

# understanding the bond market

This 'principles of investment' factsheet looks at the bond market. Topics covered include:

- what is a bond?
- what are the different types of bond?
- what factors affect the price of bonds?
- how is the value of a bond measured?
- what are the risks?
- why invest in bonds?

This factsheet will give you a basic understanding of the bond market – however, your financial adviser will be able to tell you which investment vehicles will suit your own specific needs. So, let's start with the basics...

## what is a bond?

Governments and Corporations can seek to raise capital in a number of ways; they can go to the bank just as we would, or alternatively they can borrow from the public by issuing bonds.

Therefore, a bond is effectively an 'IOU' issued by either a Government or Corporation. By investing in a bond, you are essentially lending money to one of these entities.

In return for your investment, a bond delivers an agreed level of income in the form of a fixed rate of interest (coupon).

Additionally, at an agreed date in the future, the Government or Corporation will return the face value of the bond, known as the maturity value.

The illustration below demonstrates the lifecycle of a bond as if held from the day of issue. If the investor keeps the bond until its maturity, the original investment amount will be paid back. This is the 'safe' way of investing in bonds. However, as an investor you have two options – you can either invest in a bond as it is issued by the

Government or Corporation, or invest in a bond via fixed interest markets, where bonds of all types can be bought or sold. When investing through the fixed interest markets you will discover that the price of a bond may actually be more or less than its original issue price or 'face value'.

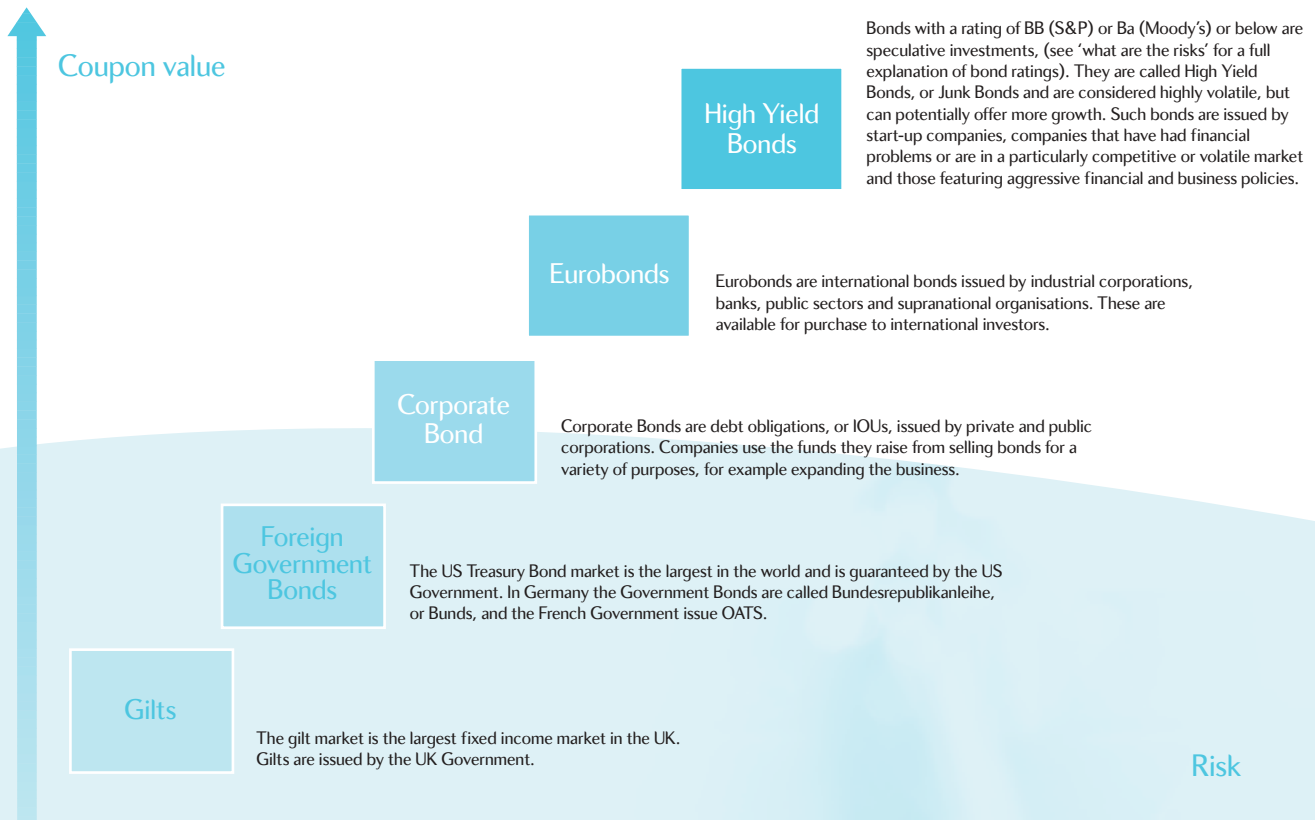
We will now look in more detail at the different types of bonds and the factors that can affect bond prices.



You pay a premium to buy the bond and receive a 'coupon' (the yearly interest payment) in return, for the duration of the bond. The premium is paid back to you at the maturity of the bond.

# what are the different types of bond?

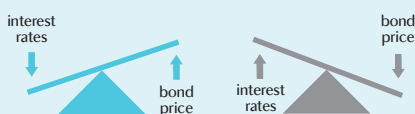
There are several types of bonds, each offering different levels of return, with corresponding levels of risk:



# what factors affect the price of bonds?

## interest rates

The key factor affecting the price of bonds is interest rates. Interest rates constantly change in response to the supply and demand of credit, fiscal policy, exchange rates, economic conditions, market sentiment and changes in expectations about inflation. As interest rates change, so do bond prices:



- When interest rates rise, new bond issues come to market with higher yields than older bonds, making those older ones worth less. Hence, their price goes down.
- When interest rates decline, new bond issues come to market with lower yields than older bonds, making those older, higher-yielding ones worth more. Hence, their price goes up.

We will talk more about the effect of price on yields in the next section.

## inflation

The interest paid to most bondholders in the future is fixed at a rate determined in the past. Consequently, if inflation rises, the 'income' received from the bond, in real terms, actually becomes worth less and less, as goods and services become more and more expensive.

Inflation is one of the most influential forces on interest rates. Rising inflation often leads to rising interest rates, which reduce bond prices. Conversely, decreasing inflation, or deflation, would result in a lowering of interest rates, which would increase the price of bonds.

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Whilst bonds have a reputation for being conservative investments, there are still elements of risk that investors should be aware of in addition to interest rates and inflation expectations.

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## how is the value of a bond measured?

### face value

This is the value a bond has printed on its face. It represents the face value owed at maturity. The bond's actual market value may be higher or lower. When a bond's market price fluctuates, it has an impact on its yield. If the price drops below the bond's face value, its yield goes up. If the price rises above face value, the yield goes down.

### yield

The yield is usually expressed as a percentage, generally obtained by dividing the current market price of the bond into the annual interest payment. As the price of a bond declines, its yield rises. Let's look at a 4% bond. If you were to buy it for £1,000, the current yield would simply be running at 4% (£40/£1,000). But if the price drops to £800, the yield rises to 5%. Why? Because the guaranteed coupon – £40 – is now 5% of the £800 you paid for the bond (£40/£800). If the price rises to £1,200, the percentage shifts down to 3.33%.

We have explored some of the issues that will drive price changes. Due to these fluctuations, it is unlikely that you will be able to sell a bond for 100% of its **face value**.

In order to understand the true value of a bond, we must consider what happens when the price goes up or down. As you already know, a bond's periodic coupon and its ultimate payout never change once the bond is issued. Take a 10-year bond with a face value of £1,000 and a 4% (£40) coupon. If the price falls to £800, you'll still get £40 each year in interest and £1,000 when the bond matures. The same holds true if the bond's market price jumps to £1,200. Obviously, the £800 bond is a much better deal – you're getting the same payout for £400 less. The figure that captures this change in value is the **yield**.

Generally speaking, a bond's yield is the rate of return on the investment. It changes to reflect the price movements in a bond caused by fluctuating interest rates. When you actually buy a bond at its issue date, the yield is simply the coupon, or the fixed interest rate you receive. When the price of the bond fluctuates, the yield grows or shrinks to compensate in either direction.

Another term frequently used regarding the value of a bond is 'yield to maturity'. This expresses the total return you will receive if you hold a bond until

maturity. It is regarded as a useful way of comparing bonds with different maturities and coupons. The 'yield to maturity' takes into account any capital gain/loss, and also includes all interest to be paid before the end of the bond's life.

Having grasped the inverse relationship between price and yields – here's the next conundrum: if yields and prices move in opposite directions, how is it that high yields and high prices are both good things? The answer depends on your perspective. When buying a bond high yields are attractive – you want to pay £800 for that £1,000 bond. However, once the investor owns the bond, the yield becomes less important as they are already locked into the bond's specific rate. A high price is now attractive – if the price rises the investor can sell the bond and make a capital gain.

Of course, if an investor attempts to make a capital gain by selling a bond prior to reaching maturity they are exposed to higher risk. Selling before maturity means the investor will only be able to sell the bond at its current market rate. As discussed earlier, this rate could fall as well as rise, therefore the investor needs to be sure they are selling at the right time. We will now discuss the risks associated with investing in the bond market in more depth.

# what are the risks?

Whilst bonds have a reputation for being conservative investments, there are still elements of risk that the investor should be aware of in addition to interest rates and inflation expectations:

**Credit risk** is the potential for loss resulting from decrease in the financial health of the issuing company. Most corporate bonds are evaluated for credit quality by Standard & Poor's and Moody's Investors Service. Bonds rated BBB or higher by Standard & Poor's and Baa or higher by Moody's are widely considered 'investment grade'. This means the quality of the securities is high enough for a cautious investor.

'Non investment grade' bonds, those rated BB or lower by Standard & Poor's or Ba or lower by Moody's, are deemed to carry a higher 'default risk' than those higher quality investment grade

alternatives. Default risk is the risk of non payment of the bond's coupon or the failure to repay the bond's face value at maturity, this scenario would usually be as a result of the issuing company going bankrupt.

The key difference between corporate bonds and gilts is the level of default risk, with Governments rarely defaulting on their interest payments. To compensate investors for default risk, the returns on corporate bonds are higher than those on gilts of similar maturity.

Inflation risk, interest-rate risk and credit risk all play a part in the pricing of bonds - the more risk, the higher the yield. It's also true that investors demand higher yields for longer maturities. The reason for that is obvious — given enough time, a once-healthy corporation can go

bankrupt and suddenly lose the ability to pay its obligations. Alternatively, inflation could run rampant, seriously eroding the purchasing power of that £1,000 you're supposed to get back in 10 years.

## why invest in bonds?

The complexities of yields and credit ratings can easily detract from the key benefits associated with bonds, such as capital growth and a fixed 'income' stream. Moreover, bond returns are not highly correlated with those of equities. In other words, if equity prices fall, bonds will not always follow suit. For this reason, when combined with other asset classes, they can be a useful diversification tool.

Your financial adviser will be able to offer you further advice about bonds and whether they are a suitable investment for your needs.

Credit Risk	Moody's	Standard & Poor's
<b>INVESTMENT GRADE</b>		
Highest quality	Aaa	AAA
High quality (very strong)	Aa	AA
Upper medium grade (strong)	A	A
Medium grade	Baa	BBB
<b>NOT INVESTMENT GRADE</b>		
Lower medium grade (somewhat speculative)	Ba	BB
Low grade (speculative)	B	B
Poor quality (may default)	Caa	CCC
Most speculative	Ca	CC
No interest being paid or bankruptcy petition filed	C	C
In default	C	D

### Other meanings of the word 'bond'

This factsheet refers to bonds in the traditional sense of the word ie an instrument of debt. However, it is worth noting that some financial services providers also use the word 'bond' to describe a savings or investment vehicle for carrying a range of investments, such as equities. This should not be confused with the bonds described here.

Where the running yield (an estimate of the income return) of a bond fund is greater than the redemption yield (the total return if all the bonds in a fund were held to maturity) this may signify an erosion of capital.

Yields are not guaranteed and may rise and fall.

This factsheet sets out the basics of the bond market. It is not designed to be investment advice and should not be interpreted as such. Other factors may need to be taken into account before making an investment decision. Your financial adviser will be able to offer you advice on this.

Calls may be monitored and recorded for training purposes and to avoid misunderstandings.

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