



London
Stock Exchange

Order book for Retail Bonds

Trading bonds on London Stock Exchange
A guide for private investors



London
Stock Exchange Group

“Our aim is to offer greater access to trading in individual bonds for private investors”

Order book for Retail Bonds

Efficiency and transparency in trading bonds for private investors

Addressing the growing appetite for fixed income

In the current economic climate, investors are increasingly looking beyond traditional equity to other asset classes as they search for higher yield and steady streams of income. With continued uncertainty across the financial markets, the security of fixed income instruments, with their regular coupon payments, is proving highly attractive to private investors.

Since its launch in 2010, the Order Book for Retail Bonds (ORB) has aimed to respond to private investor demand for increased efficiency in the bond markets, by providing the liquidity and transparency needed to trade fixed income securities on screen. Our aim is to offer greater access to trading in individual bonds for private investors as they manage and develop their own investment strategies.

All the conventional and index-linked gilts, as well as a wide selection of corporate bonds tradable in small denominations (i.e. up to £10,000) are available for trading on ORB.

This guide provides an introduction to the main features of bonds and considers the benefits and risks associated with them. It also gives an overview of London Stock Exchange's electronic order book for bonds to help you decide whether trading bonds on ORB may help you meet your investment needs.

“ORB’s launch was driven by increasing private investor focus on fixed income and strong demand for easier access to bonds”

Understanding bonds

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dedicated ORB
issues listed in the
first 5 years of ORB

A bond is a tradable security, issued by a borrower and representing a formal agreement between the issuer and the lender that the issuer will repay to the lender the full amount borrowed plus interest over the lifetime of the bond.

Bond basics

What are bonds?

A bond is a tradable security, issued by a borrower (the bond issuer) and representing a formal agreement between the issuer and the lender (the bondholder) that the issuer will repay to the lender the full amount borrowed plus interest over the lifetime of the bond. Bonds are therefore debt instruments which represent a series of cash flows payable during a specified period of time. These cash flows are the principal amount, borrowed by the issuer at the time of the bond's issue and repaid to the investor at the time of the bond's redemption, in addition to the interest payments made at regular intervals until the bond's maturity.

The issuer is the organisation raising capital through the issue of bonds and which is borrowing money from the bond investors. The principal, also known as the 'nominal value' or 'par value' of a bond, is the amount that the borrower, the bond issuer, will pay back to the bondholder at maturity. The principal amount is the amount on which interest is paid. The principal can also be referred to as the 'face amount', 'redemption value' or 'maturity value'. The maturity or 'redemption date' of a bond is the date on which the issuer (borrower) agrees to pay back the principal amount of the bond. The coupon rate is the annual interest rate paid on the bonds and is the rate used to determine the amount of interest the borrower pays to the bondholder at regular intervals throughout the life of the bond. The coupon is the amount of interest paid and is expressed as a percentage of the principal.

Example: Government bond - Treasury 4% Gilt 2022

This listing tells us that this particular security is a gilt, i.e. a UK government bond, because the issuer is HM Treasury. It has an annual coupon of 4% payable until maturity in 2022. Because UK gilts have a semi-annual coupon cycle, the interest on these bonds would be paid in two instalments each year. If the bondholder has a total nominal value of £5,000 invested, this would generate two coupon payments each of £100 to be paid at six monthly intervals until the gilt is redeemed in 2022.

Example: Corporate bond - Vodafone Group PLC 5.90% NTS 26/11/321

From the above bond listing, we can see that the issuer is Vodafone Group and that the coupon rate is 5.90%. The maturity date is 26 November 2032. This means that until the bond is redeemed in 2032, the issuer will pay the bondholder interest of 5.90% on the total nominal amount invested by the bondholder. As is commonly the case with corporate bonds, this particular security has an annual coupon cycle. If the bondholder has £10,000 nominal held in these particular Marks & Spencer notes, he would therefore receive a single interest payment of £590 each year.

Types of bond issuers

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main categories of issuers: corporates, governments, local authorities and supranationals

There are four main types of entities issuing bonds: sovereign governments and their agencies, supranational bodies, local government authorities, and corporations (including banks and other financial institutions).

Sovereign governments

Government bonds are issued by central governments. In the UK, these government bonds are known as 'gilts'. Gilts are issued by the UK Government through the Debt Management Office (DMO), an agency of the HM Treasury. Governments issue bonds to borrow money to cover their net cash requirements, i.e. to meet the gap between the amount received in taxes and the amount required for government spending. Governments also issue bonds to refinance existing debt or to raise new capital. Government bonds are generally considered to be of the highest credit quality because they are backed by central governments which are able to print money to meet their obligations. Many investors concentrate their trading activity on buying and selling government bonds and these securities are the most liquid and heavily traded of all fixed income instruments.

Supranational entities

Supranational bonds are issued by international bodies comprising a number of sovereign member states. Supranational entities issue bonds to raise funds to invest in development projects and include organisations such as the European Investment Bank (EIB) and the International Bank for Reconstruction and Development (IBRD, part of the World Bank Group). Supranational bonds are generally backed by a group of sovereign governments, therefore they are considered to be of very high credit quality.

Local government authorities

Local authority bonds are issued by local governments such as borough councils. Because these bonds are not issued by the central government, they cannot be classified as sovereign government bonds. They are generally of a slightly lower credit rating than sovereign

debt, because they are not backed by the central government. Local authority bonds are not as liquid as government bonds and are not so frequently traded in the secondary markets.

Corporate bonds

Corporate bonds are those issued by private and public companies. Investing in the corporate bond of a particular company carries lower risk than investing in the same company's shares because, in the event of the company going into bankruptcy, the bondholders will be classed as creditors and will have priority over equity shareholders in the order of repayment. However, unlike shares, bonds do not give the holder an ownership interest in the issuing corporation and bondholders typically have no, or very limited, voting rights in the company. The ability of the company issuing the bond to repay the money to its investors depends on the success of that company's business. Because of this higher risk, investors usually demand a higher rate of interest on their holdings in corporate bonds than on comparable government bonds. In general, there are two main categories of corporate bonds: investment-grade and speculative-grade (also known as sub-investment grade or high-yield). Investment-grade bonds are considered to be of higher credit quality than speculative-grade, therefore they will typically generate lower rates of interest than higher yielding speculative-grade bonds. Investors in high-yield bonds demand a greater rate of return due to the perceived higher risk that the issuer will not be able to pay back the money it has borrowed from its bondholders.

Bond Structures

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types of structures
for the most
common bonds

Bonds are typically referred to as ‘fixed income’ securities. This is because, in their simplest form, bonds pay a fixed coupon at regular intervals throughout their lifetime until maturity. However, as the bond markets have developed, this is no longer always the case and other structures, which go beyond ‘fixed’ returns, are now common.

The main types of bond structure and their key features are as follows: **fixed-rate bonds**, also known as ‘conventional’ or ‘plain vanilla’ bonds, are bonds which pay a fixed rate of interest at regular intervals over the lifetime of the bond until maturity, when the entire principal amount borrowed is repaid.

Floating-rate bonds, which may also sometimes be known as floating rate notes (FRNs), are securities whose interest rate varies (it is ‘floating’ as opposed to ‘fixed’). Here the coupon is reset periodically according to a particular reference rate. The reference benchmark rate is typically Libor (the London interbank offered rate) or Euribor (the Euro interbank offered rate). Usually, a ‘spread’ comprising fractional percentage points is added to the Libor or Euribor rate. This spread will vary depending on the credit quality of the issuer, with a larger spread being added for higher risk instruments.

Index-linked bonds, often known simply as ‘linkers’ are bonds whose principal amount and coupon payments are linked to an index. Most common are inflation-linked bonds, where the principal and interest payments are linked to a consumer retail price index (e.g. UK RPI). Typical inflation linked bonds have their principal and coupon ‘uplifted’ to reflect inflation in line with the RPI. The investor’s return is

therefore protected against erosion through the effects of inflation.

Zero coupon bonds, also known as ‘discount’ bonds, do not generate any interest payments. As the name suggests, they have no coupon: instead, the return on the bond comes from the discounted value at which they are initially sold compared to the eventual redemption value. A zero coupon bond will be issued at a price below par value but at maturity the issuer will pay the holder the full par amount.

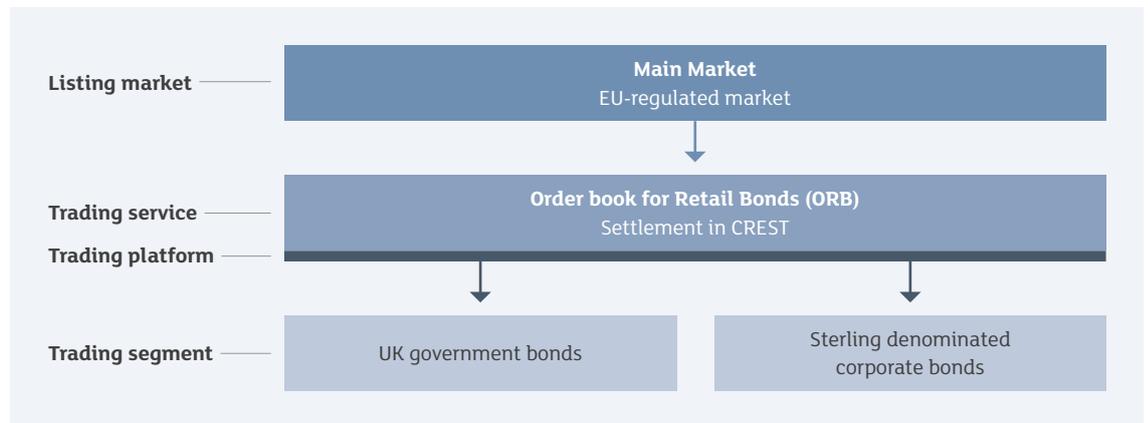
Convertible bonds are bonds which give the investor an option to exchange the bond for a pre-set number of the issuer’s shares at a predetermined price and time. Convertible bonds allow the bondholders to ‘convert’ their holding into equity of the issuing company.

“Index-linked bonds, often known as ‘linkers’, are bonds whose principal amount and coupon payments are linked to an index”

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trading segments accessible via our platform

Retail bond regulatory status and trading denomination



Regulatory Status

All the bonds tradable on ORB are admitted to London Stock Exchange's Main Market, a EU-regulated market that provides the highest levels of transparency and regulatory supervision.

Retail bonds must be admitted to the UKLA's official list in order to be eligible for trading on the Order book for Retail Bonds.

denomination

trading denomination for bonds may vary between £1 and £100,000. ORB bonds are all tradable in small denominations

Bond trading denomination

Under the Prospectus Directive, the EU piece of legislation which governs the documentation published when a bond is listed and brought to a market such as London Stock Exchange's Main Market, the regulatory regime distinguishes between 'wholesale' and 'retail' bonds.

'Wholesale' bonds are tradable in units of £100,000 or greater, whereas 'retail' bonds are tradable in smaller size, often in denominations of £100. At the moment, most of bonds issued in the UK are 'wholesale' bonds and are therefore not accessible to many private investors because of the high minimum denominations in which they must be traded.

By providing private investors with a liquid and transparent secondary market for retail bonds, ORB brings into focus the benefits of retail issuance programmes as an additional source of funding for companies wishing to raise capital from a wider pool of investors.

Understanding bond pricing and yields

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nominal value of
standard bonds

Bond prices are expressed per 100 nominal, i.e. as a percentage of the bond's nominal value. For sterling-denominated bonds, a price of 101.25 for example means that for every £100 nominal of that bond, the buyer would pay £101.25

The present value of a bond

The price of a bond today can be determined by calculating the present value of the cash flows associated with that particular bond. Money deposited in an interest-bearing account will attract a rate of interest over the term it is invested. For example, £100 invested today at an annual rate of interest of 5% will become £105 in one year's time. This interest reflects what is known as the time value of money. If, as in the example above, the future value of a sum of money can be calculated based on its value today then, conversely, the time value of money can also be expressed by calculating the present value of a sum based on its known future value. Again this valuation will reflect the prevailing rate of interest.

Therefore, given an interest rate of 5%, a nominal amount of £100 receivable in one year's time would be worth £100 divided by 1.05. Its present value would therefore be £95.24. This process of establishing present values is known as discounting. The prevailing interest rate used in the calculation is the discount rate. The present value of a future sum of money, receivable after n years, based on a prevailing rate of interest of r , is calculated as follows: $\text{present value} = \text{future value} \times 1 / (1 + r)^n$. Using this approach, the present value calculations can be used to derive the price of a bond, given the appropriate rate of interest and cash flows.

The fair value of a bond is the sum of the present values of all of its cash flows, including both the coupon payments and the final redemption payment.

Accrued Interest

Bond prices are usually quoted on a 'clean' basis. This means that the price showing does not include any accrued interest. However, when an investor buys a bond he/she pays the bond's 'dirty' price which is the clean price plus the accrued interest. When a bond is traded between coupon payment dates, accrued interest is paid to compensate the seller for the period during which the seller has held the bond, but for which he/she would not receive an interest from the bond issuer as they will not be holding the bond when the next coupon payment date arrives. Because the seller has only held the bond for part of the interest-earning period, they will receive a pro rata share of the next coupon from the buyer.

There is a variety of day count conventions used when calculating the accrued interest payable on a bond. These conventions determine the number of days assumed to be in the coupon period and the number of days on which accrued interest is payable to the seller. For gilts, the day count convention is ACT/ACT, meaning that the calculation takes the actual number of days to the next coupon date and divides this by the actual number of days in the interest period to determine which proportion of the coupon amount should accrue to the bond seller.

Many corporate bonds use a 30/360 day count convention which means that rather than using the actual number of days in the relevant periods, there are assumed to be 30 days in the month and 360 days in the year.

The Gross Redemption Yield is one of the most important features of a bond

The most important factor influencing the price of a bond is the prevailing interest rate. If the interest rate on cash (the deposit rate) falls to below the coupon rate paid by a particular bond, that bond will become more attractive and its price will rise. Conversely, rising interest rates will cause the bond's fixed coupon payments to become less attractive (the investor can gain a higher return simply by putting his cash on deposit) and so the market price of that bond will fall.

Investors compare the prevailing interest rates with the yields of the specific bonds.

Yield

The yield is the rate of return generated by an investment in a particular bond. The following types of yield calculations may be used to express the return on a bond

Flat Yield

This calculation takes into account only the return generated by the coupon without factoring in any capital gain or loss on the bond throughout its lifetime. Flat yield therefore expresses the return generated only by the interest paid on the bond and not by any profit or loss that the bondholder may incur by holding the bond until its maturity.

Flat yield = (annual coupon / price) x 100

For example, the flat yield on a 4% gilt, currently priced at 102.50 would be 3.9%. If the bond's price were to rise to 105.75, the flat yield on that bond would fall to 3.78%. This demonstrates the inverse relationship between bond yield and price. As a bond's price increases, its yield falls. As a bond's price falls, its yield increases.

Gross Redemption Yield

The Gross Redemption Yield (GRY) calculation offers a more complete measure of yield than that provided by the flat yield as it takes both coupon payments and capital gain or loss into account. It involves a more complex calculation based on the present value of the cash flows of the bond. The GRY reflects the 'internal rate of return' of the bond, i.e.

the discount rate which, when applied to the future cash flows of the bond, produces the current price of that bond. GRY reflects the total return that a bond will generate over its remaining lifetime and expresses this as a percentage of the bond's price on an annualised basis. Because of this, the GRY allows investors to make comparisons between bonds with different maturities and coupons.

Net Redemption Yield

Like the GRY, the Net Redemption Yield also takes into account both the coupon and the capital gain or loss made on the bond if held to maturity. However, the Net Redemption Yield also considers the cash flows after tax rather than the gross pre-tax cash flows used in the calculation of GRY.

The Net Redemption Yield helps investors understand the effects of taxation on their fixed income investment

Evaluating the risks

Evaluating the risks involved in the investment is a key part of the process that leads to the investment decision

Risks

Some of the risks associated with investing in bonds can be broadly defined as follows: **Credit risk**, also known as 'default risk' or 'issuer risk', is the risk that the issuer may not be able to meet its obligations in terms of coupon payments or may not be able to pay the principal amount back to the bondholder at maturity. Government bonds are deemed to be of very low credit risk because they are backed by the central government which is able to raise taxes or print money to meet its obligations. The default risk of corporate bonds will vary depending on the credit quality of the issuer.

Market risk is simply the risk that the price of the bond will fluctuate away from the price at which the investor bought it. These price fluctuations may simply reflect the market forces of supply and demand and if the investor maintains his holding, the variation in the value of his bond position will be a paper profit or loss. Nevertheless, if the investor is forced to sell his bond to raise funds, there is a risk of capital loss. **Interest rate risk** is a particular form of market risk comprising the risk that the value of the bond may be adversely affected by the prevailing direction of interest rates. Everything else being equal, if interest rates rise, the price of bonds will fall, since bond investors will demand a higher yield in keeping with the higher rates available on deposits.

Issue-specific risk relates to special features that a particular bond may have embedded within its structure. Some bonds, for example, have a derivative element such as a 'call option' which, if exercised, would allow the issuer to repay the bond early. The risk is that the bond will be called by the issuer and that this will be disadvantageous for the bondholders. Investors should take care to read the prospectus documentation and become familiar with any particular characteristics of the bond structure which may incur additional risk.

Currency risk is relevant where an investor holds a bond which is denominated in a currency other than his or her own domestic currency since the value of this investment may be adversely affected by fluctuations in the foreign currency exchange rate.

Inflation risk is the risk that the value of a bondholder's investment will be eroded by the effects of inflation. A fixed rate coupon and principal amount will end up being worth less in real terms if inflation is high during the bond's lifetime. This risk is removed for inflation-linked bonds.

While bonds are generally less risky than equities, investing in bonds does carry a risk as with any other investment

Order book for Retail Bonds

Order book for Retail Bonds

The Order book for Retail Bonds (ORB) offers electronic trading in gilts and retail sized corporate bonds, i.e. those which are tradable in smaller, more manageable denominations of £1,000 or similar. These include some of the UK's most well-known companies such as Vodafone, GlaxoSmithKline, BT and Marks & Spencer. It also provides corporate issuers with an efficient mechanism for distributing bonds to private investors – helping to stimulate new issues of bonds that are tradable in smaller denominations and providing private investors with wider investment opportunities.

ORB brings transparency to the bond market in three ways: all participants simultaneously access executable prices and have equal opportunity to trade at the best available price; participants can see the price discovery process through our and third-party data feeds; and all trading is monitored by London Stock Exchange's Market Supervision Team and the Financial Conduct Authority. All securities admitted to trading on ORB are London-listed securities admitted to an EU-Regulated Main Market. This ensures a high level of regulatory oversight and offers the benefits of the transparency afforded by the Financial Conduct Authority's disclosure and continuing obligations regimes.

The centralised trading mechanism concentrates liquidity while dedicated market makers provide two-way prices throughout the trading day. All other registered member participants are also able to enter orders into the order book, giving private investors the opportunity to take or make prices in every security.

the benefits of ORB

The centralised trading mechanism concentrates liquidity while dedicated market makers provide two-way prices throughout the trading day

Developing an electronic bond market in the UK

Many investors currently gain exposure to fixed income markets by buying units in managed bond funds, but a growing number of private investors are becoming increasingly knowledgeable about debt securities and are seeking to take a more active role in managing their assets. Acknowledging this trend we were inspired to create a bond market for private investors by using the wide range of debt securities already admitted to our markets but also by attracting bond issues tailored for ORB. There are over 10,000 listed bonds available on our systems but up until the introduction of ORB none were traded on our electronic order books. Instead, transactions in bonds were typically agreed in the over-the-counter (OTC) market between counterparties and the details of the trade then reported. This means that the secondary market for retail bonds was fragmented and private investors found it difficult to access the bonds they would like to include in their investment portfolios.

Key features of the order book

ORB offers an open and transparent market structure for trading in retail sized bonds and is an electronic order-driven model like that already established for share trading. Dedicated market makers quote two-way bid and offer prices in a range of bonds throughout the trading day. Additionally, all other registered member participants are able to enter orders into the book. The trading day starts with an initial opening auction from 07:50 to 08:00 followed by continuous trading and a closing auction call period from 16:30 to 16:35. The minimum price movement, also known as the 'tick size', for all order book bonds is standardised at 0.01 (one penny). This means that the bonds can be quoted and traded to the nearest penny. The unit in which each corporate bond is tradable follows the trading denomination specified in the particular bond's prospectus documentation. For retail bonds this is typically £100 or £1,000 although some retail bonds may be tradable in multiples of £5,000 or £10,000. For gilts, the standard lot size on ORB is £1, meaning that gilts can be traded in multiples of whole pounds. All order book trades are trade reported automatically and published immediately

Settlement

All trades on ORB are executed on a 'clean' basis, i.e. excluding accrued interest. The standard settlement timetable for corporate bonds on the order book is T+2. In keeping with the market standard, the settlement timetable for all gilt securities is T+1.

Accessing the Order book for Retail Bonds

A wide range of intermediaries offer private investors access to ORB

Types of brokers

Execution-only brokers will only buy or sell bonds according to your instructions, providing no investment or trading advice. This allows you to select the bonds in which you wish to trade and simply direct your broker to execute the trade for you. Advisory brokers provide advice and also execute the trading decisions you make. Discretionary brokers will buy and sell bonds on your behalf and may also have the authority to make investment decisions without your prior approval.

Direct Market Access

You may also wish to choose a broker who offers Direct Market Access (DMA), a service whereby London Stock Exchange Members are able to directly submit customer orders to the order book via their own systems. DMA allows sophisticated private investors to take greater control of their trades by enabling them to place buy and sell orders directly on London Stock Exchange's order books and execute with other market participants.

“Private investors may wish to choose a broker that offers Direct Market Access (DMA). DMA allows sophisticated investors to take greater control of their trading activity by placing their orders directly onto the order book”

Further information

Full details of the new electronic Order book for Retail Bonds are available on the London Stock Exchange website at www.londonstockexchange.com/retail-bonds

If you would like to know more about ORB or are interested in becoming a market partner, please contact:

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Market partners

We are working with a select number of partners to support the development of the UK's retail bond market. Retail bond issuers, dedicated market makers and specialist private client brokers providing access to the electronic order book may display a special partner logo. Additionally we publish details of these partners on our web site and in our marketing and educational material.





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