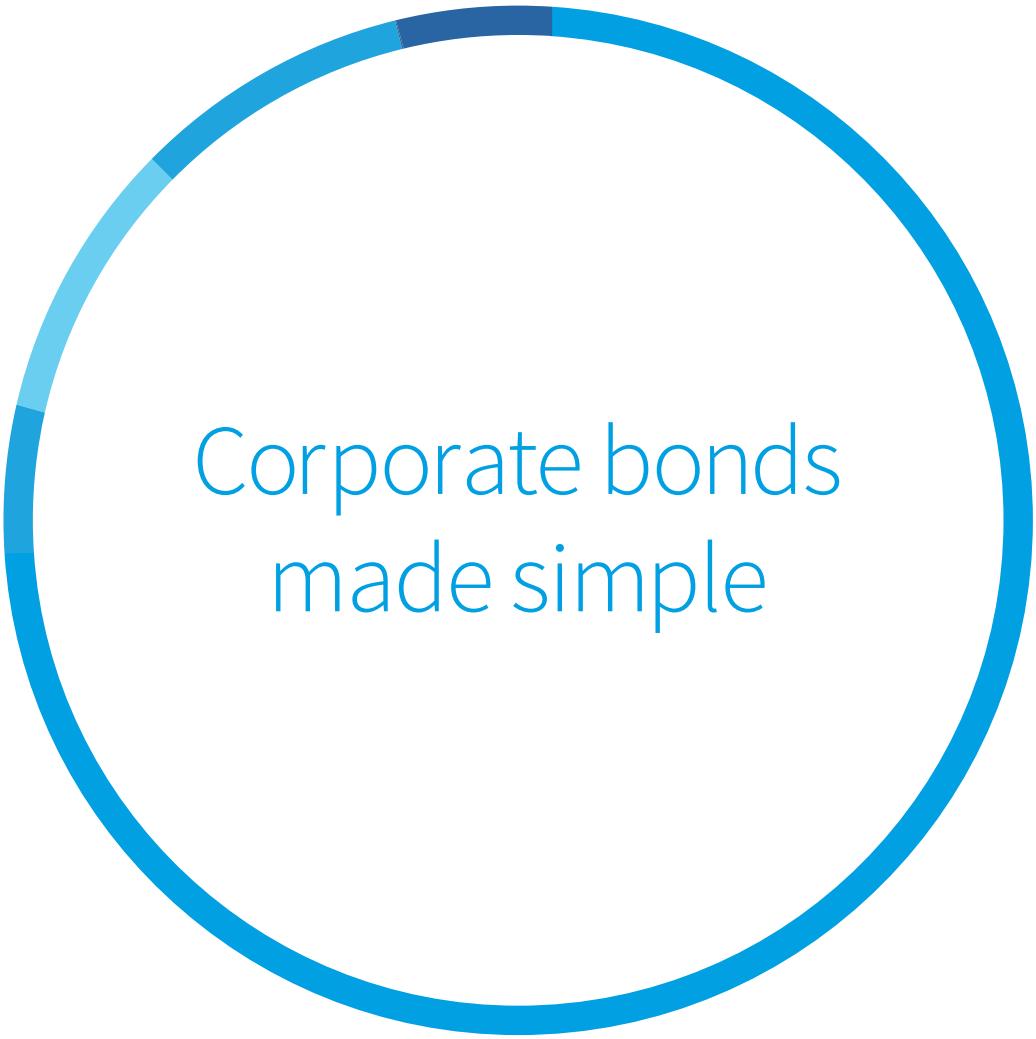
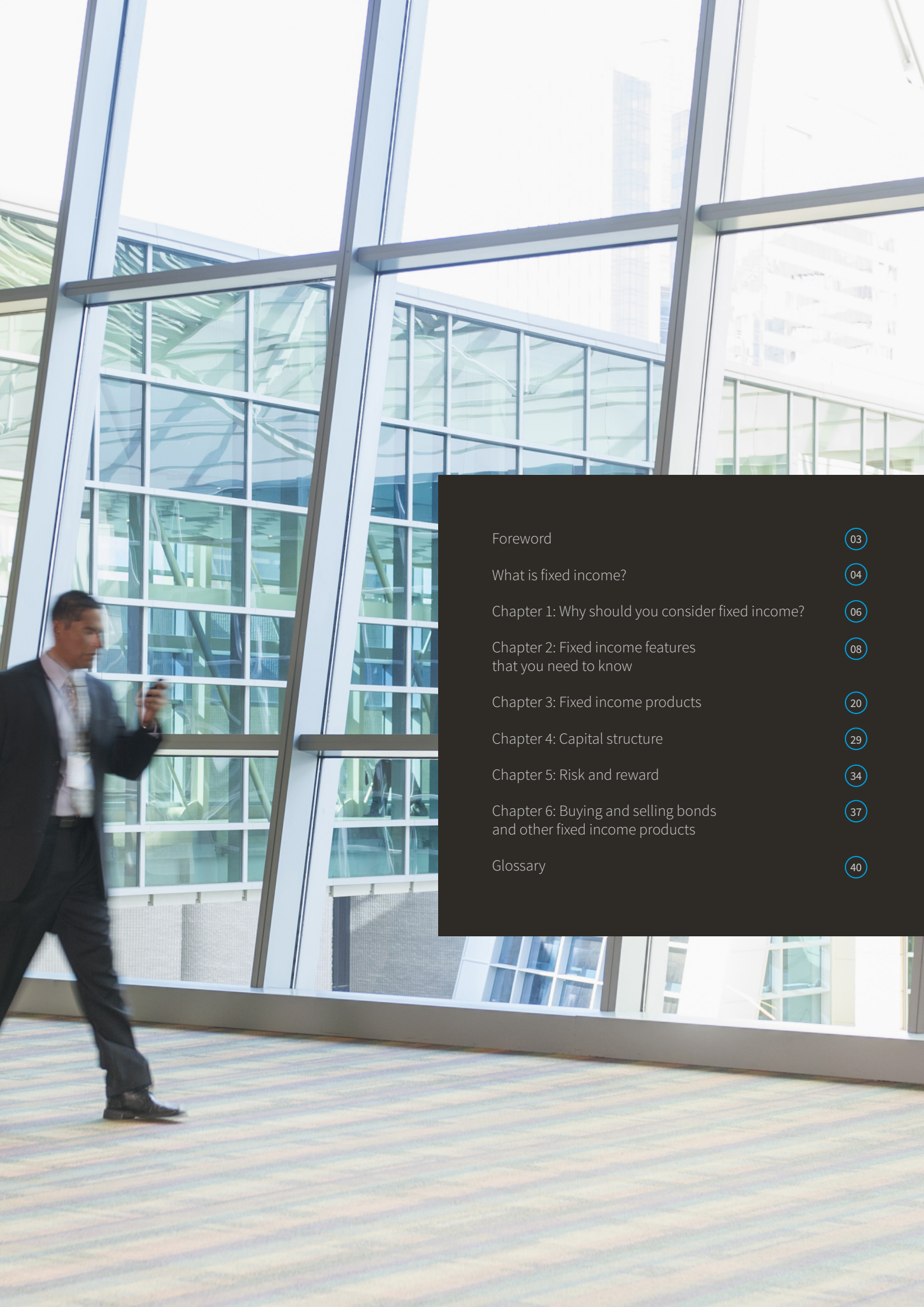


Corporate bonds made simple

FIIG | The fixed income experts



Foreword

Thank you for downloading Corporate Bonds Made Simple. We've produced this shortened, online version of our more comprehensive 284-page book "The Australian Guide to Fixed Income" in response to growing private investor demand for a better understanding of the asset class.

Bonds offer unique protections to your portfolio while also providing increased returns over deposits for a slight increase in risk. An allocation to bonds will help maximise your defensive returns.

The growing capital of SMSFs, coupled with the tighter regulatory requirements of banks under Basel III regulations mean that the Australian bond market is likely to continue to develop. Given the global bond market is twice the size of the global share market, all investors need an understanding of bonds to make informed investment decisions.

We hope you enjoy learning more about bonds, and the broader fixed income class.

Elizabeth Moran
Director Education and Research

What is **fixed income?**

Fixed income refers to debt securities that pay a defined distribution (the interest) for a given period of time (the term) and repay the face value of the security at maturity.

A fixed income security or bond is a loan from an investor to the issuer of the security. Issuers of fixed income securities in Australia include the Commonwealth government, state governments, banks and corporations.

The specific structure of a fixed income security can vary significantly depending on the issuer, term and maturity, coupon type and level of subordination.

Here are some key aspects of fixed income:

01 Fixed income securities are low risk and provide a defined income stream and capital stability.

02 Fixed income securities include deposits, bonds (senior secured, senior unsecured and subordinated) and hybrids.

03 Unlike ordinary shares, the structure of fixed income securities can vary significantly between issues. Investors can tailor their holdings based on term, interest rate structure and sensitivity, issuer credit quality, subordination and other factors.

04 Practically all fixed income securities rank higher in the capital structure of an issuer than ordinary shares. This means that if the company enters liquidation, fixed income securities are repaid before any funds can be returned to shareholders.

05 Bonds provide good portfolio diversification, as returns typically have low correlation with property and equity.

06 Commonwealth government and state government bonds provide greater diversification than corporate bonds as they have no link to corporate performance.

07 AUD bonds are issued by ASX-listed Australian companies as well as non-listed and international corporations.

08 The global bond market provides an opportunity to invest in foreign currency bonds issued by domestic and international issuers.

09 Inflation-linked bonds are the only direct hedge against inflation.

10 Bonds are generally liquid investments and while some have very long terms to maturity, there is an active secondary market. Investors do not have to hold investments until maturity.

11 There is an opportunity for capital gain or loss; however, investors will typically receive a positive return if they hold the securities until maturity.

1. Why should you consider **fixed income?**

In a word: versatility

From an investor's perspective, the fixed income asset class covers many variables but the main purpose is to gain a low-risk, reliable income stream and preserve capital. The class is attractive for many reasons because it provides:

- **Capital stability:** the $100 face value of a bond is typically repaid at maturity.
- **Regular income:** the bondholder usually receives regular interest payments over the term of the debt.
- **Diversity, balance and protection:** fixed income investments are low risk and often countercyclical, protecting against downturns in the more volatile share and property markets.
- **Higher returns than deposits:** bonds generally offer higher returns than term deposits.
- **A range of terms to liquidity:** there's no need to hold bonds until they mature.

Let's take a closer look at each of these benefits.

Capital stability

One of the key characteristics of most fixed income investments is the repayment of the initial investment at maturity, or in some cases, over the life of the bond. Of course, capital repayment is subject to the ability of the issuer of the bond to meet this obligation. Fixed income includes a spectrum of issuers with different risks; however, all fixed income securities are guaranteed by their issuers. So assuming the government, corporation or the issuer of the security remains solvent and does not go into liquidation, investors receive repayment of their capital at maturity.

One of the lowest risk fixed income products is an Australian government bond issued by the Commonwealth government of Australia (AAA rated) which returns face value at maturity. Higher risk products like subordinated debt (bonds) and hybrid securities issued by a range of corporations (including high and low risk entities) offer much higher returns than government bonds. As long as investors are comfortable with the underlying credit quality of the issuer, these assets can provide stability and diversity in a portfolio.

Regular income

Bonds provide a regular income stream through coupon (interest) payments where the dates and amount of the coupon payable are defined at the time of issue. A portfolio of bonds can be tailored to meet investors' cash flow requirements.

Diversity, balance and protection

Diversification spreads investment across a range of assets, maturities, industries and risks with the aim of reducing the impact of any one investment in a portfolio. Fixed income allows investment diversification away from the two most highly cyclical asset classes: shares and property.

Fixed income products can counter balance higher risk investments in a portfolio and they can serve to even out returns in times of high volatility.

Generally, a fixed income allocation in your portfolio will also act to protect it during a cyclical downturn. A greater allocation will provide greater protection. Setting your asset allocation and regularly rebalancing your portfolio, assuming a set fixed income allocation, should provide ongoing protection.

Most, if not all, balanced investment portfolios should contain a significant fixed income allocation to assure investors of their continued ability to meet ongoing business and personal commitments. The fixed income asset class offers a broad spectrum of products, risks, returns and maturities to provide a diversified and balanced portfolio solution for investors.

Higher returns than bank deposits

Term deposits provide minimal risk but earn relatively low returns. Investing in lower ranked but still high-quality assets issued by the same institution can provide higher returns. By undertaking this strategy, the investor retains exposure to the same company (assured of its credit quality and ongoing viability) but improves overall return by taking a subordinated position within the overall capital structure of the issuer (see Chapter 4). Table 1 provides an example of how expected returns change within the same major Australian bank as an investor takes on different levels of risk. At the time of writing, term deposit rates offered by major Australian banks were good relative value, with senior debt only offering an additional 0.02% premium over three years.

A range of terms to maturity

Bond maturities typically vary between one and 10 years although some inflation-linked bonds are issued in Australia for 25 or 30 years. It is not uncommon for international companies or banks of very strong credit quality to issue bonds in their domestic markets for 50 or even 100 years. Investors do not need to hold a bond until maturity as bonds are tradable securities and can be sold prior to maturity. The investment return in this instance may differ from the initial yield due to the price of the security in the market at the time of sale.

Liquidity

Cash is an important component in a portfolio, allowing investors to pay their bills and maintain their positions. Equally, very low risk, highly liquid fixed income investments like government bonds can be sold at short notice if needed. Liquidity is a fundamental factor in building a portfolio. Assets that cannot be easily sold or traded in a secondary market need an appropriate return to compensate for illiquidity. An important function of liquidity is being able to sell an asset quickly without significant loss.

Summary

A fixed income asset generally returns the initial investment to the holder at maturity, paying an income over the term. Their various forms help diversify by risk, asset class, market and more, providing an element of protection, particularly in times of volatility or cyclical downturn. They also offer better potential returns than other defensive assets such as bank term deposits. Fixed income products have various terms to maturity and these can be tailored to suit each individual investor. However, bonds do not have to be held until they mature; the secondary market for fixed income gives these assets great liquidity. They are a versatile asset for any portfolio.

In Chapter 2, we'll examine how bonds work, including some of the primary factors that affect their prices, their yield and their value.

Table 1: Snapshot returns of securities offered by a major Australian bank* as at 30 June 2014

Securities	Maturity	Yield**
Term deposit	90 days	3.40%
	1 year	3.40%
	3 years	3.90%
Senior bonds	3 years	3.92%
Subordinated bonds	3 years	4.72%
Hybrids	3 years	6.02%

*Rated AA- Stable by S&P **Yield is a fixed rate equivalent

2. Fixed income features that you **need to know**

Understanding fixed income

Various forces affect the prices and values of bonds. In this chapter we will examine the major factors you'll need to know when evaluating fixed income assets, including:

- Interest rates
- Yields
- New issues and secondary markets
- Discounts and premiums
- Credit risk
- Liquidity risk
- Credit ratings
- Bond market indices

Let's take a closer look at each one.

Interest rates

An interest rate is defined by The Economist's Dictionary of Economics as:

> *"The price a borrower has to pay to enjoy the use of cash which he does not own, and the return a lender enjoys for parting with liquidity."*

Interest rates are important in pricing all market securities, as they are used to assess the time value of money and the levels at which future cash flows are discounted. The present value of a security is the sum of the future stream of cash flows discounted at the appropriate interest rate or rates.

In relation to debt securities, a large range of factors, such as the credit quality of the issuer, the maturity date of the debt, the coupon paid (income stream) and the currency in which it is issued, will influence an investment's discount rate. Interest rates are also important to companies since most investment decisions are based on evaluations of alternative opportunities and the cost of capital.

The RBA's influence

A decision to make an investment should represent a determination that a particular investment is a better use of capital than any alternative. The interest rate that entices an investor to invest will also depend on the interest rates being offered on alternatives.

For this reason it is important to review how the Reserve Bank of Australia (RBA), through its implementation of monetary policy, can influence the absolute level of return required for certain investments (specifically, the rate banks charge each other to lend on an unsecured basis, overnight).

Because the required return on any investment is relative to the return on all other investments, this effectively sets a benchmark against which all other investment returns must be considered.

When people discuss interest rates, they're generally referring to nominal interest rates. A nominal interest rate is one where there is no allowance for the effect of inflation. However, changes in the nominal interest rate often move with changes in the inflation rate, as lenders not only have to be compensated for delaying their consumption (that is by saving and being willing to lend those funds), but they must also be compensated for the fact that a dollar will not buy as much a year from now as it will today.

The RBA is responsible for formulating and implementing monetary policy. The objectives of the RBA's obligations in respect to monetary policy are set out in Section 10(2) of the Reserve Bank Act 1959 and are as follows:

> *"It is the duty of the Reserve Bank Board, within the limits of its powers, to ensure that the monetary and banking policy of the Bank is directed to the greatest advantage of the people of Australia and that the powers of the Bank ... are exercised in such a manner as, in the opinion of the Reserve Bank Board, will best contribute to the:*
>
> *a. Stability of the currency of Australia;*
>
> *b. Maintenance of full employment in Australia; and*
>
> *c. Economic prosperity and welfare of the people of Australia.*
>
> *Since 1993, these objectives have found practical expression in a target for consumer price inflation, of 2%-3% per annum. Monetary policy aims to achieve this over the medium term and, subject to that, to encourage strong and sustainable growth in the economy. Controlling inflation preserves the value of money. In the long run, this is the principal way in which monetary policy can help to form a sound basis for long term growth in the economy."*
>
> Source: www.rba.gov.au

The RBA's primary medium term objective is to achieve an average rate of inflation of between 2%-3% over the economic cycle. This is a rate that is sufficiently low enough not to materially distort economic decisions and acts as a nominal target that provides a degree of transparency and accountability for the bank. Whilst the target inflation rate has numerical simplicity, the RBA's implementation of monetary policy is a discretionary framework as opposed to a mechanically strict regime. This allows for the inevitable uncertainties that are involved in forecasting and lags in the effects of monetary policy on the economy, as well as flexibility to account for a range of other macroeconomic variables such as growth and employment.

Features of fixed income

The RBA's monetary policy objectives mean that interest rates are positively related to economic activity. As growth increases so will interest rates, as inflation will generally rise with excess demand in the economy. Conversely, in times of relatively low activity, monetary easing will see a drop in interest rates as inflation pressures fall.

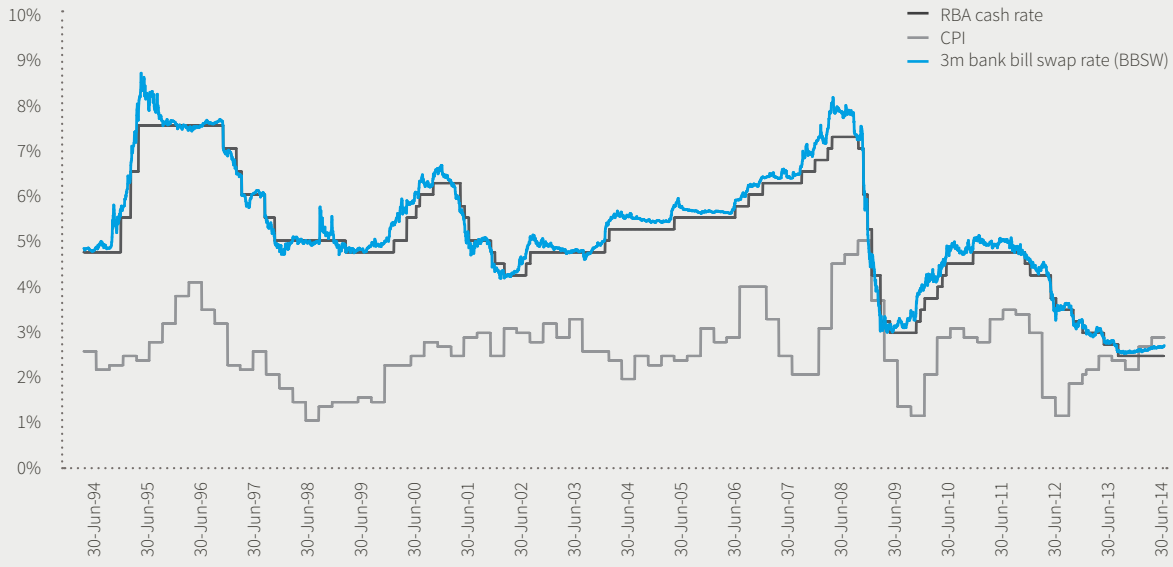
The tool the RBA uses to maintain inflation within the 2%-3% range is the target overnight cash rate. The cash rate is calculated simply as the weighted average of the overnight interbank cash rates quoted by domestic banks. The overnight cash rate is the interest rate paid by banks in the overnight interbank money market for unsecured loans (also known as exchange settlement funds).

The RBA announces the target cash rate following its monthly board meeting and then uses open market operations to ensure the demand and supply of exchange settlement funds in the payments system is consistent with maintaining that cash rate.

Figure 1 shows that current interest rates are at extremely low levels. This is a product of the RBA using monetary policy as a means of economic stimulus for the Australian economy. Lower interest rates are more likely to increase investment when inflationary risks are lowered by a general decline in aggregate demand.

Changes to the official cash rate generally have flow on effects to longer-term rates. The correlation between the cash rate, the 3-month bank bill swap rate (3-month BBSW) and the Consumer Price Index (CPI) is also depicted in Figure 1.

Figure 1: RBA cash rate, BBSW & CPI comparison (December 1993 - June 2014)



Source: FIIG Securities Limited, RBA, Bloomberg

The RBA, through manipulation of exchange settlement funds and thus the cash rate, sets the benchmark against which alternative uses of funds are compared.

Making money with bonds – the yield

Bond investors earn an income by investing in bonds and this is known as the coupon. They can also earn higher than expected returns by:

01 Buying bonds in the secondary market that are trading at a discount to face value and holding until maturity

02 Selling bonds prior to maturity, at a higher price than what was paid for the bond

The yield is the expected return on an investment. The yield or rate of return can be described in a number of ways.

The coupon

The coupon is the rate of interest paid on a fixed income investment or bond. The coupon does not change throughout the life of the security.

$$\text{Coupon} = \left(\frac{\text{annual dollar interest paid}}{\text{face value}} \right) * 100$$

Coupon payments are made at regular intervals by the issuer to the investor, normally expressed as a percentage per annum. Coupons can be fixed or floating. This means they have a fixed interest rate determined at the time of issue, or a variable interest rate anchored to some form of floating benchmark, normally the bank bill swap rate (BBSW). Coupons are normally paid on either a quarterly, half yearly or annual basis.

For example, a $100 bond with a five-year term and 6% fixed rate will pay a coupon of $6 a year, or $3 each half year (see Figure 2).

Australian floating rate bonds generally pay a quarterly coupon while fixed rate bonds pay mostly a half yearly coupon. Fixed rate bond half-year coupon payments are a flat annual coupon payment divided by two. There is no adjustment for the number of actual days in the coupon period. So if the coupon is 6% and paid on a half yearly basis, the holder receives $3 per $100 of face value every six months.

Running yield (also known as current yield)

Running yield uses the purchase price of a bond instead of its face value and represents the return an investor would expect if he or she purchased a bond and held it for a year. It is calculated by dividing the coupon by the current market price. Investors wanting to calculate running yield on bonds in their portfolio need to use the purchase price they paid for the bonds.

$$\text{Running yield} = \left(\frac{\text{annual dollar interest paid}}{\text{current market price}} \right) * 100$$

Note: Current market price is the "clean" price, that is, it does not include any accumulated interest.

How coupons vary between fixed and floating rate bonds

Fixed Rate	Floating Rate
Mostly pay half yearly coupon payments which are a flat rate annual coupon divided by two	Generally pay a quarterly coupon linked to the bank bill swap rate (BBSW)
Income doesn't change	Income does change

For example, if you purchase a bond with a $90 current price that has a $100 face value at maturity and this bond pays a coupon of 6% of the face value, you will receive a cash flow of $6 a year. Given this return is achieved with a discount outlay, namely $90, instead of $100 face value your actual return will be greater than 6%. Therefore your current yield or your running yield would be 6.66% (6/90 x 100 = 6.66). As the bond price declines, running yield increases.

Running yield or current yield is also referred to as "bond yield" or "dividend yield" for equities.

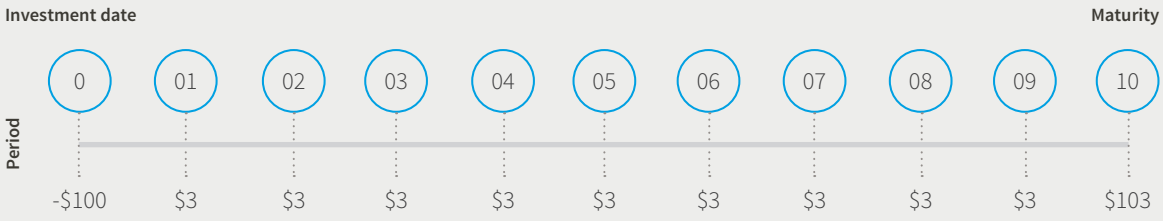
Yield to maturity (YTM)

The running yield calculation above shows the return the annual coupon payment gives the investor, but it does not take into account the time value of money or, more specifically, the present value of the coupon payments the investor will receive in the future and the discount or premium paid on purchase or received on maturity.

The yield to maturity refers to how much a security will earn if it is held to its maturity date. It is the annualised return based on all coupon payments plus face value if you hold the security until maturity or the market price if it was purchased in the secondary market (see the section below on new issues and secondary markets). It includes any gain or loss if the purchase price was below or above the face value.

The yield to maturity is considered an important variable of bond analysis because it provides a basis for comparison between different securities and other interest rate based products. There are limitations to the calculation as it assumes that the coupon payments can be reinvested at the yield to maturity rate, in other words there is an element of reinvestment risk.

Figure 2: Fixed rate bond cash flow example



Note: Each period represents six months.

Source: FIIG Securities Limited

New issues and secondary markets

If an investor buys stocks or bonds when they are initially offered for sale, the money invested goes to the issuer. This is known as buying in the primary market. Brokers and banks may buy large amounts of bonds and securities in the primary market and then sell them on to investors in the secondary market.

The secondary market is where bonds are traded after they are issued and it describes all of the exchanges, trading rooms, and electronic networks where these transactions take place. The originating issuer of the security receives no proceeds from these trades in the secondary market. It is common for a bond to change hands a number of times on the secondary market before it reaches maturity.

Interest rate securities have traditionally been traded in the over the counter (OTC) market by institutional investors. The OTC market comprises securities firms, banks and investors that trade bonds by phone or electronic means. Some are dealers that keep an inventory of bonds and buy and sell these for their own account; others act as brokers or agents and buy from or sell to other dealers in response to specific requests from customers (see Chapter 6).

The Australia Securities Exchange (ASX) trades a limited number of interest rate securities on its exchange, as do other global exchanges.

Discounts and premiums

Bonds can be priced at a premium, discount or par (equal to face value). Face value is typically $100.

If a bond's coupon rate is higher than current prevailing yields, the bond's price will be higher than its face value and it will trade at a premium.

If the bond's price is lower than its face value, the bond is said to trade at a discount and current yields available in the market will be higher than the bond's coupon rate.

Interest rates and prices, the seesaw

When interest rates rise, fixed rate bond prices generally fall. Conversely, when interest rates fall, bond prices rise. Put simply, think of a seesaw in perfect balance. Assume you buy a $100 bond with 10 years to maturity that pays a 5% coupon delivering a required yield of 5% and this is the starting point. A rise in interest rates to 6% means that for the bond to have the same initial return of 5%, the face value must reduce proportionally to $92.56 so that the seesaw remains balanced. The reverse is also true. If interest rates fall to 4%, then the bond price must increase to $108.18 to maintain the initial 5% return (see Figures 3a, 3b and 3c).

This is the basic inverse relationship between interest rates and fixed rate bond prices. Short-term investors are able to renegotiate interest rates after short periods. However, a fixed rate instrument with a pre-determined maturity value that has already been fixed can only reflect a change in interest rate by lowering or raising the price for it.

How changing interest rates affect fixed rate bond prices

Figure 3a

Interest rate = 5% Price = $100

Figure 3b

Interest rate rises to 6% from 5% Price falls = $92.561

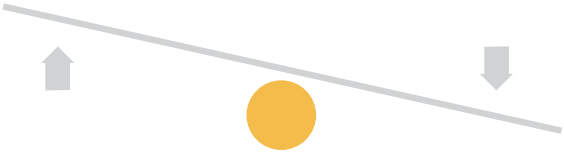
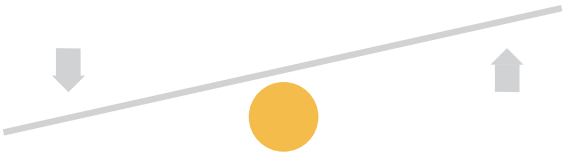


Figure 3c

Interest rate falls to 4% from 5% Price rises = $108.176



Source: FIIG Securities Limited

The required interest rate will change based on factors specific to the security; for example, if the perception of its risk has changed or if the interest rate being offered on other securities has changed.

Therefore, a change in underlying interest rates as a result of RBA activity will have an impact on the price of fixed rate bonds.

Bonds perform two actions within a portfolio. They provide:

- Income
- The potential for capital gain or loss

Most people tend to concentrate only on any potential income, but bonds may provide a capital gain that can be equally important as an insulation function for your portfolio (see Chapter 3). For this reason, fixed rate bonds are an essential part of a balanced portfolio, as they help to reduce the volatility of returns in divergent growth scenarios.

Investors can choose to invest in variable rate bonds (for example floating rate notes or FRNs) so that interest payments (known as coupons) reflect changes to market interest rate levels. These bonds are more capital stable in that the coupons they pay rise and fall with interest rates and the bond price is not impacted to the same degree as a fixed rate bond when interest rate expectations change. FRN coupons are tied to an underlying benchmark such as the bank bill swap rate (BBSW) and usually have a fixed margin over and above the benchmark. These bonds are more attractive in a rising rate environment. The fixed income asset class caters for all types of investors.

Fixed versus floating – impact of interest rates

Fixed rate bond	Floating rate bond
Interest rate changes impact the bond price but not the interest or coupon payment	The price of the bond is not affected to the same degree as fixed rate bonds, as changes to interest rates are reflected in the interest or coupon payment

Credit risk

Credit risk is, broadly speaking, the risk that the borrower may be unable to fulfil its financial obligations. From an investor's perspective the debtor has two principal obligations:

- To pay interest when it's due
- To repay the principal when it's due

The primary question in bond credit analysis is whether the issuer of a debt security can service its debt in a timely manner over the life of a given bond issue or loan.

Generally, credit risk is greater for securities with a long maturity, as there is more time for the issuer to potentially default or encounter difficulties.

Different debt owners or creditors within a corporate structure have different rights of repayment should a company be wound up (see Chapter 4). Compared with other investment opportunities in a typical company, bonds are considered a relatively low-risk asset class as:

- They represent a legal commitment to make interest and principal payments
- They have a maturity date (excluding perpetuals) at which time the borrower has an obligation to return all outstanding principal
- Their place in the capital structure means that in the event of a company winding up, bondholders are relatively senior in the creditors' queue, although they may be subordinate to secured creditors (see Chapter 4)

Four main factors influence the relative credit risk of a bond:

01 The level of subordination of a bond will affect its risk profile. The more subordinated the bond to the other creditors of the company, the higher the risk of that bond.

02 Time to maturity or duration. The longer the bond, the greater the risk for two main reasons:

   a. A change in the yield will cause greater movements to a longer bond's price than a shorter-term equivalent bond.

   b. The longer the bond the greater chance of an issuer defaulting. The longer the bond is in circulation, the longer its term to maturity and the greater the chance that something will happen to that company, its industry, or the product it makes or sells, that will cause it to default. Bear in mind that the risk of investment-grade companies defaulting is very low.

03 The existence of any issuer call options increases the risk of the bond. For example, a typical subordinated bank issued bond in Australia gives the issuer the option to choose not to repay principal at the call date, but delay it until final legal maturity at a specified future time, usually 10 years from first issue. Options allow the issuer to refinance when it suits them but this is unlikely to suit the investor at the same time.

04 Anything that lowers the credit quality of a bond will increase its risk. This may include changes in the broader economy, the financial position of the issuer or decisions that potentially impact profit.

Analysing creditworthiness of debt issuers is a complex task. FIIG has a specialist Research Team devoted to analysing risks associated with bond issuers from a fixed income perspective, as debt and equity investors' interests are often different. What may be negative for shareholders can be a positive development for bondholders.

For example, a cut in dividend is negative from a shareholder's perspective (and for a large company this will be widely reported in the media), but it may mean the company is retaining cash within the business, ultimately supporting bondholders by providing additional subordination.

Credit spread

The credit spread represents the additional interest income an investor receives for holding a corporate bond over a benchmark with comparable maturity (usually government securities or the swap rate). Credit spreads contract as the credit quality of the bond is perceived to improve and vice versa.

The benchmark contains an allowance for inflation and what's known as a real rate of return. If we use the Commonwealth government 10-year bond rate as the benchmark, then a corporation will need to pay an additional return to investors to compensate for the additional risk of the investment. This amount over and above the benchmark is known as the credit spread (see Figure 4).

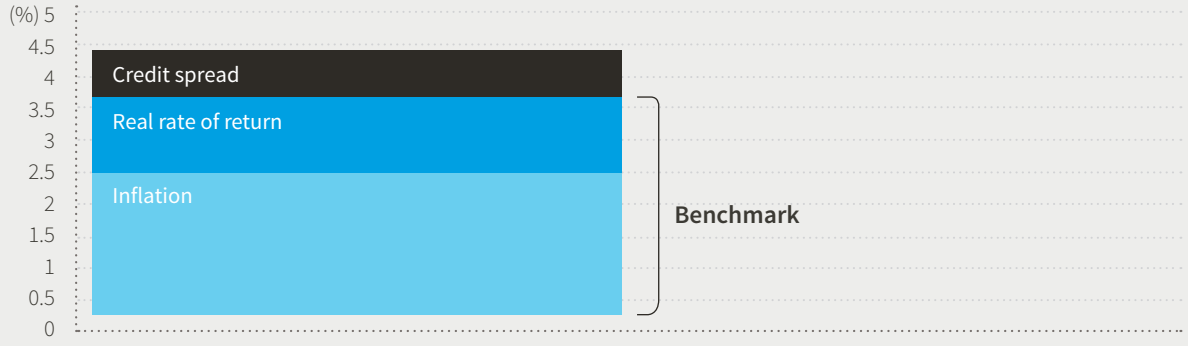
Liquidity risk

The liquidity or marketability of an asset is a function of the difference between the bid (the price at which the market is willing to buy the security) and the offer (the price at which the market is willing to sell the security). It is more commonly known as the bid offer spread. If a market is liquid it will have many participants competing to buy or sell the assets at any given time, resulting in a narrow spread. If a market is not liquid it becomes very difficult to buy or sell the asset without significantly adjusting the capital price of that asset, creating a wide bid offer spread. Of course the other factor that defines liquidity is the volume that can be transacted at a particular price or bid offer spread.

Generally speaking, most of Australia's benchmark government and semi-government bond issues are extremely liquid. Average traded daily volume typically exceeds $5.55 billion for Commonwealth government bonds alone and bid offer spreads in the wholesale market for a parcel of $10 million or more can be as low as 1 basis point (bps) or 0.01% in terms of yield (a very narrow bid offer spread). Investment grade corporate bonds are more liquid than non-investment grade bonds, as they have greater investor acceptance (see the next section for more information on credit ratings). Liquidity varies day to day and can change very quickly.

Bonds can have many variables reducing the number of suitable buyers. Many investors have an inflexible charter or investment grade mandate requiring them to consider only investment grade bonds or certain types of securities. Companies with sub-investment grade ratings operate in markets with fewer buyers, reducing liquidity. The issuer and its underlying credit quality play an important role in providing liquidity to the asset. The size of the issue also plays a role.

Figure 4: Credit spread



Source: FIIG Securities Limited (as at 30 June 2014)

Credit ratings

Credit ratings are an indication of the underlying creditworthiness of issuers and specific securities, prepared by organisations that attempt to rate all securities in a comparable fashion. Specifically, they rate the ability to meet all obligations (both principal and interest) in full and on time. Ratings help investors compare the relative risks of investing in a bond. There are many companies and systems that try to quantify risk but the three major international rating agencies currently engaged in this practice are Standard & Poor's (S&P), Moody's and Fitch. Table 1 compares the ratings scales of these three agencies.

Generally, as a bond's rating decreases, the price a company pays for its debt will increase. Investors need to be compensated via a higher return for an increase in investment risk. Investors should also remember that ratings can change over the life of an interest rate security. Any change in the rating of a company would normally have a direct impact on the market price of its securities. However, a company can be unrated and this does not necessarily mean that its bonds are high risk. FIIG recommends gathering information from as many sources as possible before making an investment decision. Credit ratings should never be used as the sole credit assessment tool. Under Information Sheet 99, ASIC does not permit bond issuers to disclose credit ratings to retail investors if that disclosure is intended to influence an investment decision. See www.asic.gov.au.

What S&P's ratings mean

Long-term credit ratings are forward looking assessments, over a two- to three-year credit horizon, designed to remain stable over the course of normal business cycles. Long-term S&P ratings range from "AAA" for the highest quality obligations to 'D' for default. Ratings from "AA" to "CCC" may be modified by the addition of a "+" or "-" sign to distinguish relative credit strength within each rating category.

S&P also assigns an outlook to its long-term ratings, which is an assessment of the potential rating direction typically over the next six months to two years.

These are: positive, negative, stable, developing and N.M. (not meaningful).

Under certain circumstances, short- and long-term ratings can also be placed on CreditWatch — a special surveillance by analytical staff.

As noted above, S&P indicates that:

> *"Credit ratings do not measure performance factors, such as market value or price fluctuations, and they do not address, explicitly or implicitly, whether:*
>
> - *Investors should buy, sell, or hold rated securities*
> - *A particular rated security is suitable for a particular investor or group of investors*
> - *A security is appropriate for an investor's risk tolerance*
> - *The expected return of a particular investment is adequate compensation for the risk it poses*
> - *The price of a security is appropriate given its credit quality*
> - *There is, or will be, a ready liquid market in which the security may be bought or sold*
> - *The market value of the security will remain stable over time*
>
> *While credit quality is an important consideration in evaluating an investment, it cannot serve as the sole indicator of investment merit."*

The rating categories below refer to the creditworthiness of the obligator with respect to a specific financial obligation, a specific class of financial obligations, or a specific financial program (e.g., medium term note and commercial paper programs).

S&P also assigns short-term ratings to short-term obligations in relevant markets. These are: A-1 (highest category with the possibility of awarding a "+" to certain obligations) to A-3, B to B-3, C and D.

For other definitions of S&P's credit ratings and a full list of rating types see: http://img.en25.com/Web/StandardandPoors/S_P_Ratings_Definitions.pdf.

Table 1: Comparison of credit ratings (issue level)

	S&P		Moody's		Fitch		Characteristics
	Long term	Short term	Long term	Short term	Long term	Short term	
Investment grade	AAA	A-1+	Aaa	Prime-1	AAA	F1+	Highest quality – Prime
	AA+		Aa1		AA+		Highest quality
	AA		Aa2		AA		
	AA-	A-1+ or A-1	Aa3		AA-		
	A+	A-1	A1		A+	F1+ or F1	Upper medium grade – Strong payment capacity
	A	A-1 or A-2	A2	Prime-1 or Prime-2	A	F1	
	A-	A-2	A3		A-	F1 or F2	
	BBB+		Baa1	Prime-2	BBB+	F2	Lower medium grade – Adequate but weakened payment capacity
	BBB	A-2 or A-3	Baa2	Prime-2 or Prime-3	BBB	F2 or F3	
	BBB-	A-3	Baa3	Prime-3	BBB-	F2 or F3	
Non-investment (speculative) grade	BB+	B	Ba1	Not Prime	BB+	B	Speculative – Elevated vulnerability, substantial risk, but likely to fulfil obligations
	BB		Ba2		BB		
	BB-		Ba3		BB-		
	B+	C	B1		B+		Highly speculative – High credit risk, limited capacity to meet financial obligations
	B		B2		B		
	B-		B3		B-		
	CCC+		Caa1		CCC	C	Very high credit risk
	CCC		Caa2				
	CCC-		Caa3				
	CC		Ca		CC		Default is highly probable, some prospect for recovery
	C		C		C		Default is imminent or inevitable; very little prospect for recovery
	D	D	C		D	D	Lowest quality – In default

Source: FIIG Securities Limited, S&P/Moody's/Fitch

Bond market indices

A bond index, like an equity index, attempts to provide a benchmark for assessing the performance of a universe of fixed income securities. Bond indices are usually total return indices, which include all coupon income, unrealised capital gains and losses. They also reinvest the interest received and the maturities. There are a number of factors that need to be considered when constructing an index and a number of conventions that need to be followed.

The index should provide an accurate representation of the market it is attempting to cover. It should be a replicable index, which means that an investor should be able to purchase all of the securities in the index or very closely track and replicate the returns from the index. The index should also be characterised by fully available and accessible information so that an investor can tailor and adjust their index according to their individual requirements or preferences. Finally, it is important that the index be transparent. That is, available data can be used to verify calculated returns and values to ensure the credibility of the index.

There are a number of bond indices available in the Australian bond market. The most commonly used index in Australia is the Bloomberg AUS Bond Composite Index. The indices and reports on the indices are published every day. The reports include details on returns and risk statistics such as the duration, modified duration and the sector weightings.

For bonds to be included in the Bloomberg AUS Composite Bond Index they must meet certain criteria. For example, the bonds must be fixed rate, have a minimum of $100 million on issue and a minimum rating of BBB-/Baa3 (S&P or Moody's).

Summary

Interest rates and the forces that affect them play a huge role in the bond market. As such, fixed income investors should keep a close eye on the RBA's monetary policy, as it will have a direct effect on bond interest rates. When you buy a bond in the secondary market, the yield to maturity describes the expected return on the asset. This can be expressed in ways that refer to income alone or the income plus the payout at maturity. There are new bond issues which then trade in secondary markets and their prices can rise and fall or remain unchanged, depending, in part, on whether their interest rates are fixed or floating. Changes to interest rates generally affect coupon payments for floating rate bonds more than price.

There are credit risks associated with any bond and factors may affect them in different ways compared to shares. FIIG's Research Team produces reports that can help with analysis. Liquidity risks for bonds are a function of the spread between the asking price and the offer price in a market — the smaller the spread, the greater the liquidity. Credit ratings and bond market indices are useful tools for assessing bonds and bond markets.

In Chapter 3, we'll take a closer look at the various types of fixed income products.

3. Fixed income **products**

Types of debt securities

There are a number of types of debt securities available in the market, including:

Term deposits: non-tradable fixed interest investments; most repay capital on maturity

Money market securities: cash products and securities with a maturity of less than one year; they trade in large amounts and offer low returns, as they are considered very low risk

Bonds: they pay a defined distribution for a period of time and repay face value at maturity; many kinds available, including fixed rate, floating rate and inflation-linked

Hybrids: securities that have characteristics of debt and equity; suitable for moderate to high-risk investors

The chapter also highlights their respective advantages and disadvantages, and makes suggestions as to the types of investors that might use them in their portfolios. Let's take a closer look at each.

Why companies issue fixed income products

There are two fundamental types of capital available to companies to fund their operations: debt capital and equity capital. The main differences between debt and equity relate to risk and return.

From an investor's perspective, an investment in the equity or ordinary shares of a company represents a higher risk than an investment in the debt of a company. At one end of the spectrum, ordinary shares have the potential to deliver high or unlimited returns to an investor through capital gains and dividends. Yet they also have the potential to deliver total loss to an investor as they are the "owners" of the business.

While a company could in theory have only equity capital, in practice companies combine debt with equity to create a more efficient capital structure. The debt leverages the equity and the potential return to shareholders but also provides flexibility for working capital and greater financial efficiency as debt is typically tax deductible.

Debt can take various forms on the balance sheet of a company. A company may have a short-term (less than 365 days) revolving bank facility that provides funds to meet day to day or seasonal cash flows. A company may also have a long-term (say five-year) debt facility from a bank that has provided funds to be used for capital equipment.

While bank borrowings typically make up a large proportion of a company's debt obligations, companies may also issue debt securities to investors. These might include short-term debt (such as commercial paper) or long-term debt (such as corporate bonds). Additionally, companies may issue subordinated debt and hybrids that sit between equity and other debt securities (see Chapter 4). Debt can be cheaper to issue than equity or a bank loan and provides diversification of funding sources thereby improving a company's capital management.

Term deposits (TDs)

These are non-tradable fixed interest investments usually offering maturities ranging anywhere from one month to five years. Sometimes longer dated maturities are available. A condition of the deposit is that withdrawal of capital is on maturity, although some issuers may allow partial withdrawals for emergencies. If the investor wishes to withdraw the money at an earlier date, they may be charged a "break fee" for obtaining the funds prior to maturity. Investors should read the terms and conditions of a term deposit investment thoroughly before investing their funds.

It is important to emphasise that term deposits are non-tradable and hence cannot offer the countercyclical benefits of fixed rate bonds that typically increase in market price when economic times are tough (and share prices are falling). Nor the increasing yields of a floating rate note when interest rates are rising, where the coupon is recalculated on a quarterly basis and is based on a benchmark, so captures increasing rates. A long-term fixed term deposit has neither of these benefits.

Money market securities

Money market securities are best defined as those cash products and securities issued with a maturity of less than one year.

Money market securities are issued by governments, financial institutions and large corporations and are considered to be secure, liquid, short-term investments. Due to this fact, money market securities offer a lower rate of return than other securities with longer terms to maturity. Most money market securities trade in large transaction amounts with a face value of $500,000 and over.

Bonds

A bond is a security that pays a defined distribution (the coupon) for a given period of time (the term) and repays the face value of the security at maturity. A bond is a loan from an investor to the issuer of the bond. It is a legally binding agreement and the issuer must pay the investor interest and principal as set out in the bond documentation. In effect, the investor acts like the banker (see Figure 1). Repayment of interest and principal is guaranteed by the issuer. The only time investors would not receive their expected payments would be if the issuer defaults, which is a precursor to winding up or liquidation. In contrast, equity holders invest funds without any guarantee of dividend payments (as dividends are resolved to be made by the board of the company) or return of investment (in order to recoup capital the investor must sell the shares and the price at that future point in time will be unknown).

Bonds are issued with a coupon rate and yield. The coupon rate does not change for a fixed rate bond during the investment and represents the interest payments that are made during the term of the investment. The yield reflects market rates and the yield at the time that you buy the bond is the actual rate of return you will earn if you hold the bond to maturity. If the coupon rate is higher than the yield, then you will pay more than $100 for a $100 face value bond to reflect that you will be receiving higher coupon payments during the term of the investment. Conversely, if the coupon rate is lower than the yield, then you will pay less than $100 for a $100 face value bond to reflect lower coupon payments during the term of the investment (see Making money with bonds – the yield, in Chapter 2).

Figure 1: Bonds versus shares

Bonds		Shares
Loan/IOU	VS	Shares bought in company
Banker		Owner
Interest repayments and principal at maturity		Expectation of growth in share price and dividends
Guaranteed by company unless it goes into wind up		No guarantee of dividend payment or return of capital

Source: FIIG Securities Limited

Floating rate notes pay a variable coupon rate (see Floating rate notes, on page 25).

If you sell a bond before maturity then the actual yield of the investment may be higher or lower than the yield at which you purchased the bond. This reflects the capital gain/loss that would arise when you sell the bond at the market price.

There are many types of bonds including: fixed, floating, inflation-linked, amortising and annuities. Bonds can be issued as senior secured, senior unsecured and subordinated debt.

Each of these three debt classes has varying risk and reward attributes, which are also influenced by the issuing entity's creditworthiness (for a more detailed explanation of levels of debt see Chapter 4). When purchasing bonds, it is very important to understand where the bond sits within the capital structure, as it has relevance in relation to risk and reward.

The pros and cons of bonds

Advantages
Wide variety of maturities
Wide variety of issuers across the credit rating spectrum
Provides steady income (as well as potential for capital gains if sold prior to maturity)
Can be used to diversify investments in a balanced portfolio as bonds add interest rate risk to the portfolio
Covers three levels of the capital structure: senior secured debt, senior unsecured debt and subordinated debt
Government bonds offer greater diversification than corporate bonds, as there is no correlation with corporate performance and the equity market
Inflation-linked bonds are the only direct hedge against inflation, so offer unique protection to a portfolio
Diversifies away from the higher risk asset classes of equities and property
Diversifies away from ASX-listed entities; many bond issuers are not listed on the ASX
Bonds can be bought in most currencies, offering the ability to lock in the cost of a foreign currency transaction to meet known foreign currency commitments by buying a bond denominated in that currency
Generally very liquid investments
Once issued, bonds are traded in the secondary market

Disadvantages
Most bonds are traded over the counter (OTC) and not through an exchange (e.g., ASX)
Most investors will need to set up a custodial account to be able to invest
Potential for capital loss (also gain) if sold prior to maturity
Bond markets are dominated by wholesale investors in Australia
Bonds are not as readily accessible in the Australian market compared with the rest of the world

Suitable for
A very wide range of investors with differing risk/reward attributes, from the most conservative investor through to those seeking very high risk securities
Retail and wholesale investors

Fixed rate bonds

A fixed rate bond is a security that pays a fixed pre-determined rate of interest or coupon. The coupon of a fixed rate bond is set at the time of issue and does not change during the life of the bond. The Commonwealth government, state governments, public and private corporations (both domestic and international) all issue fixed rate bonds in Australia.

Fixed rate bonds add interest rate risk to your portfolio, as the only way these bonds can reflect changes in market expectations of interest rates is through a change in the price of the bond. If interest rates fall, fixed rate bond prices will rise. The opposite is also true; if interest rates rise, fixed rate bond prices will fall.

These bonds are particularly protective of an overall portfolio, as they outperform in a contracting economic environment. That is, when the Reserve Bank is easing the cash rate (to try and stimulate the economy) fixed rate bond prices typically rise under these conditions and equity and property underperform. So a fixed rate bond allocation acts to smooth overall portfolio returns.

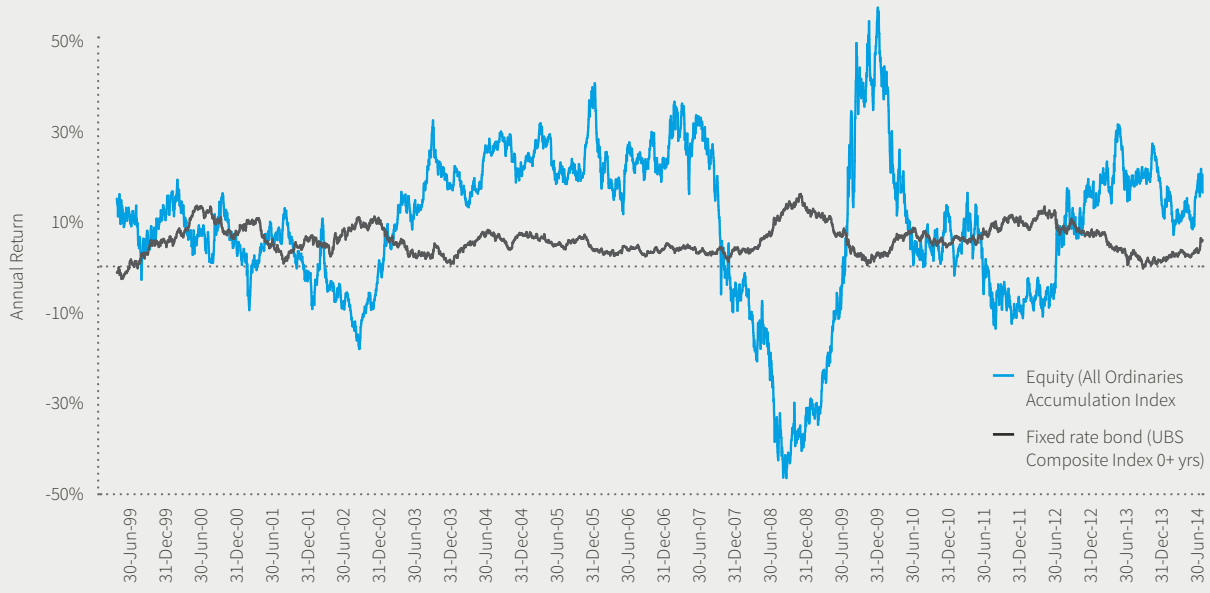
Figure 2 compares equity returns as measured by the All Ordinaries Accumulation Index and fixed rate bond returns as measured by the UBS Composite 0+yrs Index from December 1999 until June 2014.

Fixed rate bond performance improved when equity returns declined in December 2001, mid-2002, 2008/09 and from December 2011.

Case study

In the 2012 financial year, ended 30 June 2012, Australian Commonwealth government bonds were the best performing asset class. The year marked a period of great uncertainty, with the sovereign debt crisis in Europe and concerns over high unemployment and low growth in the US. Foreign investors actively sought the lowest risk investments and targeted AAA-rated Australian Commonwealth government bonds. In the financial year the investments returned 24% to investors: roughly 20% in capital appreciation of the fixed rate bonds (so that they traded at a premium of $120) and 4% in coupon (interest) payments. Investors who held Australian Commonwealth government bonds over this period helped smooth overall portfolio returns as over the same 12-month period the ASX200 showed a loss of 7% if investments were sold on 30 June 2012.

Figure 2: Annual asset class returns



Source: FIIG Securities Limited, Bloomberg, UBSA

Floating rate notes (FRN)

A floating rate note (FRN) is a security that pays interest or a coupon linked to a variable benchmark. In Australia, most FRNs pay a coupon set at a margin above the bank bill swap rate (BBSW), which is the market benchmark rate for the underlying coupon. The actual coupon for an interest period will be determined at the start of that period by applying the margin to the underlying benchmark on the first day of the coupon period, for example, the three-month BBSW. The underlying benchmark rate will rise and fall over time based on prevailing interest rates. The margin over and above the relevant benchmark is usually fixed and will be set at the time of issue.

FRNs, because of the way they are structured, typically protect a portfolio when interest rates are rising. That is, as the Reserve Bank increases the cash rate to try to slow growth in an economy, FRN coupons will also increase to reflect market expectations of higher interest rates. Typically FRNs outperform fixed rate investments such as term deposits and fixed rate bonds.

The main issuers of floating rate notes in Australia are domestic and international corporations. The Australian Commonwealth government and states and territories predominantly issue fixed rate bonds, although they also issue inflation-linked bonds.

Floating rate notes can also be issued with a step-up rate in the event that subordinated debt or hybrids are not called or there is a trigger event such as a rating downgrade.

Types of bonds

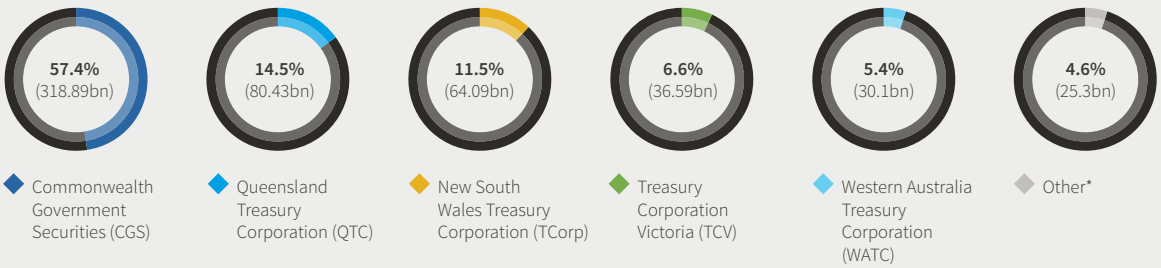
Government and semi-government bonds

A medium- to long-term debt security in which either the Commonwealth government (government bond) or one of the state governments or territories (semi-government) promises to repay a debt on a certain date. Government fixed rate bonds have maturities ranging from one year to 25 years, while longer dated maturities are available for inflation-linked bonds, both of which can be bought and sold in the secondary market. See Figure 3, which shows the federal and state government bonds on issue as at 30 June 2014.

Covered bonds

Covered bonds are generally issued by banks and secured against specific assets such as a pool of mortgages. They differ from securitised products in that the assets remain on the issuer's balance sheet rather than being sold via a special purpose entity.

Figure 3: Federal and state government AUD bonds on issue (as at 30 June 2014)



Other: Australian Capital Territory Treasury Corporation, Northern Territory Treasury, South Australian Government Financing Authority, Tasmanian Public Finance

Source: FIIG Securities Limited, Bloomberg, AOFM

In the event of default by the covered bond issuer, investors who purchased the bonds have first claim to repayment from the underlying assets, which are typically over-collateralised. This means that for each $100 of covered bonds issued, there is say $105 of quarantined security/assets backing that investment.

Based on the strength of the issuing banks, the over-collateralisation and the high quality of the loan assets in the covered pool, most covered bonds receive high credit ratings of AA or AAA. In general, their maturities range from two to 10 years, although there is a recent trend towards long terms greater than 10 years.

The asset pool is dynamic, that is if loans default, the issuer must replenish the loan pool, resulting in a very low risk of default by the issuer, hence the high credit rating and the very low probability of default.

Inflation-linked bonds (ILBs)

There are two major types of inflation-linked bonds:

01 Capital indexed bonds (CIBs)

02 Index annuity bonds (IABs)

An ILB is the only security (fixed income or otherwise) that provides a direct hedge against inflation and therefore should feature in most investment portfolios. Major issuance in Australia is through the Commonwealth government and state government programs as well as a number of banks and corporations. The majority are structured using the CIB model; however, there are a small number of government and particularly infrastructure private public partnership IABs in existence.

Capital indexed bonds (CIBs)

The indexing of this bond occurs quarterly on the capital or principal amount of the bond, which is repaid at maturity. The indexation factor is usually based on the rate of inflation represented by the Australian Bureau of Statistics' Consumer Price Index (CPI). Interest is payable, generally quarterly, on the then current indexed capital amount at a fixed coupon rate. As indexation increases the principal value of the security over time, the amount due at maturity becomes greater.

During periods of negative inflation the coupon will be paid on a decreasing principal. However, under the terms of bonds issued by the Government to date, the minimum return of the original capital value is guaranteed.

Indexed annuity bonds (IABs)

Indexed annuity bonds (IABs) are a stream of principal and interest payments, so that principal is paid off gradually over the life of the bond. This can be contrasted with CIBs that pay an indexed capital amount at maturity.

Infrastructure companies are common issuers.

Corporate bonds

A corporate bond is simply a bond issued by a company. In Australia, there are some very well-known companies that issue bonds, such as BHP Billiton, Wesfarmers, Telstra and Woolworths.

Retail bonds

A retail bond is an interest bearing debt security issued by a government or a corporation where the security can be sold to a retail client as defined in the Corporations Act 2001. The bondholder receives a specific amount of interest for a specified time, usually several years, and then receives the face value of the bond on the maturity date

Retail bonds, listed on the ASX, have re-emerged due to the perceived attractive returns available and the market being a cheap option for issuers. As the equity market experienced severe losses during the 2008/09 economic downturn, the bond market (with its certainty of income and payment of capital at maturity) became more attractive to investors wanting to diversify their portfolio with a more conservative asset allocation.

High yield bonds

A bond with a high yield, primarily due to the issue having a sub investment grade credit rating (or no credit rating), that is anything below BBB- or equivalent.

The US has a well-established high yield bond market with approximately 20% of all corporate bonds on issue being high yield. In 2014, USD1,437 billion of corporate bonds were issued and high yield bonds made up USD312 billion, or 21.7% of total issuance.

The high yield market in Australia has grown substantially over the past three years with increased investor appetite for both sub-investment grade and unrated debt. The first sub-investment grade Australian company to issue was Qantas in 2014 and institutional demand was high. FIIG began arranging unrated high yield bonds in 2012 and was followed by a number of other market participants arranging unrated high yield bonds in 2014.

As at the end of 2014, there was approximately $4.4 billion in sub-investment grade debt and approximately $700 million in unrated debt issued in Australia, making the Australian high yield market approximately $5.1 billion at the end of 2014, from an estimated total market, including government bonds, of $1 trillion.

Hybrids

Hybrids are a broad classification for a group of securities that combine both debt and equity characteristics. They are used by a variety of companies to raise money. Hybrid securities pay a pre-determined (fixed or floating) rate of return or distribution until a certain date. At that date, the issuer may have a number of options including converting the securities into the underlying ordinary shares, redeeming for cash or leaving outstanding. Therefore, unlike a share, the holder has a “known” cash flow and, unlike a fixed interest security, there may be an option to convert to the underlying share.

This may allow the issuer to classify the issue as equity for credit rating agency or regulatory purposes but also claim tax benefits of issuing debt.

Common hybrid examples include mandatory convertible and converting preference shares. It is important to note that every hybrid security is structured differently, which allows more flexibility as some securities behave more like fixed income securities while others behave more like the underlying shares into which they convert.

To be regarded as equity, hybrids must be perpetual in nature, that is, have no maturity date or have a very long maturity date. So while many such securities have clauses whereby they can be redeemed at the issuer’s, not the investor’s, option, the maturity date is not set and depends on both the issuer’s ability to refinance and regulatory requirements at the time.

Perpetual hybrids have specific characteristics that set them apart from being valued purely as an equity security:

- hybrids typically rank higher in liquidation and have priority of payment of dividends than ordinary equity (shares)
- the coupons (if paid) are pre-determined (although discretionary) as either a fixed rate or a margin over BBSW unlike ordinary share dividends where payments can vary significantly

These features are typical of debt securities and mean that while perpetual hybrids are equity-like in many ways, they are also lower risk than traditional equity.

Summary

There are many kinds of fixed term investment products. Term deposits are low risk and return; they are non-tradable and cannot offer countercyclical benefits. Money market securities are cash products and securities issued with terms of a year or less; they are typically issued by governments and large corporations so they are considered very low risk. Bonds are issued with a coupon rate and a yield, the many varieties offer benefits for various types of investors; the secondary market for these assets provides liquidity but in Australia these markets are dominated by wholesale investors. Hybrids combine features of debt and equity. There is a wide range of hybrids and they usually offer higher returns than more senior assets. However, they can be extremely complex, making it hard to evaluate for investors.

In Chapter 4, we'll examine how capital structures work, including the various kinds of debt and equities within them.

The pros and cons of hybrids

Advantages
Wide variety of maturities and structures
Variety of issuers with a range of credit ratings
Usually offers higher returns than more senior assets in the capital structure, such as term deposits, senior and subordinated debt

Disadvantages
Varying liquidity
The highest risk fixed income security in terms of where it sits in the capital structure, although is lower risk than equities (shares)
These securities have some equity characteristics that may add to the existing risk of a portfolio and may display a high correlation to the underlying equity when markets are in distress
Changing regulatory environment, which has meant the securities have evolved over time to become increasingly equity-like. Hybrids issued in 2014 have very complex terms and conditions, making it difficult for investors to assess the risks involved
In stressed markets these securities act more like the underlying equities, so do not offer the same level of protection as fixed income securities ranked higher in the capital structure (see Chapter 4)

Suitable for
Moderate risk investors through to those seeking very high risk securities
Retail and wholesale investors

4. Capital **structure**

At a glance

In this chapter, we will provide an overview of the capital structure in funding and the different kinds of debt and equities that make up its various levels.

Funding options: the two basic forms are debt and equity; shares are typically riskier than debt but offer greater potential returns as a result.

Capital structure levels: senior secured debt has the lowest risk level and receives payments first in case of liquidation. A company's capital structure may include — from least risk to most — debt, hybrid securities and shares.

Let's take a closer look at both.

Investors must be aware of where investments rank in the capital structure of a company to ensure that they know the level of risk of those investments and that they are earning appropriate returns.

Debt with higher risk should carry greater reward over lower risk or "more senior" instruments. Even more so for equities (shares) and property.

Investors understand the need to compare creditworthiness across alternative bonds, most commonly summarised by the credit rating assigned by Standard and Poor's, Moody's and/or Fitch. Generally speaking, the lower the credit rating, the higher the risk and thus the higher the required return.

Similarly, investors need to know where an investment ranks within an individual company's capital structure. It is not uncommon for there to be six or so notches (ratings) difference between the credit rating of a bank or insurance company's senior secured debt and the rating assigned to lower ranking Tier 1 instruments such as preference shares. Equity, which is never rated, is by default always the riskiest investment level in any given company.

Capital structure can be a complex issue, particularly for banks, which must meet strict standards set by sovereign regulators. Further, while international guidelines are issued and banks often report under similar terms (for example Tier 1 capital), calculations vary by country.

Funding

Companies use many methods to fund their operations. Each method carries advantages and disadvantages to the company and the investor. This section seeks to identify, describe and outline each method, assisting potential investors in choosing which investments best suit their needs.

Basically, there are two forms of funding: debt and equity. Some of the key differences between debt and equity relate to risk and reward. From an investor's point of view, ordinary shares are riskier than debt (due to greater volatility, uncertainty of dividends and lowest repayment ranking in case of liquidation); however, the returns through dividends and capital gains are expected to be higher over the long term. This is not always the case.

Capital structure

Figure 1 shows the capital structure of a typical company from lowest to highest risk. It also outlines a number of key principles of the capital structure:

01 **Risk.** Ranging from senior secured debt as the least risky to equities (shares) as the riskiest.

02 **Priority of payment in case of liquidation.** With senior secured debt to be paid out in full first, then all subordinated debt (senior then subordinated debt), then all hybrid debt and if any funds remain equity holders share the balance.

03 **Application of losses.** Equities bear the first loss and the security of senior debtholders' investments is threatened only once all other junior capital sources have been exhausted.

04 **Return.** In accordance with risk, the expected long-term return should increase as you move down the capital structure.

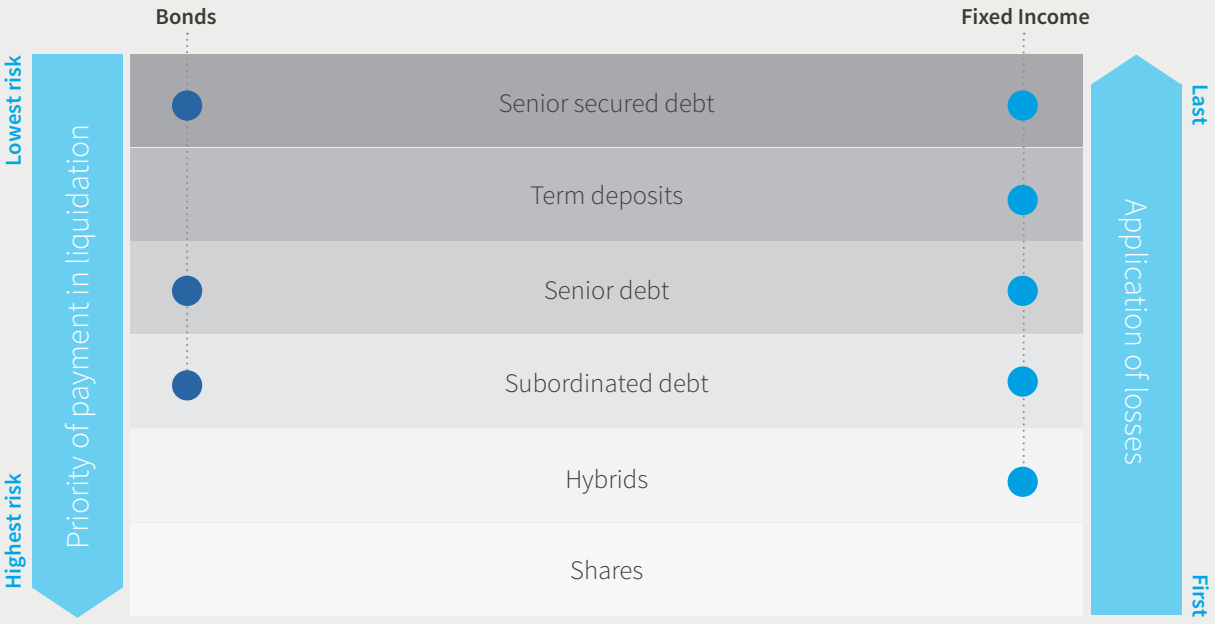
A complete bank capital structure is significantly more complicated due to the complex and authoritative standards imposed by sovereign regulators such as the Australian Prudential Regulation Authority.

Debt, level by level

Companies can borrow from a bank or financial institution or they can issue bonds to other companies or individuals. Bonds can rank as either senior secured, senior unsecured or subordinated debt. That is, investors can choose to acquire a senior secured bond, a senior unsecured bond or a subordinated debt bond. The terms and conditions are slightly different for the three.

Senior secured debt is generally the safest form of debt for an investor or financier, as there is a direct claim on defined assets of the company (or the entire company itself).

Figure 1: Simplified bank capital structure



Source: FIIG Securities Limited

The most basic example of senior secured debt is a first ranking mortgage secured over property. However, security can be in the form of practically anything and with banks it is common that a certain debt can be secured or covered by a pool of loans. Senior secured debtholders have first ranking claim on the assets over which they have security.

After secured debt, senior debt takes priority over other debt securities sold by the issuer. If the issuer enters liquidation, senior debt must be repaid before subordinated creditors receive any payment. An issuer has no ability to defer coupon payment to senior or Lower Tier 2 subordinated debtholders, and generally speaking any missed payment of interest or principal is classed as an event of default. Senior debt is typically issued for five-year terms in Australia, although it is issued for much longer periods in international markets.

Subordinated debt (sub-debt) issues are less common in the banking industry since Basel III regulation changes came into force on 1 January 2013. Sub-debt must now include loss absorption clauses that mean it must convert to equity or write down its value if the Australian regulator, APRA, deems the bank non-viable. Sub-debt issued prior to 1 January 2013 most commonly has a "10 year non call 5" format. That is, the debt can be redeemed by the issuer after 5 years, which is the usual term, or may be called or repaid on each subsequent coupon payment date until the final maturity at 10 years, at which time the investor must be repaid. The main point to note is that in liquidation subordinated debt is not repaid until all senior debtholders and unsecured creditors are paid first.

Benefits to bond investors include:

- generally higher interest returns (or coupons) than cash management or deposit accounts
- a steady reliable income stream, whereas returns from shares vary according to profitability
- return is at a set rate (this can be fixed at say 6%, or floating at say 3-month BBSW plus a fixed margin) over the life of the bond, until it is repaid at maturity. Bondholders act as creditors of a company
- lower risk than owning shares. The return, whilst defined, is expected to be lower than that of a shareholder in the same entity over the long term but over shorter periods returns on bonds can exceed equity
- repayment at a specific time (maturity) for a specific amount (face value)

See Chapter 3 for a list of the advantages and disadvantages of bonds.

Hybrid securities

Hybrids are available to a broader audience than senior and sub-debt given the lower minimum investments available through the ASX-listed market. When they were initially introduced in the Australian market, many had equity upside attached to the securities — hence the name hybrid, a mix between debt and equity. Hybrids can behave more like debt, or more like equity depending on the detailed terms of the issue. It is important to understand these terms to ensure an investor is being appropriately rewarded for the risk they are taking.

There is more flexibility in the structure of hybrids compared with bonds; they can have many different features. Some carry franked distributions, others are perpetual and some offer upside (and downside) depending on the price of the underlying shares.

Hybrids can be attractive because they provide retail investors with the opportunity to access a corporate credit exposure offering higher returns than most other fixed income products. However, as noted above, understanding the risks specific to each hybrid issue is important. Unlike most fixed income products, hybrids are both issued in the over the counter (OTC) market and listed on the ASX under a prospectus. The ability to trade on the ASX has increased the appeal of these investments to retail investors.

These features are countered by the fact that hybrids carry the highest risk of all of the above mentioned debt securities, as they sit below them in the capital structure, although they still rank ahead of equity. The other key difference between hybrids and the higher ranking senior and subordinated debt is that interest payments on hybrids can be deferred or in some cases missed completely. Deferring or missing an interest payment would in most cases not be considered a default by the company, so hybrid investors are often less protected than investors in other fixed income products.

Shares

A company issues shares to investors, who then own a percentage of the company. Shareholders generally have the right to vote at annual meetings to appoint directors and on issues that affect the ongoing management of the company. Ordinary shares have no maturity and are held until the investor decides to sell via an exchange like the ASX. A shareholder would expect to receive dividends, which are paid at the discretion of the board and at a level also dependent on board approval.

Shareholders are the lowest ranked investor in the case of liquidation; in a winding up, the legal existence of a company comes to an end. Ordinary shareholders will receive a payment only once all other creditors and preference shareholders have been paid in full. Usually a shareholder would not expect to recover any of their investment in the case of liquidation.

Summary

Companies typically employ a mix of debt equity to raise funding. This allows flexibility. A company's funding is ranked within a capital structure and it is vital that an investor understand that structure and where their investment ranks within it, in order to be aware of the amount of risk involved in the investment and what the return should, therefore, be. Debt, of various kinds, sits at the top of a company's capital structure and its holders are the first to be paid in a liquidation, followed by hybrid securities and, finally, equities.

In Chapter 5, we'll examine how to use risk assessment to evaluate an appropriate level of return.

5. Risk and **reward**

Weighing your options

When considering investment in any form of asset it is worth considering the risk versus reward continuum. Generally, lower risk investments provide lower returns (see Figure 1). Australian government bonds are considered risk free and thus offer relatively low returns. When assessing risk, it is important to access as much information about the entity as possible. There will often be multiple research reports available about large companies.

Let's take a closer look.

Common types of risk

Risk means different things to different investors. To some it means uncertainty or possible volatility in returns; to others it reflects the possibility or chance of losing money or unwinding a position at a loss. There are many risks, some of the more common of which include:

01 **Interest rate risk:** the risk associated with an interest bearing asset, such as a loan or a bond, due to variability of interest rates. This predominantly affects fixed rate bonds (see the section on fixed rate bonds in Chapter 3).

02 **Call risk:** the risk faced by the holder of a callable bond that a bond issuer will not call the bond at the first opportunity and thereby extend maturity, which would likely see the value of the bond fall on the secondary market.

03 **Early redemption risk:** the risk faced by the holder of a callable bond that a bond issuer will redeem the issue prior to maturity. This means the bondholder will receive payment on the value of the bond (typically at par) even if the bond was trading at a premium. In good economic times, there is also reinvestment risk that the investor may be reinvesting in a less favourable environment (one with a lower interest rate).

04 **Credit or default risk:** the risk that the issuer may be unable to meet the interest and/or principal repayments when due, and thus default on the loan. Generally, the higher the credit risk of the issuer, the higher the interest rate that investors expect in return.

05 **Liquidity risk:** the risk that a security cannot be easily sold at, or close to, its market value.

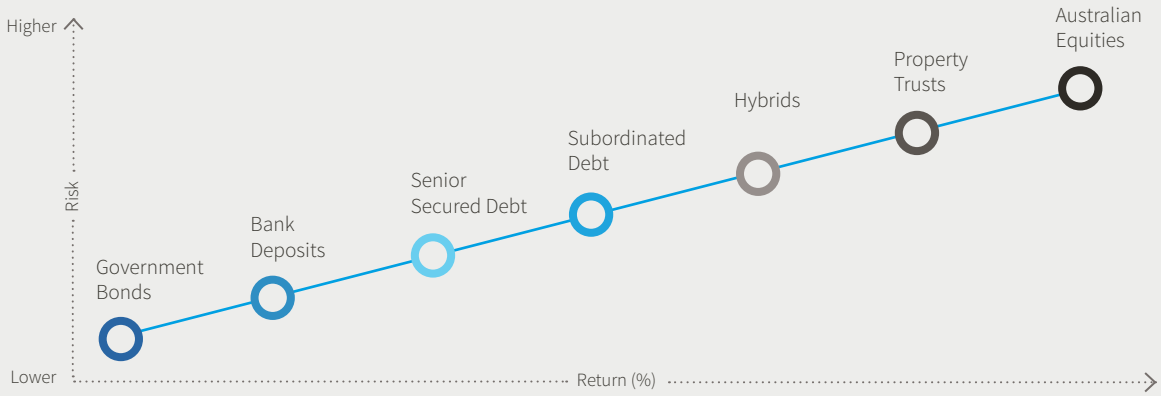
06 **Exchange or currency risk:** arises from moves in foreign currency rates. Can be divided into transaction risk, where currency fluctuations affect the proceeds of specific transactions, and translation risk, which affects the value of assets and liabilities on the balance sheet.

07 **Political or country risk:** the risk of loss when investing in a given country caused by changes in a country's political structure or policies such as tax laws, tariffs, expropriation of assets, or restrictions on repatriation of profits. Since the global financial crisis, political and sovereign risk have been high. Sovereign risk is essentially the credit or default risk of a country but also results in heightened risk of political and regulatory changes.

08 **Regulatory risk:** the risk of regulatory changes on a business or industry. This is particularly relevant for financial institutions such as banks and insurers, as regulatory changes may have material changes on the value and call risk of regulatory capital securities such as subordinated Tier 2 and hybrid Tier 1 securities.

09 **Event risk:** risk due to unforeseen events, for example, a company making a large acquisition.

Figure 1: Risk versus return



Note: This diagram incorporates the capital structures of banks and corporations. Covered bonds (senior secured debt issued by banks) would sit between government bonds and bank deposits on the risk/reward continuum. However, corporate issued senior secured debt would sit as shown, between bank deposits and senior debt.

Source: FIIG Securities Limited

The criteria for assessing fixed income investment is very different from that for equity investment (because equity investment is often predicated on growth whereas fixed income investment is more closely related to the capacity of the entity to survive financially, amongst other measures).

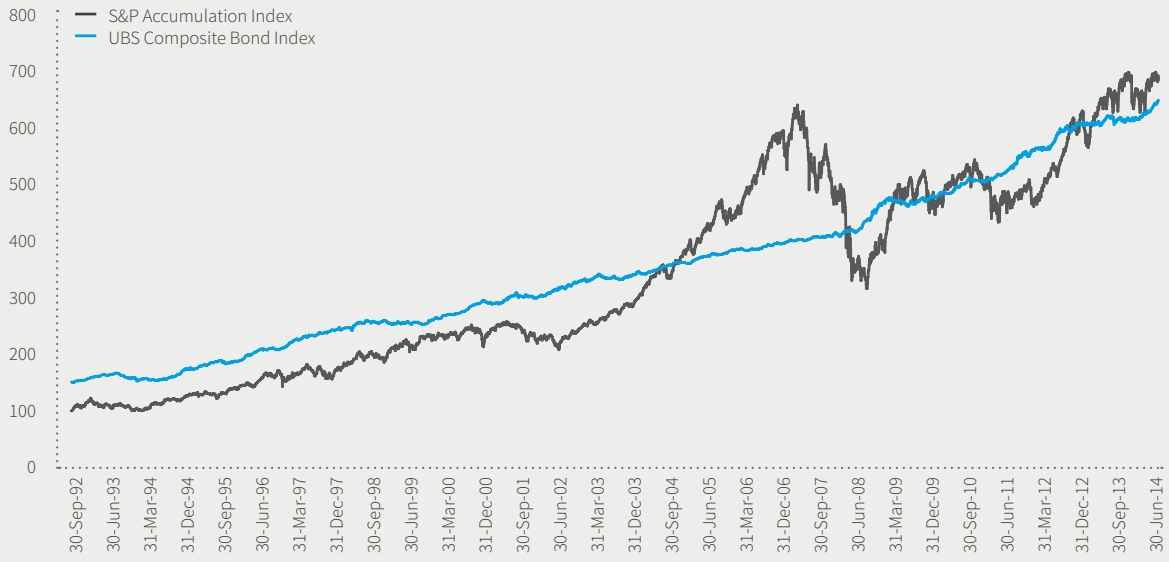
When assessing risks from a fixed income perspective, it's important to try to get specific fixed income analysis. One way to gauge risk is to refer to a government or corporate's credit rating (see the section on credit ratings in Chapter 2), although these measures should never be used in isolation. Another is to look at historical volatility, that is, how much returns have varied by asset class (see Figure 2).

The UBS Composite Bond Index demonstrates a steady upwards appreciation with little volatility. However, the S&P/ASX 200 Accumulation Index shows significant fluctuation and volatility over the same period, emphasising the need for high returns to compensate for periods of poor performance.

An investor would expect the lowest return from senior debt and a higher return from Tier 1 hybrid securities. They would expect an even higher return from ordinary shares (known as equity) as they rank the highest in terms of risk (see Chapter 4). It is important for investors to understand where their investments sit in the capital structure, as this directly correlates to the risk involved. Investors should frequently reassess the return they are receiving and whether this is sufficient, given ever-changing market expectations of credit risk, call risk and interest rates. Moreover, they should ensure that the additional return for moving down the capital structure compensates for any additional risk.

In Chapter 6, we'll explain buying and selling fixed income products and how FIIG can help.

Figure 2: S&P/ASX 200 Accum Index versus UBS Composite Bond Index (based Sep 1989)



Source: FIIG Securities Limited

6. Buying and selling bonds and other **fixed income products**

How to trade bonds

Bonds are generally traded through fixed income dealers and brokers regulated by the Australian Securities and Investments Commission (ASIC). In order to buy or sell bonds, you'll need to find a dealer or broker. FIIG is one such broker, licensed by ASIC to deal in fixed income securities. Similar to buying and selling shares, investors contact their dealer or broker and place a buy or sell request. Depending on the bond and the number of buyers and sellers in the market, the fixed income dealer or broker will process your transaction. Dealers generally act as principal, that is, they sell the bond to, or buy it from, you.

Retail investors are able to buy and sell government and semi government bonds, as the issuers are exempt from the disclosure provisions of the Corporations Act 2001. Because of the disclosure requirements of the Corporations Act 2001, non-government bonds issued by corporations are usually only issued to, and traded between, wholesale investors for the first 12 months of the issue. After a period of 12 months from the issue date, most bonds can be traded between any investor in the minimum denomination of the security. The issuer determines the minimum denomination or transaction amount for a particular bond at the time of issue and the minimum denominations range from $1,000 to $500,000.

Most bonds are traded over the counter (OTC) which means that trades do not take place on an exchange but are negotiated directly between buyers and sellers through a fixed income dealer or broker. An investor will contact a dealer or broker (e.g., FIIG) which will source the bonds, then relate yields and prices to the investor. An investor can select a particular bond based on their preference for issuer, coupon, maturity and yield and request an offer yield or offer price for that bond, which is the yield at which the dealer will sell that bond to the investor.

No commission is paid on buying or selling bonds when using a dealer, rather dealers make a margin by buying and selling at different prices and acting as principal. In most cases, there is no stamp duty on bonds but generally tax is payable. Investors should seek independent taxation advice before investing or selling.

When you buy bonds you can either hold them electronically through Exigo (which is a clearing and settlement facility owned by the ASX and previously named Austraclear) as a market participant or have them held in safe custody via a custodian who is an Exigo market participant. For those investors who do not have their own Exigo account, bonds can be held in an account with a custodial service provider, which the dealer or broker can organise.

Bond settlement is typically on a "T+3" (trade date plus three business days) basis. On the settlement date, the purchase price is paid by the buyer and the bond is transferred into their name.

For issuer sponsored ASX-listed holdings, a security reference number (SRN) will be provided by the issuer for your securities, unless your ASX-listed holdings are held with an ASX participant stockbroker as broker sponsored holdings, then a holder identification number (HIN) is provided by the stockbroker to you and securities are held on your CHESS account maintained by the ASX and your stockbroker.

Note that most bonds are dematerialised securities, where the evidence of ownership is by the owner's name being on a register of owners. A certificate is not provided. Most bonds traded in Australia settle via Exigo.

New issues

New issues are primary issues sold to the public for the first time. Unlike secondary trades, they are settled over a longer time period than the standard T+3.

For wholesale offerings, a qualifying buyer can be provided with an information memorandum. For retail offerings, investors can obtain a copy of the prospectus directly from the issuer or a participating broker. Investors will need to lodge the application usually found at the rear of the prospectus to make payment and review the key dates.

ASX-listed securities (including exchange traded funds)

Some debt securities, including hybrid securities, are listed on the ASX and are exchange traded. Brokerage fees apply. ASX-listed securities are typically settled on a T+3 basis. Securities held may be either issuer sponsored or broker sponsored. FIIG has established agreements with third-party brokers to execute ASX-listed fixed income security transactions on behalf of its clients.

Investing in term deposits

Investing in term deposits with ADIs (such as banks, credit unions and building societies) is an easy process through FIIG. FIIG's dedicated Term Deposit Team can assist you with your term deposit requirements.

The current government deposit guarantee of up to $250,000 per entity per bank effectively removes the credit risk differential between the banks so that customers can focus on locating the best interest rates. For customers with amounts greater than $250,000, FIIG can assist with the funds being deposited between institutions to retain the full benefit of the government guarantee.

Opening bond trading accounts

FIIG is a licensed fixed income dealer and can assist you in buying and selling fixed income securities. FIIG has a specialist back office Operations and Custody Department that makes this process as smooth as possible.

Customers new to FIIG can simply complete a Client Account Application Form available at the FIIG website www.fiig.com.au.

7. Glossary

Accrued interest
Interest earned, but not yet paid since the last coupon payment date. A bond will accrue interest on a daily basis during a coupon period and then pay the interest (or the coupon) on the last day of the interest period. If an existing investor sells a bond halfway through a coupon period then the new investor will pay the seller the accrued interest up until the date of sale as part of the bond purchase consideration as set out in the contract note. The new investor receives the full coupon at the next coupon date if they are the registered holder at that time.

Australian Prudential Regulation Authority (APRA)
APRA is charged with the prudential supervision of Authorised Deposit-taking Institutions (ADIs), ultimately aiming to ensure that financial promises made by the bodies it regulates are met within financial markets that are stable, efficient and competitive. It oversees banks, credit unions, building societies, general insurance and reinsurance companies, life insurance, friendly societies and most members of the superannuation industry. For further information, visit www.apra.gov.au.

Bank bill swap rate (BBSW)
A compilation and average of market rates supplied by domestic banks in regard to the specific maturities of bank bills. BBSW is calculated at around 10am every business day and compiled by the Australian Financial Markets Association (AFMA). The purpose of BBSW is to provide independent and transparent reference rates for the pricing and revaluation of Australian dollar derivatives and securities.

Basis points (bps)
The basis point is commonly used for calculating changes in interest rates, equity indices and the yield of a fixed income security. The relationship between percentage changes and basis points can be summarised as follows:

1%	=	100 basis points
0.01%	=	1 basis points

A bond whose yield increases from 6.5% to 7% is said to increase by 50 basis points; or interest rates that have dropped by 1% are said to have decreased by 100 basis points.

Bid/Bid price
An expression used in share, bond and foreign exchange markets for the price at which a broker will buy a security (that is the price at which an investor can sell). See also Offer.

Bid offer/Bid ask spread
The amount by which the ask price exceeds the bid. It is the difference in price between the highest price that a buyer is willing to pay for bond and the lowest price for which a seller is willing to sell it.

Bond
A security that pays a defined distribution (the coupon) for a given period of time (the term) and repays the face value of the security at maturity. A bond is a loan from an investor to the issuer of the security. There are many types of bonds, including floating, fixed, inflation-linked, nominal and Eurobonds.

Call date
The date prior to maturity on which a callable bond may be redeemed by the issuer. If the issuer determines there is a benefit to refinancing the issue, the bond may be redeemed on the call date, at par, or at a small premium to par depending on the terms of the call option.

Contract note
A document setting out the agreed terms between the two parties of a transaction and settlement of a security.

Corporate bond
A bond issued by a corporation. See Bond.

Coupon
The rate of interest paid on a fixed income investment or bond. Coupons can be paid annually, semi-annually or quarterly or as agreed in the terms of the security. The coupon rate can be fixed or floating for the term of the security. If it is a floating rate then it is likely that it will be linked to a benchmark such as the 90-day bank bill rate. The coupon rate is set by the issuer based on a number of factors, including prevailing market interest rates and its credit rating. Fixed rate bonds in Australia predominantly pay a semi-annual coupon whereas floating rate bonds predominantly pay a quarterly coupon. Indexed-linked bonds usually pay quarterly coupons. For example, a $500,000 bond with a fixed rate semi-annual coupon of 8% will pay two $20,000 coupons each year.

Credit rating
A measure of credit quality assigned to an issuer and also to particular securities by a professional rating agency. Securities are broadly divided into investment grade (those rated above BBB- by S&P and Fitch or Baa3 by Moody's) and sub-investment grade or speculative (everything below). Due to ASIC regulations, credit ratings in Australia can only be disclosed to wholesale investors (see Wholesale).

Credit risk
The risk that an issuer may be unable to meet the interest or capital repayments on the loan 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 lending funds to the issuer. Ratings agencies like Standard & Poor's and Moody's provide an independent credit rating service that allows investors to assess and grade issuers.

Credit spread
The difference between two securities' yields based exclusively on the variation in credit quality. For example, Australian Government bonds which are rated AAA and a corporate bond of a lower credit quality, single A. For investors to accept a higher risk asset like a corporate bond they must be paid a higher coupon. The difference in margin between the government bond and the corporate bond is known as the credit spread.

Debt
In the financial sense, debt is an obligation to repay a specific value of borrowed funds.

Default
Failure by an issuer to satisfy the terms of a loan or bond obligation.

Discount to face value
Bonds may trade at a discount to face value in secondary markets where coupon, demand and market perception of the entity influence the price of secondary trades. Bonds usually have a face value of $100. If a bond is acquired at a discount price, say of $75, then the bondholder will make a higher than expected return of $25 assuming the company makes a full repayment of $100 face value at maturity.

Distribution
The payment of income from a fixed income security usually referred to as coupon. Sometimes the term distribution is associated with instruments where payment of income is conditional (for example a hybrid security) rather than an unconditional payment (for example a senior bond).

Effective yield
The effective yield is the yield of a bond, assuming that you reinvest the coupon (interest payments) once you have received payment. Reinvesting the coupon will produce a higher yield because interest is earned on the interest payments. The calculation assumes the investor can reinvest their coupon payments at the coupon rate. For bonds, effective yield is an annual rate of return associated with a periodic interest rate. The formula for effective yield is:
$(1 + i / n) n - 1$
i = periodic interest rate n = the number of payment periods in one year

Face value
The initial capital value of the bond and the amount repaid to the bondholder on its maturity, usually $100.

Fixed rate bond
A fixed rate bond is a security that pays a fixed pre-determined distribution or coupon. The coupon of a fixed rate bond will be set at the time of issue and not change during the life of the bond. The Commonwealth Government, state governments, banks and corporates all issue fixed rate bonds in Australia.

Floating rate note (FRN)
A floating rate note (FRN) or bond is a security that pays a coupon linked to a variable benchmark. In Australia most FRNs pay a coupon set as a margin above the bank bill swap rate (BBSW), which is the market benchmark three-month interbank rate. The actual coupon for an interest period will be determined at the start of that period by applying the margin to the three-month BBSW rate on the first day of the coupon period. The three-month BBSW rate will rise and fall over time based on prevailing interest rates. The margin is fixed and will be set at the time of issue.

High yield bond
A bond with a high yield due to the issuer's sub-investment grade rating, sometimes known as a junk bond. These bonds pay very high yields, reflective of the high risk involved.

Hybrid securities
Hybrids are a broad classification for a group of securities, used by a variety of companies to raise money that combine both debt and equity characteristics. Hybrid securities pay a pre-determined (fixed or floating) rate of return or distribution until a certain date. At that date the issuer may have a number of options including converting the securities into the underlying ordinary shares or redeeming for cash or leaving outstanding. Therefore unlike a share the holder has a "known" cash flow and, unlike a fixed interest security, there may be an option to convert to the underlying equity.

Index factor
The factor that adjusts the capital price of an inflation-linked bond to inflation. For example, if the index factor was 1 at the start of the year and inflation was 3%, it would be 1.03 at the end of the year.

Inflation-linked bonds (ILBs)
Inflation-linked bonds are securities whose return includes a component that is determined by the future level of a pre-determined index, for example; the Consumer Price Index (CPI) or inflation. There are two main types of inflation-linked bonds issued in Australia:
1. capital indexed bonds (CIB)
2. inflation indexed annuity bonds (IAB)

CIBs pay a pre-determined coupon based on a capitalising principal amount where the capitalisation is a function of inflation. At maturity the investor receives the capitalised face value. An IAB is an annuity structure where each periodic payment includes a coupon and principal component, combined known as the base payment. The base payment is adjusted for inflation. The Commonwealth government, state governments and some corporations have issued inflation-linked bonds in Australia. ILBs are also known as inflation indexed bonds or CPI bonds.

Interest rate risk
The risk associated with an interest bearing asset, such as a loan or a bond, due to variability of interest rates. In general, as rates fall, the price of a fixed rate bond will rise, and vice versa. Interest rate risk is commonly measured by the bond's duration.

Investor
A person or entity that lends money or invests in order to earn an income through interest payments or achieve a capital gain on sale or redemption of the investment.

Issue margin
The fixed margin over a benchmark rate that is set for floating rate notes at the time of issue. The issue margin is fixed for the life of the bond whereas the benchmark rate changes periodically, usually quarterly. The amount of interest paid by an issuer on a floating rate note is the sum of a variable rate plus the issue margin. It is also known as a coupon margin. In Australia the variable rate is usually BBSW.

Issuer
The entity (or borrower) that issues the debt security to raise money from investors. Issuers in the Australian bond market include the Commonwealth government, state governments and territories, large institutions or corporations.

Liquidation
The sale of assets from an entity that has failed to meet commitments on its debt. Proceeds are applied to its creditors under a strict order.

Liquidity risk
This is the risk that a security cannot be easily sold at, or close to, its market value.

Maturity
This is the date when the bond is due for repayment by the issuer. The principal plus any outstanding interest of a particular security will be repaid on this date.

Minimum investment
Minimum amount required to invest in an offering or security.

Nominal bonds
A nominal bond pays a return on a fixed principal amount. The bond takes no account of possible rises in inflation.

Non-performing assets
From the lender's perspective, when the borrower fails to make previously agreed repayments (i.e., principal or interest), for an extended time frame.

Non-viability trigger
A new, untested structural feature of subordinated bonds and hybrid securities implemented to meet Basel III/APRA regulations to provide loss absorbing capital for the financial institution when it is considered non-viable or requires public funds or support to survive. The point of non-viability is unknown and at the discretion of APRA. This could result in up to a 100% loss of capital.

Offer / Offer price
An expression used in share, bond and foreign exchange markets for the price at which a broker will sell a security (that is the price at which an investor will buy).

Offering
The term used for the primary issuance of bonds by an entity.

Offer yield
The yield to maturity based on current prevailing interest rates at which a fixed income broker (e.g., FIIG) would sell a bond to an investor.

Official cash rate
Established by the Reserve Bank of Australia (RBA) at its monthly meetings. It determines the overnight cash rate applicable to loans between financial intermediaries. It is the main tool the RBA employs to dictate monetary policy.

Over the counter (OTC)
Refers to the sale of securities outside of an exchange, whether electronically or over the phone. Traditionally, most fixed income securities are traded over the counter.

Par value
The face value of a debt security.

Perpetual security
A security with regular periodic payments for an infinite number of periods with no maturity date.

Premium
A bond's value in the secondary market can be greater than its face value. The bond is then deemed to be selling at a premium. This will occur if the coupon is higher than the yield of a fixed income security.

Primary market
The new issue market. See also Secondary market.

Principal
The face value of the debt security on which interest is calculated.

Prospectus
A document disclosing the details and particularly the risks of a security issue where the security can be sold to retail investors under the Corporations Act 2001.

Purchase price
The amount that a bondholder pays to purchase a bond. Price can be quoted on a "clean" basis meaning that this is the capital price of the bond, or it can be quoted on a "dirty" basis meaning that it includes both the capital price plus the accrued interest.

Redemption
Redemption stipulates an event when debt securities can be bought back or repaid prior to the legal maturity. The securities can be redeemed at a call date at an option of one of the parties (typically the issuer), or upon certain events being triggered. Typically redeemed at par or $100.

Retail investor
A retail investor is an adaptation of the term retail client defined in the Corporations Act 2001, that is, an investor who receives a financial product or financial advice is a retail investor unless Sections 761G (5), (6) and (7) or Section 761GA apply (these provisions relate to wholesale investors a term synonymous with wholesale client used in the Corporations Act 2001). See also Wholesale investor.

Return
The amount earned on an investment or made on a transaction (realised or unrealised) relative to the amount of money invested. Generally assessed as yield to maturity.

Risk
All investments carry risk. It is a measure of the variability of returns from an investment. Risks include credit risk, interest rate risk, liquidity risk, economic risk, systemic risk and maturity risk.

Running yield
Running yield uses the current price of a bond instead of its face value and represents the return an investor would expect if he or she purchased a bond and held it for a year. It is calculated by dividing the coupon by the market price.
Running yield = (annual dollar interest paid / market price) x100%

Secondary market
The financial market where previously issued securities and financial instruments such as stocks, bonds, options and futures are bought and sold. The major stock exchanges are the most visible example of liquid secondary markets.

Securities
Securities are defined in Section 92 of the Corporations Act 2001 to include:
1. debentures, stocks or bonds, issued by a government
2. shares in, or debentures of a body such as a corporation
3. interests in a managed investment scheme

Senior debt
A class of corporate debt that has priority with respect to interest and principal over other classes of debt (except senior secured debt) and over all classes of equity by the same issuer. A company has no ability to defer coupon payment to senior or subordinated debt holders.

Settlement
Settlement (of securities) is the process whereby securities or interests in securities are delivered, usually against payment, to fulfil contractual obligations.

Subordinated debt
A bond or loan that ranks below senior debt, loans and creditors. In the event of a wind-up (insolvency) of an issuer, subordinated debt is not paid until all senior debt and unsecured creditors are paid first. See Figure 1 on page 31 for a graph of where subordinated debt sits in the capital structure.

Term
Length of the investment. Time in days, months or years from the investment date till the maturity date.

Tier 1 capital (T1 capital)
Tier 1 capital is core capital and includes equity capital and disclosed reserves that must be held by banks to meet regulatory requirements. Equity capital includes instruments that can't be redeemed at the option of the holder and includes share capital, other non-redeemable capital and reserves.

Trading margin
The expected return earned on a floating rate security in addition to that security's reference rate. Also known as the Discount Margin.

Unsecured note
A bond or a note that has no security attached and repayment is reliant on the integrity or credit quality of the issuer.

Wholesale investor
Sophisticated investors who meet certain requirements of the Corporations Law 2001 including:
- having obtained an accountant's certificate dated no more than two years ago that the client:
  - has net assets of at least $2.5 million, or
  - has a gross income for each of the last 2 financial years of at least $250,000
- the purchase price of the product is at least $500,000

See Retail investor.

Wind-up
A term used to describe the liquidation of the assets of a company, the payment out of the proceeds of the liquidation and the eventual deregistration of the company.

Yield to maturity
The return an investor will receive if they buy a bond and hold the bond to maturity. It is the annualised return based on all coupon payments plus the face value or the market price if it was purchased on a secondary market. Yield to maturity thus includes any gain or loss if the security was purchased at a discount (below face value) or premium (above face value). It refers to the interest or dividends received from a security and is usually expressed annually or semi-annually as a percentage based on the investment's cost, its current market value or its face value. Bond yields may be quoted either as an absolute rate or as a margin to the interest rate swap rate for the same maturity. It is a useful indicator of value because it allows for direct comparison between different types of securities with various maturities and credit risk. Note that the calculation makes the assumption that all coupon payments can be reinvested at the yield to maturity rate. Also, the yield and coupon are different.

What's next?

We hope you enjoyed reading Corporate Bonds Made Simple.

If you would like to find out more about Corporate Bonds or FIIG, please contact your financial adviser.

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