● Prepayment risk

Prepayment risk is the risk of experiencing reduced cash flows arising because borrowers are paying off their loans early, especially in declining interest rate environment, where they can refinance the existing loans with new, lower interest rate loans. Prepayments result in loss of future interest collections, as the loan is paid back prematurely, and this can be harmful to the securities, especially the long-term ones. The influence of the unscheduled prepayment of principal will also be distributed among the securities according to the priority of payments, thus reducing the outstanding principal amount and affecting the weighted average life.

If prepayments are made by borrowers with good credit quality, the pool credit quality will deteriorate.

● Credit risk

Credit risk originates from both the losses generated in the asset pool and how these losses are mitigated in the structure of the deal. Defaults in collateral pool result in loss of principal and interest. These losses are transferred to investors and allocated according to the structure of the deal. ABS have credit tranching, a structure to deal with credit risk. The subordinate or junior tranches absorb all of the losses up to their value before senior tranches experience losses. Due to higher risk incurred, subordinated tranches typically have higher yields than senior tranches.

● Reinvestment risk

Reinvestment risk is the risk that the credit quality of the portfolio will deteriorate over time if it is replenished during a revolving period. The credit risk profile of the portfolio may increase if the new assets put into the pool generate lower interest collections, have shorter remaining term or affect the diversification in the pool.

● Liquidity risk

Liquidity risk arises because of timing mismatches between the cash flows in the asset pool and the cash flows to be paid to the liabilities. Timing mismatches may be due to maturity mismatches, to rising number of delinquencies or to delay in transferring money within the transaction. Regarding interest rates, liquidity risk may arise due to mismatch between interest payment dates, periodicity of the collateral pool and interest paid to the liabilities.

● Counterparty risk

As ABS are traded OTC, the portfolio is subject to the risk that the counterparty (servicer or third parties involved in the transaction, e.g., financial guarantor) will fail to perform its obligations and put the whole structure under pressure.

● Market risk

Currency risk: Assets in the collateral pool may be denominated in currencies different from the liabilities. Consequently, the cash flow from the collateral pool should be exchanged to the currency of the liabilities, resulting in exposure to exchange rates.

Interest rate risk: Interest rate risk arises due to a mismatch in fixed interest collections from the collateral pool and floating interest payments to the liabilities or vice versa.

These risks may be heightened when market conditions go through peaks and troughs.

Convertible Bond

Nature

The portfolio may hold convertible debt and preferred stock as alternatives to underlying equity. Convertible bonds are fixed rate bonds issued by the underlying entity that give the bondholder the option (right) to exchange the bond for a certain number of shares of the issuing entity, according to a predetermined conversion price (price that the underlying equity must attain to make the conversion profitable), without any extra payment. The difference between the implied conversion price of the equity and the market price is the premium. If the bond is exchanged, the holder's unpaid accrued interest is forfeited. Similar to bonds, convertible bonds give the bondholder regular fixed rate returns (coupon payments with slightly lower interest rates than that of corporate bonds) and the face value of the bonds at maturity, but they also give the opportunity to benefit from an increase in the company's share price.

Use

Convertibles are used to offset positions in the underlying stock and gain exposure to a particular market or instrument.

Risks

Convertible bonds are subject to bond risk and equity risk.

● Bond Risk (risk of the underlying)

Since bond futures are contractual obligations whose underlying is the bond, their performance depends primarily on the performance of the bond and consequently they are also exposed to the risks associated with bonds (credit risk, market risk, interest rate risk, reinvestment risk).

● Equity Risk

Investors in ordinary shares are subject to equity risk, as market prices of equity securities may go up or down, based on the supply and demand. The value of a security may decline for reasons related to the issuer of the security (e.g., issuer's financial condition), to general market conditions, not specifically related to a particular company (e.g., real or perceived adverse economic conditions) or to irrational factors.

● Liquidity Risk

As generally less liquid than equities, convertible bonds are subject to liquidity risk. Their exposure to liquidity risk is also due to possible reduction in the liquidity of the issuer's shares, in the case investors are averse to holding equity positions in companies with complex capital structures. Due to their exposure to liquidity risk, Convertible bonds can decline in value more than stocks.

● Risk of Diluting Control

Convertible bonds are also exposed to the risk of diluting control of the company, when the issuer creates new shares because investors want to convert, and to the risk of forced conversion, when the price of a stock is higher than the amount it would be if the bond was redeemed.

Performance

- **Fall of interest rates:** The value of convertible bonds may rise due to their fixed income component that has inverse relationship with the interest rates.
- **Decline in the value of the underlying shares:** The price of convertible bonds will not fall as much due to the bond's income potential.
- **Rise in the value of the underlying shares:** The price of convertible bonds will not rise as much, as their conversion value is narrower.

The above risks may be heightened when market conditions go through peaks and troughs.

Contingent Convertible Bond

Nature

Contingent convertible bonds, a type of convertible bond, are a fixed-income instrument that is converted into equity if a predetermined trigger event occurs. Contingent convertible bonds are defined by both the trigger event and the conversion rate, which is the actual rate at which the conversion occurs. Bonds are converted to equity after they have attained a required price above the conversion price (usually some fixed percentage above conversion price that triggers the conversion when certain capital conditions have been met).

Use

Contingent convertibles are used to gain exposure to a particular market or instrument.

Risks

Contingent convertible bonds are typically issued as perpetual bonds (i.e., bonds without a maturity date), while these will have call dates, there is no guarantee that the issue will be called on this date and there is a possibility that the bond may never be called resulting in a risk of total loss of the original capital investment, should the trigger event occur at some point in the future.

Furthermore, coupon payments may be discretionary and can be cancelled at any time, for any reason. As a result, investment in contingent convertible bonds can carry higher risk than investment in traditional debt instruments/convertibles and, in certain cases, equities; the volatility and risk of loss can be significant. Contingent convertible bonds are a relatively new instrument, and the trigger events are generally untested, therefore it is uncertain how the asset class will perform in stressed market conditions and risk to capital, and volatility could be significant.

Generally, convertible securities are subject to the risks associated with both fixed income securities and equities, namely credit, price and interest rate risk.

These risks may be heightened when market conditions go through peaks and troughs.

Equity Instruments

Participatory Notes (P-Notes)

Nature

Participatory Notes are financial instruments for overseas investors who want to invest in a stock market (typically an emerging market) without registering themselves with the market regulator. These instruments are issued by Foreign Institutional Investors (i.e., global banks) registered with the local market regulator.

Use

Participatory Notes allow investors to invest in securities/equities without being registered and being involved with the regulatory approval process. The instrument provides investors with anonymity, and the P-Note issuer is paid a fee related to the value of the underlying note/security.

P-Notes are used to gain exposure to an underlying security from the target market without incurring the time, costs and scrutiny involved in investing directly.

Risks

Although they are traded over the counter, the terminology, terms and conditions are standardized and uniform. However, they provide customized tools to manage risks, lower financing and transaction costs and enhance portfolio yields.

- **Underlying/Asset Value Risk:** P-Notes are subject to the performance of the underlying security or asset value risk, which is the risk of a decrease in the price of the underlying asset that would result in a decrease in the value of the participatory note and vice versa. This decrease may be attributed to general market conditions (market risk), such as real or perceived adverse economic conditions, changes in interest or currency or adverse investor sentiment.
- **Counterparty Risk:** As participatory notes are traded OTC; the portfolio is subject to the risk that the counterparty will not perform its obligations under the transaction and that it will sustain losses.

In addition, there may be emerging markets risk, if issued by institutional investors in emerging markets and exchange rate risk.

These risks may be heightened when market conditions go through peaks and troughs.

Ordinary Share

Nature

Ordinary shares are a form of corporate equity ownership in a company, a type of security that investors buy by paying the price of the share of the company.

Use

Ordinary shares give the shareholder the right to share in the profits of the company (dividends), to vote at general meetings of the company on matters of corporate policy and the composition of the members of the board of directors and to receive and approve the company's annual financial statements. The dividend amounts are not predetermined, and the Investors are entitled to one vote per share.

Ordinary share investors can earn money through the company's capital appreciation, and, in case of bankruptcy, they receive the remaining funds after bondholders, creditors and preferred stockholders are paid.

Risks

- **Economic Risk:** Since ordinary shareholders are the last in line to get paid, they are considered unsecured creditors and they are subject to greater economic risk. However, they can receive greater rewards and profit the most, as the amount they are paid is not fixed, meaning that, in cases of large company profits, they can divide the remaining large profits among themselves, after the fixed amounts having paid to creditors and preferred stockholders.
- **Equity Risk:** Investors in ordinary shares are subject to equity risk, as market prices of equity securities may go up or down, based on the supply and demand. The value of a security may decline for reasons related to the issuer of the security (e.g., issuer's financial condition), to general market conditions, not specifically related to a particular company (e.g., real or perceived adverse economic conditions) or to irrational factors.
- **Liquidity and Exchange Rate Risk:** In case the ordinary shares are traded in a narrow market, they are subject to liquidity risk, whereas, if an ordinary share is quoted at different stock exchanges in different currencies, it is subject to exchange rate risk as well.

These risks may be heightened when market conditions go through peaks and troughs.

ETN/ETC

Nature

Exchange Trade Notes are a type of Exchange Traded Product. ETNs typically have exposure to commodity indices or physicals and are therefore often characterised as Exchange Traded Commodities (ETCs). ETNs are similar to Exchange Traded Funds (ETFs) in that they trade on a stock exchange and track a benchmark index. However, an ETN differs as it is a senior, unsecured debt security issued by a bank, unlike an ETF which holds assets such as stocks,

commodities, or currencies which are the basis of the price of the ETF. Like any other debt security, the investor is subject to the credit risk of the issuer.

Use

ETNs are a basket of structured bonds issued by an underwriting bank that are traded on a stock exchange like stocks. They are a type of debt instrument, used to track the performance of a market index or the price of a commodity and they do not yield any interest or coupons. ETCs are used to gain exposure to commodity markets without investors having to buy futures contracts or the physical commodity.

Risks

- **Counterparty Risk:** As they are issued by an underwriting bank, ETN subscribers become creditors of the issuer bank. Consequently, they are subject to counterparty risk; the risk that the underwriting bank could default and thus not being able to financially back the ETN, making it worthless even though the underlying commodity still has value.
- **Credit risk:** ETNs are unsecured debt obligations of the issuer.
- **Market risk:** As the value of an index changes with market forces, so will the value of the ETN in general, which can result in a loss of principal for investors.
- **Liquidity risk:** Although ETNs are exchange traded, a trading market may not develop.
- **Price-tracking risk:** Buying price varies significantly from closing and intraday indicative values.
- **Holding-period Risk:** Some leveraged, inverse and inverse-leveraged ETNs are designed to be short-term trading tools and the performance of these products over long periods can differ significantly from the stated multiple of the performance of the underlying index or benchmark during the same period.
- **Call, early, redemption and acceleration risk:** Some ETNs are callable at the issuer's discretion.
- **Conflicts of Interest:** The issuer of notes may engage in trading activities that are at odds with investors who hold the notes.

These risks may be heightened when market conditions go through peaks and troughs.

ADR/GDR

ADR (American Depositary Receipt)

Nature

It is a negotiable security/certificate issued by a US bank, representing securities/shares of a non-US company that trades in the US exchange. ADRs are denominated in US dollars, with the underlying security held by a US financial institution overseas and may be traded like regular shares of stock. ADRs must be sponsored by the underlying corporation, otherwise the securities will be traded over the counter and the risk involved will be higher, since the issuers of unsponsored depositary receipts are not obligated to

disclose material information. Therefore, there may be less information available regarding such issues and there may not be a correlation between such information and the market value of the depositary receipts.

Use

ADRs are used to gain exposure to a market and simplify the investment in foreign securities by having the depositary bank manage all custody, currency and local taxes issues.

Risks

- **Political Risk:** ADRs are subject to political risk, arising from the political conditions/environment of the home country.
- **Exchange Rate Risk:** As ADR shares tend to follow the general trend of the home country (non-US country) shares, in case the home country's currency is devalued, this will result in a big loss, even if the company performs well. Thus, ADR shares are also subject to exchange rate risk.
- **Inflation Risk:** Similarly, ADR shares are subject to inflation risk; the risk of a currency becoming less valuable due to higher level prices of goods and services.

These risks may be heightened when market conditions go through peaks and troughs.

GDR (Global Depositary Receipt)

Nature

Negotiable and unsecured certificate/security issued and administered by a depositary bank in more than one country, which purchases shares of foreign companies and deposits it on the account of an international bank. GDRs are listed and traded in the stock exchange. They are liquid as the supply and demand can be regulated by creating or cancelling GDR shares and they may be converted into number of shares. The shares trade as domestic shares but are offered globally through the various bank branches. The prices of GDR are based on the values of related shares, but they are traded and settled independently of the underlying share.

GDRs represent ownership of an underlying number of shares of a foreign company and are commonly used to invest in companies from developing or emerging markets by investors in developed markets.

Use

Consequently, GDRs are used to gain exposure to a market or sector and allow investors to invest in foreign companies without worrying about trading practices, different laws, accounting rules or cross-border transactions.

Risks

- **Emerging Markets Risk:** As they have exposure to developing or emerging markets, they are subject to emerging markets risk.

- **Foreign Exchange Risk:** Since the currency of the issuer may be different from the currency of the GDR, GDRs are also subject to foreign exchange risk as their price depends on the values of the related shares and consequently, on the difference between the interest rates of the two currencies.

These risks may be heightened when market conditions go through peaks and troughs.

Right

Nature

Rights are shares that are issued by a company for its existing shareholders. With the issued rights, existing shareholders-investors have the right (and not the obligation)-privilege to buy additional shares in proportion to their existing holdings directly from the issuer at a specified price within a fixed time period. The price is generally at a discount to the current market price (sometimes this discount may be quite steep) and rights are often transferable, allowing the holder to sell them on the open market.

Use

Rights are used by investors as a non-dilutive pro rata way to raise capital, as a rights issue is directly distributed to all existing shareholders as a tax-free dividend.

Risks

Rights investors are subject to economic, credit and equity risk, like ordinary shares. A rights offering results in diluting the value of available shares as more shares flood the market, hence holders of rights may face decrease in the value of their holdings.

These risks may be heightened when market conditions go through peaks and troughs.

Warrant

Nature

The portfolio may hold warrants relevant to its investment policy but may not pursue active investment strategies in warrants.

Equity warrants are derivative contracts, without interest and dividends attached, that give the holder the right, but not the obligation, to buy or sell stock at a specific price within a certain time frame. They are an alternative to a convertible bond. The price at which the stock can be bought or sold is referred to as the exercise price or strike price. A warrant guarantees the holder the right to buy or sell a specific number of shares at the strike price for a defined period of time. Equity warrants are issued and guaranteed by the company and can be traded over the counter or on a recognised exchange. They are more flexible than the convertible bonds in that the warrant can be used later to buy shares more cheaply while still keeping the bond.

Use

Warrants are used to gain exposure to a particular market or instrument, to leverage positions in a stock, to diversify a portfolio, to hedge against downside or exploit arbitrage opportunities.

Risks

- **Warrants Risk:** Equity warrants are subject to warrants risk, as their value may be affected by the general movement in the stock markets, prevailing and anticipated economic conditions, interest rate movements, strike level and time remaining to expiry. The buyer of a warrant assumes the risk of losing its entire investment in such Warrants.
- **Liquidity Risk:** If Warrants are issued at small quantities or there are not sufficient buy orders, they are subject to liquidity risk, with their market price fluctuating significantly.

These risks may be heightened when market conditions go through peaks and troughs.

Futures

Bond Future

Nature

The portfolio may buy or sell exchange-traded contracts whose underlying asset is a bond (typically a government issued bond) at a predetermined future date and price. Bond futures are contractual agreements whereby the holder has the obligation to purchase or sell a bond at a pre-specified price and date. They are standardised, liquid and they are traded on a recognised exchange. As they are marked to market daily, investors can exit from their position by closing out prior to the contract delivery date.

Use

Bond futures are used to hedge or speculate on the price movement of the bond, to gain exposure to a particular market or instrument, or to enhance the long-term performance of a portfolio of assets. Using futures to achieve a particular strategy instead of using the bond frequently results in lower transaction costs being incurred.

Risks

- **Futures Risk:** As bond futures involve the obligation to make or take delivery of the bond of the contract at a future date, or, in some cases to settle the position with cash, with only current information, they carry a high degree of risk. The low margins normally required in futures trading permit a very high degree of leverage. As a result, a relatively small movement in the price of a futures contract may result in a profit or loss which is high in proportion to the amount of funds actually placed as margin and may result in unquantifiable further loss exceeding any margin deposited. Futures trading in many

contracts on futures exchanges (although generally not in currencies) are subject to daily price fluctuation restrictions, commonly referred to as "daily limits", which prohibit the execution of futures trades on any given day outside a prescribed price range based on the previous day's closing prices. Daily limits do not limit ultimate losses but may make it costly or impossible for the Investment Manager to liquidate a futures position against which the market is moving. A series of "limit moves", in which the market price moves the "daily limit" with little or no trading taking place, could subject a portfolio to major losses.

- **Bond Risk (risk of the underlying):** Since bond futures are contractual obligations whose underlying is the bond, their performance depends primarily on the performance of the bond and consequently they are also exposed to the risks associated with bonds (credit risk, market risk, interest rate risk, reinvestment risk).

These risks may be heightened when market conditions go through peaks and troughs.

Interest Rate Future

Nature

The portfolio may buy or sell exchange-traded contracts whose underlying is an interest-bearing instrument, at a predetermined future date and price. Interest rate futures are contracts between two counterparties agreeing to the future delivery of the interest-bearing instrument. They are standardised and based on an interbank deposit rate or an underlying debt security. The value of the contract rises and falls inversely to changes in interest rates. As they are marked to market daily, investors can exit from their position by closing out prior to the contract delivery date.

Interest rate futures are used to hedge interest rate risk and are also subject to futures risk.

Use

Interest rate futures are used to hedge against the risk that interest rates will move in an adverse direction, thus reducing the loss to the investment portfolio.

Risks

- **Interest Rate Risk:** Since the underlying of the interest rate futures is an interest-bearing instrument, their price depends on the yield trend of the underlying, thus making them subject to interest rate risk.
- **Futures Risk:** In general, as interest rate futures involve the obligation to make or take delivery of the interest-bearing asset of the contract at a future date, or, in some cases to settle the position with cash, with only current information, they carry a high degree of risk. The low margins normally required in futures trading permit a very high degree of leverage. As a result, a relatively small movement in the price of a futures contract may result in a profit or loss which is high in proportion to the amount of funds actually placed as margin and may result in unquantifiable further

loss exceeding any margin deposited. Futures trading in many contracts on futures exchanges (although generally not in currencies) is subject to daily price fluctuation restrictions, commonly referred to as "daily limits", which prohibit the execution of Futures trades on any given day outside a prescribed price range based on the previous day's closing prices. Daily limits do not limit ultimate losses but may make it costly or impossible for the Investment Manager to liquidate a Futures position against which the market is moving. A series of "limit moves", in which the market price moves the "daily limit" with little or no trading taking place, could subject a portfolio to major losses.

- **Liquidity Risk:** As the closing out of future positions (sale/repurchase of contracts) may cause significant price movements either in case of excessive demand or in case of excessive supply, interest rate futures are subject to liquidity risk as well.

These risks may be heightened when market conditions go through peaks and troughs.

Equity Future

Nature

The portfolio may buy or sell exchange-traded contracts whose underlying asset is an individual equity (stock) or a basket of equities (stocks) at a predetermined future date and price. Equity futures contracts involve the obligation of the holder to make, or to take, delivery of the equity of the contract at a future date, or, in some cases to settle the position with cash. Equity futures are standardised, liquid and they are traded on a recognised exchange. As they are marked to market daily, investors can exit from their position by closing out prior to the contract delivery date.

Use

Equity futures are used to hedge or speculate on the price movement of a stock or basket of stocks, or to gain exposure to a particular market or instrument. Using futures to achieve a particular strategy instead of using the stock frequently results in lower transaction costs being incurred.

Risks

Equity futures are subject to equity and futures risk.

- **Futures Risk:** As equity futures involve the obligation to make or take delivery of the stock(s) of the contract at a future date, or, in some cases to settle the position with cash, with only current information, they carry a high degree of risk. The low margins normally required in futures trading permit a very high degree of leverage. As a result, a relatively small movement in the price of a futures contract may result in a profit or loss which is high in proportion to the amount of portfolios actually placed as margin and may result in unquantifiable further loss exceeding any margin deposited. Futures trading in many contracts on futures exchanges (although generally not in currencies) is subject to daily price fluctuation restrictions,

commonly referred to as "daily limits", which prohibit the execution of futures trades on any given day outside a prescribed price range based on the previous day's closing prices. Daily limits do not limit ultimate losses but may make it costly or impossible for the Investment Manager to liquidate a futures position against which the market is moving. A series of "limit moves", in which the market price moves the "daily limit" with little or no trading taking place, could subject a portfolio to major losses.

- **Equity Risk (risk of the underlying):** Since equity futures are contractual obligations whose underlying is the equity, their performance depends primarily on the performance of the equity and consequently they are exposed to the risks associated with equities. The market prices of equity securities may go up or down, based on the supply and demand. The value of a security may decline for reasons related to the issuer of the security (e.g., issuer's financial condition), to general market conditions, not specifically related to a particular company (e.g., real or perceived adverse economic conditions) or to irrational factors.

These risks may be heightened when market conditions go through peaks and troughs.

Equity Sector Future

Nature

The portfolio may buy or sell exchange-traded contracts whose underlying asset is the shares of an equity sector at a predetermined future date and price. Equity sector futures contracts involve the obligation of the holder to make, or to take, delivery of the Equity of the contract at a future date, or, in some cases to settle the position with cash. Equity sector futures are standardised, liquid and they are traded on a recognised exchange. As they are marked to market daily, investors can exit from their position by closing out prior to the contract delivery date.

Use

Equity Sector Futures are used to gain exposure to a particular sector, to hedge or speculate on the price movements of the stocks of the sector. Using futures to achieve a particular strategy instead of using the stock frequently results in lower transaction costs being incurred.

Risks

- **Equity, Future and Concentration Risk:** Equity sector futures are subject to all the risks that Equity futures are subject to and also, they are subject to concentration risk. Since the portfolio concentrates its investments in a particular sector, the factors that affect issuers in that sector will have a greater effect on the portfolio than if it had its investments spread over a range of sectors. Equity sector futures may also be less liquid than equity futures.

These risks may be heightened when market conditions go through peaks and troughs.

(Equity) Index Future

Nature

The portfolio buys exchange-traded contracts whose underlying asset is an equity index, at a predetermined future date and price. Index futures contracts involve the obligation of the holder to purchase an Index at a particular price on a specified date in the future. Index futures are standardised, traded on a recognised exchange and liquid. Since an equity index is comprised of equity from many companies, index futures are settled in cash (in the currency associated with the investment), and not through the transition of ownership of a stock certificate. As they are marked to market daily, investors can exit from their position by closing out prior to the contract delivery date.

Use

Index futures are used to hedge or speculate on the price movement of a portfolio of shares or equity index options, or to gain exposure to a particular market or sector without having to actually purchase shares directly. Using futures to achieve a particular strategy instead of using the stock frequently results in lower transaction costs.

Risks

Index futures are subject to futures risk and financial indices investment risk.

- **Future Risk:** As index futures involve the obligation to settle the position with cash, with only current information, they carry a high degree of risk. The low margins normally required in futures trading permit a very high degree of leverage. As a result, a relatively small movement in the price of a Futures contract may result in a profit or loss which is high in proportion to the amount of portfolios actually placed as margin and may result in unquantifiable further loss exceeding any margin deposited. Futures trading in many contracts on futures exchanges (although generally not in currencies) is subject to daily price fluctuation restrictions, commonly referred to as "daily limits", which prohibit the execution of futures trades on any given day outside a prescribed price range based on the previous day's closing prices. Daily limits do not limit ultimate losses but may make it costly or impossible for the Investment Manager to liquidate a Futures position against which the market is moving. A series of "limit moves", in which the market price moves the "daily limit" with little or no trading taking place, could subject a portfolio to major losses.
- **Financial Indices Investment Risk:** Equity Indices in which the portfolio may invest in or gain exposure to, will be subject to periodic rebalancing. Where rebalancing occurs, the portfolio may adjust its exposure or investment in the index to reflect the rebalancing occurred and it may incur certain related costs.

These risks may be heightened when market conditions go through peaks and troughs.

Options

Exchange Traded Bond Option

Nature

The portfolio may buy exchange-traded put and call options whose underlying is a bond. The terms of each option are standardised by the exchange and known in advance. The portfolio will not use exotic options. A call option is a contract whereby the buyer has the right, but not the obligation, to enter into a long contract, such as a purchase, on or before a predetermined future date. A put option is a contract whereby the buyer has the right, but not the obligation, to enter into a short contract, such as a sale, on or before a predetermined future date. In either case, the seller has an obligation to honour the buyer's right to exercise. Entering an option typically involves the buyer paying a premium to the seller and the exercise can be physically or cash settled.

Use

Options are used to hedge or speculate on the price movement of the bond, or to gain synthetic exposure to a particular market or instrument, with limited risk.

Risks

The exchange traded bond option is subject to market, bond and option risk.

- **Market Risk:** Exchange traded bond options are subject to market risk which is the risk of a decline in the value at or before expiry due to changes in relevant market conditions.
- **Bond Risk:** Since Exchange-Traded bond options have bonds as underlying, their performance depends primarily on the performance of the bond and consequently they are also exposed to the risks associated with bonds (credit risk, market risk, interest rate risk). A relatively small change in the price of the bond can lead to a disproportionately favourable or unfavourable large change in the value of the option.
- **Options Risk:** Selling (or writing) an option generally is subject to considerably greater risk than buying the option.

Call Options

The buyer assumes the risk of losing its entire premium investment in the call option.

- **Covered (i.e., the writer holds the underlying security):** The seller (writer) is subject to the risk of a decline in the market price of the underlying security below the purchase price of the underlying security less the premium received and gives up the opportunity for gain on the underlying security above the exercise price of the option.
- **Uncovered:** The seller is subject to the risk of a theoretically unlimited increase in the market price of the underlying security above the exercise price of the option. The securities necessary to satisfy the exercise of an uncovered call option may be unavailable for

purchase, except at much higher prices, thereby reducing or eliminating the value of the premium. Purchasing securities to cover the exercise price of an uncovered call option can cause the price of the securities to increase, thereby exacerbating the loss. The seller may be subject to unlimited risk.

Put Options

The buyer assumes the risk of losing its entire investment in the put option.

- **Covered (i.e., the writer has a short position in the underlying security):** The seller assumes the risk of an increase in the market price of the underlying security above the sales price of the underlying security plus the premium received and gives up the opportunity for gain on the underlying security if the market price falls below the exercise price of the option.
- **Uncovered:** The seller is subject to the risk of a decline in the market price of the underlying security below the exercise price of the option.

Performance

- **Market moves against the portfolio:** The seller will have to pay additional margin at short notice in order to maintain the position and if it fails, the position may be liquidated at a loss.

The above risks may be heightened when market conditions go through peaks and troughs.

Exchange Traded Equity Option

Nature

The portfolio may buy exchange-traded put and call options whose underlying is equity. The terms of each option are standardised by the exchange and known in advance. The portfolio will not use exotic options. A call option is a contract whereby the buyer has the right, but not the obligation, to enter into a long contract, such as a purchase, on or before a predetermined future date. A put option is a contract whereby the buyer has the right, but not the obligation, to enter into a short contract, such as a sale, on or before a predetermined future date. In either case, the seller has an obligation to honour the buyer's right to exercise. Entering an option typically involves the buyer paying a premium to the seller and the exercise can be physically or cash settled.

Use

Options are used to hedge or speculate on the price movement of the equity, or to gain synthetic exposure to a particular market or instrument, with limited risk.

Risks

An Exchange traded equity option is subject to market, equity and options risk.

- **Market Risk:** Exchange traded equity options are subject to market risk which is the risk of a decline in the value at or before expiry due to changes in relevant market conditions.

- **Equity Risk:** Since Exchange-Traded equity options have equities as underlying, they are subject to equity risk, as market prices of equity securities may go up or down, based on the supply and demand. The value of a security may decline for reasons related to the issuer of the security (e.g., issuer's financial condition), to general market conditions, not specifically related to a particular company (e.g., real or perceived adverse economic conditions) or to irrational factors. A relatively small change in the price of the underlying equity can lead to a disproportionately favourable or unfavourable large change in the value of the option

Options Risk

Call Options

Selling (or writing) an option generally is subject to considerably greater risk than buying the option.

The buyer assumes the risk of losing its entire premium investment in the call option.

Covered (i.e., the writer holds the underlying security):

The seller (writer) is subject to the risk of a decline in the market price of the underlying security below the purchase price of the underlying security less the premium received and gives up the opportunity for gain on the underlying security above the exercise price of the option.

- **Uncovered:** The seller is subject to the risk of a theoretically unlimited increase in the market price of the underlying security above the exercise price of the option. The securities necessary to satisfy the exercise of an uncovered call option may be unavailable for purchase, except at much higher prices, thereby reducing or eliminating the value of the premium. Purchasing securities to cover the exercise price of an uncovered call option can cause the price of the securities to increase, thereby exacerbating the loss. The seller may be subject to unlimited risk.

Put Options

The buyer assumes the risk of losing its entire investment in the put option.

- **Covered (i.e., the writer has a short position in the underlying security):** The seller assumes the risk of an increase in the market price of the underlying security above the sales price of the underlying security plus the premium received and gives up the opportunity for gain on the underlying security if the market price falls below the exercise price of the option.
- **Uncovered:** The seller is subject to the risk of a decline in the market price of the underlying security below the exercise price of the option.

Performance

- **Market moves against the portfolio:** The seller will have to pay additional margin at short notice in order to maintain the position and if it fails, the position may be liquidated at a loss.

The above risks may be heightened when market conditions go through peaks and troughs.

Options on Credit Default Swap (CDS) Indices

Nature

An option on a credit default swap index gives the investor the option to buy protection (payer option) or sell protection (receiver option) on a specific reference (CDS index) with a specific maturity. The option is usually European, exercisable only at one date in the future at a specific strike price defined as a coupon on the credit default swap. Buying a receiver option implies a bullish view on credit and will make money when spreads tighten. Buying a payer option implies a bearish view on credit and will make money if spreads widen. In the credit derivatives market credit options may be used for creating options strategies such as straddles and strangles. Straddles entitles the option holder to choose whether to buy or sell risk at a specified strike spread.

Options on CDS indices are traded over the counter (OTC) and as knock-in. In the case of a protection buyer, if the option holder exercises the option at the expiry date, he/she will be compensated for losses incurred from any default of the specific reference between the trade date and the expiry date. In the case of a protection seller, the option holder should pay for the losses if he/she exercises the option.

Use

Credit Default Swap Index Options may be used to leverage existing cash positions, provide a temporary downside hedge, or reflect a view on future credit market volatility.

Risks

- **Financial Indices Investment Risk:** Indices in which the portfolio may invest in or gain exposure to, will be subject to periodic rebalancing. Where rebalancing occurs, the portfolio may adjust its exposure or investment in the index to reflect the rebalancing occurred and it may incur certain related costs.
- **Counterparty risk:** As CDS Index Options are traded OTC, the portfolio is subject to the risk that the protection seller will fail to perform his/her obligations and put the whole structure under pressure.
- **Options risk:** Selling (or writing) an option generally is subject to considerably greater risk than buying the option.

The above risks may be heightened when market conditions go through peaks and troughs.

Swaps

Interest Rate Swap

Nature

The portfolio may enter into an interest rate swap agreement; a contractual agreement between two counterparties that involves the exchange of interest payments of different structures (e.g., exchange of a fixed interest rate for a floating rate or vice versa) over a specified time period, set such that the start value of the contract is zero to both counterparties.

An interest rate swap is a currency swap in which both currencies are the same and either one side always pays fixed and the other pays floating or both sides pay floating (never both sides pay fixed).

As interest rate swaps are traded over the counter (OTC), the contracts are between two or more counterparties (according to their desired specifications) and their terms can be customized in many ways. Under an interest rate swap, the net payments owed by the counterparties are paid on each predetermined payment date.

Use

Interest rate swaps may extend over substantial periods of time and are used to hedge or speculate on changes in certain segments of a yield curve, to change the duration of a portfolio or to benefit from market anomalies/used by financial institutions to manage credit risk, hedge potential losses and earn income through speculation.

Risks

- **Swap Risk (Interest Rate Risk and Counterparty Risk):** Interest rate swaps are subject to swap risk, in terms of interest rate risk and counterparty risk.

The value of an interest rate swap is based on the interest rates, exposing it to interest rate risk, the risk that arises from fluctuating interest rates. How much interest rate risk the swap has depends on how sensitive its value is to interest rate changes in the market.

Interest Rate Swaps are also subject to counterparty risk. As the start value of the contract is zero to all counterparties and their obligations to the agreements are calculated on a "net" basis, the portfolio's current obligations under the swap will be generally equal only to the net amount to be paid or received under the agreements based on the relative values of the positions held by each party to the agreement. Consequently, the risk of loss is limited to the net amount of payments that the portfolio is contractually obligated to make.

In the case one party to the swap defaults, the portfolio's risk of loss consists of any margin or the net amount of payments that the portfolio is contractually entitled to receive of uncollateralised.

The performance of an interest rate swap is driven from the behaviour of interest rates. When interest rates rise: The payer benefits, as his fixed rate remains unchanged, while the receiver owes him the difference between the fixed and the floating rate.

When interest rates fall: The receiver benefits, as with his floating rate being lower than the fixed rate, he receives the difference paid by the payer.

The above risks may be heightened when market conditions go through peaks and troughs.

Multi-Currency IRS

Nature

A multi-currency interest rate swap is a swap with different currencies on the fixed and floating leg.

Use

Multi-currency interest rate swaps are used to hedge or speculate on changes in certain segments of a yield curve, to hedge exposure to exchange rate risk, to change the duration of a portfolio or to benefit from market anomalies/used by financial institutions to manage credit risk, hedge potential losses and earn income through speculation.

Risks

Multi-currency interest rate swaps are subject to swap risk, in terms of interest rate risk and counterparty risk.

- **Interest Rate Risk:** The value of an interest rate swap is based on the interest rates, exposing it to interest rate risk, the risk that arises from fluctuating interest rates. How much interest rate risk a swap has depends on how sensitive its value is to interest rate changes in the market.
- **Counterparty Risk:** Interest rate swaps are also subject to counterparty risk. As the start value of the contract is zero to all counterparties and their obligations to the agreements are calculated on a "net" basis, the Portfolio's current obligations under the swap will be generally equal only to the net amount to be paid or received under the agreements based on the relative values of the positions held by each party to the agreement. Consequently, the risk of loss is limited to the net amount of payments that the portfolio is contractually obligated to make.

In the case one party to the swap defaults, the portfolio's risk of loss consists of any margin or the net amount of payments that the portfolio is contractually entitled to receive of uncollateralised.

Since the fixed and the floating leg are in different currencies, a multi-currency IRS are also subject to currency risk and a change in the exchange rate between the currencies may affect the swap's value.

These risks may be heightened when market conditions go through peaks and troughs.

CDS Index

Nature

A credit default swap index is a credit derivative used to hedge credit risk or to take a position on a basket of credit entities. Unlike a credit default swap, which is an over the counter credit derivative, a credit default swap index is a completely standardised credit security and may therefore be more liquid and trade at a smaller bid-offer spread. This means that it can be cheaper to hedge a portfolio of credit default swaps or bonds with a CDS index than it would be to buy many single name CDS to achieve a similar effect. Credit-

default swap indexes are benchmarks for protecting investors owning bonds against default, and traders use them to speculate on changes in credit quality.

Use

CDS Indices are credit derivatives used to hedge credit risk or to take a position on a basket of credit entities.

Risks

Since the instrument is a swap associated with an index, it is subject to both swap and Financial Indices Investment Risk.

- **Financial Indices Investment Risk:** Financial Indices in which the portfolio may invest in or gain exposure to, will be subject to periodic rebalancing. Where rebalancing occurs, the portfolio may adjust its exposure or investment in the index to reflect the rebalancing occurred and it may incur certain related costs.

These risks may be heightened when market conditions go through peaks and troughs.

CDS (Credit Default Swaps)

Nature

Agreements in which the portfolio pays or receives an interest flow in return for the counterparty accepting all or part of the risk of default or failure to pay, of a reference entity on which the swap return is written. Essentially, CDS is a derivative contract between two parties, a credit protection buyer and a seller, where the buyer makes a series of cash payments to the seller and receives a promise of protection in case of a credit event/compensation for credit losses resulting from the default of a third party. In the event of default, the buyer receives compensation, and the seller takes possession of the defaulted loan. In this case, CDS contracts can be either physically settled or cash settled.

CDS are linked to a reference entity and allow both credit risk to transfer to third parties and easy construction of a diversified portfolio of credit risk. Investors in CDS can buy and sell protection without owning the debt of the reference entity. CDS trade over the counter and their performance is closely related to changes in credit spreads.

Use

CDS are considered insurance against non-payment and can be used to hedge or speculate on the possibility that the reference entity will indeed default.

Risks

- **Credit Risk and Counterparty Risk:** CDS have exposure to credit risk and are also subject to counterparty risk, the risk that a counterparty may fail to fulfil its contractual obligations.
- **Liquidity Risk:** Furthermore, CDS may be subject to liquidity risk. CDS contracts may require collateral post by one or both parties and there may be margin calls requiring the posting of additional collateral.

- **Market and Systemic Risk:** Market conditions affect also the performance of CDS; hence they are exposed to market and systemic risk.
- **Specific Risks:** CDS carry also some more specific risks, including high levels of gearing, the possibility of expiry out-of-the-money, wide bid-offer spreads, asymmetric information and idiosyncratic documentation risks.

Performance under Different Market Conditions

A portfolio may be either the buyer or the seller in a CDS contract.

Buyer

- If no credit event occurs, the portfolio may lose its investment and recover nothing.
- If a credit event occurs, the buyer typically receives full notional value for the reference obligation that may have little or no value.

Seller

- If no credit event occurs, the seller receives a fixed rate of income throughout the term of the contract that is typically between one month and five years.
- If a credit event occurs, the seller may pay the buyer the full notional value of the reference obligation. The value of the reference obligation received by the seller, combined with the periodic payments previously received, may be less than the full notional value the seller pays to the buyer, resulting in a loss of value to the portfolio.

The above risks may be heightened when market conditions go through peaks and troughs.

Inflation Swap

Nature

The portfolio may enter into an inflation swap agreement; a contractual agreement/derivatives transaction between two counterparties that involves the exchange of commitments to make or receive fixed or floating payments for a specified amount and period of time. Under an inflation swap, the floating payments are linked to a measure of Inflation (e.g., the Retail Price Index).

As inflation swaps are traded over the counter (OTC), the contracts are between two or more counterparties (according to their desired specifications) and their terms can be customized in many ways.

Use

Inflation swaps may extend over substantial periods of time and are used to hedge inflation risk and make inferences about future inflation.

Risks

Inflation swaps are subject to swap risk in terms of inflation risk and counterparty risk.

- **Counterparty Risk:** As Inflation swaps are traded OTC, the portfolio is subject to the risk that the counterparty will not perform its obligations under the transaction and that it will sustain losses.
- **Market Risk:** Market conditions affect also the performance of CDS; hence they are exposed to market and systemic risk.
- **Inflation and Interest Rate Risk:** The value of the swap's outstanding payments may change as inflation and interest rates change.

These risks may be heightened when market conditions go through peaks and troughs.

Collective Investment Schemes

Mutual Fund

Nature & Use

Mutual funds are professionally managed collective investments in money market instruments, bonds or equities. They pool funds from many investors for the purpose of investment in securities. In the case of equities, the fund will invest in a wide range of equities, allowing investors to participate in a well-diversified portfolio, where the investment amount and consequently the risk associated are spread over a wide range of shares.

Risks

The level of the risk that mutual funds are subject to depends on what they invest in.

- **Market Risk:** In general, mutual funds are subject to market risk, which is the risk of a decline in the value of their investments due to risks that affect the whole market, country risk, the risk of a decline in the value of the investment due to country specific factors, and to liquidity risk, which is the risk that the fund may not be able to convert an investment into cash without this affecting its value/price.
- **Credit Risk:** Since mutual funds are not guaranteed investments, they bear credit risk as well, the risk that a party will fail to meet its payment obligations.
- **Concentration Risk:** If a fund invests a large proportion of its money in a single stock or sector, it is subject to concentration risk.
- **Currency Risk:** If assets of the fund are denominated in a currency other than the base currency of the relevant fund, the fund is subject to currency risk, as changes in the exchange rate of the two currencies may result in a decline of the investment value.

There are two kinds of mutual funds, open-ended (unit trusts in UK) and closed-ended (investment trusts in UK).

Open-ended: a collective investment scheme that has no restrictions on the number of shares it can issue. When investors buy shares in an open-ended fund, more shares are created and when they sell them, the shares are taken out of circulation. In case large number of shares are sold, the fund may have to sell some of its investments in order to pay the investor. Open-ended funds have bid and offer prices, like ordinary shares and they have fees and basic costs that the investor should pay.

Closed-ended: is a shareholding company, holding typically shares of publicly traded companies, that invests the money in a portfolio of equities. Closed-ended funds are launched through an IPO to raise money, issuing a fixed number of shares that are traded on an exchange. Investors buy the shares of the fund on the open market from someone else who sells them and, if they want to get out of the fund, they need to sell their shares in the fund to other investors. Closed-ended funds have high borrowing costs for investors that affect the returns they earn. The share price of the fund reflects the supply and demand as well as the underlying asset value.

- **Leverage Risk:** Closed-ended funds use borrowed money to invest/leverage, so they are subject to leverage risk. The leverage used may put the fund under intense pressure, as fluctuations in the value of the fund's portfolio are magnified. Leveraged transactions also multiply the risk of potential losses when positions results are contrary to expected market conditions, compared to direct holdings and may add significant risk because of added payment obligations. The use of leverage may cause the fund to liquidate portfolio positions when it may not be advantageous to do so to satisfy its obligations and may also result in large fluctuations in the NAV of the fund amplifying both gains and losses.

The above risks may be heightened when market conditions go through peaks and troughs.

Money Market Mutual Fund

Nature

A money market mutual fund is an open-ended mutual fund that invests in short term debt securities that bear minimal credit risk (e.g., US Treasury Bills, CP, repurchase agreements, certificates of deposit). They are very liquid and, as they invest in short-term debt securities, they are considered low-risk investments with maturity of less than 1 year.

Money market mutual funds allow investors to participate in a professionally managed diversified portfolio and can provide taxable or tax-free income, depending on the types of securities it invests in.

Use

Money market mutual funds are used to offset greater volatility of bond and equity investments, as investments for assets needed in the near future or as holding place for assets until other investment opportunities arise.

Risks

Despite the fact that money market mutual funds invest in high quality securities, they are subject to all the risks associated with investing in the different types of securities that the fund consists of.

- **Credit Risk:** As they are not insured, they are exposed to credit risk, the risk that a counterparty may be unable to fulfil their commitments, may default or may become insolvent. There is no guarantee that the investor will not lose any money.
- **Inflation Risk:** Money market mutual funds are also subject to inflation risk. As low-risk investments, they offer returns that are usually higher than those of traditional savings accounts but lower than those of more risky – volatile investments. Consequently, there is a risk that the rate of return they offer may not keep pace with inflation and general market conditions.

These risks may be heightened when market conditions go through peaks and troughs.

ETF

Nature

Exchange Traded Funds are open-end funds with special characteristics. They are traded like equities on stock exchanges and are designed to track the performance of an Index. They trade like a common stock and since they track an Index, ETFs are considered passively managed. Traded on stock exchange, ETFs' prices fluctuate throughout the day as they are bought and sold. They typically have higher daily liquidity and lower fees than mutual fund shares. ETF shareholders are entitled a proportion of the profits and may get a residual value in case the fund is liquidated.

Use

ETFs are designed to be tax-efficient and ETF investors get the diversification of an Index Fund with excellent liquidity and the ability to sell short, buy on margin and purchase as little as one share. ETFs are also used to gain exposure to markets.

Risks

- **Market Risk:** All ETFs are subject to market risk, as they are exposed to general economic conditions, normal market fluctuations and the risks inherent in investment in international securities market and their value is not assured.

- **Trading Risk:** As investing in ETFs entails costs in the form of commissions, market impact costs, direct trading costs and opportunity costs, investors face also trading risk.
- **Tracking Error Risk:** ETFs may not be able to exactly replicate the performance of the Indexes, due to fund expenses and other factors, so they are subject to tracking error risk as well.
- **Liquidity Risk:** In addition, ETFs are subject to liquidity risk with respect to the implied liquidity that refers to what can potentially be traded in ETFs based on their underlying assets.
- **Various Risks:** Some ETFs may also be subject more than others to sector risk, currency risk, country risk and derivatives risk.

These risks may be heightened when market conditions go through peaks and troughs.

Foreign Exchange

FX Spot/FX Forward (1 leg)

Nature

FX Spot is a contractual agreement to buy one currency against selling another at an agreed price set when the contract is signed at the spot date. The transaction is done at the spot exchange rate and the contract is delivered usually in two business days.

FX Forward is a contractual agreement to buy one currency against selling another at a specified price for settlement at a predetermined time in the future (exact date for closed FX Forwards and a window time for open FX Forwards).

Use

FX Spots/FX Forwards are used for currency hedging, as they lock in exchange rates for as long as a year in advance, thus helping to avoid the risk of currency fluctuations.

Risks

- **Foreign Exchange and Interest Rate Risk:** The FX Forward is subject to foreign exchange risk and interest rate risk, as the price of the transaction depends on the difference between the interest rates of the two currencies exchanged. Also, by locking in the future exchange rate at which currencies will be bought, the opportunity of profiting from a favourable or unfavourable (in the face of the opportunity cost) exchange rate movement is forfeited.
- **Credit Risk:** FX Spots/FX Forwards are subject to credit risk, where, in case one of the counterparties defaults or is unable to meet his/her contractual obligations, although the risk of loss is limited to the amount of payments the default party is obliged to make, the other party has to sign a new contract, while exposed to interest rate and foreign exchange risks.

These risks may be heightened when market conditions go through peaks and troughs.

FX Swap (2 legs)

Nature

FX swaps are contractual agreements where the parties simultaneously agree the purchase and sale of equal amounts of a currency for another, with two different value dates, at an agreed rate.

FX swaps have two legs: a spot transaction, where a specific available amount of a currency is bought (or sold) against the other at the spot rate, and a forward transaction, where the same amount of a currency is sold (or bought) against the other at a later date, at the agreed forward rate.

Use

FX swaps are used to hedge the foreign exchange risk and obtain foreign exchange with minimum exposure to foreign exchange risk.

Risks

- **Foreign Exchange Risk and Interest Rate Risk:** FX swaps are subject to foreign exchange risk and interest rate risk, as the price of the forward transaction of the FX swap depends on the difference between the interest rates of the two currencies exchanged. Also, by locking in the future exchange rate at which currencies will be bought, the opportunity of profiting from a favourable or unfavourable (in the face of the opportunity cost) exchange rate movement is forfeited.
- **Credit Risk:** FX swaps are also subject to credit risk, where, in case one of the counterparties defaults or is unable to meet his/her contractual obligations, although the risk of loss is limited to the amount of payments the default party is obliged to make, the other party has to sign a new contract, while exposed to interest rate and foreign exchange risks.

These risks may be heightened when market conditions go through peaks and troughs.

Cash and Money Market

Cash

Nature

Cash is one of the asset classes a Fund may invest in. It typically refers to money in hand, but also to money in banking accounts, checks or other form of currency that is accessed easily and can be quickly converted in physical cash. An investment in cash is a short term, low risk (and low return) investment into which one deposits cash and receives the return in 90 days or less. Cash assets are highly liquid assets and cash funds are bought and sold on a daily basis, giving

the opportunity to invest freely in other assets at any time. Investment in cash protect from capital risk, since no actual money will be lost by placing money in cash.

Use

Investing in cash is used to diversify risk for short-term investments, to hedge against future market corrections and to reduce portfolio volatility. Cash investments also provide the option of temporary near-zero risk allocation and give a place to hold money while waiting to invest it.

Risks

Cash investments are subject to inflation risk. If inflation rises, cash will be worth less (lower value) and the purchasing power will decrease.

This risk may be heightened when market conditions go through peaks and troughs.

Deposit

Nature

Deposits are high-quality, short-term debt-based financial instruments, that provide a safe way of holding money while generating a small return. They are cash instruments with the lowest level of risk, after cash, whose value is determined directly by the markets. They consist of money placed to deposit accounts held in banking institutions by the lender, who receives interest rate/return on the deposit. Deposits are credit for the party who place them, and they may be withdrawn, transferred or used for a purchase at a later point in time. Deposits may be insured against loss (up to a certain amount) if deposit protection schemes exist and may be taxed. They represent the main source of funding for banks and both the borrower, and the lender have to agree on a transfer. Accessibility to the money deposited may be restricted or may carry interest penalties, if money is withdrawn within a fixed rate period. There are several types of deposit accounts.

Current Account: It is a basic checking account, where the depositor has the right to use/withdraw the money at any time. The interest earned on these deposits is very low.

Savings Account: It is an interest-bearing deposit account, and it cannot be used directly as money in the sense of medium of exchange.

Time Deposit Account or Certificate of Deposit (CD): Explained below.

Call Deposit Accounts: Interest-bearing checking accounts that combine the features of checking and savings accounts and allow depositors to both access easily their money and earn some interest on the deposits (higher than the interest earned in Current Accounts).

Use

Deposits are cash assets and as such, they are used to diversify risk for short-term investments, to hedge against future market corrections and to reduce portfolio volatility.

Risks

- **Inflation Risk:** Deposits are subject to inflation risk. If inflation rate is higher than the deposit interest rate, money deposited is losing value and the purchasing power is decreasing.

This risk may be heightened when market conditions go through peaks and troughs.

CP

Nature

CP (Commercial Paper) is an unsecured loan/promissory note issued by a bank or large corporation, in order to obtain funds to cover current assets and meet its short-term obligations. It is a money market security sold at a discount to its face value that may pay a fixed rate of interest that reflects prevailing market interest rates (generally lower than those of the bonds), which is taxable. It has fixed maturity of no more than 9 months and is backed only by the issuer's promise to pay the face value at maturity.

Use

As short-term, low-risk investments issued and sold by firms with high credit rating and creditworthiness, commercial paper is used to gain exposure to a market with limited risk.

Risks

- **Credit Risk:** Since it is only backed by the issuer's promise to pay and not by collateral, typically only firms with high credit rating and creditworthiness will be able to issue and sell CP. Nevertheless, CP investors are subject to credit risk, the risk that the issuer will default/fail to meet his payment obligations (both interest and principal at maturity). In the case of the issuer's default, investors may lose all their investment.
- **Liquidity Risk:** While the secondary market for CPs exists, it is limited, having faced periods of disruption due to issuer-specific events or as a result of a market wide disruption. Rapid changes in the overall market conditions, as well as rapid changes that affect individual issues may make investors unable to sell the securities prior to maturity. Hence, CPs are also subject to liquidity risk, the risk that the investor will fail to sell the security so quickly so as not to have an impact on its value.
- **Rollover Risk:** Since many issuers roll over their CP, with new issues funding the retirement of the old ones, it is subject to rollover risk, the risk that the issuer will fail to issue new CP during market disruptions. In the case of this failure, the secondary market for CP disappears.

These risks may be heightened when market conditions go through peaks and troughs.

Zero Coupon CD

Nature

CDs purchased at a discount, with a specified yield, that pay out the full-face value or a higher face value at maturity. Zero coupon CDs do not pay any interest to the holder until maturity, instead the interest is accumulated annually and paid at maturity. Although not received annually, the interest is treated as taxable income on annual basis.

Use

Zero coupon certificates of deposit are low-risk investments and are used to gain exposure to a market with limited risk.

Risks

- **Interest rate risk:** If callable, the issuer will call back the CD when interest rates fall.
- **Liquidity risk:** No periodic payments are made to the investor.

These risks may be heightened when market conditions go through peaks and troughs.

CD (Certificate of Deposit)

Nature

CDs are time deposits/savings certificates with a bank, similar to savings accounts in that they are insured money in the bank. The investor deposits an amount of money into the certificate for a specific period of time/loans an amount of money and receives a stated, usually fixed interest rate. CDs are issued by commercial banks, savings and loans institutions, in any denomination, and have a specified, fixed maturity date, often from 1 months to 5 years. Access to the portfolios is restricted until maturity date, when the entire amount of the principal and the interest earned are available for withdrawal. In case money are withdrawn before the maturity date, an early withdrawal penalty is applied, that depends on the length of the CD and the issuing institution.

Use

Certificates of Deposit are low-risk investments that usually offer higher interest rates than the savings accounts and, generally, accounts from which money can be withdrawn on demand. They are used to gain exposure to a market with limited risk.

Risks

- **Default risk:** Less chance of default as CDs are insured.
- **Market risk:** If you decide to liquidate your CD prior to maturity, you will be subject to whatever the market will bear. This can be lower than your original investment depending primarily on interest rate movements since purchase price. CDs are not deemed appropriate securities for trading. The market for secondary CDs is not liquid and if you purchase a CD, it is best to do so with the intention of holding it to maturity.

- **Liquidity risk:** The investor forfeits liquidity/opportunity to utilize portfolios for a specific period of time.
- **Emerging markets risk:** CDs from emerging markets are additionally subject to the emerging markets risk.
- **Reinvestment risk:** For investors in certificates of deposit with a long-term time horizon for their investment assets, exposure to reinvestment rate risk is also important. For an investor whose Certificate of deposit, with relatively high interest rate, matures, there is the risk that he/she may have to roll over a CD with lower rate in an environment of falling interest rates. A generally low or falling return environment may not offer sufficient returns to meet long-term goals.

These risks may be heightened when market conditions go through peaks and troughs.

Treasury bill (T-bill)

Nature

It is a short-term debt instrument issued and backed by the full faith and credit of governments.

T-bills have maturity of a year or less and they do not pay any explicit interest. They are sold by auction, at a discount and are redeemed for par. The rate they pay is the difference between the discounted purchase price and the face value and may be lower than that of money market funds or certificates of deposit. They can also be purchased on the secondary market or via mutual funds and Exchange Traded Funds.

Governments issue T-bills in order to raise funds short-term and balance their cash flow.

Use

Treasury bills are used to gain exposure to a market, through a relatively safe, short-term investment and for portfolio diversification.

Risks

- **Credit Risk and Emerging Markets Risk:** Backed by the issuing government, treasury bills are considered the closest to a risk-free investment that pay low returns (low risk with low returns). Their capital risk is low, as the possibility of sustained losses over the short investment time frame is minimum. However, if the treasury bills are issued and backed by governments from emerging markets or the government is likely to default, they are subject to credit risk and to all the emerging markets risks in the first case.
- **Inflation Risk:** Although the return on treasury bills is known and guaranteed, they are exposed to inflation risk, as, in case of inflation, the return – profit paid to the investor at maturity will have lower purchasing power. However, due to their low duration, the exposure to inflation risk is limited and their value remains relatively unchanged.

● **Reinvestment Rate Risk:** In addition, for investors in T-bills with a long-term time horizon for their investment assets, exposure to reinvestment rate risk is also important. For an investor who has purchased the next T-bill after his previous maturity, there is the risk that the returns may not be the same as with his previous one, as the rates may change between each instance of reinvestment. A generally low or falling return environment may not offer sufficient returns to meet long-term goals.

- In case the government that backs the T-bills defaults, government debts will be restructured, including T-bills. In this case, investor may have to wait longer to receive the full amount owed. They may also be required to receive a partial payment, thus losing part of interest or part of the principal on their investment.

The above risks may be heightened when market conditions go through peaks and troughs.

Alternative Investments

Private Equity

Nature

Private Equity is a type of equity, representing an ownership interest in a private, non-publicly traded company. Private equity refers to any security by which equity capital is raised via a private placement and, typically, it is composed of investment portfolios organized as limited partnerships.

Fees for private equity firms vary, usually including a management and performance fee.

Use

The capital for private equity is provided by institutional and retail investors and can be utilized to finance private businesses, to leverage buyouts of public companies, to distress debt investing or to public financing of public infrastructure projects.

Investment strategies in private equity include venture capital, leveraged buyouts, growth capital, distressed investments and mezzanine capital.

Venture Capital: Equity financing of new or growing private companies.

Leveraged Buyouts: Buyout of established companies with the use of financial leverage, via private equity portfolios.

Growth Capital: Equity Investments, mostly minority investments, in relatively mature companies looking to expand/restructure operations, enter new markets or finance a major acquisition without change in control of the business.

Distressed Investments: Investments in equity or debt securities of financially distressed companies.

Mezzanine Capital: Any subordinated debt or preferred equity instrument that represents a claim on a company's assets that is senior only to that of the common shares. It is often used to reduce the required amount of equity capital to finance a leveraged buyout or major expansion.

Real estate, infrastructure, energy and power, merchant banking are some other investment strategies that can be considered private equity.

Characteristics & Risks

- **Illiquidity:** Private equity investments are subject to liquidity risk, as the underlying investments are illiquid and the convertible preferred stock investments do not trade in a secondary market. In addition, investors have more restrictions when withdrawing investments than hedge investors do.
- **Long holding periods/commitments:** Private equity investments often require long term commitments.
- **Risk of returns:** Private equity investments are subject to volatility risk, as their returns, on average, have more dispersion than seasoned public equity investments, but they may be comparable to the returns of publicly traded microcap shares. Private equity investments are also subject to higher risk of complete loss of investment, as the failure of new and young businesses is high. Hence, they are subject to risks associated with small and mid-capitalisation companies as well as investment risk. An investment in private equity should only be made by those persons who are able to sustain a loss on their investment.
- **Limited information:** In the case of venture capital investments, projections of cash flows are based usually on limited information or assumptions.
- **Leverage:** As they use financial leverage (e.g., leveraged buyouts)

These risks may be heightened when market conditions go through peaks and troughs.

Real Estate

Nature

Real Estate is an alternative investment, whose underlying is real estate property. Real Estate investment refers both to the direct (through investment in residences, business (commercial) real estate and agricultural land) or indirect ownership in the property, and to the lending against the property (e.g., giving mortgage loan, purchasing MBS).

Forms

Based on if they are debt or equity based and in private or public markets, Real Estate Investments may take the form of mortgages, construction lending, direct ownership, MBS (residential and commercial), Collateralized mortgage obligations, shares in real estate corporations, shares of real estate investment trusts or of as variation of these. Real Estate Investments may be in the form of partnerships as well.

Categories

The categories of Real Estate Investments mainly refer to Residential Property, Commercial Real Estate, REIT (Real Estate Investment Trusts) investing, MBS (Mortgage-Backed Securities) and Timberland and Farmland.

Investment in Residential property may take both the form of direct ownership – equity investment through debt financing (mainly through mortgages), and the form of indirect debt investment in residential property through securitization (e.g., RMBS – Residential Mortgage-Backed Securities).

Investment in Commercial Property may also take both the form of direct investment (equity and debt), mainly for high-net-worth individuals and institutional portfolios, and the form of indirect investment (equity and debt), by using indirect investment vehicles (e.g., indirect equity investment by shares of REITs, indirect debt investment by CMBS-Commercial Mortgage-Backed Securities).

REITs may invest mainly in mortgages (mortgage REITs) or in residential or commercial properties by employing leverage (Equity REITs).

Timberland have mainly tree farms and managed natural forests as underlying assets. The return earned on these investments is based on the sale of the timber products and is driven mainly by biological growth, commodity price changes and land price changes.

Farmland have mainly row crops planted and harvested annually and permanent crops growing on trees or vines as underlying. Farmland is considered as a hedge against inflation, with its returns composed of an income related to harvest quantities and agricultural commodity prices. Similar to timberland, harvest quantities, commodity prices and land price changes are the main return drivers of Farmland Investments.

Use

Real Estate investments are high-value investments that have the potential of providing long-term competitive returns. They are used to hedge against inflation and for portfolio diversification by adding an investment that is not perfectly correlated with other investments.

Risks

- **Regulatory Risk:** Real Estate assets may be subject to government regulations, related to, among others, relevant approvals and permits, modifications of the existing land and property, transfer of ownership and any other restrictions, as well as to environmental regulations.
- **Market Risk:** As long-term investments, Real Estate is subject to general economic conditions and market fluctuations.
- **Interest Rate Risk:** Interest rate changes result in property values variability.
- **Valuation Risk:** Real estate values and price changes are two of the main drivers of the returns of the Real Estate.

- **Liquidity and Concentration Risk:** Based on their size, categories and forms, Real Estate may be more or less liquid and may be exposed to more or less concentration risk. Direct investments entail higher liquidity and concentration risk.
- **Leverage Risk:** Real Estate funds and, in general, Real Estate investments that pursue leverage are subject to leverage risk.
- **Investment Risk:** Real Estate is subject to the risk of failing to perform as expected.
- **Risk specific to the stage of development:** Investment in property development and distressed properties entails higher risks (e.g., operational risk, construction risk) than investment in properties with stable operations and sound financial condition.
- **Credit Risk:** Real Estate is subject to credit risk, as the cash flows generated are not guaranteed.
- **Credit Market Risk:** Real Estate are high value investments, whose underlying requires a high amount of capital. On a temporary basis, acquisitions and developments may be financed by lines of credit, while the long-term financing may be not always available. The credit available for financing is affected by credit market conditions, making the investments subject to credit market risk.
- **Emerging Markets Risk:** In case the underlying asset is from an emerging market.

These risks may be heightened when market conditions go through peaks and troughs.

Infrastructure

Nature

An Infrastructure investment is an alternative investment whose underlying is an infrastructure asset. Infrastructure assets are real, long-lived and capital-intensive assets that are usually financed, owned and operated by governments, although private financing of infrastructure assets is increasing.

Classification

Infrastructure investments have been classified under real estate (indirect investment in infrastructure portfolios), private equity and, recently, as a distinct alternative investment class for private sector investors, such as pension portfolios.

Categories of Infrastructure Investments

Infrastructure investments are often categorised based on the underlying infrastructure asset, the stage of development of the underlying or the geographical location of the assets.

Infrastructure assets are essential for the functioning of a country/society and include IT infrastructure (e.g., networking equipment and servers), “economic infrastructure”, such as transport (e.g., ports, roads, bridges), utilities (e.g., energy distribution networks, water, waste, sewage, power generation), communication (e.g., cable networks, satellites) and renewable energy, as well as “social infrastructure”,

such as schools, hospitals and defence and judicial buildings. Infrastructure as a distinct asset class, tends to be less volatile than equities over the long term and provides generally a higher yield.

Based on the stage of development of the asset, infrastructure investments may be brownfield investments (investment in existing investable assets) or greenfield investments (investment in assets to be constructed).

Forms of Infrastructure Investments

Infrastructure investments allow investors to invest directly in the underlying infrastructure asset or indirectly, through investment vehicles, such as company shares, ETFs, listed funds, private equity funds and unlisted mutual funds.

Use

Infrastructure investments are used for portfolio diversification by adding an investment that has low correlation to other investments. They are also used for protection against inflation, as infrastructure assets tend to provide stable cash flows, adjusted for economic growth and inflation.

Risks

Based on their category and form, infrastructure investments are subject to the below risks:

- **Risk specific to the underlying**
- **Risk specific to the stage of development:** investment in assets that are to be constructed entails higher construction risks and demand uncertainty than investment in existing investable assets.
- **Political and Regulatory Risk:** Since Infrastructure investments invest in assets that are essential for the functioning of a country/society, governments typically monitor and regulate them.
- **Credit Risk:** Infrastructure investments are subject to credit risk, as the cash flows generated are not guaranteed.
- **Sub-Sector Risk:** Infrastructure investments are subject to the unique risks of both the underlying infrastructure asset and the sector/sub-sector it belongs to.
- **Liquidity and Concentration Risk:** Based on their categories and forms, Infrastructure investments may be more or less liquid and may be exposed to more or less concentration risk. Direct Investments entail higher liquidity and concentration risk. Also, their secondary market is not mature.
- **Leverage Risk:** Infrastructure investments, as capital-intensive investments with high values, are subject to leverage risk, which, in turn, results in financing, operational and construction risk.
- **Credit Market Risk:** Infrastructure Investments are capital-intensive, high value investments, whose underlying requires a high amount of capital. The credit available to infrastructure assets is affected by credit market conditions, making the investments subject to credit market risk.
- **Emerging Markets Risk:** In case the underlying infrastructure asset is from an emerging market.

- **ESG Risk:** Infrastructure investments may be exposed to social, environmental and governance risk that have some potential to impact their credit rating if not managed appropriately.

These risks may be heightened when market conditions go through peaks and troughs.

Federated Hermes

Federated Hermes is a global leader in active, responsible investing.

Guided by our conviction that responsible investing is the best way to create long-term wealth, we provide specialised capabilities across equity, fixed income and private markets, multi-asset and liquidity management strategies, and world-leading stewardship.

Our goals are to help people invest and retire better, to help clients achieve better risk-adjusted returns and, where possible, to contribute to positive outcomes that benefit the wider world.

Our investment and stewardship capabilities:

- **Active equities:** global and regional
- **Fixed income:** across regions, sectors and the yield curve
- **Liquidity:** solutions driven by five decades of experience
- **Private markets:** private equity, private credit, real estate, infrastructure and natural capital
- **Stewardship:** corporate engagement, proxy voting, policy advocacy

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