A bond is a transferable security, representing part of a loan issued by a State, a supranational institution or a company in order to finance its investments. The bond issuer (the borrower) is to reimburse the bondholder (the lender) at a specified maturity date (except for so-called 'perpetual' bonds) and to remunerate him by paying him a coupon with a predetermined interest rate and frequency (except for zero coupon bonds).

MAIN TYPES OF BONDS

- **Fixed rate bonds**
  The issuer of a fixed-rate bond will remunerate the bondholder at a constant rate (fixed definitely on issue) until maturity. At maturity, the issuer will reimburse the bondholder the amount borrowed.

- **Variable (or floating) rate bonds**
  Unlike fixed-rate bonds, the coupon varies depending on the benchmark rate (inflation rate, money-market rate or bond rate). The amount lent is also reimbursed at maturity.

- **Zero coupon bonds**
  This type of bond does not pay interest during its life. Instead, the issue price is considerably lower than the redemption price at maturity (including the capitalised interest).

ADVANTAGES OF BONDS

Investing in an issuer's bonds means contributing to the latter's financing.

In return, the investor may receive a regular income (coupon) as interest on the sum lent. On maturity, the sum lent by the investor will have to be repaid by the issuer. Bonds may suit an investor wishing on the one hand to receive regular income and on the other to protect his capital. However, a bond investment is not devoid of all risk.

Firstly, the redemption of a bond at maturity depends directly on the solvency of its issuer (this solvency is regularly assessed by rating agencies such as Moody's or Standard & Poor's – see "ratings" table below).

Furthermore, during its life, a bond's value varies depending on how interest rates move: any rate hike means a depreciation for bonds in issue (i.e. a drop in price on the secondary market) since they pay less than new bonds issued on the primary market (see also rate risk below). Likewise, a rate cut makes bonds in issue more attractive: the investor may make a capital gain by reselling his bonds on the secondary market, at a price higher than that paid.

Investing in a bond requires analysing – with the help of your account officer – the financial solidity of its issuer (whether a government or a company) and the future development of interest rates. This preliminary analysis makes it possible to assess the two main risks linked to a bond investment (solvency risk and interest rate risk) and to assess its suitability to your investor profile, your investment horizon and your objectives (regular income, indexed to inflation, capital gain…).

MAIN CHARACTERISTICS

Issuers

- **A State / government**
  The public authorities issue bonds to finance their investments and expenses or to refinance their debts which are coming to maturity. A bond issued in the issuer's own currency is called a government bond or 'govie'. When the issue is denominated in another currency, it is generally called a sovereign bond.

- **A supranational institution**
  Ranked below States, this type of body may also issue bonds (e.g. the European Investment Bank, European Financial Stability Facility…). English speakers use the term 'supranational bond'.

- **An enterprise**
  Enterprises may finance themselves directly on the bond market by issuing bonds. These are called corporate bonds.

→ **It is generally admitted that a government bond is more liquid** (a loan on this scale is often much larger than on a corporate scale) **and less risky** (the risk of insolvency is often lower than for a company) **and so less remunerative than a corporate bond.** However, since the beginning of the sovereign debt crisis, these generally accepted considerations have to be taken in context. Before taking any investment decision, it is essential to analyse the bond and its issuer's solvency.

Rating of the issuer

An issuer's solvency may be assessed by one or more financial rating agencies. Each rating agency attributes ratings according to its own criteria (see table below, listing the different ratings and their meanings, for the two main agencies).

→ The higher a rating (close to AAA or Aaa), the greater the issuer's capacity to meet his commitments. The risk for an investor is therefore lower.

The lower the rating (close to C or D), the greater the issuer's risk of defaulting. The risk of the investor not recovering his capital and/or interest is higher.

The ratings between AAA (or Aaa) and BBB- (or Baa3) fall into the Investment Grade category. These ratings are attributed to good quality issuers, offering a low level of risk.

Ratings below BBB- (or Baa3), known as speculative grade or junk bonds, are attributed to bonds considered risky. The substantial default risk is offset by a higher yield.

Denomination, nominal value and issue amount

For a bond issue, the denomination (or the nominal) corresponds to the minimum tradable amount. The nominal is equal to the issue divided by the number of bonds (or denominations) issued.

→ The higher the amount of an issue, the more liquid it is and therefore easier for the investor to trade.

	STANDARD & POOR'S		MOODY'S	
INVESTMENT GRADE	AAA	Extremely strong capacity to meet its financial commitments. The highest rating.	Aaa	Highest quality level, minimal credit risk.
	AA+ AA AA-	Very strong capacity to meet its financial commitments.	Aa1 Aa2 Aa3	High quality level, very low credit risk.
	A+ A A-	Strong capacity to meet its financial commitments. Somewhat sensitive to unfavourable economic conditions and changes in situation.	A1 A2 A3	Satisfactory quality level, low credit risk.
	BBB+ BBB BBB-	Adequate capacity to meet its financial commitments. Sensitive to unfavourable economic conditions.	Baa1 Baa2 Baa3	Average quality, may have speculative elements. Moderate credit risk.

	STANDARD & POOR'S		MOODY'S	
NON-INVESTMENT GRADE (SPECULATIVE)	BB+ BB BB-	Subject to major uncertainties under unfavourable conditions (economic situation…). Less vulnerable in the short term.	Ba1 Ba2 Ba3	Highest quality level, minimal credit risk.
	B+ B B-	More vulnerable in unfavourable conditions but currently able to meet its financial commitments.	B1 B2 B3	High quality level, very low credit risk.
	CCC+ CCC CCC-	Currently vulnerable. Capacity to meet financial commitments requires favourable conditions.	Caa1 Caa2 Caa3	Satisfactory quality level, low credit risk.
	CC C D	Currently very vulnerable. Very close to default. Currently very vulnerable. Very close to default (authorisation of arrears, declaration of issuer's insolvency…). Payment default on financial commitments.	Ca C	Highly speculative, very close to default, with little chance of recovering capital and interest. The lowest rating. Generally in default, with little chance of recovering capital or interest.

Par price, issue/redemption price and issue/redemption premium

An issue issued/redeemed at 'par' has an issue/redemption price equal to 100% of the nominal. When the issue price is lower than par, the investor benefits from an issue premium. If the redemption price is higher than par, the investor benefits from a redemption premium.

A bond's **currency** influences its interest rate. A currency considered 'weak' (heavily indebted country, high inflation rate…) will be offset by a high interest rate.

→ Investing in a bond denominated in its benchmark currency neutralises the exchange risk.

The maturity corresponds to the bond's maturity date. The lifetime of the bond influences the redemption level.

→ In general, the longer the life of a bond, the more remunerative the bond is for the investor.

The modified duration gives an indication of a bond's exposure to rate risk. Indeed, it measures the sensitivity of a bond's price to a variation of 1% in interest rates.

→ The higher the modified duration, the more sensitive a bond is to rate variations.

The interest rate (nominal interest rate) is set on issuance and expressed as a percentage of the nominal. Applied to the nominal it allows the calculation of the coupons paid per denomination.

→ This rate depends on numerous elements (type of issuer, rating, maturity, currency, market conditions…).

Yield to maturity (actuarial rate)

The interest rate alone does not determine the real yield of a bond over its whole life.
The yield to maturity - expressed by the actuarial rate - quantifies the real yield on a bond by also reflecting its (current) price, redemption price and remaining life.

→ In contrast to the nominal rate, the actuarial rate enables investors to compare different bonds.

Subordination

The fact that a bond is subordinated means that it has a lower preference ranking for repayment in the event of issuer default or insolvency. Indeed, repayment of this type of bond (sometimes called "junior") is subordinated to the issuer repaying all so-called "senior" or "traditional" bonds. However, subordinated debt still takes precedence over shares and other equity interests.

→ The higher risk of non-redemption is compensated for by a higher yield for the investor.

Ex interest or cum interest – with or without accrued interest ("clean price" or "dirty price")

Most bonds are quoted at a percentage of nominal value (except convertible bonds which may be quoted at a price per bond, with a direct monetary value).
A bond's value is made up of two components, the clean price excluding accrued interest and the dirty price including accrued interest.
The clean price excludes accrued interest and makes it possible to compare different bonds.
The dirty price is that portion of the interest earned for the period since the last coupon payment.

THERE ARE SEVERAL FAMILIES OF BONDS

- **Indexed bonds** (e.g. inflation-linked bonds)
  The coupon and/or the repayment of capital are wholly or partially indexed to a benchmark, for example, the revenues of the issuer company, the price of a product, etc. The best-known are bonds indexed to inflation, in exchange for a lower nominal interest rate. Inflation-linked bonds protect investors, as the name implies, from the risk of inflation by means of a coupon and a redemption price that are regularly revalued to reflect rises in price indices since the bonds were issued.

- **Perpetual bonds**
  are bonds for which the nominal is never redeemed or for which the redemption date is set after issue (at the issuer's initiative). Throughout their life, the holder will receive a coupon and can sell the bonds on the stock market instead of being able to redeem them within a known timescale.

- **"High-yield" bonds**
  are identified by having ratings lower than BBB-. This type of bond is considered to be speculative.

→ In exchange for a (very) high level of risk, these bonds pay much higher interest.

- **Extensible bonds** can be extended beyond their maturity date, for a predetermined rate and term (set at issue).

→ Extending a bond with a high nominal interest rate can be beneficial to investors when rates are low.

- **Convertibles bonds** allow investors to exchange them for the issuer's shares (the share exchange parity is set on issue) during a predetermined period (the conversion period).

→ This type of bond should be distinguished from "reverse convertibles", where the issuer and not the investor has the right to convert. The investor will receive shares when they have fallen below a predetermined level. Conversion will always be done to the investor's detriment. In exchange for this risk, investors will generally receive a high coupon.

- The main feature of **Floating Rate Notes (FRNs)** is that they have a floating rate coupon, linked to a benchmark rate, for example, EURIBOR or LIBOR, which is reset from time to time during their life.

→ The investor does not know the exact amount of the coupons, but benefits from a certain amount of protection against inflation.

> **"Sukuk"** (singular "sak") **certificates are often likened to bonds.** They are Sharia law compliant investment certificates. Remuneration in the form of interest (along with any investment in gambling, tobacco or alcohol, etc.) is not allowed under Sharia law.
>
> A sak is therefore not based on a debt issue, but backed by a tangible asset. This is allowed under Sharia law and provides a steady income stream for a fixed period (like bonds, it has a maturity that is set in advance).
>
> This is therefore an equity interest, similar to a security backed by a revenue generating asset.

This is therefore an equity interest, similar to a security backed by a revenue generating asset.

- **Within the framework of the investment strategies proposed by the bank, the following financial products are also considered as bonds:**

– Investment funds or UCI as defined in paragraph 4, page 21, which only hold bonds
– Investment funds or UCI which only hold bonds and/or other funds comprised solely of bonds.

OVERVIEW OF THE ADVANTAGES, DISADVANTAGES AND RISKS OF INVESTING IN BONDS

ADVANTAGES		DISADVANTAGES	
RELATIVELY LOW LEVEL OF RISK	Over the long term, it has been found that bonds generally offer lower levels of risk and volatility than shares. Moreover, unless the issuer defaults, bonds often provide several "certainties" from the date of issue: term to maturity, rates and frequency of coupons, redemption price, etc.	ISSUER RISK	The yield expected by the investor depends on the ability of the issuer to honour its commitments. The investor may suffer a loss of income or even loss of capital in the event of default or insolvency of the issuer. The more attractive the yield offered by the issuer, the more risky the investment.
RECURRING, STABLE AND ATTRACTIVITE INCOME STREAMS	The majority of bonds provide investors with recurring (except "zero coupon" bonds) and stable (except floating-rate bonds) income. Furthermore, bonds generally offer a higher rate of return than short-term investments. The effect of inflation	THE EFFECT OF INFLATION	Since the terms of a bond (interest-rate, redemption price) are fixed to maturity, the holder's purchasing power is affected by inflation both in terms of coupon and in terms of the capital repaid (except for index-linked bonds). The effect of inflation is that much greater for longer maturities and/or for lower nominal interest rates.
CAPITAL GAIN POTENTIAL	Bonds can also generate capital gains during their life if interest rates fall. Gains can only be realised if the bonds are resold before maturity. The longer the residual life of the bond, the higher the potential for capital gains.	RISK OF CAPITAL LOSSES BEFORE MATURITY	The issuer's bond redemption arrangements only apply at maturity (except for perpetual bonds). Depending on how the price of the bond moves during its life, a sale before maturity could lead to a capital loss for the investor, particularly if interest rates rise.

RISKS SPECIFIC TO BONDS	
DEFAULT OR INSOLVENCY OF THE ISSUER	The risk of default varies greatly from one issuer to another, but generally the lower the rating, the higher the risk (Note: rating agencies are not infallible). Insolvency (or default) of the issuer can be temporary (delay or failure to pay coupons) or permanent (bankruptcy leading to total or partial loss of capital).
INTEREST RATES	During its life, the price of a bond varies with changes in market interest rates. A rise in interest rates leads to a drop in the prices of fixed-rate bonds already in issue. As a result, the longer the residual life of a bond, the greater the potential for a capital loss. The price of a floating-rate bond is less sensitive to falls in interest rates, but the return on such a bond can be less attractive because of lower coupons.
INFLATION	Over time, the rate of inflation has an impact on the purchasing power of capital (eroding the value of money) and on real interest rates in the coupons (nominal interest rate - rate of inflation). NB: a rate of inflation higher than the nominal rate produces a negative real interest rate and a loss of purchasing power for the investor. Furthermore, high inflation has a tendency to push up market interest rates, and to push down the prices of bonds already in issue.
VOLATILITY	During its lifetime, the price of a bond can fluctuate considerably. These fluctuations may be linked to the issuer (or its business sector): increased vulnerability in difficult economic circumstances, a deterioration in the financial position and/or a ratings downgrade could push down the price of the bond on the secondary markets. Moreover, inflation and fluctuations in market interest rates could push the price of the bond down (see "Interest rates" and "Inflation"). NB: the longer the residual life of a bond, the more sensitive its price will be to fluctuations. During its life, the risk of volatility can therefore give rise to an unrealised capital loss, reflected in the bond's valuation within the investor's portfolio. However, volatility risk can only produce a capital loss if the bond is resold before maturity.
LIQUIDITY	For bonds, liquidity risk depends on the efficiency of their secondary market. A modest-scale bond issue puts a fairly small number of bonds into circulation, so transaction volume will be relatively low. The investor's ability to resell bonds quickly at the required price will therefore be all the more restricted in difficult market conditions. NB: Liquidity risk is nil for investors who hold their bonds to maturity. This risk only surfaces if the bond is sold before maturity.
EARLY REDEMPTION	On issue, some bonds may come with a clause for early redemption at the issuer's initiative. This clause enables it to redeem the bonds before maturity at a price and on a date set at the time of issue. The issuer generally exercises this right in the event of a "long-term" drop in interest rates to a level lower than the nominal interest rate that it is paying to its investors. For investors, clauses of this type represent a risk of loss of earnings. Obviously, early termination of the conditions that the investors are benefiting from suggests that these conditions are more favourable than market conditions. So the investor is unlikely to be able to reinvest other than on less favourable terms.