Understanding bonds

A GUIDE TO UNDERSTANDING SIMPLE BONDS TRADED ON ASX
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Introduction

Australian investors looking to receive a steady stream of income have often only considered bank term deposits. Bonds traded on ASX can present an attractive alternative.

What is a bond?
Bonds are a type of debt security. They are effectively an IOU between a borrower (the issuer of the bond) and a lender (the investor who purchases the bond) – just as a bank deposit is effectively an IOU between the bank as borrower and the depositor as lender.

When a government, corporation or other entity needs to raise money, they can borrow money from investors by issuing bonds to them. Investors who purchase a bond from an issuer are essentially lending money to the issuer for a fixed period of time. In return, investors receive interest payments at certain intervals and also have their principal returned on a stated future date.

Where the bond is quoted on a securities exchange, such as ASX, the investor can realise their investment by selling that bond to another investor at the current market price.

About ASX
ASX is one of the world’s top 10 listed exchange groups and trades a broad array of products including shares, bonds, hybrid securities, exchange traded funds, options, warrants, futures and other derivative products. This provides investors and risk managers the opportunity to access a broad range of asset classes, including domestic and international equities, debt, commodities, energy and foreign exchange.

Bonds quoted on ASX
Just as you would instruct your broker to buy or sell shares in a company quoted on ASX, you can instruct your broker to buy or sell bonds quoted on ASX.

There are a variety of types of bonds quoted on ASX. They can be broadly classified into the type of interest they pay (fixed, floating or indexed). They can also be split into categories based on the issuer (government or corporate).

Different types of bonds have different names and different acronyms. For example, bonds issued by the Australian Government and traded on ASX are often referred to generically as exchange-traded Australian Government Bonds (AGBs), with the different types of bonds referred to as Treasury Bonds (TBS) and Treasury Indexed Bonds (TIBs). Bonds which pay a variable or floating rate of interest are often referred to as floating rate notes (FRNs). In fact, the bond market is rife with jargon and it is not always used consistently. For example, the term ‘note’ is often used to describe a short-term debt security but a ‘capital note’ can be a very long-dated security. To help you understand some of the jargon, we have included a glossary of some of the more common terms used in the bond market on page 16.

This booklet deals with the simpler types of bonds traded on ASX and is designed to help you understand the risks associated with them and how they may be used within your investment portfolio. The information in this booklet is necessarily general in nature, and you should take care to inform yourself about the specific characteristics of a particular bond before making a decision to invest in it.
Why invest in bonds

The investment return on a bond reflects its interest payments and any appreciation or depreciation in its price from general interest rate movements. As a general rule, the potential for capital gains or capital losses on bonds tends to be lower compared with other riskier investments.

So why are they such popular investments? The main reason is that, unlike equities, bonds generally provide greater certainty as to their income stream and return of capital. For retirees or others who need a predictable source of income, a bond’s regular interest income and principal repayments at maturity provide a comforting level of security. There are other advantages too, including:

- Investment diversification, which can either reduce risk or improve a portfolio’s overall rate of return (because, with bonds as an anchor for a portfolio, an investor may feel more comfortable taking on greater risk with other investible assets in the hope of achieving a greater return).

- In the case of corporate bonds, a better return than some other debt investments – for example, income from corporate bonds is typically higher than the interest paid on bank deposits (although the same is not true with government bonds).

- In the case of government bonds, high levels of liquidity and security.

- The opportunity to profit from anticipated movements in interest rates.
Using bonds to diversify your portfolio

Diversifying your investment portfolio with a variety of ASX listed products can help reduce risk and protect returns over the longer term. Diversifying involves:

- spreading your investments across different asset types such as shares (both Australian and international), REITs (listed commercial property), bonds, hybrid securities, currencies and commodities.
- spreading your investments within each asset type so, for example, you would hold a range of shares across different sectors and a spread of bonds of different types and with different issuers and maturity dates.
- spreading your investments across assets that have low correlation with each other, recognising that the value of investments in different asset classes can vary through different cycles.

Bonds are a good way to introduce diversification into an investment portfolio because their regular interest payments generally provide more stable returns with lower risk attached than shares and other equity-type investments.

Risk and return – the trade off

It is important to understand the degree of risk associated with different types of investments and how that affects their expected return. Generally speaking there is a trade-off between risk and return. Assets with a higher level of risk will generally have a higher rate of return attached and vice versa. That is why most bonds pay lower returns than shares and other riskier investments and why so-called 'junk bonds' pay much higher returns than safer, more secure bonds.

The diagram below is designed to illustrate how a portfolio that includes a balance of shares and bonds can have a lower risk profile and more stable returns than a portfolio of shares only. This may suit investors with a desire for greater certainty of income rather than potential portfolio growth.
Comparing the returns on bonds

Evaluating the return you will make on a bond is an essential part of investment due diligence.

Three different measures of rates of return are commonly used to evaluate bonds:

- **Nominal yield** measures the return on a bond based on its annual coupon payments as a percentage of its face value. This is effectively the same as the coupon rate of the bond. For a fixed rate bond, this does not change throughout the life of the bond. For a floating rate bond, it will change as the reference rate of interest changes. For an indexed bond, it will change with movements in the underlying index.

- **Running yield** measures the return on a bond based on its annual coupon payments as a percentage of its current market price. It is a simple measure of the return the holder can expect at current market prices.

- **Yield to maturity** is the average annual return an investor can expect to receive if they buy a bond for its market value today and hold it to maturity. The calculation factors in coupon payments, the time to and amount due at maturity, and the capital gain or loss that will be made on maturity. It also assumes that the coupon payments are reinvested in the bond.

Yield to maturity is usually considered the most helpful indicator for comparing the return on bonds, as it factors in more of the variables that go to value. Comparing bonds on the basis of nominal yield is fine if they both have the same time to and amount due at maturity and you pay the same price to buy them, but if any of these things are different, a simple comparison of nominal yield will not necessarily be representative of their difference in value.

The calculation of yield to maturity is not as simple as the calculation of nominal yield or running yield. ASX has a user-friendly bond calculator on its website to help you work out the yield to maturity based on the bond’s maturity, market price and coupon rate.

When comparing bonds, it is important to remember that yield is not the only factor that you need to take into account. As mentioned previously, bonds can have markedly different terms and conditions and you must take account of those differences when assessing the relative values of two different bonds. Also, remember the trade-off between risk and return. The fact that one bond appears to have a higher rate of return than another does not necessarily mean that it is a better investment – it could just be a riskier one.

You can learn more about prices, yields and comparing the returns on different bonds by doing the free online course from ASX on government bonds.
Comparing bonds to other investments

The different types of bonds

Bonds include a very broad array of different products that have markedly different terms and conditions. They range from so-called ‘simple bonds’ to some very complex debt securities.

That’s why it’s so important to read the prospectus or term sheet for a bond to understand the particular terms and conditions that apply to that bond.

A bond is regarded as a ‘simple bond’ if:

• it has a fixed or floating coupon rate that does not change for the life of the security;
• interest payments under the security are paid periodically and cannot be deferred or capitalised by the issuer;
• it has a fixed maturity date which is not more than 15 years after its date of issue;
• it is not subordinated to other debts owed to unsecured creditors generally; and
• it does not attach any options to convert it to equity or to extinguish it (so-called ‘knock-out’ options).

Examples of more complex bonds include:

• bonds that allow the issuer to defer or capitalise interest payments under certain conditions;
• bonds that provide for the coupon rate to be re-set at certain times (often called ‘re-set’ or ‘re-settable’ bonds);
• bonds that give the issuer the option to extend them but at the price of paying a higher coupon rate (typically called ‘step-up bonds’); and
• bonds that are more properly characterised as ‘hybrid securities’, in that they combine features of debt securities and equity securities. Examples include convertible or converting bonds (bonds that convert into shares or other securities under certain conditions), perpetual bonds (bonds which don’t have a maturity date), subordinated bonds (bonds that are subordinated to the claims of other creditors) and knock-out bonds (bonds that give the issuer or a third party a right to extinguish them under certain conditions).

This booklet covers the simpler type of bonds traded on ASX. For further information about hybrid securities traded on ASX, please consult the ASX website and the ‘Understanding hybrid securities’ booklet.
Differences between simple bonds, term deposits and ordinary shares

The table below compares simple bonds with term deposits and ordinary shares.

<table>
<thead>
<tr>
<th>FEATURE</th>
<th>SIMPLE BONDS</th>
<th>TERM DEPOSITS</th>
<th>ORDINARY SHARES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Character</td>
<td>Debt</td>
<td>Debt</td>
<td>Equity</td>
</tr>
<tr>
<td>Nature of income</td>
<td>Interest</td>
<td>Interest</td>
<td>Dividend</td>
</tr>
<tr>
<td>Relationship to issuer</td>
<td>Lender</td>
<td>Lender</td>
<td>Part owner</td>
</tr>
<tr>
<td>Coupon or dividend rate</td>
<td>Fixed or floating (variable)</td>
<td>Usually fixed</td>
<td>Usually variable</td>
</tr>
<tr>
<td>Payment frequency</td>
<td>Usually semi-annually or quarterly</td>
<td>May be at maturity, annually, semi-annually, quarterly or monthly</td>
<td>Usually semi-annually</td>
</tr>
<tr>
<td>Transferable</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Interest rate return</td>
<td>Depending on creditworthiness of issuer but, in the case of corporate bonds, typically higher than term deposits</td>
<td>Typically lower than most bonds although higher than government bonds</td>
<td>N/A</td>
</tr>
<tr>
<td>Franking credits</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Costs</td>
<td>Brokerage is charged on transactions by the broker</td>
<td>Can be subject to bank fees and other charges (especially if the investment is accessed prior to the end of the term)</td>
<td>Brokerage is charged on transactions by the broker</td>
</tr>
<tr>
<td>Term (maturities)</td>
<td>Wide range of terms – from 3 months to 20 or more years</td>
<td>Typically much shorter term – from 1 month to 3 or more years</td>
<td>Perpetual</td>
</tr>
<tr>
<td>Ability to access funds</td>
<td>Able to sell investment any time the market is open</td>
<td>Typically funds are locked in for the term of the deposit or else a fee is charged for early access</td>
<td>Able to sell investment any time the market is open</td>
</tr>
</tbody>
</table>

Again, when comparing bonds to other forms of investment, remember that bonds can have markedly different terms and conditions and that you must read the prospectus or term sheet for a bond to understand the particular features of that bond. If you have any doubt about a bond’s terms and conditions and/or whether it is the right investment for you, you should consult your financial adviser.
Types and categories of bonds traded on ASX

As mentioned previously, bonds quoted on ASX can be broadly classified based on the type of interest they pay (fixed, floating or indexed). They can also be grouped based on the category of issuer (government or corporate).

**Bond categories based on type of interest**

1. **Fixed rate bonds**
   Fixed rate bonds pay a fixed rate of interest (the coupon rate) for the life of the bond. Because fixed rate bonds pay interest at a fixed rate, they carry interest rate risk as well as credit quality risk. If market interest rates rise or the financial health of the issuer deteriorates, investors will demand a greater yield and the price of the bond will fall. Governments mostly tend to issue fixed rate bonds.

2. **Floating rate bonds**
   Floating rate bonds make interest payments that are tied to some measure of current interest rates. A common measure is the 90 day bank bill swap rate or BBSW (a benchmark rate calculated by compiling an average of market rates supplied by certain approved banks for the sale and purchase of 90 day bank bills). Typically, the coupon will be expressed as a fixed margin above the benchmark rate (e.g. BBSW plus 2%). There are several names used interchangeably to describe a bond that pays a floating rate of interest, including a floating rate note, FRN or floater. Because floating rate bonds pay interest rates that are tied to current interest rates, the major risk with them is not interest rate movements but rather credit quality. If the financial health of the issuer deteriorates, investors will demand a greater yield and the price of the bond will fall. Corporates tend to be more active in issuing floating rate bonds than governments.

3. **Indexed bonds**
   Indexed bonds are generally medium to long-term bonds. The face value of the bond is adjusted periodically for movements in a nominated index, such as the Australian Consumer Price Index (CPI) or an index tied to the price of a particular commodity. Interest is usually paid at a fixed rate on the adjusted face value. At maturity, investors receive the adjusted face value of the indexed bond plus the final coupon based on the adjusted face value. Indexed bonds that are tied to a general measure of inflation (such as the CPI) ensure that you receive a return above the inflation rate throughout the entire life of the bond, giving you security whilst eliminating inflation risk.

To compare the expected coupon payments on an indexed bond tied to CPI with that of a fixed rate bond, you simply add the expected inflation rate to the coupon rate of the indexed bond.
Bond categories based on type of issuer

1. Government bonds

Government bonds are generally considered to have a lower credit risk than corporate bonds and therefore may be suitable for investors seeking stable and highly secure cashflows. However, because of their lower risk, they also tend to have a lower yield to maturity.

There are two types of Australian government bonds traded on ASX – Treasury Bonds (or ‘TBs’) and Treasury Indexed Bonds (or TIBs). TBs are fixed rate bonds and, as the name implies, TIBs are indexed bonds linked to the CPI.

TBs and TIBs are usually issued in series, with each series having its own coupon rate and maturity date, some from less than one year and others to over fifteen years. They make up the largest single pool of bonds in the market and offer a wide range of bond series. Market makers also provide tight bid and offer prices for all TBs and TIBs quoted on ASX, providing investors with very high levels of liquidity. Given the size of the market, the liquidity and security of government bonds is unrivalled.

The full list of TBs and TIBs traded on ASX can be found on the ASX website.

For more information on TBs refer to the Exchange-traded TB Information Statement produced by the Australian Government. For more information about TIBs, refer to the Exchange-traded TIB Information Statement produced by the Australian Government.

2. Corporate bonds

There are a variety of corporate bonds traded on ASX. The terms of corporate bonds can vary quite markedly and therefore it is important that you read the prospectus or term sheet for an individual bond to understand its terms. It is also important that you assess the creditworthiness of the issuer of the bond as that too can vary markedly between issuers.

In practice, the corporate bond market on ASX is far less liquid than for bonds issued by governments. As a general rule, safer bonds with a better credit standing promise lower yields to maturity than other corporate bonds with similar maturities. ‘Junk bonds’, also known as ‘high-yield bonds’, are speculative-grade bonds which typically will have a low credit standing and therefore promise higher yields to maturity than other corporate bonds with similar maturities. The important rule to remember is the higher the bond issuer’s perceived credit risk, the higher the bond’s yield needs to be to compensate you for that risk.
Any investment carries with it some risk. This applies as much to bonds as it does to other investment types. Usually the greater the perceived risk, the higher the expected return required to compensate investors for that risk. So, bonds that are perceived to have higher risk attached will generally attract a higher coupon rate, while bonds that are perceived to have lower risk (such as government bonds) will generally attract a lower coupon rate.

Some key risks to consider when investing in bonds are interest rate risk, credit risk and liquidity risk. Each of these risks is covered in more detail below.

**Interest rate risk – the effect of changing interest rates on yields and prices**

If the coupon rate on a bond is floating, the yield on the bond can usually be expected to stay in line with current interest rates, so movements in interest rates generally should have very little impact on its price. However, if the coupon rate is fixed, the yield on the bond can only keep pace with changing interest rates if the price of the bond changes.

<table>
<thead>
<tr>
<th>Interest Rates*</th>
<th>Bond Yields</th>
<th>Fixed-Rate Bond Prices</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>↑</strong></td>
<td><strong>↑</strong></td>
<td><strong>↓</strong></td>
</tr>
<tr>
<td><strong>↓</strong></td>
<td><strong>↓</strong></td>
<td><strong>↑</strong></td>
</tr>
</tbody>
</table>

* In this context, interest rates should be understood as a broad term describing the general level of interest rates in the market.

There is an inverse relationship between the capital price of a fixed-rate bond and expected yields – the capital price will go up if expected yields fall and will go down if expected yields rise. The same thing happens to share prices – share prices go up if expected dividend yields fall and go down if expected dividend yields rise.

The table below shows the effect of different yields on the capital price of one bond with a fixed 5% coupon and on another bond with a fixed 8% coupon.

<table>
<thead>
<tr>
<th>YIELD</th>
<th>5% FIXED-RATE BOND</th>
<th>8% FIXED-RATE BOND</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TIME TO MATURITY</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 years</td>
<td>4 years</td>
</tr>
<tr>
<td>4.00%</td>
<td>$101.904</td>
<td>$103.663</td>
</tr>
<tr>
<td>6.00%</td>
<td>$98.141</td>
<td>$96.490</td>
</tr>
<tr>
<td>8.00%</td>
<td>$94.555</td>
<td>$89.901</td>
</tr>
</tbody>
</table>
Credit risk
Credit risk is related to the financial strength of the issuer. Generally, the higher the credit quality of the issuer, the lower the risk associated with the bond and therefore the lower the yield required by investors. For this reason, government bonds typically pay a lower interest rate than corporate bonds and other interest rate products, because the credit risk is lower. Similarly, secured corporate bonds typically pay a lower interest rate than unsecured corporate bonds, because the credit risk is lower. However, this does not mean that your investment is risk-free.

Credit risk also includes credit spread risk. This arises when investors demand a higher spread for bonds with higher credit risks compared to lower risk bonds, such as government bonds. This is often associated with a downturn in economic conditions, leading to an expectation of higher levels of default on higher risk bonds.

Liquidity or marketability risk
Liquidity risk is the risk of not being able to sell your investment quickly and easily in the market if you need to. For some corporate bonds, particularly those with small numbers on issue, liquidity may be poor. At the other end of the spectrum, government bonds are highly liquid, being traded not only on ASX but also actively in the wholesale market. For some bonds (like exchange-traded AGBs), ASX has dedicated market makers whose job is to ensure that there is always a fair price for you to trade against, should you need to.
Government bonds – an example

This example uses illustrative rates and figures to demonstrate one particular scenario. In order to assess the merits of any particular transaction, rates and figures applicable at the time need to be used. This case study does not take into account any losses or gains on the value of a government bond as a result of changing market conditions or interest rates.

On 26 May 2009, you purchase 1,000 Exchange-traded Treasury Bonds with the following characteristics:

<table>
<thead>
<tr>
<th>Description</th>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Coupon</strong></td>
<td>6% fixed</td>
</tr>
<tr>
<td><strong>Coupon frequency</strong></td>
<td>Semi-annual: 15 February and 15 August</td>
</tr>
<tr>
<td><strong>Maturity date</strong></td>
<td>15 February 2017</td>
</tr>
<tr>
<td><strong>Face value</strong></td>
<td>$100</td>
</tr>
<tr>
<td><strong>Purchase price per bond</strong></td>
<td>$108.172 (excluding brokerage and fees)</td>
</tr>
<tr>
<td><strong>Total purchase price</strong></td>
<td>$108,172 (excluding brokerage and fees)</td>
</tr>
</tbody>
</table>

If you hold the bonds to maturity, the return on your investment will be as follows:

**Income stream**

The coupon is 6% per annum. The coupon is paid semi-annually so the amount you are due to receive twice a year will be:

\[
(\text{number of bonds} \times \text{face value}) \times (\text{coupon rate} / \text{coupon frequency}) = (1,000 \times 100) \times (0.06/2) = $3,000
\]

You will receive this amount, twice yearly, starting on the first interest payment date after the bonds were purchased on 26 May 2009 (ie on 15 August 2009) until the second last interest payment date before the bonds are due to mature (ie on 15 August 2016).

**Payment at maturity**

The maturity date is 15 February 2017, at which point you are due to receive the face value of the bonds as well as the final coupon. The payment due at maturity will be:

\[
[\text{number of bonds} \times \text{face value}] + [(\text{number of bonds} \times \text{face value}) \times (\text{coupon rate} / \text{coupon frequency})] = [1,000 \times 100] + [(1,000 \times 100) \times (0.06 / 2)] = 100,000 + 3,000 = 103,000
\]

You will receive this amount on 15 February 2017.

**Yield**

The nominal yield of the bonds is equal to their coupon rate of 6%. The nominal yield will remain at 6% throughout the life of the bonds, because the coupon rate is fixed.

However, to calculate your true yield to maturity, you need to take account of the premium you paid for the bonds over and above their face value, as well as the accrued interest at the time of purchase.

You bought the bonds on 26 May 2009. This is 100 days after the last coupon was paid on 15 February 2010 and so there is accrued interest incorporated into the price of the bonds, calculated as follows:

\[
\text{(face value)} \times (\text{coupon rate}) \times (\text{number of days since coupon payment})/365 = 100 \times 0.06 \times 100/365 = $1.644
\]

So of the total purchase price of $108.172 you paid for each bond, $1.644 represents accumulated interest and the real capital price you have paid for each bond is $106.528, not $108.172.

The formula for calculating yield to maturity is quite complex, but taking account of the payments you will receive by way of in-come stream (interest) and at maturity, the real yield on your investment in the bonds is 4.97%.

Note that the yield to maturity (4.97%) is lower than the coupon (6%). This is because the real capital price you paid per bond ($106.528) was higher than its face value ($100).
Floating rate notes – an example

This example uses illustrative rates and figures to demonstrate one particular scenario. In order to assess the merits of any particular transaction, rates and figures applicable at the time need to be used. This case study does not take into account any losses or gains on the value of a corporate bond as a result of changing market conditions or interest rates.

On 10 May 2010, you buy 50 FRNs issued by XYZ Company with the following terms.

<table>
<thead>
<tr>
<th>Term</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Issuer</td>
<td>XYZ Company</td>
</tr>
<tr>
<td>Coupon</td>
<td>90 day BBSW + 2.0%</td>
</tr>
<tr>
<td>Coupon Frequency</td>
<td>Quarterly: 11 February, 11 May, 11 August and 11 November</td>
</tr>
<tr>
<td>Maturity Date</td>
<td>11 February 2020</td>
</tr>
<tr>
<td>Face Value</td>
<td>$100</td>
</tr>
</tbody>
</table>

If you hold the bonds to maturity, the return on your investment will be as follows:

**Income stream**

The coupon being variable will be determined by the prevailing 90 day BBSW rate each coupon date. The coupon is paid quarterly so the amount you are due to receive four times a year will be:

\[
\text{(number of bonds x face value) x (coupon rate / coupon frequency)}
\]

\[
= (50 \times $100) \times (4.25 / 4)
\]

\[
= $78.12
\]

If the 90 day BBSW rate applicable for a coupon payment is 4.25%, then the coupon rate for the current period would be 6.25%. Therefore the coupon payment for this particular coupon payment date would be:

\[
= (50 \times $100) \times (6.25 / 4)
\]

\[
= $78.12
\]

Note that each coupon payment date would have a different coupon payment depending on the 90 day BBSW rate at the time.

**Payment at maturity**

The maturity date is 11 February 2020, at which point you are due to receive the face value of the bonds as well as the final coupon. Assume the applicable 90 day BBSW rate was 2.75%, the payment due at maturity will be:

\[
\text{[number of bonds x face value] + [number of bonds x face value] x (coupon rate / coupon frequency)]}
\]

\[
= [50 \times $100] + [50 \times $100 \times (0.0475 / 4)]
\]

\[
= $5,000 + $59.37 = $5,059.37
\]

You will receive this amount on 11 February 2020.
Buying and selling bonds on ASX

There are two main ways in which you can buy bonds. They are on the:
- primary market; or
- secondary market.

When you buy a bond on the primary market, you buy it from the issuer. If it is an ASX quoted bond, once the primary issue period has finished, the bond will start trading on ASX (the secondary market).

If you buy a bond on ASX, you are buying it from another investor and not from the issuer.

In order to buy or sell bonds on ASX you will need to use a broker. The ASX website can help you to locate a broker in your area that may be able to assist. Visit [asx.com.au/findabroker](asx.com.au/findabroker)

**How bonds trade on ASX**

Some bonds trade on ASX directly, while others (including government bonds) trade on ASX indirectly in the form of CHESS Depositary Interests, or CDIs*

Bonds that trade on ASX in the form of CDIs are typically large denomination bonds that primarily trade in the wholesale market. Issuing CDIs over those bonds allows them to be broken into smaller ‘bite-size’ investments for retail investors.

When you buy a CDI over a bond, you are buying a beneficial interest in the underlying bond. Holding a CDI gives you all the economic benefits (including the right to receive the payments) attached to your share of the underlying bond, without actually holding legal title to the bond. Further information about CDIs can be found in the [Understanding CHESS Depositary Interests brochure](#).

**ASX Codes**

Bonds trade on ASX using security codes in the same way as shares. Each bond is identified by an ASX security code that is five or six alphanumeric characters long.

1. **Government bonds**

Government bonds trade on ASX in the form of CDIs. They have a security code that is six alphanumeric characters long. The first three characters identify the type of government bond and the underlying government issuer, for example:

- GSB for Treasury Bond issued by the Australian Government; or
- GSI for Treasury Indexed Bond issued by the Australian Government.

The fourth letter indicates the expiry month (e.g. January = A or B, February = C or D, March = E or F, etc) and the last two numbers the expiry year (e.g. 2017 = 17).

*CDIs are a legal mechanism that allow investors to buy and sell interests in bonds and other securities on ASX and have the transaction settled through CHESS (the ASX computer system that manages the settlement process and records the ownership of securities traded on ASX and certain other markets in Australia), where the underlying bond or security isn’t or can’t be directly quoted on ASX.*
2. Corporate bonds

Corporate bonds trading on ASX have a security code that is five alphanumeric characters long. The first three characters identify the issuer, for example, WOW for Woolworths Limited. The fourth character identifies the type of bond. For example:

- H indicates an unsecured note

The fifth character, if any, is known as the sequence code. It indicates the number of that particular bond within a series of bonds on issue by the company. For example, WOWHA indicates the first unsecured note on issue by Woolworths Limited.

ASX security descriptions

In addition to its unique code, each debt security has three different security descriptions:

1. Long form description: A maximum of 50 characters
2. Abbreviated description: A maximum of 18 characters
3. Short description: A maximum of 8 characters

As you will have appreciated from this booklet, bonds can have a wide variety of features and characteristics. The descriptions provide some more information about these features, which are not discernible from the code.

You will find one or more of these descriptions on your CHESS Statement, trading screen, broker advice, financial newspaper report and other places where ASX debt securities are referred to.

What do the descriptions mean?

To understand what each description or letter means, use the Guide to the naming conventions and security descriptions for ASX quoted debt and hybrid securities. The Guide also contains a glossary of terms.

Description example – AYUHB

The security description provides the basic information about a security’s features. For example, AYUHB has the following ‘Long form description’:

SIMPLE BOND 3-BBSW+2.80% 15-12-20

Using the Guide, you can determine what the security description means.

SIMPLE BOND

Corporate bond can be defined as Simple if it meets the definition of a Simple Corporate Bond under the Corporations Act.

3-BBSW+2.80%

The security pays interest at a floating rate comprising a published reference rate and a fixed margin (which may be zero) set by the issuer.

15-12-20

The security’s maturity date.

Note: Due to character constraints, some features may not be able to be included in a security’s description. Always review the issuer’s prospectus, PDS or term sheet and consult your adviser to ensure you are familiar with all of a security’s features.

More information

- The Guide to the naming conventions and security descriptions for ASX quoted debt and hybrid securities
- Debt Securities information
- Security description reports
  - Master list of security descriptions
  - Treasury Bonds
  - Treasury Indexed Bonds
  - Bonds
  - Floating Rate Notes
Settlement
Settlement of bonds bought or sold on ASX takes place in ASX’s clearing & settlement facility, called CHESS (Clearing House Electronic Subregister System). Bonds traded in the form of CDIs can only be held as broker sponsored holdings in CHESS. You may hold other bonds in CHESS either as broker sponsored holdings or on the issuer’s register as issuer sponsored holdings.

CHESS settlements occur on a T+2 basis* and the quoted prices of bonds reflect this.

Price information
You can get information about current trading prices of bonds through a number of channels including:

- Financial websites such as the ASX website, asx.com.au
- Your broker who should be able to provide the current market price for any ASX quoted bond.
- The financial press which carry a list of the previous day’s market action and closing prices.

* T+2 means settlement occurs two business days after the trade date. For example, if you traded on Tuesday, 22 March 2016, the settlement date would be Thursday, 24 March 2016.
Glossary

**Accrued interest**
The amount of interest that has accrued on a bond from the bond’s original issuance date or the last coupon date, to the date when the bond is bought or sold.

The market price of a bond can generally be expected to increase daily by the amount of interest accrued. For example, a bond with a $100 face value and 6.5% coupon accrues interest at $6.50 per annum, or 1.78 cents per day. You can expect the market price of the bond to increase by around 1.78 cents per day until the next ex-interest date, when the accrued interest value will fall to zero.

**AGB**
Short for ‘Australian Government Bond’ – a bond issued by the Australian Government.

**Annual coupon**
A coupon that is paid once a year.

**Bank bill swap rate (BBSW)**
A compilation and average of market rates supplied by nominated domestic banks in regard to the specific maturities of bank bills. The purpose of BBSW is to provide an independent and transparent reference rate for the setting of interest rates and the pricing of various interest rate derivatives.

**Basis point**
One hundredth of a percentage point (0.01%). 100 basis points equals 1%. If a bond’s yield has gone up by 50 basis points, it has gone up by 0.50% (eg from 4.00% to 4.50%).

**Bid price**
The price a buyer is offering.

**Capital note**
A hybrid security that is essentially a debt security but with equity-like features. Examples include perpetual bonds (bonds which don’t have a maturity date), subordinated bonds (bonds that are subordinated to the claims of other creditors) and knock-out bonds (bonds that give the issuer or a third party a right to extinguish them under certain conditions).

**Capital price**
Gross price less accrued interest. This is the underlying value of a bond ascribed by the market. It is based on a number of variables, including current market interest rates relative to the coupon rate, time to maturity, ranking and credit quality. This value will usually remain relatively stable from one day to the next, unless general market interest rates move or the credit quality of the issuer changes.

**CHESS**
The Clearing House Electronic Subregister System, a system for clearing and settling trades executed on the ASX market and certain other markets in Australia.

**CHESS Depositary Interest or CDI**
A mechanism that allows certain bonds to trade on ASX and settle through CHESS. A CDI over a bond confers on the holder a beneficial interest in the underlying bond.

**Clean price**
The price of a bond after factoring out any accrued interest. Clean price is also referred to as the capital price of a bond. See also ‘dirty price’.

**Convertible bond**
A bond that gives the holder or the issuer the option to convert the bond into another type of security (often ordinary shares) at a specified date or dates in the future.
Converting bond
A bond that automatically converts into another type of security (often ordinary shares) at a specified date in the future.

Corporate bonds
Bonds issued by a company.

Coupon
The interest amount paid on the specified date to an investor in a bond. It is commonly expressed as a percentage rate. Coupons can be paid annually, semi-annually or quarterly or as agreed in the terms of the bond.

Coupon date
The date on which the coupon interest is paid to an investor of a bond.

Coupon frequency
The frequency with which coupon (interest) payments are made throughout the life of a bond. Usually this will be quarterly, semi-annually or annually.

Coupon rate
The nominal interest rate a bond pays.

Credit risk
The risk that an issuer may be unable to meet the interest or capital repayments on a bond when they fall due. Generally, the higher the credit risk of the issuer, the higher the interest rate that investors will expect in order to risk providing funds to the issuer.

Default
When an issuer cannot meet its payment obligations on a bond.

Dirty price
The price of a bond that includes the interest that has accrued and is due for payment on the next coupon payment. Dirty price is also known as the gross price of a bond. See also 'clean price'.

Discounted price
When the clean price or capital price of a bond is less than its face value.

Ex interest date
The date at which an exchange traded bond starts trading ex the entitlement to receive the current interest payment. This is usually one business day before the record date for the interest distribution.

Exchange-traded
A security or other instrument traded on an exchange.

Exchange-traded Australian Government Bond or Exchange-traded AGB
An AGB traded on ASX. The holder of an Exchange-traded AGB has a beneficial interest in an Australian Government Bond in the form of a CHESS Depository Interest (or CDI).

Face value
The amount that an investor is due to receive at maturity and on which interest is calculated over the life of a bond. This is also referred to as the par value or nominal value. Note: for an indexed bond the face value is adjusted for movements in the relevant index.

Fixed rate
A bond that pays a fixed rate of interest over the life of the bond.

Floating rate
A bond that pays a floating rate of interest by reference to a variable benchmark interest rate, such as the 90 day BBSW rate.

Floating rate note (FRN)
Another term for a bond that pays a floating rate of interest.

Government bonds
Bonds issued by a government.

Gross price
The price an investor pays to buy a bond, which is made up of its 'capital price' plus 'accrued interest'.

Hybrid security
A security that has both debt and equity characteristics.
Issuer
The entity (or borrower) that issues a bond to raise money from investors.

Liquidity
The ease with which a bond can be readily converted into cash.

Maturity date
The date on which a bond matures. This is the date on which the final coupon and the face value of a bond are paid to investors. A bond effectively expires once these payments are made.

Nominal value
The face value of a bond.

Nominal yield
A measure of the return on a bond based on the annual coupon payments expressed as a percentage of the face value of the bond. It takes no account of the current market price of the bond or any future capital gain or loss on the bond. For a fixed rate bond, the nominal yield is equal to the coupon rate.

Offer price
The price a seller is asking.

Over the counter
A security or other instrument that is not traded on an exchange such as ASX but transacted directly between buyers and sellers off-market.

Par value
The face value of a bond.

Perpetual debt security
A debt security with no maturity date.

Premium price
When the clean price or capital price of a bond exceeds its face value.

Principal
The face value of a bond on which interest is calculated. Note that for an indexed bond, the principal is adjusted for movements in the relevant index.

Purchase price
The dollar amount paid to purchase a bond.

Quarterly coupon
A coupon that is paid four times a year.

Record date
The date at which an investor needs to be registered as the holder of a bond in order to receive the current interest distribution.

Running yield
A measure of the return on a bond based on the annual coupon payments expressed as a percentage of its current market price. It takes no account of any future capital gain or loss on the bond.

Secured bond
A bond backed by a charge over an asset of the borrower.

Semi-annual coupon
A coupon that is paid twice a year.

Senior debt
A class of corporate debt whose rights with respect to payment of interest and repayment of principal rank ahead of (are senior to) other classes of debt and over all classes of equity by the same issuer. Senior debt is typically backed by a charge over various assets of the debtor.

Subordinated debt
A class of corporate debt whose rights with respect to payment of interest and repayment of principal rank behind (are subordinated to) another class or classes of debts. The subordination may be in favour of the holders of senior debt or to ordinary creditors generally.

TB
Treasury Bond – a type of AGB.

Term
The period from the issue date of a bond to its maturity. The term of a bond can vary greatly, from short term (up to five years) to medium term (five to 10 years) to long term (10 or more years).
TIB
Treasury Indexed Bond – a type of AGB.

Time to maturity
The number of days until a bond matures.

Unsecured bond
A bond that is not backed by a charge over an asset.

Yield
The annual return on a bond expressed as a percentage. There are different measures of yield: nominal yield, running yield and yield to maturity.

Yield curve
A graph showing the relationship between yield to maturity and time to maturity.

Yield to maturity
The average annual return an investor can expect to receive if they buy a bond for its current market value and hold the bond to maturity. The calculation factors in coupon payments, the time to and amount due at maturity, and the capital gain or loss that will be made on maturity. It also assumes that the coupon payments are reinvested in the bond.